Re-engineering the Global Antitrust Network

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Thesis Title: Re-engineering the Global Antitrust Network

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Word Count: 59.053

Programme: Doctor of Philosophy

Submission Date: 24 January 2024

Acknowledgements

I would like to thank Prof. William E. Kovacic, Dr Andriani Kalanitri, Antonio Capobianco, Despina Pachnou, Chris Pike, Wouter Meester, and Alessandra Tonazzi for the valuable suggestions and advice that they offered at different stages of writing this thesis. Prof. Andrea Biondi supervised this dissertation all along. The numerous and lengthy conversations I had with him were a constant source of inspiration and wide perspectives. My debt to him goes beyond this thesis. Prof. Renato Nazzini, co-supervised the entire work and his helpful remarks and thought-provoking advice proven pivotal.

I wish to acknowledge a special debt I owe to my teachers in Rome both at L.U.I.S.S. Guido Carli and Sapienza University who helped the formation of my ideas on international co-operation in antitrust proceedings. Only the author of this dissertation knows how important their contribution is.

Ms. Sue Devenish-Meares and Mr. Fraser Knapp, as everybody can see, did a splendid job in the formatting and editorial adjustments of the thesis.

This thesis is dedicated to Alessandro and Gabriella

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Abstract

In recent years, the globalisation and digitalisation of national economies, together with the proliferation/expansion of national competition regimes, has led to a growing number of multinational firms and cross-border competition infringements, which in turn has increased the demand for international competition co-operation. Yet, while this demand has spiked, answers have been lacking, resulting in too much local enforcement in global markets - causing troubling asymmetries, flaws, conflicts, and political distortions in the nation-centric enforcement of such global markets.

Against this backdrop, the thesis starts by explaining why international procedural co-operation is essential to ensure that national competition regimes achieve their common goal (i.e. safeguarding markets' competitiveness for the good of both businesses and consumers), why past attempts to deliver greater international competition co-operation failed, and the shortcomings of the alternatives introduced as substitutes for a more advanced global competition co-operation framework.

Further, the thesis analyses the primary factors boosting the demand for international competition co-operation; explains the modalities in which such demand has been addressed so far; and illustrates present achievements and issues. Then, the thesis analyses a selection of regional competition co-operation frameworks (i.e., CAN, CARICOM, ECN, and WAEMU) with the aim to discover an imitative model for re-engendering the global co-operation framework and to identify the features that could underpin its success.

Subsequently, the thesis then moves into its 'pars construens', by advancing a Proof of Concept (PoC) to re-engineer the global framework for international competition co-operation. The PoC embraces cross-country differences and attempts to control them through AI and blockchain technologies, to deliver advanced procedural co-operation without departing from existing nation-centric regimes. Accordingly, the PoC proposes the institution of the so-called 'Global Antitrust Network' (GAN), a global-wide, blockchain-based, AI-driven, multilateral, decentralised, voluntary, and non-hierarchical platform enabling cross-border procedural competition co-operation.

In this context, the thesis explains the GAN's political feasibility and analyses its policy case by illustrating its benefits and compatibility with the demands of human rights protection. Further, the thesis examines the potential legal instruments for realising the GAN together with their pros and cons, and details among others the GAN's technical infrastructure, institutional design, governance and inner working mechanisms. Finally, the thesis concludes with a preliminary illustration of the GAN's practical potential applications and how they could mitigate the persisting issues of nation-centric competition enforcement in global markets (asymmetries, gaps, overlaps, and political contaminations).

1. Introduction

Competition rules promote competition on the merit in modern market economies by safeguarding the competitive process for the good of both businesses and consumers. Over the last few decades, international co-operation in antitrust proceedings has become exceptionally important due to a number of factors, such as the proliferation of national competition law regimes, and the digitalisation and globalisation of the economy.

International trade has steadily grown[1] in recent years and the number of countries with competition law regimes has significantly increased,[2] and such a trend does not seem likely to subside as new regimes emerge[3] and existing ones expand.[4] Simultaneously, the digitalisation of the economy has remodelled the competition playground by enabling the emergence of undertakings that transcend national borders and traditional operational constraints.[5] These digital firms have conquered entire markets, broken their geographic perimeters, and transformed their competitive-boundaries by rendering conventional industries increasingly interconnected. Such processes have all occurred at the expense of non-digital actors and evidence of a more concentrated, 'winner-takes-most' world already exists.[6]

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[1] As reflected by the increase in regional trade agreements, trade flows, foreign direct investment and global value chains. See WTO, 'Global Value Chain Development Report.' (2020); F.C. Laprévote, S. Frisch, and B. Can, *Competition Policy within the Context of Free Trade Agreements.*,E15Initiative (Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum, 2015) <http://e15initiative.org/wp-content/uploads/2015/07/E15-Competition-Laprevote-Frisch-Can-FINAL.pdf.>

[2] ICN, 'OECD Roundtable on benefits and challenges of regional competition agreements' (2018) DAF/COMP/GF(2018)5, <http://www.internationalcompetitionnetwork.org/members/>; UNCTAD, 'Enhancing international cooperation in the investigation of cross-border competition cases: Tools and procedures' *(UNCTAD,* 2017) <https://unctad.org/meetings/en/SessionalDocuments/ciclpd44_en.pdf>.

[3] E.g. new competition law regimes were registered in the Philippines (2015), Hong Kong (China) (2015), Brunei Darussalam (2016), and Thailand (2017) (OECD, 'OECD Competition Law in Asia-Pacific, A Guide to Selected Jurisdictions, OECD/Korea Policy Centre Competition Programme' (*OECD*, 2018), <https://www.oecd.org/daf/competition/Competition-Law-in-Asia-Pacific-Guide-2018.pdf>).

[4] E.g., new merger control powers were introduced in the United Arab Emirates, Peru, Argentina, Philippines (J. Holian and A. Reeves, 'Tracking Global Merger Control Changes for 2017' (*Law360*, 2017) <https://www.lw.com/thoughtLeadership/byline-tracking-global-merger-control-changes-for-2017>).

[5] A. Capobianco and A. Nyeso, 'Challenges for Competition Law Enforcement and Policy in the Digital Economy' (2017) 1 JECL & Pract.

[6] OECD Ecoscope, 'Competition in the digital age' (*OECD Ecoscope,* 31 March 2019) <https://oecdecoscope.blog/2019/05/31/competition-in-the-digital-age/>; F. Calvino, C. Criscuolo, 'Business dynamics and digitalisation' (2019) OECD Science, Technology and Industry Policy Papers 62; S. Calligaris, C. Criscuolo & L. Marcolin, 'Mark-ups in the digital era' (2018) OECD Science, Technology and Industry Working

As a result, the globalisation and digitalisation of the economy, together with the proliferation/expansion of competition law regimes have caused an increase in the number of multinational firms, enforcing jurisdictions, and cross-border competition infringements.[7] And the higher their number, the more common it becomes for competition law infringements to impact multiple jurisdictions, the more difficult for individual jurisdictions to effectively enforce their antitrust laws in the face of these cross-border activities, the higher the potential for conflicts in terms of both methodologies and outcomes, and the greater the demand for international co-operation in competition law enforcement.

Yet, despite such a swift rise in this demand, the solutions have trailed behind. Whereas digital firms have increasingly crossed national borders, the enforcement of competition law has not changed proportionally, given that the global antitrust co-operation network has remained at its core the very same framework that preceded the digital revolution.[8]

In this context, the insights revealed by the Organisation for Economic Co-operation and Development (OECD) are remarkable, suggesting that '*the percentage of international cartels investigated by multiple jurisdictions has decreased over the past 20 years*' despite an increase in the number of international cartels being discovered and later sanctioned.[9] As such, while international cartels are a multijurisdictional problem, they tend to be investigated by a limited number of better-equipped competition authorities (CAs) who, given the remit of their jurisdictional powers, generally intervene for the exclusive benefit of their economies.

Worryingly, the trend remains constant even when looking at the number of mergers or abuse of dominance cases.[10] Concerning mergers, the vast majority of annual merger decisions are

Papers 2018/10; G. Koltay, S. Lorincz & T.M. Valletti, 'Concentration and competition: Evidence from Europe and implications for policy.' (2021) <https://ssrn.com/abstract=3992591>.

[7] For instance, the number of international cartels increased from around 10-per-year in 1994, to about 80 in 2017 (J.M. Connor, 'The Private International Cartels (PIC) Data Set: Guide and Summary Statistics' (2016) SSRN: <http://ssrn.com/abstract=2821254.>). The trend is no different when looking at the number of cross-border mergers, which accounted for almost half of all mergers in 2017 (Baker Mckenzie's 'Cross-border M&A Index Q2 2017', (*Mergermarket*, 2017) <https://www.mergermarket.com/info/baker-mckenzie-cross-border-ma-index-q2-2017>; J. Pecman, 'International Privacy Enforcement Meeting, Ottawa', (*Competition bureau*, 4 June 2015) <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03957.html.>).

[8] OCED-ICN, 'Report on International Co-Operation in Competition Enforcement' (2021).

[9] OECD, 'Competition Trends' (*OECD*, 2020) <http://www.oecd.org/daf/competition/OECD-Competition-Trends-2020.pdf>

[10] *Ibid*.

'*largely driven by a small number of authorities that issue hundreds of decisions each year*'.[11] While this unequal distribution of enforcement actions is partially justified by the pure national dimension of some of the analysed mergers, which happen to be more numerous in more developed countries, it is unlikely that this is the sole reason justifying the imbalance. Other factors (e.g. lack of resources and expertise, lack of notifications and relevant data, different priorities, different political interests, absence of effective international co-operation, etc.) are at play.

In abuse of dominance scenarios, it is worth mentioning the gap between the multiple enforcement actions in digital markets undertaken by the European (EU) competition authorities during the last ten to fifteen years,[12] compared to the relative inaction of their international counterparts in other parts of the world. It is likely that Google's self-preferencing practices on its general search engine or Amazon's preferencing of vendors subscribing to 'Fulfilment by Amazon' (FBA), to name just a few, did not take place only in Europe but also in countries where they were not (or not sufficiently) prosecuted.

Moreover, even when identical misconduct has been investigated by multiple authorities (more or less) simultaneously, there has been no shortage of substantial coordination issues; the *Booking.com saga* being a leading example of this. Among the primary hurdles to effective international competition co-operation are the differences existing in relation to political/cultural values, legal standards, stages of economic development, degrees of experience and budgets of national competition authorities (NCAs), languages, etc.[13]

As a result, notwithstanding good intentions, and despite the remarkable work done by International Organisations such as the International Competition Network (ICN), the OECD,

[11] *Ibid*.

[12] E.g., EC AT.39740 Google Search (Shopping) (2017); AT.40099 Google Android (2018); AT40411 Google Search (AdSense) (2016); AT.40670 Google - Adtech and Data related practices; AT.40774 Google-Facebook (Open Bidding) Agreement; AT. 40462 Amazon – Marketplace (2019); AT.40703 Amazon – Buy Box; Bundeskartellamt - Amazon's online marketplaces (17 July 2019); Bundeswettbewerbsbehörde - 'Amazon.de Marketplace' (2019); AGCM – Case A528—*Amazon* (April 2019); AT.40684 Facebook Leveraging; Bundeskartellamt – Facebook Case B6-22/16 (Feb. 2019); AT.40437 Apple – App Store Practices (music streaming) (2020); AT.40452 Apple – Mobile Payments; AT. 40652 Apple – App Store Practices (ebooks/audiobooks); AT.40716 Apple – App Store Practices; ACM – Apple case ACM/19/035630 (Aug. 2021); etc.

[13] OCED-ICN, 'Report on International Co-Operation in Competition Enforcement.' (2021).

and the United Nations Conference on Trade and Development (UNCTAD),[14] the 'quality' of existing international competition co-operation is still unsatisfying.[15] It mostly occurs through informal channels, lacking potential for enhanced forms of co-operation, and the remaining minority vehiculated through formal channels relies on numerous fragmented legal bases of different nature, scope (e.g. bilateral or multilateral), and strength (e.g. binding or not-binding), whose utilisation varies depending on such factors as the type of enforcement co-operation sought, the enforcement area concerned, the international party whose co-operation is sought, etc. It results in an international competition co-operation that is occasional and of limited quality.

As a consequence, current competition law enforcement results in an overabundance of local enforcement in global markets. This raises multiple issues, as has been pointed out by Eleanor Fox, such as the problem of gaps, overlaps, parochialism, lack of vision from the top, among others.[16] Particularly significant symptoms are the facts that: **(i)** enforcement actions are asymmetric, mainly driven by the best-equipped CAs, and often the 'protected consumers' might not necessarily be those who most suffered the damage of the investigated misconduct; **(ii)** enforcement regimes may disregard anticompetitive conduct primarily harming foreign jurisdictions; **(iii)** enforcement actions can be either substantially or procedurally conflicting; **(iv)** governments at times tend to steer enforcement actions, or lack thereof, to favour their own economic interests.

It follows that international co-operation in antitrust proceedings currently seems to be at a crossroads: either it results in better outcomes, or remains destined to play a negligent role

[14] E.g., UNCTAD, 'Guiding Policies and Procedures under Section F of the UN Set on Competition.' (*UNCTAD,* 2020) <https://unctad.org/system/files/official-document/ccpb_comp1_%20Guiding_Policies_Procedures.pdf>; UNCTAD, 'Enhancing international co-operation in the investigation of cross-border competition cases: Tools and procedures - Note by the UNCTAD secretariat.' (*UNCTAD*, 2017) <https://unctad.org/meetings/en/SessionalDocuments/ciclpd44_en.pdf>.

[15] See the OCED-ICN 'Report on International Co-Operation in Competition Enforcement' (2021), which at Part IV of the Report concludes that '*while progress has been made since 2012, international enforcement co-operation can still be significantly improved*'. Similarly, the same Report also noted that '*very few* (competition authorities) *had experience with enhanced co-operation outside regional networks.*'

[16] E. Fox 'Antitrust Without Borders: From Roots to Codes to Networks, E15Initiative' (Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum, 2015).

only regarded as fundamental at face value.[17] Notably, the current impasse of international competition co-operation should not be considered as a single, static problem but rather as a process caused and powered by the existing framework's weaknesses and limitations. A transformative process, using A. Gramsci's symbology, between the old that is dying and the new that cannot be born.[18]

In this *interregnum* between the old and the new, this thesis posits its contribution by advancing some ideas on what the mentioned renewal process might entail. Accordingly, this thesis makes an attempt at re-engineering international competition co-operation by leveraging the potentials of artificial intelligence (AI) and blockchain technology.

Indeed, as AI simplifies the collection and processing of vast amounts of data, it can help to smooth the identification of antitrust infringements as well as the handling of investigations especially in complex cross-border cases, where traditional methods of data collection and analysis may be inadequate. The use of AI could also expand competition agencies' toolkit in remedies design, by enabling the experimentation of new redress measures such as targeted compensation, or enhance their accountability by enabling the compilation of unprecedented amounts of enforcement data statistics and analytics. Moreover, AI can simplify the way in which firms and consumers engage with competition agencies and how the latter engage between themselves, thus increasing both types of interactions.

Similarly, blockchain technology can improve international competition co-operation by creating the preconditions for building reciprocal trust among international peers who traditionally do not trust each other. Such an outcome would be possible through the notarisation of the hashes of all actions occurring during competition investigations in a tamper-proof, decentralised, and transparent ledger. Additionally, by creating this tamper-proof record of competition investigative actions, blockchain technology would enhance the transparency and accountability of antitrust proceedings ensuring that investigations are conducted in a fair procedural manner and are not subject to external influences, including

[17] OCED-ICN 'Report on International Co-Operation in Competition Enforcement' (2021); A. Tyrie, 'Is competition enough? Competition for consumers, on behalf of consumers' (2019); M.E. Stucke, A. Ezrachi, *Competition Overdose*. (Harper Collins Publishers, 2020).

[18] A. Gramsci, *Selections from the prison notebooks.* (New York: International Publishers, 1971) 276.

political ones. Finally, by enabling the utilisation of smart contracts, blockchain technology can help to redistribute the cost of international co-operation across competition enforcers.

However, the integration of AI and blockchain technologies in competition proceedings is not without perils. One risk is the potential for bias in 'competition enforcement algorithms',[19] which could lead to unfair results particularly in cases involving complex international infringement. Additionally, the use of AI and blockchain technology may raise concerns about privacy, security and the respect of other fundamental rights, due to the collection and sharing of large amounts of data. Consequently, competition authorities must ensure that the processed data is protected from unauthorised access and misuse. This might require the adoption of specific design configurations, strict privacy policies, and the utilisation of several cryptographic techniques amongst other security measures.

Against this backdrop, this thesis first analyses what underpins international competition co-operation and the limits of previous attempts to either boost it or to create a global antitrust (**Chapter 2**). Second, it demonstrates the limits of the current international competition co-operation framework and offers empirical evidence of existing issues (**Chapter 3**). Thirdly, it analyses selected examples of regional supranational competition co-operation frameworks with the aim of understanding what lessons can be drawn to improve global competition co-operation (**Chapter 4**).

Then, **Chapter 5** presents a blockchain-based, AI-powered, proof of concept (PoC) to spur a debate around how international competition co-operation could be re-engineered, illustrates the legal instruments that could be used to implement it, and provides a non-exhaustive illustration of its potential practical effects. **Chapter 6** concludes the thesis summarising AI and blockchain technology's potential for improving global competition enforcement - if used responsibly, and if other cultural and legal changes are made.

[19] For instance, if competition authorities use bias algorithms for detecting anticompetitive conduct, there is a risk that they might focus their resources only on certain industries or on specific types of misconduct.

2. Why international co-operation in antitrust proceedings: the limitations of nation-centric competition regimes

2.1. Introduction

This chapter strives to explain why international procedural co-operation is essential in antitrust proceedings. Accordingly, it starts by analysing the primary factors rendering international co-operation more important in competition proceedings than in other fields of law (**Section 2.2.**). Such an initial analysis is further enriched by the explanation of the particularly troubling nature of heterogeneous outcome (**Section 2.3.**) and the limited utility of mere normative convergence in antitrust proceedings (**Section 2.4.**). Then, while **Sections 2.5.** explains why greater international competition co-operation failed in the past, **Section 2.6.** points out the shortcomings of the alternatives introduced to circumvent the adoption of a more advanced global competition co-operation framework. **Section 2.7.** offers some preliminary conclusions.

2.2. The special case for international co-operation in competition proceedings

Despite the goals of competition regimes partially differing across jurisdictions (e.g. some pursue 'consumer welfare', others 'total welfare', others ensure 'the competitive structure of markets' or have a 'market integration objective'),[20] their minimum common denominator is ensuring that markets stay competitive and that market actors can compete on a level-playing-field for the benefit of consumers, businesses, and society.

Due to the complexity of their task, competition rules are often based on undetermined legal concepts, such as dominance, abuse, competition on the merits, and anticompetitive effects, which are given specific meaning through case-by-case analysis. This flexibility and openness, while allowing adaptation to a wide array of market scenarios and developments, also renders

[20] According to ICN data, 89% of jurisdictions adopt 'consumer welfare' as the sole or primary goal of enforcing competition law, while others — including Norway, South Africa, New Zealand, and Australia — use 'total welfare' as the golden standard (ICN, 'Competition Enforcement and Consumer Welfare – Setting the Agenda' (International Competition Network, Conference 17-20 May 2011, The Hague). On the goals of EU competition law more broadly, see A. Ezrachi, 'EU Competition Law Goals and the Digital Economy' (2018), *Oxford Legal Studies Research Paper* n. 17/2018.

competition rules intrinsically dependent on the underlying economic reality that they protect and on how such reality is interpreted by the institutions enforcing them.[21]

Such features distinguish competition law provisions from most legal rules. Whereas competition provisions are characterised by the complexity of the legal interest protected, a high degree of flexibility, and a bidirectional connection with the underlying reality they regulate (as it is the competitive structure of a given market that in each single case defines the substance of the abstract rules), traditional legal provisions often tend to be more formalistic, clear, precise, complete, and almost independent from the underlying reality they regulate.

Secondly, since conventional competition rules are mostly national in scope (with some regional exceptions), national territorial jurisdiction is insufficient to maintain a fair level-playing-field when affected markets are supranational or global in nature. In global markets, nation-centric enforcement regimes can at best counter-balance the harm caused by a single anticompetitive infringement, for a specific period of time in a given sub-segment of those markets (i.e. within a jurisdiction), but cannot properly protect competition and level the playing-field in those markets in their entirety, despite these being their ultimate goals. National sub-segmentations of global markets, indeed, legally fictionalised reality for the purpose of distributing countries' jurisdictional powers. Yet, the mismatch existing between global markets' legally fictionalised sub-segmentation and their true global nature allows infringers to profitably distort the level playing-field of those global markets, despite being penalised in one or more jurisdictions.

Nation-centric competition regimes are indeed unfit to deal with cross-border anticompetitive conduct as the latter may, among others, escape scrutiny, be hard to prosecute, or even be economically rational if only prosecuted in some jurisdictions.[22] Infringers might even use the supra-competitive profits resulting from their anticompetitive misconduct in some jurisdictions to offset the fines incurred in the jurisdictions which actively prosecuted them. Potentially, infringers could also use the same profits to launch new

[21] M. Bakhoum, J. Molestina, 'Institutional coherence and effectiveness of a regional competition policy: the case of the West African Economic and Monetary Union (WAEMU)', in Drexl. J. (Ed.), '*Competition Policy and Regional Integration in Developing Countries*', Edward Elgar Publishing Limited, (2012), Chapter 5.
[22] E.M Fox, D.A. Crane, Global Issues in Antitrust and Competition Law (Thomson/West 2010) 455.

anticompetitive strategies to monopolise new jurisdictions, sectors, or market segments. In the African beer market, for instance, national laws proved unfit to tackle a continent-wide market-sharing cartel between beer producers as it was too widespread to trigger national enforcement competences.[23] Equally telling is the statistical evidence that international multi-product firms tend to re-offend more often than national single-product ones.[24]

Similarly, in global markets what might also happen is that businesses engage in activities that may affect competition within a country but take place outside its jurisdiction. These situations can make it difficult for national competition authorities, especially the more inexperienced ones, to effectively prosecute antitrust infringements. In *Vitamin C*, for instance, the case brought against Chinese export firms affecting the US pharmaceutical market was ultimately dismissed after 15 years of litigation by the U.S. Court of Appeals for the Second Circuit as there was a conflict between U.S. and Chinese law.[25]

These combined characteristics of competition provisions make international competition co-operation particularly important to ensure that nation-centric competition regimes are effective in preserving the level-playing-field in global markets and preventing national enforcement actions or lack thereof from harming the competitive structure of the market in others. Yet, although international co-operation is not exclusive to competition law (e.g. tax law or securities and financial law), the status of this co-operation in antitrust enforcement pales in comparison with the degree of international co-operation currently existing in other areas of law, such as in tax matters for instance.[26]

Moreover, the case for more international procedural competition co-operation is particularly compelling for several other reasons endogenous to antitrust enforcement itself, which will now be treated in turn.

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[23] P. Perdrix, 'Le marché de la bière africaine monte en pression' *Jeune Afrique* (10/09/2008). In several deals, large beer producers effectively agreed to divide the continent up, with each given a near-monopoly in their own set of countries. As a spokesman for a major African beer company said about such a deal: *'There may be antitrust laws at the national level, but none covering the continent. I don't see what the problem is.'*

[24] OECD, International Cartel Database; OECD, Competition trends (2020); W.E. Kovacic, R.C. Marshall, M.J. Meurer, 'Serial Collusion by multi-product firms', (2018) *in* No. 18-18 Boston University School of Law, Law and Economics Research Paper.

[25] *In re Vitamin C Antitrust Litig*., No. 13-4791-cv, 2021 WL 3502632 (2d Cir. Aug. 10, 2021).

[26] See, for instance, the degree of international co-operation enabled in tax matters by the Convention on Mutual Administrative Assistance in Tax Matters, <https://read.oecd-ilibrary.org/taxation/the-multilateral-convention-on-mutual-administrative-assistance-in-tax-matters_9789264115606-en#page4>.

2.3. Heterogeneous outcomes and the tension between levelling the playing field and accounting for local specificities

Preserving a fair level-playing-field in a given market requires taking into account a plurality of factors (e.g. absence of anticompetitive agreements or concerted practices, absence of dominance abuses, absence of discriminatory regulation, absence of discriminatory public subsidies, etc.). When markets are cross-border or even global in nature, this must be done in a consistent fashion across multiple jurisdictions. Accordingly, heterogeneous enforcement outcomes across different jurisdictions in supranational or global markets might significantly compromise the effective protection of competition and of a true level-playing-field.

In this sense, it is worth noting the heterogeneous outcome recently occurring between the FTC and the EC with regard to Google's conduct of favouring – both in ranking and display – its own comparison-shopping service (CSS) vis-à-vis rivals. Despite the conduct being identical in both the US and in the EU, the FTC did not pursue action against Google,[27] while the EC found that the company's practices amounted to an abuse of dominant position and imposed a 2.4 billion fine. As a result, notwithstanding the incredibly high fine the EC issued against Google (highest ever at the time), the EC's enforcement action was insufficient to completely terminate Google's anticompetitive conduct and its related anticompetitive effects and did not restore effective competition on the CSS market.[28]

Heterogeneous outcomes do not only refer to explicit conflicting decisions, but also any situation resulting in differentiated competition enforcement distorting the level-playing-field. Heterogeneous outcomes, as such, include but are not limited to situations where national enforcement ignores anticompetitive conduct's impact on foreign countries or firms; the treatment of an individual transaction or conduct across regulatory boundaries is

[27] See Statement of the Federal Trade Commission Regarding Google's Search Practices In the Matter of Google Inc. FTC File Number 111-0163, January 2013 <https://www.ftc.gov/sites/default/files/documents/public_statements/statement-commission-regarding-googles-search-practices/130103brillgooglesearchstmt.pdf>.

[28] C. Caffarra, *Google Shopping:* a shot in the arm for the EC's enforcement effort, but how much will it matter?, 13 December 2021, e-Competitions Big Tech & Dominance, Art. N° 104053; T. Hoppner, Google's (non-) Compliance with the EU Shopping Decision. A study based upon empirical data of 25 comparison shopping services, (September 2020).

inconsistent or conflicting; competition enforcement is disproportionally asymmetric across countries; etc.

Equally, even merely potential heterogeneous enforcement outcomes are alone sufficient to alter a given global market's level-playing-field as demonstrated by the 2021 Nvidia attempted acquisition of Arm.[29] Nvidia, indeed, ultimately abandoned its acquisition of Arm when the deal raised competition and national security concerns in the US and in the UK,[30] even though the deal was likely to go through in the EU where it was believed to produce significant benefits and drive innovation.

It follows that the nation-centric competition regimes in global markets lead to either under or overachieving enforcement results. Underachieving because no single competition authority can unilaterally effectively protect competition and level the playing-field (e.g. the failed attempt of the EC with Google). Overachieving because sometimes even a single competition authority's action or inaction is alone sufficient to significantly impact other national economies adopting diverging, although not necessarily conflicting, approaches.

Whether underachieving or overachieving effects occur depends on the specifics of each case, the temporary geopolitical situation surrounding the latter, and the market value of involved jurisdictions', their degree of development and international interconnectedness. These last three factors, importantly, will define the magnitude of the cross-jurisdictional reciprocal influences of jurisdictionally-individual, actual or potential, enforcement initiatives.[31] Moreover, although these factors are strongly correlated, the market value of a given jurisdiction is not necessarily dependent on its degree of development, as there might be highly developed countries, very interconnected internationally, with reduced market value due to other factors (e.g. small population).

Yet, despite the issues that heterogeneous outcomes create, their existence should not be over-problematised as there might be nation-specific objective factual circumstances that

[29] The deal faced scrutiny from various jurisdictions, including the EU, UK, US, China, Japan, and South Korea.
[30] The US FTC filed a complaint and the UK CMA opened an in-depth investigation, rejecting Nvidia's proposed behavioural remedies as insufficient.
[31] While jurisdictions of reduced market value are expected to suffer more the effects of the enforcement actions or lack thereof of jurisdictions of greater market value, the opposite is true for the latter.

justify differing enforcement outcomes. In *S&P Global Inc./IHS Markit Ltd (2021)*,[32] for instance, the U.K. CMA and the US DoJ required slightly different remedies due to national factual specificities related to the case.[33] While not limited to them (e.g., *Microsoft/LinkedIn (2016)*[34]), heterogeneous outcomes are more likely to occur between nations at different stages of economic development as they might have different needs and priorities. In *Microsoft*/*Nokia (2013)*, for instance, although the merger was approved unconditionally by multiple countries,[35] it was subjected to conditions in China, Chinese Taipei, and South Korea due to concerns over excessive patent fees and restricted access to essential inputs for smartphone production.[36]

Heterogeneous outcomes might also be equally needed across developing countries. Mexichem's 2007 acquisition of PAVCO, a subsidiary of Amanco, while being approved by Brazil and Mexico, was blocked by Colombia's Superintendency of Industry and Commerce[37] due to the dominant positions that both Mexichem and PAVCO respectively held in the vertically integrated Colombian markets of polyvinyl chloride (PVC) resin and compounds, and PVC pipes.

Consequently, preserving a fair level-playing-field in global markets does not necessarily require homogeneous enforcement outcomes, which at times might even be problematic. In such scenarios, however, the preservation of a fair level-playing-field in global markets still

[32] CMA. S&P Global Inc. / IHS Markit Ltd merger inquiry, <https://www.gov.uk/cma-cases/s-and-p-global-inc-slash-ihs-markit-ltd-merger-inquiry>; DoJ, 'Justice Department Requires Substantial Divestitures and Waiver of a Non-Compete for S&P to Proceed with its Merger with IHS Markit.' (12 November 2021).

[33] Similarly, In *Reckitt Benckiser/Johnson and Johnson (2015)*, the New Zealand Commerce Commission blocked the merger contrary to its international peers since it could not find a viable divestiture option in New Zealand. See OECD 'Summary of discussion of the Roundtable on the Extraterritorial Reach of Competition Remedies' DAF/COMP/WP3/M(2017)2/ANN2 (10 August 2018) <https://one.oecd.org/document/DAF/COMP/WP3/M(2017)2/ANN2/FINAL/en/pdf>. The New Zealand Commerce Commission decision is available at: <https://comcom.govt.nz/__data/assets/pdf_file/0032/76487/2015-NZCC-12-Reckitt-Benckiser-and-Johnson-Johnson-clearance-determination-public-version-24-April-2015.pdf> .

[34] The merger, while approved unconditionally by the US, was subject to conditions in the EU due to concerns that post-merger Microsoft would restrict access to LinkedIn's trove of data, thereby foreclosing third parties. See O. Underwood, 'Vertical Merger Enforcement in Light of AT&T/Time-Warner' 45 *Iowa Journal of Corporate Law* 833, 843 (2020).

[35] E.g. US, EU, Russia, India, Israel, Turkey.

[36] OCED, 'Roundtable on the Extraterritorial Reach of Competition Remedies', DAF/COMP/WP3(2017)4, (2017), p.11.

[37] J. Krauss, 'Merger policy in Latin America', In E. Fox and D. Sokol (eds.) Competition Law and Policy in Latin America. Hart Publishing. (2009). Oxford and Portland, Oregon.

requires international co-operation to verify that such heterogeneous outcomes are objectively justified, to control enforcement outcomes' proportionality vis-à-vis their justifications, and to ensure that sufficient precautions are taken to counterbalance their potentially distorting effects.

A situation that, for instance, did not occur on occasion of the diversified enforcement approaches followed by several EU countries in the *Booking.com* enforcement saga. In *Booking.com*, contrary to the quite inconclusive EC-led ex-post assessment,[38] later empirical evidence demonstrated that the removal of the so-called 'narrow clauses' in a number of countries since 2015 has not led *Booking.com* to exiting the market, thus proving that the 'narrow clauses' were not essential for ensuring the platform viability.[39]

In global markets, therefore, there cannot be a true level-playing-field absent a high degree of international competition co-operation with a framework for reciprocal checks and balances. Without this, nation-centric competition regimes will continue to underperform compared to a scenario where there is effective and enhanced international co-operation in place.

2.4. Normative convergence is a false friend and does not remove the need for international co-operation

Against the challenge of preserving competition and a fair level-playing-field in global markets, some may argue that establishing a unique global set of competition rules would prove more effective than increasing international co-operation across diversified nation-centric competition regimes. But however appealing such a solution might appear, it does not eliminate the need for international competition co-operation as long as such a unique set of identical legal provisions is applied by different institutions across multiple jurisdictions. In

[38] Report on the monitoring exercise carried out in the online hotel booking sector by EU competition authorities in 2016, <http://ec.europa.eu/competition/ecn/hotel_monitoring_report_en.pdf>, which concluded that both types of enforcement '*based on a converging theory of harm (…) go in the right direction*'.

[39] A. Mantovani, C. A. Piga, C. Reggiani, On the economic effects of price parity clauses – what do we know three years later? *Journal of European Competition Law & Practice*, October 2018. Notably, a temporary injunction filed in May 2016 by *Booking.com* against the Bundeskartellamt's decision was unsuccessful, and the decision remained in force until it was annulled in appeal by the Higher Regional Court (OLG) Dusseldorf in June 2019. In this sense see <https://www.tellerreport.com/news/2019-06-04---bundeskartellamt-disappointed--booking-com-may-prohibit-hotels-lower-prices-in-the-network-.Sy_YZeVRV.html>.

such a scenario, nothing prevents these global rules from being interpreted and enforced inconsistently at national level. This occurred, for instance, in some WAEMU Member States where the common legal concept of 'dominance' was interpreted inconsistently, hence undermining the effectiveness of the regional competition rules.[40]

Equally, results would not change if identical or highly similar rules were adopted by each jurisdiction and not at global level. Each jurisdiction would pursue different goals when applying its set of provisions, and the goals of competition policy can highly influence the ultimate interpretation of the competition provisions, even when they are identically or similarly drafted. These goals may be swayed by the political agenda of national governments,[41] especially during the early stage of a competition law regime. The Israeli Antitrust Authority's interpretation of its competition legislation has changed in line with shifts in government economic policies from protectionist to free-market orientated.[42]

Even absent political influences, different applications of identical or near identical provisions might still emerge for purely technical reasons, as happened in the *Eurotunnel/SeaFrance* case[43] where Eurotunnel's acquisition of three ships and related assets from the bankrupt ferry company SeaFrance, while conditionally approved by the Autorité de la Concurrence (AdC), was blocked by the UK counterpart. The conflicting decisions resulted from the different counterfactual scenario adopted by the two authorities, with the UK authority and UK courts concluding that the attribution of the bid to another company would have resulted in a better outcome for competition, while the AdC did not consider such a scenario.

[40] M.S. Gal, I. Wassmer-Faibish, Regional Agreements of Developing Jurisdictions: Unleashing the Potential, in Competition Policy and Regional Integration in Developing Countries 306 (J. Drexl, M. Bakhoum, M.S. Gal, E.M. Fox, and D. Gerber eds, Edward Elgar 2012).

[41] I. Kampouridi, Arguments for the EU-US Convergence and against a Global Merger Control Regime 38 *World Competition* 107, 124–126 (2015).

[42] M.S. Gal, The Ecology of Antitrust: Preconditions for Competition Law Enforcement in Developing Countries in Competition, Competitiveness and Development: Lessons from Developing Countries 23–26 (UNCTAD 2004).

[43] Autorité de la concurrence, Decision 12-DCC-154, (2012),<http://www.autoritedelaconcurrence.fr/user/avisdec.php?numero=12DCC154>; CMA, "Ban on Eurotunnel ferry service provisionally confirmed by CMA", 20 May 2014,<https://www.gov.uk/government/news/ban-on-eurotunnel-ferry-service-provisionally-confirmed-by-cma>. The CMA's decision, after several appeals, was confirmed by the Supreme Court on 16 December 2015, [2015] UKSC 75, <https://www.supremecourt.uk/cases/docs/uksc-2015-0127-judgment.pdf>.

Additionally, a unique set of global or jurisdictional rules would also prevent experimentation and regulatory competition. Several commentators have praised the benefits that result from preserving diversity of substantive rules, goals, and regulatory cultures.[44] Absent specific differences and spaces for policy theory innovation, certain competition regimes would not have come to existence. In South Africa, for instance, the promotion of economic inclusion of traditionally marginalised subgroups was a preconditional element for the establishment of the competition regime.[45] As such, even envisaging a unique set of global rules enforced by either a single global agency or multiple national authorities, on top of being naïve, does not even represent the most desirable outcome.[46] Embracing jurisdictional differences and allowing space for their existence is the only way to move from a nation-centred system to a global community.

This shows that while in other legal fields greater normative convergence might be a valid solution to ensure the achievement of their underlying policy goals, this is likely not the case in the competition law arena. In the latter, normative convergence alone in global markets neither guarantees the protection of competition and the preservation of the level-playing-field, nor removes the need for international competition co-operation, but rather it might even constitute a barrier for the achievement of such objectives.

2.5. The failed attempts at creating a more advanced global competition co-operation framework: history repeats itself (or maybe not)

Developing an advanced framework enabling international competition co-operation has long been on the global agenda but never really possible. '*World antitrust*' has never really meant

[44] I. Kampouridi, 'Arguments for the EU-US Convergence and against a Global Merger Control Regime', (2015), *WCLER*, 38 (1), pp. 107-132; C. Townley, 'Co-ordinated Diversity: Revolutionary Suggestions for EU Competition Law (and for EU Law too)' (2014) 33 Yearbook of European Law 1; King's College London Law School Research Paper No. 2014-13.

[45] L. Mncube, H. Ratshisusu, 'Competition Policy and Black Empowerment: South Africa's Path to Inclusion', (2021) SCIS Working Paper (22); J. Oxenham, M.J. Currie, A. Stargard, Changing South Africa's Competition Law Regime: A Populist Departure from International Best Practices, *Journal of European Competition Law & Practice*, (2019)*10*(4), 232-240.

[46] A. Balde, Competition on the Global Market: A Way Towards an Autonomous International Court for Global Competition Cases, 6 Managing Global Transitions: Int'l Research J. 207 (2008).

more than '*antitrust without borders*',[47] and it has mainly taken the form of bilateral agreements.[48] A history chronicling the attempts made would be a long one.

The League of Nations first discussed the idea of an international legal framework for fighting cartels at the Geneva conference of May 1927 but the outbreak of war stopped this initiative.[49] In the 1950s, another failed attempt was made as part of the discussions towards the creation of the International Trade Organization (ITO). Then, in the early 1990s, the Munich group of experts produced a '*Draft International Antitrust Code*'[50] (also known as the '*Munich Code*'[51]) which contained competition principles and rules for their enforcement at a global level.

In 1995, a European committee of so-called 'Wise Men' proposed an international competition system within the World Trade Organization (WTO).[52] As perhaps too ambitious, the project failed[53] but it led to the EU proposing a discussion regarding the need for an international competition framework in the WTO in 1996.[54] Subsequently, a WTO working group was established to try and achieve this.

Simultaneously, in November 1997, the USA launched the International Competition Policy Advisory Committee (ICPAC) '*to address the global antitrust problems of the 21st Century*'.[55] The ICPAC proposed the creation of a 'Global Competition Initiative' (GCI) where government officials, private firms, and non-governmental organisations could consult on antitrust

[47] E. Fox, 'Antitrust Without Borders: From Roots to Codes to Networks, E15Initiative' (Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum, 2015).
[48] Among others, this has also impeded the existence of dispute resolution mechanisms in competition law because there is no global standard to be used for that perspective within the WTO.
[49] D.J Gerber, *Global Competition*, (Oxford University Press, 2010).
[50] W. Fikentscher and U. Immenga, *Draft International Antitrust Code* (1995) 71; Fikentscher, the draft international antitrust code in the context of international technological integration (1996) 72 Chi-Kent L Rev 533); E. Fox, 'Toward World Antitrust and Market Access' (1997) 91 (1) Am J Intl L1, 15-16).
[51] It is also called this since two of the four meetings between 1991 and 1993 took place in Munich.
[52] Group of Experts' Report ('Van Miert Report') (1995). See European Commission, *XXVIth Report on Competition Policy* (1996), 95. The system would have started with the building blocks of transparency, non-discrimination, and due process, co-operation and assistance to developing economies, and it would have offered dispute resolution.
[53] E. Fox , 'The "Alternative World-Antitrust Framework" in the Light of the Twenty-First Century' in N. Charbit, E. Raimundo (eds), *Competition Law on the Global Stage: David Gerber's Global Competition Law in Perspective* (Institute of Competition Law, 2014).
[54] Singapore WTO Ministerial 1996, Ministerial Declaration adopted on 13 December 1996, WT/MIN(96)/DEC, 20, Investment and Competition.
[55] US Department of Justice, 'ICPAC', <www.justice.gov/atr/icpac>.

matters.[56] The ICPAC's recommendation was embraced and in October 2001 led to the creation of the ICN.[57]

Even after the launch of the ICN, the European Commission (EC) was still expecting a multilateral agreement to occur within the WTO.[58] The initiative, however, was opposed by both developed[59] and developing countries,[60] and collapsed in 2004.[61] This failure was primarily caused by the short sightedness of leaders who, blinded by their locally egoistic perspectives, failed to recognise that long-term the lack of global competition governance would have resulted in a less effective system for everyone.

Indeed, while developed countries (especially the U.S.) were not convinced that international competition co-operation would hold any benefit they could not achieve on their own,[62] developing countries feared that WTO antitrust could be another trojan horse reducing their powers in their jurisdictions, as many regarded the agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).[63]

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[56] ICN, About, <https://www.internationalcompetitionnetwork.org/about/#:~:text=In%20its%20final%20report%2C%20issued,could%20consult%20on%20antitrust%20matters>.

[57] *Ibid.*

[58] M. Monti, 'A Global Competition Policy?' (European Competition Day, Copenhagen, 17 September 2002).

[59] J.I. Klein, 'No Monopoly on Antitrust' *Financial Times*, (February 13, 1998) 20; J.I. Klein, 'Anticipating the Millennium: International Antitrust Enforcement at the End of the Twentieth Century', in Barry Hawk (ed.), in *1997 Fordham Corp. Law Institute 9* (Fordham, 1999).

[60] T. Joel, 'legal aspects of a poverty agenda at the WTO: Trade Law and 'Global Apartheid' (2006) 6 JIEL; R. Jerome, 'From free riders to fair followers: global competition under the Trips agreement', (1997) 29 N.Y.U. J. Int'l L.&Pol. 11.

[61] J. Stiglitz and A. Charlton, *Fair Trade For All: How Trade Can Promote Development* (Oxford, 2005); I. Maher, 'Transnational Legal Authority in Competition Law and Governance: Territoriality, Commonality and Networks' in G. Handl, et al. (eds), Beyond Territoriality: Transnational Legal Authority in an Age of Globalization (BRILL 2012).

[62] J.I. Klein, 'No Monopoly on Antitrust' *Financial Times*, (February 13, 1998) 20; J.I. Klein, 'Anticipating the Millennium: International Antitrust Enforcement at the End of the Twentieth Century', in Barry Hawk (ed.), in *1997 Fordham Corp. Law Institute 9* (Fordham, 1999). Differently, see T.A. Guzman, 'Global Governance and the WTO' 45 Harv. Int'l L.J. 303 (2004), and A. Bradford, 'International Antitrust Negotiations and the False Hope of the WTO' (2007) 48 Harv. Int'l L.J. 383.

[63] T. Joel, 'legal aspects of a poverty agenda at the WTO: Trade Law and 'Global Apartheid' (2006) 6 JIEL; R. Jerome, 'From free riders to fair followers: global competition under the Trips agreement', (1997) 29 N.Y.U. J. Int'l L.&Pol. 11.

As a result, the reciprocal mistrust and the egoistic approaches generated an insurmountable hurdle to the development of a more effective global antitrust network that has changed little since.[64]

2.6. The extraterritorial application of national competition rules, 'positive comity' principle, and their limits

Despite the fact that increased international co-operation is the natural solution to nation-centric competition regimes' limitations, resulting from markets' globalisation, U.S. courts in *Alcoa,* by exploiting the *Lotus* jurisprudence,[65] created the extraterritorial application of national competition provisions (later known as the effects doctrine), thus asserting jurisdiction over foreign conduct enacted by foreign entities in foreign countries that nonetheless affected the US economy.[66] The only limit to such extraterritorial application was the so-called 'comity principle' according to which a country should consider the interests of other countries when enforcing its laws, in exchange for the same consideration.[67]

With time, US agencies and courts expanded the reach of the effects doctrine.[68] After the cautious approach taken in *Timberlane,*[69] in *Hartford Fire,*[70] the U.S. Supreme Court held that international comity could restrain jurisdiction only if a foreign law mandates what a U.S. law forbids, or if the observance of the U.S. law violates foreign law. Consequently, in *Pilkington*, the Department of Justice (DoJ) pushed the effects doctrine even further by enforcing U.S. antitrust laws against foreign conduct by foreign firms that simply restricted U.S. exports, without directly harming competition in the U.S. market.[71] As more extraterritorial US cases

[64] OECD-ICN, 'Report on International Co-Operation in Competition Enforcement' (2021).
[65] *France v Turkey*, Ser. A, No. 10 (PCIJ 1927), 10-19. See A. von Bogdandy, M. Rau, 'The Lotus' in R Wolfrum (ed), *The Max Planck Encyclopedia of Public International Law*, online ed. (OUP 2008).
[66] *United States v Aluminium Company of America (Alcoa*), 148 F.2d 416 (2nd Cir. 1945), 444.
[67] This principle has been recognized in public international law since the US Supreme Court's ruling in the 1895 case of *Hilton v Guyot*. Negative comity does not imply surrendering jurisdiction, but rather exercising jurisdiction while being mindful of the impact it may have on other countries' law enforcement efforts. Beyond competition law, jurisdictions also apply the comity principle in various areas of law, such as tax, insolvency, anti-bribery, and environmental regulation, to effectively resolve cross-border enforcement issues and balance the policies and enforcement priorities of involved states.
[68] In 1982, the U.S. Congress even established a law on extraterritorial application called the Foreign Trade Antitrust Improvements Act.
[69] *Timberlane Lumber Co. v. Bank of America*, 549 F.2d 597 (9th Cir. 1976).
[70] Hartford Fire Insurance Co. v. California, 509 U.S. 764 (1993).
[71] *United States v. Pilkington plc and Pilkington Holdings Inc.* (1994). Anyhow, the policy change materialised in Pilkington led to the 1995 revised version of the 1988 Antitrust Guidelines for International Operations.

emerged, various countries protested and some (e.g., Australia, France, Germany, and the UK) introduced so-called 'blocking-legislation' designed to obstruct the reach of US antitrust laws.[72]

Nonetheless, the extraterritorial application of competition provisions eventually became widespread across both developing[73] and developed[74] countries. The EC first applied the US approach in *Grosfillex* by clearing an exclusive distributorship agreement between French and Swiss firms forbidding the latter from re-exporting back to the EU, as any re-exportation was deemed unlikely due to double duties.[75] The EC approach was indirectly endorsed by the ECJ in *Dyestuffs*[76] where it formulated the so-called 'single economic unit doctrine' (SEUD) establishing the EC's jurisdiction over non-EU firms when they have fully controlled subsidiaries within the EU.[77] This approach expanded the EC's jurisdiction, while side-stepping the effects doctrine and its critics.[78] In *Wood Pulp*,[79] a case concerning a price-fixing agreement among EU and non-EU wood pulp producers, some of which had no subsidiary in the EU, the ECJ went further by finding that foreign entities who seek orders from EU customers engage in EU competition even if they have no subsidiaries there, thus creating the so-called implementation test.[80] The latter was later used by the EC against firms that

[72] M. Martyniszyn, 'Legislation Blocking Antitrust Investigations and the September 2012 Russian Executive Order', 37(1) World Competition 103 (2014); M. Martyniszyn, 'Foreign States' Amicus Curiae Participation in U.S. Antitrust Cases', 61(4) Antitrust Bulletin 611 (2016), 626-632.

[73] E.g., CADE, Administrative Proceeding n° 08012.004599/1999-18; NDRC Decision of 4 January 2013, the LCD Price-Fixing Cartel; Order of the Competition Tribunal Confirming the Settlement Agreement of 4 November 2008, *Competition Commission v American Natural Soda Ash Corp (Soda Ash)*, Case 49/CR/Apr00.

[74] E.g., *R v Mitsubishi Corp.* [2005] 40 C.P.R. (4th) 333 (Can); JFTC, Cease-and-Desist Order and Surcharge Payment Order against Marine Hose Manufacturers (22 February 2008), <http://www.jftc.go.jp/en/pressreleases/yearly-2008/feb/individual_000147.files/2008-Feb-22.pdf>. For analysis see M. Martyniszyn, 'Japanese Approaches to Extraterritoriality in Competition Law', 66(3) ICLQ 747 (2017).

[75] EC, Case IV/A-00061-Grosfillex-Fillistorf, 64/233/CEE, OJ 58, 9.4.1964, 915-916; Case IV-A/12.868, 64/344/CEE, OJ 92, 10.6.1964.

[76] Contrary see Case 48/69, Opinion of Advocate General Mayras in case *Imperial Chemical Industries Ltd. v Commission* [1972] ECR 619.

[77] Case 48/69, *Imperial Chemical Industries Ltd. v Commission (Dyestuffs)*, [1972] ECR 619, paras 125-142.

[78] The SEUD proved helpful for the EC in several cases, including Cases 6-7/73, *Commercial Solvents v Commission*, [1974] ECR-223; Case 6/72, *Europemballage Corp and Continental Can Co. Inc. v Commission* [1973] ECR-215.

[79] EC, 85/202/EEC, Decision Relating to a Proceeding Under Article 85 of the EEC Treaty, IV/29.725- Wood Pulp, OJ L85, 1-52 (1984), 83.

[80] C-89/95, *A. Ahlström Osakeyhtiö and others v Commission*, [1988], ECLI:EU:C:1988:447, para 16-18.

might have otherwise escaped EU jurisdiction through the SEUD, as in *Gas Insulated Switchgear*.[81]

In *Gencor*,[82] the Court of First Instance extended such an expansionist approach to merger enforcement by establishing that when a proposed concentration is likely to have an immediate and substantial effect in the EU, the Merger Regulation's extraterritoriality is justified (so-called qualified effects test).[83] In *LCD*,[84] the EC used both tests to affirm its jurisdiction as it first used the *Wood Pulp* implementation test to claim jurisdiction since the cartel's implementation took place in the EU by means of direct sales,[85] but it also used the *Gencor* qualified effects test to argue that the conduct had foreseeable, immediate and substantial effects in the EU.[86]

More recently, in *Intel* [87] the ECJ clarified that the qualified effects test and the implementation test are alternative methods for establishing jurisdiction.[88] Furthermore, the Court held that the qualified effects test does not require evidence of actual effects[89] and recognised that negative acts can satisfy the implementation test when they alter the conduct of market participants with the intention of foreclosing EU competition, even absent direct sales or the withdrawal of pre-existing ones.[90]

However, despite the extraterritorial application of competition provisions becoming widespread over time, particularly in major jurisdictions, it is important to acknowledge that it has its own limitations and drawbacks. Firstly, it is not equally accessible and effective to all

[81] Case COMP/F/38.899 - Gas Insulated Switchgear (2012).
[82] Case T-102/96, *Gencor Ltd v Commission* [1999] ECR II-753. Note, *Gencor* was dealt with under the Old Merger Regulation. For another example, see European Commission, IP/10/45, Commission opens formal proceedings concerning iron ore production joint venture between BHP Billiton and Rio Tint (25 January 2010).
[83] Case T-102/96, *Gencor*, *supra,* 90-100.
[84] COMP/39.309- LCD- Liquid Crystal Displays (2010).
[85] *Ibid*, 236-7.
[86] *Ibid,* 238.
[87] Case T-286/09, *Intel v Commission*, ECLI:EU:T:2014:547; Case C-413/14 P, *Intel v Commission*, ECLI:EU:C:2017:632.
[88] Case T-286/09, 236, 244; Case C-413/14 P, 57.
[89] Case T-286/09, 250 et seq; Case C-413/14 P, 56.
[90] Case T-286/09, 303-7. Differently, AG Wahl, given that this was a unilateral conduct case, believed that the EC should have shown that Intel's conduct was implemented in the EU, not the conduct of a third party (Lenovo). Otherwise, the EC's approach would open doors to exorbitant jurisdictional assertions. Case C-413/14 P, Opinion of Advocate General Wahl in case Intel v Commission, 312.

countries.[91] Significant in this sense is the Indian competition authority's ("MRTP") failed attempt to extraterritorially apply its competition provisions against the American Soda Ash Export Cartel (ANSAC). ANSAC first appealed MRTP's decision to the Indian Supreme Court and then lobbied the US Trade Representative (USTR) complaining that India restricted access to its market. This led to the USTR announcing a review of the US Generalised System of Preferences for India, the pressure of which caused India to lower its import duties on soda ash from 35% to 20%, (despite the 40% rate agreed upon within the World Trade Organization framework).[92] After the Indian Supreme Court ruled in favour of ANSAC and prohibited the extraterritorial application of Indian competition law in that context,[93] the USTR viewed the positive outcome as a result of its actions.[94]

Secondly, since it involves the risk of interfering with the sovereignty of other nations, countries might refrain from extraterritorially applying competition provisions against otherwise clear-cut competition infringements. One such example is the cartel between oil-producing countries, so-called OPEC, which controls the supply and prices of the global oil market. Despite its obvious market distortions, the OPEC cartel has been exempted from antitrust scrutiny since 1979, when U.S. jurisdiction was denied on the argument that the Sherman Act does not apply to a cartel between sovereign nations.[95]

Thirdly, the extraterritorial application of national competition rules does not provide effective incentives to ensure the prosecution of anticompetitive conduct primarily harming foreign competition, given that such behaviours might even be beneficial, in the short term,

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[91] M.M. Dabbah, 'Competition Law and Policy in Developing Countries: A Critical Assessment of the Challenges to Establishing an Effective Competition Law Regime', 33(3) World Competition 457 (2010); Pradeep S. Mehta, et al., 'Multilateral Competition Framework: In Need of a Fresh Approach' (CUTS Centre for Competition, Investment & Economic Regulation Discussion Paper 2005).

[92] 'Withdrawal of Duty-Free Treatment to Soda Ash: India files Response to US Federal Register Notice', *Chemical Business Newsbase*, 2 March 2001.

[93] *Haridas Exports v. All India Float Glass Manufacturers' Assn*., 6 SCC 600 (The Supreme Court 2002).

[94] See Broadbent (Assistant US Trade Representative)'s statement during the hearing before the Subcommittee on International Trade of the Committee of Finance, US Senate, 15 April 2004, HRG 108-527, p.38-39, <http://finance.senate.gov/library/hearings/download/?id=f0148a8a-1c78-4e76-9776-485ffbf2ec7a>.

[95] International Association of Machinists and Aerospace Workers (IAM) v. The Organization of Petroleum Exporting Countries (OPEC), 477 F. Supp. 558 (1979). The plaintiff, the International Association of Machinists and Aerospace Workers (IAM), appealed Judge Hauk's ruling to the US Court of Appeals, which upheld the decision in 1981. The case was then appealed to the US Supreme Court, which denied certiorari without comment in 1982. International Association of Machinists and Aerospace Workers (IAM) v. The Organization of Petroleum Exporting Countries (OPEC), 649 F. 2d 1354 (1981).

for the national economies hosting the violators. Industrial policy may even encourage such conduct to promote exports and transfer wealth from harmed jurisdictions to those of the perpetrators.[96] To address these limitations, the international competition community in the 1990s introduced 'positive comity',[97] based on which one country could request another to enforce its competition laws to remedy anticompetitive conduct taking place in one and affecting the interests of the other. Despite its potential, positive comity was perceived to have limited value[98] and its practical application was minimal,[99] especially in the case of export cartels given that most are not illegal in their home countries and injured countries often want to impose their own remedies.[100]

Fourthly, the extraterritorial application of competition laws based on the effects doctrine cannot be used to address anticompetitive conduct that took place outside the acting country and that does not have a direct and substantial impact on competition in the domestic market, such as an import cartel in an inactive importing country that harms exporters' interests of one or more exporting countries. Similar situations go beyond the international legitimacy and acceptance of the effects doctrine.

Finally, the extraterritorial application of competition laws does not ensure against unjustified or disproportionate heterogeneous enforcement outcomes. This is evident in cases such as *Qualcomm* (further examined later in Section **3.6.3.**) or *Microsoft*/*Nokia (2013)*. In the latter, Microsoft was forced by the Korean Fair Trade Commission to accept restrictions going

[96] Communication from Thailand, WT/WGTCP/W/213/Rev.1 (26 September 2002), para 2.1.; Report on the Meeting of 26-27 September 2002, WT/WGTCP/M/19 (15 November 2002), para 53; E. Fox, M. Janow, 'China, the WTO, and State-Sponsored Export Cartels: where trade and competition ought to meet', (2012) 4 Concurrences, 5-7; M. Martyniszyn, 'Export Cartels: Is it Legal to Target Your Neighbour? Analysis in Light of Recent Case Law', 15(1) JIEL 181 (2012).

[97] Positive comity was first introduced in the competition law field during the negotiation of the 1991 Co-operation Agreement between the US and the EU regarding the enforcement of their competition laws. Outside competition law, however, the underlying principle was established much earlier, being included in the OECD Recommendations on Co-operation since 1973, albeit without using the term specifically.

[98] P. Marsden, The curious incident of positive comity – the dog that didn't bark, in A.T. Guzman (ed), Cooperation, Comity and Competition Policy (Oxford, OUP, 2011).

[99] OCED-ICN, 'Report on International Co-Operation in Competition Enforcement.' (2021), p. 149, figure 16.6 where almost 90% of respondents to the survey reported never having made a 'positive comity request'. Similarly, see OECD, 'Improving international co-operation in cartel investigations', DAF/COMP/GF(2012)16, (2012); OECD, 'Improving international co-operation in cartel investigations', DAF/COMP/GF(2012)16, (2012); J.R. Atwood, Positive Comity – Is it a positive step?, Fordham Corporate Law Institute, 1992, 79.

[100] OECD, 'Improving international co-operation in cartel investigations', DAF/COMP/GF(2012)16, (2012), p.64.

beyond Korea,[101] a situation that led to criticism as it was seen as a domestic authority regulating foreign IPRs and conduct that would, in principle, be outside its jurisdiction.[102]

2.7. Conclusions

The tension between the nation-centric competition regimes and the global scale of markets, despite long being recognised, was never addressed for egoistic reasons and related issues still exist. Attempts to develop a more globally co-ordinated competition enforcement system have failed, primarily due to the short-sighted perspectives of both developed and developing countries: the former believing that international co-operation would not hold any benefit that was unachievable on their own, the latter fearing that more international co-operation would reduce their powers.

Over time, however, the increase in markets' globalisation made effective international competition co-operation essential to successfully protect global markets' competitive structure and to create a true level-playing-field across market actors for the good of businesses and consumers. Although such a necessity to co-operate internationally is not exclusive to competition regimes (it is required in tax law, securities and financial law for example), the need is particularly pronounced in this area, for several reasons.

First, due to the specialty of competition regimes' general goal (i.e., protecting the competitive structure of markets and a true level-playing-field across market actors), a goal unilaterally unachievable when markets are global in nature. Second, because of competition rules' openness and indetermination compared to other law provisions as they are based on undetermined legal concepts which acquire specific meaning only in relation to the underlying reality they regulate. Third, because neither a unique set of global rules nor multiple jurisdictional sets of identical (or highly similar) rules prevent inconsistent interpretation and enforcement at national level. And this situation will not change even if a

[101] See KFTC's decision of 24 August 2015. Specifically, Microsoft entered into a consent decree with the KFTC where Microsoft: (i) committed to license its smartphones' operating systems Standard Essential Patents (SEPs) on fair, reasonable and non-discriminatory (FRAND) conditions; (ii) agreed to royalty terms for its non SEPs; (iii) agreed not to seek injunctions claiming infringement of its SEPs against sales and import in Korea and overseas against Korean smartphone or tablet PC manufacturers.

[102] OCED, 'Roundtable on the Extraterritorial Reach of Competition Remedies', DAF/COMP/WP3(2017)4, (2017), p.11; J. Jurata, I.M. Owens, A new trade war: Applying domestic antitrust laws to foreign patents, *GMLR*, (2015), Vol: 22:5, p.1127.

unique set of global rules is enforced by a single supranational authority, given that such a circumstance will likely prevent experimentation, regulatory competition, and the *taylorisation* of competition enforcement to the specific needs of some jurisdictions. These factors are all key to moving from nation-centred enforcement systems to a global community of co-ordinated and structurally organised nation-centred competition regimes. Fourth, because the solutions adopted so far to mitigate nation-centric competition regimes' drawbacks and circumvent the creation of better international competition co-operation frameworks have proven insufficient.

In light of the above, global antitrust substantive convergence may not be the most desirable outcome.[103] Solutions, instead, should come from voluntary, asynchronous, decentralised, non-hierarchical cross-border procedural co-operation.[104] Decentralisation and flat structures help to win the trust of those (primarily developing) countries that fear renouncing power if engaging in structured supranational co-operation. Equally, making international co-operation voluntary, asynchronous, and limited to procedural aspects guarantees to adhering countries full discretion in exercising their powers independently as they think most appropriate. Consequently, substantive convergence is expected to naturally emerge (when factual conditions allow) from a slow process of constant procedural co-operation and reciprocal influences.

[103] A significant step in ensuring global convergence has been taken with the adoption, in 2019, of the ICN Framework for Competition Agency Procedures ('CAP') — an opt-in implementation framework open to all ICN members and other competition authorities. The CAP contains fundamental procedural fairness principles that reflect a broad consensus within the global competition community across different legal and institutional frameworks. See also the complementary work in this field done by the OECD, 'Scoping note on transparency and procedural fairness as a long-term theme for 2019-2020' (2018) DAF/COMP/WD(2018)6.

[104] F. Jenny, 'keynote address', (OECD Competition Open Day, 27 February 2018), webcast: <https://oecd.streamakaci.com/cod2019/>; J. Pecman and D. Pham, 'The Next Frontier of International Cooperation in Competition Enforcement', F. Jenny, 'Standing Up for Convergence and Relevance in Antitrust', (Liber Amicorum, Concurrences, 2019).

3. Dissecting international co-operation in antitrust proceedings: drivers, forms, achievements, and pending issues.

3.1. Introduction

Having understood why international co-operation in antitrust proceedings is so important in a globalised economy, this Chapter will: analyse what the main factors are for boosting demand for international competition co-operation (**Section 3.2.**); illustrate the modalities in which such demand for international co-operation has been addressed so far (**Section 3.3.** and **Section 3.4.**); present the achievements (**Section 3.5.**) and the limitations (**Section 3.6.**) of the international framework currently in place; and, offer some preliminary conclusions (**Section 3.7.**).

3.2. The major factors boosting the demand of international competition co-operation

Since the 1990s, the demand for international competition co-operation has increased considerably due to three primary transformational phenomena, namely the globalisation of the markets; their digitalisation, and the growing number of jurisdictions adopting competition regimes. While these phenomena are strictly interlinked, they will now be analysed in turn.

3.2.1. The globalisation of the economy

The phenomenon of globalisation has concerned many market sectors as attested by several key indicators such as trade agreements, trade flows, foreign direct investment levels, and global value chains. For instance, the increasing number of Regional Trade Agreements (RTAs) signed since the 1990s provides clear evidence of 'globalisation' as a process.[105] Notably, around half of existing Regional Trade Agreements contain chapters concerning competition

[105] Regional Trade Agreements Information System (RTA-IS), WTO, <http://rtais.wto.org/ui/PublicMaintainRTAHome.aspx>. See also R.D. Anderson, W.E. Kovacic, A.C. Müller, A. C., N. Sporysheva, Competition policy, trade and the global economy: existing WTO elements, commitments in regional trade agreements, current challenges and issues for reflection, (2018).

law.[106] Similarly, trade across borders and foreign direct investment have witnessed a constant surge.[107]

As a result, the globalisation of the economy has increased international economic interconnectedness and interdependence. However, the more markets become global in nature, the more national jurisdictions lose power over the firms they regulate. For instance, T. Philippon noted that while present tech giants (e.g. Apple) account for an amount of U.S. GDP resembling that of their historical predecessors of the 1960s (e.g. AT&T), they are less prone to the power of the U.S. government, given that they make a vast amount of their profits abroad.[108]

Secondly, the more markets become global in nature, the more likely those firms populating them are to infringe the competition provisions of multiple jurisdictions. Since the 1990s, indeed, the number of yearly international cartel cases has sky-rocketed.[109] Noteworthy examples of well-known worldwide cartels include the *Lysine Cartel*, the *Vitamin Cartel*, the *Citric Acid Cartel*, the *Graphite Electrode Cartel*, and the *Liquid Crystal Display (LCD) Cartel*. Equally, cross-border mergers have followed an identical pattern, reaching their peak in the triennium of 2015-2017, a peak that would have been thought far-fetched in the previous decade.[110]

Thirdly, the more markets and the firms populating them become supranational or global in nature, the more they demand legal convergence and enforcement coherence to ensure performance and growth. Consequently, markets' globalisation is reducing the divergences existing between different legal frameworks and demanding increased co-operation.

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[106]F.C. Laprévote, S. Frisch, and B. Can, 'Competition Policy within the Context of Free Trade Agreements', E15Initiative, (Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum, 2015), <http://e15initiative.org/wp-content/uploads/2015/07/E15-Competition-Laprevote-Frisch-Can-FINAL.pdf>.

[107] OECD, 'Challenges of International Co-operation in Competition Law Enforcement' (*OECD,*2014) <http://www.oecd.org/daf/competition/Challenges-Competition-Internat-Coop-2014.pdf.>

[108] T. Philippon, *The great reversal: how America gave up on free markets* (Harvard University Press, 2019).

[109] OECD-ICN, 'Report on International Co-Operation in Competition Enforcement' (2021).

[110] In 2018, in terms of value, cross-border mergers accounted for 47% of all global mergers and 36% in terms of volume. S. Grocer, 'A record $2.5 Trillion in Mergers Were Announced in the First Half of 2018', *New York Times*, (New York, 3 July 2018) <https://www.nytimes.com/2018/07/03/business/dealbook/mergers-record-levels.html>.

3.2.2. The digitalisation of the economy

Through the emergence of businesses that overcome national borders and traditional operational constraints, cut across industries, and drive innovation, the digitalisation of the economy has changed the landscape of competition law enforcement.[111] At the expense of conventional undertakings, digital firms have transformed and conquered entire markets, while interconnecting previously unrelated industries. Evidence of a more concentrated, winner-takes-most world already exists.[112]

Against this backdrop, the digitalisation of the economy demands greater international competition co-operation for at least three reasons. The first being that numerous digital firms operate through supranational (often global) business models.[113] As such, cross-border competition co-operation simplifies several related issues (e.g., gathering evidence, coordinating remedies and sanctions, resolving disputes of policy, etc).

Secondly, international competition co-operation mitigates the reduced deterrence of national competition regimes and reduces the cost of doing business resulting from increased legal uncertainty and regulatory fragmentation in the digital space.[114] Absent sufficient international co-operation, conflicts over methodology and outcome across competition enforcers will likely emerge. While these disagreements are not necessarily problematic if occurring sporadically and for good reason, they constitute serious malfunctions if they occur often and in the absence of a framework verifying the legitimacy and objectivity of their underlying justifications as well as the latter proportionality.

Thirdly, the digitalisation of the economy has led to intense debate concerning both the perceived problems, and their solutions.[115] It is difficult to do justice to the debates that have

[111] A. Capobianco and A. Nyeso, 'Challenges for Competition Law Enforcement and Policy in the Digital Economy' (2017) 1 JECL & Pract 1.
[112] OECD Ecoscope, 'Competition in the digital age', (31st March 2019); F. Calvino, C. Criscuolo, 'Business dynamics and digitalisation' (2019) OECD Science, Technology and Industry Policy Papers, No. 62; S. Calligaris, C. Criscuolo & L. Marcolin, 'Mark-ups in the digital era' (2018) OECD Science, Technology and Industry Working Papers, No. 2018/10.
[113] EC, 'Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector', COM(2020) 842 final. (Digital Markets Act).
[114] R. Nazzini, G. Carovano, 'Addressing the 'kill zone' of antitrust enforcement without 'killing legal certainty' (2020) Competition Law and Policy Debate.
[115] P. Marsden & R. Podszun, *Restoring Balance to Digital Competition – Sensible Rules, Effective Enforcement* (Konrad-Adenauer-Stiftung 2020) 11-36.

taken place, and that are still taking place, on these issues. The response, in the form of competition law policy, has been multi-faceted, though fragmented. Proposals have ranged from calling for more competition,[116] to arguing that unrestricted competition has the potential to backfire and spiral into a race to the bottom.[117] While some have suggested expanding the scope of competition law,[118] others have advocated for traditional economic-based enforcement.[119] Some, conscious of the limits of competition enforcement, advocate for regulatory interventions, whereas others have recommended cautiousness and restraint in calling for extensive regulation.[120]

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[116] H. Hovenkamp, C. Shapiro, 'Horizontal Mergers, Market Structure, and Burdens of Proof, Faculty Scholarship' (2018); C. Shapiro, 'Antitrust in a Time of Populism', (2018) International Journal of Industrial Organization, Volume 61, , 714-748; T. Valletti, 'A view from the Chief Economist,' (CRA Conference, 2018); C. Pike, G. Carovano, 'Competition Law under fire: responding to competing demands for change in the case of price parity clauses and loyalty rebates', (2019) CPI September 2019 Antitrust Chronicle; UK report (2019), *Unlocking digital competition*; EU report (2019), Competition Policy for the digital era; Stigler Center report (2019), Stigler Committee on Digital Platforms.

[117] M.E. Stucke, A. Ezrachi, *Competition Overdose* (Harper Collins Publishers, 2020).

[118] Among others, relevant in this sense are OECD, 'Sustainability and Competition. *OECD Competition Committee Discussion Paper'* (2020) <http://www.oecd.org/daf/competition/sustainability-and-competition-2020.pdf*>;* EC, 'Competition Green Deal Conference' (2021) <https://webcast.ec.europa.eu/competition-green-deal-conference>; EC, 'Competition Policy supporting the Green Deal' (2020). Call for contributions; ACM. Second draft version: 'Guidelines on Sustainability Agreements – Opportunities within Competition.' (2021): <https://www.acm.nl/sites/default/files/documents/second-draft-version-guidelines-on-sustainability-agreements-oppurtunities-within-competition-law.pdf>; Hellenic Competition Commission, 'Staff discussion paper – Our common future' (2020); ACM – HCC, 'Technicalk Report on Sustainability and Competition' (2021). For an academic perspective see S. Holmes, 'Climate Change, sustainability, and competition law' (2020) Journal Antirust Enforcement, Vol. 8/2, 354-405, <https://doi.org/10.1093/jaenfo/jnaa006>; H. Hovenkamp, 'Are Regulatory Agreements to Address Climate Change Anticompetitive?' (2019) <https://www.theregreview.org/2019/09/11/hovenkamp-are-regulatory-agreements-to-address-climate-change-anticompetitive/>; K. Coates, D. Middelschulte., 'Getting Consumer Welfare Right: the competition law implications of market-driven sustainability initiatives' (2019) *ECJ*, Vol. 15/2-3, 318-326, <http://dx.doi.org/10.1080/17441056.2019.1665940>; G. De Stefano, 'EU Competition Law & The Green Deal: The Consistency Road', (2020) CPI Antitrust Chronicle, <https://www.competitionpolicyinternational.com/eu-competition-law-the-green-deal-the-consistency-road>; A. Gerbrandy, 'The Difficulty of Conversations About Sustainability and European Competition Law' (2020) *CPI Antitrust Chronicle*, Vol. 1/2, 65, <https://www.competitionpolicyinternational.com/the-difficulty-of-conversations-about-sustainability-and-european-competition-law/>. For stretching competition law to better address redistribution issues, see Rebecca Kelly Slaughter, Acting Chair of the US Federal Trade Commission, 'Antitrust at a Precipice, GCR Interactive: Women in Antitrust', (November 17, 2020) <https://www.ftc.gov/system/files/documents/public_statements/1583714/slaughter_remarks_at_gcr_interactive_women_in_antitrust.pdf>) and the OECD initiative 'Developing evidence in gender inclusive competition policy' (2020). For further details on this initiative, see <https://www.oecd.org/daf/competition/gender-inclusive-competition-policy.htm.

[119] 'Joint Submission of Antitrust Economists, Legal Scholars, and Practitioners to the House Judiciary Committee on the State of Antitrust Law and Implications for Protecting Competition in Digital Markets', (May 2020).

[120] A. Lamadrid, 'Can this be the new normal? 10 questions on the proposed new competition tool', (*Chillin'Competition*, 2020); M.V.D. Woude, 'Judicial Control in Complex Economic Matters', (2019) *JECLAP*, Volume 10, Issue 7.

Regardless of the solution(s) one might advocate, this debate shows the need for international co-operation to address challenges that, by their very nature, are too broad and complex for isolated national (or even regional) approaches. Symptomatically, competition issues identified in one national market have often also arisen in others. Accordingly, multiple jurisdictions have investigated or are investigating identical conduct of the same few large global digital firms.[121]

The complex nature of issues encountered when challenging digital firms on competition has further augmented risks for heterogeneous answers. [122] Noteworthy issues include algorithmic collusion,[123] algorithmic discrimination, two-sided zero-price markets, artificial intelligence, and privacy exploitation.[124] Perhaps expectedly, there have been a number of studies attempting to understand this range of digital issues, which have been carried out jointly by various competition agencies.[125]

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[121] See various PARR reports: <https://app.parr-global.com/intelligence/view/intelcms-kbp6zr>; <https://app.parr-global.com/intelligence/view/intelcms-m37q2f>; <https://app.par-global.com/intelligence/view/intelcms-ps7frz>; <https://app.parrglobal.com/intelligence/view/intelcms-4k4pv4>.

[122] Generally, see F. Jenny, 'Changing the way we think: competition, platforms and ecosystems' (2021) *Journal of Antitrust Enforcement* (Vol. 9, 1-18): (Oxford University Press, 2021); D. Coyle, 'Practical competition policy implications of digital platforms.' (2019) *Antitrust Law Journal*, *82*(3) 835-860.

[123] Although algorithmic collusion captured the attention of the academic literature, it did not seem yet to constitute a major real problem (among the few, see recent US Class Action presented in front of the U.S. District Court of Nevada, Case 2:23-cv-00140, *Richard gibson, and Heriberto Valiente v. MGM resorts international, cendyn group, et al.*). From a practical perspective, algorithms have mostly been found to be a useful tool for implementing collusive agreements that are reached in traditional ways. For a discussion of these cases, see G.E. João, 'Controlling Algorithmic Collusion: short review of the literature, undecidability, and alternative approaches' (2019) *mimeo*. Interesting from this perspective is also the GameStop stock price manipulation realised by thousands of redditors as part of a pump and dump strategy against established investors and hedge funds. Instead, for some empirical evidence of proper autonomous algorithmic collusion, see S. Assad, R. Clark, D. Ershow, L. Xu, 'Algorithmic Pricing and Competition: Empirical Evidence from the German Retail Gasoline Market' (2020), *mimeo*.

[124] A. Capobianco and A. Nyeso, 'Challenges for Competition Law Enforcement and Policy in the Digital Economy' (2017) 1 JECL & Pract 1; J. Manyika, S. Lund, J. Bughin, J. Woetzel, K. Stamenov, and D. Dhingra, 'Digital Globalization: The New Era of Global Flows' (*McKinsey Global Institute*, February 2016), <https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-globalization-the-new-era-of-global-flows>; UK Report of the Digital Competition Expert Panel, 'Unlocking digital competition', (March 2019), 122-123 (recommended action n. 19) <https://www.gov.uk/government/publications/unlocking-digital-competition-report-of-the-digital-competition-expert-panel>.

[125] See, for examples, the joint market studies conducted together by the French Autorité de la Concurrence and the German Bundeskartellamt in relation to the competition law implications of big data <http://www.autoritedelaconcurrence.fr/doc/reportcompetitionlawanddatafinal.pdf>, and algorithms <https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2018/19_06_2018_Algorithmen.html>.

In merger enforcement, for instance, intense debate concerns the role of 'potential competition' as resulting from start-ups' disruptions and the related incumbents' reverse innovation.[126] While in the past 'nascent or potential competitors' rarely featured in merger assessments,[127] new trends have emerged, especially in the digital sectors,[128] fuelled by concern there was a 'kill zone' in merger enforcement. Since then, policy makers and competition authorities around the world have started questioning the fitness of existing legal standards[129] and developed new legal tests to address nascent competitors' acquisitions.[130]

Therefore, due to the complex nature of issues resulting from the digitalisation of the economy, competition authorities are increasingly risking adopting unjustified or disproportionate heterogeneous approaches (e.g., non-homogeneous time frameworks to assess '*potential competition*', inconsistent counterfactuals, conflicting methodologies, etc.) Such a trend of heterogeneous approaches is also testified by the different programmes of reform as proposed and/or approved in the U.K.,[131] the EU,[132] Germany,[133] and the US,[134] to

[126] C. Caffara, G.S. Crawford & T. Valletti, 'A case for a broader lens, rebuttable presumptions and better efficiency stories' (2020) *Competition Policy International*.

[127] O. Ashenfelter, et al., 'Did Robert Bork Understate the Competitive Impact of Mergers? Evidence from Consummated Mergers' (2014) 57 J.L. & Econ. S67, S78.

[128] OECD, 'Start-ups, Killer Acquisitions and Merger Control', (2020) DAF/COMP(2020)5; Lear, 'Ex-post Assessment of Merger Control Decisions in Digital Markets' (*Lear*, June 2019); E. Argentesi, P. Buccirossi, E. Calvano, T. Duso, A. Marrazzo, and S. Nava, 'Merger Policy in Digital Markets: An Ex-Post Assessment,' *Journal of Competition Law & Economics*, *17*(1), 95-140.

[129] U.S. FTC-DOJ, Merger guidelines (2023), <https://www.ftc.gov/system/files/ftc_gov/pdf/2023_merger_guidelines_final_12.18.2023.pdf>, which contain a rebuttable presumption of illegality at given levels of concentration.

[130] See the new 'public interest test' as suggested by the House of Lords, Select Committee on Communications, 2nd Report of Session 2017-2019, 'Regulating in a digital World', (HL- Paper 299, March 2019), <https://publications.parliament.uk/pa/ld201719/ldselect/ldcomuni/299/299.pdf>.

[131] CMA, 'A new pro-competition regime for digital markets, advice of the Digital Markets Taskforce' (December 2020) CMA135 which led to the recent 'Digital Markets, Competition and Consumers Bill' still under negotiation, <https://bills.parliament.uk/bills/3453>.

[132] Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) *OJ L 265, 12.10.2022, p. 1–66*; Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC (Digital Services Act)*OJ L 277, 27.10.2022, p. 1–102; Regulation (EU) 2022/2560 of the European Parliament and of the Council of 14 December 2022 on foreign subsidies distorting the internal market, OJ L 330, 23.12.2022, p. 1–45*.

[133] See the recently approved GWB Digitisation Act, which substantially amended the pre-existing national competition rules. See in particular, the new Section 19a on Abusive Conduct of Undertakings of Paramount Significance for Competition across Mark. An English translation of the new law is available at the following link: <https://www.d-kart.de/wp-content/uploads/2021/01/GWB-2021-01-14-engl.pdf>.

[134] See the call for action in the conclusions of the Majority Staff Report by the Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary:

name but a few. If these reforms were to be implemented without international co-operation, then enforcement conflicts, misalignment, and legal uncertainty would occur.

3.2.3. The proliferation and expansion of competition law regimes

The number of countries adopting competition law regimes has sky-rocketed in recent years.[135] Such a trend does not seem set to slow down either in developing or developed countries given that new competition regimes continue to appear[136] and existing regimes are constantly improved. Though varying depending on jurisdiction and sector, a wide range of reforms have been adopted, including ex-ante regulation, public interest tests, price caps, instruments to screen foreign investments or control foreign subsidies, etc. Compared with previous models, recent evolutions of the legal framework reflect the tendency that has shifted the enforcement of competition law from the purely technical to a more political realm.[137]

Moreover, it is worth noting that the approximate 140 competition law regimes that exist worldwide differ substantially from one another. For instance, by looking at the Competition Law Index (CLI) — which offers a comprehensive account of the scope of almost all globally enacted competition laws (the legal text)[138] — it emerges that there are substantial differences in the scope of laws across developed and developing countries. **Figure 1** offers a graphical depiction of this difference with regard to OECD and non-OECD countries. Secondly,

<https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf>. For an excellent analysis of possible fragmentation risks, see M. Schnitzer; J. Crémer; D. Dinielli; A. Fletcher; P. Heidhues; F.M. Scott Morton; K. Seim; 'International coherence in digital platform regulation: an economic perspective on the US and EU proposals.' (2021) Policy Discussion Paper n. 5. Yale Tobin Center for Economic Policy.

[135] ICN, 'ICN Members.' (*ICN*, 2020) <http://www.internationalcompetitionnetwork.org/members/>; OECD, 'Roundtable on benefits and challenges of regional competition agreements' (2018) DAF/COMP/GF(2018)5; UNCTAD, 'Enhancing international cooperation in the investigation of cross-border competition cases: Tools and procedures', (*UNCTAD*, 5-7 July 2017) <https://unctad.org/meetings/en/SessionalDocuments/ciclpd44_en.pdf>

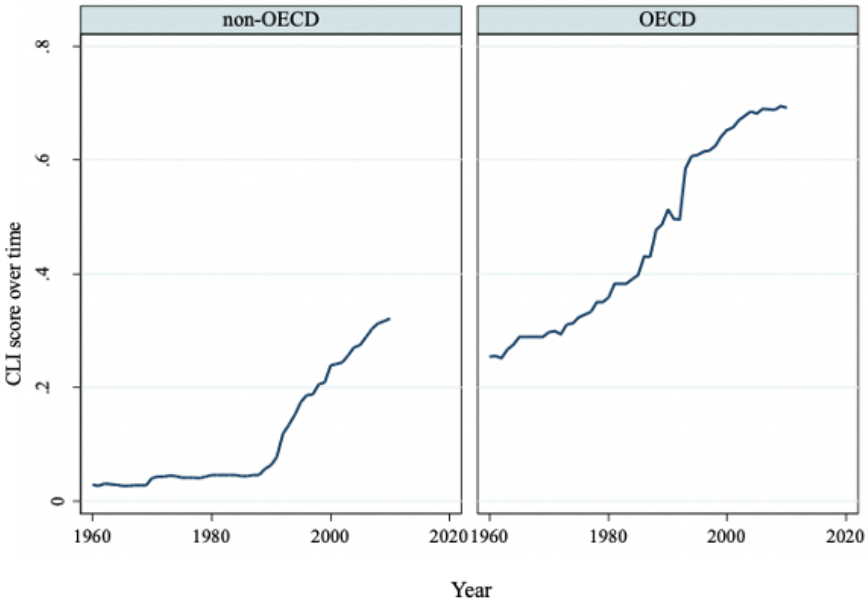
[136] OECD, 'Competition Law in Asia-Pacific, A Guide to Selected Jurisdictions', (2018) OECD/Korea Policy Centre Competition Programme; Fair Trade Authority of Curaçao (2020), About the FTAC, <http://www.ftac.cw/en/about-the-ftac/>; Ministry of Commerce, R., Establishment of Myanmar Competition Commission' (2020), <http://www.commerce.gov.mm/en/article/myanmar-competition-commission-mmcc>.

[137] R. Nazzini, G. Carovano, 'Addressing the 'kill zone' of antitrust enforcement without 'killing legal certainty' (2020) Competition Law and Policy Debate.

[138] A. Bradford & A.S. Chilton, 'Competition law around the world from 1889 to 2010: The competition law index.' (2018) Journal of Competition Law & Economics, 14(3), 393-432. (The index was compiled by Bradford & Chilton and encompasses almost all of the countries in the world that enacted competition laws between 1889-2010. Notably though, the index does not measure enforcement trends or *de facto* enforcement powers but merely focuses on the legal texts.)

Figure 1 also shows that as countries become more developed, their competition laws tend to expand in scope.[139]

Figure 1: CLI Index in non-OECD vs OECD



Source: A. Zac, C. Casti, C. Decker, A. Ezrachi, 'Competition law and income inequality: a panel data econometric approach', Working paper CCLP(L)52.

Consequently, the more enforcing jurisdictions there are and the more they differ from one another, the greater the need (and hopefully the demand) for international co-operation since greater also are the chances of misalignment, divergence, and conflicting enforcement decisions.[140]

3.3. The demand for international co-operation and the provided answers: informal vis-à-vis formal co-operation

The proliferation of national competition regimes or their expansion, together with the globalisation and digitalisation of most markets, has led to an increased demand for effective

[139] A. Zac, C. Casti, C. Decker, A. Ezrachi, 'Competition law and income inequality: a panel data econometric approach', Working paper CCLP(L)52,: < https://www.law.ox.ac.uk/sites/default/files/migrated/working_paper_-_competition_law_and_income_inequality.pdf>.

[140] OECD, 'Challenges of International Co-operation in Competition Law Enforcement' (OECD 2014) <http://www.oecd.org/daf/competition/Challenges-Competition-Internat-Coop-2014.pdf>.

international competition co-operation. Against this backdrop, there has been improvement since the 1990s, especially through informal channels which include all forms of co-operation not formalised in any sort of agreement having legal value. It usually consists of telephone or video-calls, face-to-face meetings, emails, webinars, and conferences both virtual and in-person.[141]

Notably, informal co-operation is the most frequently used type as it is more immediately accessible and not limited by legal procedures. Accordingly, informal co-operation helps substantially in synchronising cross-jurisdictional investigations by facilitating dialogue and coordination on investigative tactics, witness evaluations, market details, mutual disclosure of leads, and comparison of methodology.[142] Knowledge and mutual understanding are both gained through the sharing of non-confidential details.

Informal co-operation, for instance, led to the opening of the *Lysine* Brazilian case, which started following CADE staff becoming aware of the US DOJ's investigation during a conference in Washington. As the US *Lysine* prosecution was already public, the US DoJ provided the Brazilian authorities with documents and leads.[143] Equally, informal co-operation proved essential for co-ordinating investigations and carrying out simultaneous dawn raids in relation to a cartel involving freight forwarding companies between the US DoJ, the EC, and Competition Commission of South Africa (CCSA).[144] In merger enforcement, equally, Chilean and Brazilian agencies informally exchanged experiences and expertise on

[141] OECD, 'Roundtable on improving international co-operation in cartel investigations' (2012) DAF/COMP/GF(2012)16 <http://www.oecd.org/daf/competition/ImprovingInternationalCooperationInCartelInvestigations2012.pdf>.

[142] For a few examples of cases facilitated by informal co-operation see: *ACCC v Bridgestone Corporation & Ors* [2010] FCA 584; *U.S. v. Bridgestone Corp., Criminal No.* H-11-651; *R v. Whittle, Allison, and Brammar*, [2008] EWCA Crim. 2560, [2009] Lloyd's Rep. FC 77); De Araujo Tavares, 'The Brazilian Experience on International Cooperation in Cartel Investigation' (2002) Working Paper 5-7.

[143] OECD, Roundtable on improving international co-operation in cartel investigations', (2012) DAF/COMP/GF(2012)16, <http://www.oecd.org/daf/competition/ImprovingInternationalCooperationInCartelInvestigations2012.pdf>.

[144] South Africa's written contribution to the 2008 OECD 'Roundtable on Cartel Jurisdictional Issues', Including the Effects Doctrine', (2008) DAF/COMP/WP3/WD(2008)92 (unpublished) and to the 2012 OECD Global Forum on Competition, (2012) DAF/COMP/GF/WD(2012)51.

methodologies for estimating the effects arising from the LAN (Chile)/TAM (Brazil) airlines merger and sought reciprocal advice on remedies.[145]

Informal co-operation is also facilitated by multinational organisations, such as the ICN, UNCTAD, OECD, and WTO. Despite these organisations not having enforcement powers, they enhance coherence in competition policies worldwide by creating opportunities for competition agencies to build personal relationships,[146] share common challenges, and develop joint solutions.[147]

Despite its benefits, informal co-operation is unstable as it is often contingent on the personal relationship between competition agencies' individual officers.[148] Moreover, as it is limited to non-confidential matters, this restricts its ability to facilitate enhanced forms of international co-operation involving the sharing of confidential information or collection of evidence on behalf of other peers. Accordingly, informal co-operation only provides limited returns in terms of facilitating access to evidence and reducing the cost of law enforcement.

In contrast, formal co-operation generally demonstrates a deeper desire to work constructively with foreign peers within an agreed institutionalised framework. This kind of co-operation can take multiple forms, which will now be discussed in turn along with their respective pros and cons.

3.3.1. National laws

National laws may sometimes provide a legal basis for enabling international competition co-operation. Such national provisions are of two types: those that are competition law-specific and those that promote general law enforcement co-operation. An example of the former is Article 30(11) of the Croatian Competition Act, which allows the Croatian Competition Council

[145] Contribution from Chile to the UNCTAD Round Table on Cross-Border Anticompetitive Practices: The Challenges for Developing Countries and Economies in Transition, twelfth session of the Intergovernmental Group of Experts on Competition Law and Policy (2012).

[146] E.g. OECD Global Forum on Competition or the ESCWA-UNCTAD-OECD Mena Competition Forum

[147] To give a sense of some of the wide range of challenges digitalisation presented for competition enforcers that have been discussed within the OECD Competition Committee, see, among others, OECD roundtables on: (i) Merger control in dynamic markets; (ii) Digital disruption in financial markets; (iii) Quality consideration in the zero-price economy; (iv) Non-price effects of mergers (v) Personalised pricing in the Digital Era, all accessible at: <http://www.oecd.org/competition/roundtables.htm>.

[148] G. Deniz Both, 'Drivers of International Cooperation in Competition Law Enforcement', (2015), *World Competition*, 38(2), pp. 301-319.

to co-operate with international peers and organisations and facilitate the conclusion by the Republic of Croatia of international commitments or projects of transnational economic integrations.[149] Contrarily, an example of general provisions is Article 226 of the Political Constitution of Colombia, which expressly mentions the State's responsibility to promote 'the internationalization of political, economic, social and ecological relations on the basis of equity, reciprocity and national convenience'.[150]

As well as those, some jurisdictions also enjoy specific competition provisions that allow for deeper forms of international competition co-operation (e.g., exchange of confidential information, enhanced investigative assistance). These provisions can either lead to information gateways or empower competition authorities to enter into second-generation agreements. Despite their theoretical potential, they have resulted in being of marginal practical utility.

Information gateways are rarely adopted and utilised.[151] Out of almost 140 jurisdictions with a competition regime, only five have information gateways in place, they are Australia,[152] New Zealand,[153] Canada,[154] the United Kingdom,[155] and Germany.[156] Moreover, some of the existing gateways require conditions limiting their practical utilisation. For instance, the New Zealand information gateway necessitates that an intergovernmental or inter-authority agreement be in place as a condition for its utilisation. Similarly, the sharing of confidential information outside the EU is allowed by paragraph §50e of the German Competition Act only on condition that it is based on a waiver from the source of information.[157]

Similarly, provisions enabling competition agencies to enter into second-generation agreements are rare and scarcely used. The United States is an example of a jurisdiction that

[149] The competition act, 2009,<https://www.aztn.hr/uploads/documents/eng/documents/COMPETITION_ACT_2009.pdf>. Other examples of jurisdictions with competition-specific national provisions relating to co-operation are the Czech Republic, Estonia, France, and Germany.
[150] Equally, examples of other jurisdictions with general national laws promoting international co-operation in all government activities include Colombia and Ecuador.
[151] OCED-ICN, 'Report on International Co-Operation in Competition Enforcement' (2021).
[152] Section 155AAA of the Australian Competition and Consumer Act.
[153] Section 99I, and 99J Commerce Amendment Act 2012.
[154] Section 29 of the Canadian Competition Act.
[155] Section 243, UK Enterprise Act 2002.
[156] German Competition Act,(§50e).
[157] *Ibid*.

has this type of provision, but it has so far only been used to conclude one agreement with Australia.[158] Another example is the Republic of Ireland, though it has never entered into a second generation agreement thus far.[159]

Therefore, unilateral national provisions have not proved an effective medium to vehiculate international competition co-operation.

3.3.2. Rogatory letters

Rogatory letters enable competition authorities to request assistance from foreign peers. They are formal requests for foreign courts to carry out a judicial act, such as taking evidence or serving a legal notice. Notably, the receiving courts are not required to comply, but may do so under certain circumstances, such as when the request is consistent with the laws and procedures of the receiving country.

Despite their existence, rogatory letters have seldom been used and only then as a last resort option due to their time-consuming, inefficient, and burdensome procedures. In some cases, receiving countries demand the requests to be submitted through diplomatic channels, thereby further complicating the procedure both in terms of time and resources. Barring a few exceptions, such as the German assistance in the US investigation into bid rigging for USAID-funded projects, rogatory letters remain an extremely rarely used instrument for enabling international competition co-operation. [160]

3.3.3. Mutual legal assistance treaties (MLATs)

Differently from rogatory letters, mutual legal assistance treaties (MLATs) constitute a more structured mechanism of international co-operation. MLATs are inter-governmental bilateral agreements that are not specific to competition law and entail reciprocal obligations between the signatories. Accordingly, MLATs are a potent means of international competition co-operation as they bind the parties to assist each other and enable a wide-ranging array of

[158] US FTC, International Antitrust Enforcement Assistance Act, (1994), <https://www.ftc.gov/enforcement/statutes/international-antitrust-enforcement-assistance-act-1994>.
[159] Irish Competition and Consumer Protection Act, Section 23.
[160] S. Hammond, Assistant Attorney General in charge of Criminal Affairs, Antitrust Division, Department of Justice of the United States, A review of Recent Cases and Developments in the Antitrust Division's Criminal Enforcement Program, speech given at the Antitrust Conference: Antitrust Issues in Today's Economy, (7 March 2002).

legal assistance services, including compulsory evidence gathering and searches of domestic and business premises.[161] Co-operation requests can be refused only when compliance would jeopardise strategic national interests, national security, or prejudice national investigations.

The *Plastic Dinnerware* and *Thermal Fax Paper* cases are exemplary instances of successful international competition co-operation enabled by MLATs. In the *Plastic Dinnerware* case, the US DoJ sought the assistance of the Canadian Competition Bureau (CCB) to execute simultaneous search warrants and the shared documentation was used without seeking confidentiality waivers from the investigated parties, given that the sharing was ordered by Court subpoenas under the US-Canada MLAT.[162] In *Thermal Fax Paper*, following up an alert by the CCB to the US DoJ of a cartel impacting both markets, the two authorities jointly interviewed witnesses, shared documents acquired through subpoenas, search warrants, and plea agreements of foreign defendants, and analysed the gathered material.[163]

Yet, despite their advantages, MLATs have proved ineffective in enhancing international competition co-operation for several reasons. First, some MLATs exclude competition law matters from their scope of application as is the case with the Switzerland-US MLAT.[164] Second, most MLATs condition co-operation on competition infringements' criminalisation in both of the co-operating jurisdictions (so-called 'dual criminality requirement'). Consequently, since most jurisdictions do not qualify antitrust infringements as criminal offences or criminalise only a sub-part of them, MLATS remain of scarce utility.[165]

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[161] E.g., see the Agreement between the Government of the United States of America and the Government of Australia on Mutual Antitrust Enforcement Assistance, <https://www.justice.gov/sites/default/files/atr/legacy/2015/01/15/311076.pdf>.

[162] US DoJ, Antitrust Division breaks price fixing conspiracy in disposable plastic dinnerware industry, 1994, <https://www.justice.gov/archive/atr/public/press_releases/1994/211853.htm>; *Plastic Dinnerware Price Fixing Probe Nets Indictment, Guilty Plea Agreements*, 66 Antitrust & Trade Reg. Rep (BNA) 661 (1994).

[163] *US and Canadian Prosecutors Attack Cartel Behaviour by Fax paper Distributors*, 67 Antitrust & Trade Reg. Rep (BNA) 108 (1994). At trial, however, the Japanese government complained against U.S. extraterritorial application of its criminal jurisdiction for actions that occurred outside its territory under international law.

[164] See the 1973 US-SWITZERLAND MLAT, Bern, May 25, 1973, and entered into force on January 23, 1977. Notably, also the 1994 US-UK MLAT originally excluded competition matters from its scope of application. The exclusion, however, was removed in 2001.

[165] R. Powers, The State of Criminal Antitrust Enforcement in 2020, (2020), <https://www.justice.gov/opa/speech/deputy-assistant-attorney-general-richard-powers- delivers-remarks-state-criminal>; F. Ducci, Cartel Criminalization in Europe: Addressing Deterrence and Institutional Challenges, *Vanderbilt Journal of Transnational Law*, (2018), Vol. 51/1; L. Morphet, N. Hlatshwayo, South Africa: The Criminalisation of Cartel Conduct, *Journal of European Competition Law & Practice*, (2017), Vol. 8/1, pp. 36-40; W. Kovacic, et al., Criminal enforcement of competition law: Implications of US experience, *Concurrences*,

Third, since MLATs are not specifically designed for competition enforcement, their effectiveness in enhancing international competition co-operation is further undermined by the divergent investigatory powers and procedures existing across different jurisdictions. Significantly, some jurisdictions require evidence collected and exchanged under MLATs to respect the rights of defence in the requesting jurisdiction to be validly used. Moreover, some investigatory methods, such as the interception of private communications,[166] while permissible in the requesting jurisdiction, might not be so in the requested one. Therefore, procedural differences might further hamper MLATs utilisation in competition proceedings.

Fourth, the common need to involve courts or foreign affairs officers in the exchange of information is another obstacle hindering MLATs' utility in enhancing international competition co-operation. Since MLATs operate through criminal justice enforcement channels, this adds complexity in co-operation procedures and renders them less efficient. Lastly, legal challenges to the information obtained under MLATS can further disincentivise their utilisation.[167] Importantly, these challenges are particularly daunting for less developed and emerging countries.[168]

3.3.4. Extradition treaties

Along with MLATs, extradition treaties can also be deployed to facilitate international competition co-operation.[169] This solution was first adopted in 1999 when, as a result of a plea agreement, a Swiss executive situated overseas was incarcerated in the U.S. for

(2016), Vol. N° 2-2016/Art. N° 78515, pp.14-44; K&L Gates, Russian Competition Regulators, Mount Up: Russian Authorities Crack Down on Anti-Competitive Agreements With Uptick in Criminal Liability for Antitrust Violations, (2020), https://www.jdsupra.com/legalnews/russian-competition-regulators-mount-up- 44910/; C. Harding, Hard Core Cartel Conduct as Crime: The Justification for Criminalisation in the European Context, *New Journal of European Criminal Law*, (2012), Vol. 3/2, pp. 139-153; OECD, Cartel Sanctions against Individuals, (2003), https://www.oecd.org/competition/cartels/34306028.pdf.

[166] See, for example, CMS (2015), Dutch Court of Appeal allows the use of wiretaps by competition watchdog, <https://www.cms-lawnow.com/ealerts/2015/07/dutch-court-of-appeal-allows-the-use-of-wiretaps-by-competition-watchdog?cc_lang=fr>.

[167] See for example the arguments put forward in Canada regarding transmission of seized records to the US pursuant to the Canada-US MLAT in *Canada (Commissioner of Competition) v. Falconbridge Ltd*. [2003] O.J. No. 1563 (Ont. C.A.).

[168] Contribution by Brazil to UNCTAD's Seventh Session of the Intergovernmental Group of Experts on Competition Law and Policy on 'Recent experience with international co-operation', (2006).

[169] W. Kovacic, et al., Criminal enforcement of competition law: implications of US experience, *Concurrences*, (2016), Vol. N° 2-2016/Art. N° 78515, pp.14-44.

participating in a global vitamin cartel.[170] Since then, extradition orders against foreign infringers have been primarily sought by the U.S.[171] which, after failing with Mr. Norris in 2005,[172] successfully extradited Mr. Pisciotti, an Italian national, from Germany for contributing to rigging bids, fixing prices, and allocating market shares of marine hoses sold in the U.S.[173]

Yet, despite some rare occurrences,[174] extradition treaties have proved ineffective for enhancing international competition co-operation due to several factors. First, they necessitate the dual criminality requirement as do some MLATs. Whereas Mr. Pisciotti's extradition was successful because bid-rigging is a criminal offence in Germany,[175] the failed extradition of Mr. Norris was due to the fact that at the time of the alleged offence, price fixing was not yet a criminal offence in the UK.[176] Second, the extraterritorial application of criminal provisions raises aversion by the receiving jurisdictions. Third, extradition treaties only enable limited forms of international competition co-operation.[177] Fourth, since the extradition processes involve court proceedings in the country receiving the request, they are costly and prolong litigation. Moreover, if custodial sentences are available, incentives for

[170] S. Hammond, 'The Evolution Of Criminal Antitrust Enforcement Over The Last Two Decades', (2010), <https://www.justice.gov/atr/speech/evolution-criminal-antitrust-enforcement-over-last-two-decades>.
[171] D. Ginsburg, C. Cheng, 'The Decline in U.S. Criminal Antitrust Cases: ACPERA and Leniency in an International Context', (2019), *George Mason Law & Economics Research Paper*, Vol. No. 19-31, p. 20.
[172] *Norris v Government of the United States of America and others*, [2008] UKHL 16.
[173] DoJ, 'First Ever Extradition on Antitrust Charge', April 2014, https://www.justice.gov/opa/pr/first-ever-extradition-antitrust-charge; Case C-191/16, *Romano Pisciotti v Bundesrepublik Deutschland*, Judgment of 10 April 2018, ECLI:EU:C:2018:222.
[174] *United States v. Hui Hsiung, 778 F.3d 738 (9th Cir. 2015) cert. denied, 135 S. Ct. 2837, 192 L. Ed. 2d 875 (2015);* DoJ, 'More Charges Announced in Ongoing Investigation into Bid Rigging and Fraud Targeting Defense Department Fuel Supply Contracts for U.S. Military Bases in South Korea - Two Additional Companies Agree to Plead Guilty and Enter into Civil Settlements; Indictment Against Seven Individuals Unsealed', March 2019, <https://www.justice.gov/opa/pr/more-charges-announced-ongoing-investigation-bid-rigging-and-fraud-targeting-defense>.
[175] Section 298 of the German Criminal Code.
[176] *Norris* v *Government of the United States of America and others* [2008] UKHL 16. The ruling, however, does not preclude extradition applications for price fixing that occurred after price fixing was made a statutory crime in Britain under the 2002 Enterprise Act. Nevertheless, it is also worth noting that extradition requests against cartel offenders may sometimes be granted if grounded on other crimes linked to cartel offences, even when cartel offences are not criminally punished in themselves. In this sense, see P. Girardet, 'What if Uncle Sam Wants You?: Principles and Recent Practice Concerning US Extradition Requests in Cartel Cases', (2010) 1 *Journal of European Competition Law & Practice* 286. In fact, it seems that so far extraditions to the United States solely based on an antitrust charge have occurred in only three cases (see DoJ, 'Extradited Former Automotive Parts Executive Pleads Guilty to Antitrust Charge', March 2020, <https://www.justice.gov/opa/pr/extradited-former-automotive-parts-executive-pleads-guilty-antitrust-charge>).
[177] E.g., extradition treaties do not allow for enhanced comity.

fugitives to self-surrender are low, as was the case with Ms Ullings, a Dutch national who remained a fugitive for almost a decade before being extradited to the US for her involvement in an international air cargo shipments cartel.[178]

3.3.5. Standalone competition agreements

Standalone competition agreements aim exclusively to improve competition co-operation and can occur either between governments or competition agencies of two or more jurisdictions not necessarily belonging to the same geographic region.[179]

Since the first bilateral agreement between Germany and the US in 1976,[180] the number of standalone competition agreements, especially in the form of bilateral inter-agency agreements (so-called Memorandum of Understanding (MoU), has dramatically increased.[181]

Yet, although MoUs are the most common type of model agreement, since most of them are soft law instruments, they cannot override any national provision restricting, obstructing, or slowing down enhanced forms of co-operation. Accordingly, MoUs have demonstrated limited utility in boosting international competition co-operation.[182]

A noteworthy recent development has been the rise of so-called 'second-generation agreements' which, differently from 'first-generation agreements',[183] allow exchanges of

[178] DoJ, 'Former Air Cargo Executive Extradited From Italy for Price-Fixing', January 2020, <https://www.justice.gov/opa/pr/former-air-cargo-executive-extradited-italy-price-fixing>. Similarly, in March 2020, the DoJ secured the extradition from Germany of a Korean national who engaged in a cartel in the automotive parts sector and was a fugitive for almost five years (see DoJ, 'Extradited Former Automotive Parts Executive Pleads Guilty of Antitrust Charge', March 2020, https://www.justice.gov/opa/pr/extradited-former-automotive-parts-executive-pleads-guilty-antitrust-charge).

[179] Among others, take the case of the Memorandum of Understanding Between the Competition Authorities of Federative Republic of Brazil, Russian Federation, Republic of India, People's Republic of China and Republic of South Africa on Co-operation in the Field of Competition Law and Policy, <http://www.cade.gov.br/noticias/autoridades- antitruste-do-brics-ampliam-colaboracao-e-declaram-parceria-para-combater-efeitos-da-crise-de-covid-19- na-economia/brics-mou-en.pdf>.

[180] 'Agreement Between the Government of the United States of America and the Government of the Federal Republic of Germany Relating to Mutual Cooperation Regarding Restrictive Business Practices' (23 June 1976) 4 Trade Reg. Rep. (CCH) 13501.

[181] OECD, 'inventory of international co-operation agreements on competition' <http://www.oecd.org/daf/competition/inventory-competition-agreements.htm>; OECD, 'inventory of international co-operation agreements between competition agencies' (MoUs), <http://www.oecd.org/daf/competition/inventory-competition-agency-mous.htm>.

[182] OCED-ICN, 'Report on International Co-Operation in Competition Enforcement' (2021), p.33.

[183] Agreements that only allow the exchange of either non-confidential or previously authorised confidential information. OECD, 'Inventory of co-operation agreements' DAF/COMP/WP3(2015)12/REV1, (2015) <https://one.oecd.org/document/DAF/COMP/WP3(2015)12/REV1/en/pdf>

confidential information under certain circumstances without the need to seek prior consent from the information source.[184] Second generation agreements can also extend beyond regional networks. One such example is the Multilateral Mutual Assistance and Cooperation Framework (MMAC) signed in 2020 by Australia, Canada, U.K., US and New Zealand.[185]

These agreements surpass first-generation agreements under several dimensions. First, they often go beyond allowing information exchange and include advanced forms of investigative assistance. The Model Agreement part of the MMAC, for instance, creates a mechanism for the handling of advanced requests for investigative assistance. It sets out instructions for making and responding to such requests and how information should be treated and costs distributed if such requests are executed.[186] Second, they may include mechanisms for constant consultation and dialogue. Third, second-generation agreements may enable the recognition of foreign decisions and orders.

Some second-generation agreements are already demonstrating their potential. One such example is the investigation opened in September 2022 by the Swiss Competition Commission ('COMCO') against Novartis for unlawfully acquiring certain patents to tactfully protect its blockbuster psoriasis treatment drug from competition. As the EC simultaneously issued a request for information against Novartis, the two authorities are collaborating on the investigation pursuant to the 2013 EU-Switzerland second-generation agreement.[187]

However, despite marking a significant evolution, second-generation agreements have not enhanced international competition co-operation to a significant extent. First, because their relevance is still marginal. According to OECD's data, indeed, the number of signed second-

[184] V. Demedts, *Second Generation Agreements: Ignoring Crucial Issues, in The Future of International Competition Law Enforcement* (Brill 2018).

[185] ACCC, Multilateral Mutual Assistance and Cooperation Framework for Competition Authorities (MMAC) Memorandum Of Understanding. (2020) <https://www.accc.gov.au/system/files/MMAC%20-%20FINAL%20English%20-%202%20September%202020%2811501052.1%29.pdf>.

[186] Moreover, it is worth noting that while the MMAC relates only to co-operation as concerned with competition matters, it does allow for parties to make agreements beyond this. In this sense, Clause 4.4 of Framework 2 permits parties to include additional matters when negotiating agreements based on the Model Agreement.

[187] S. Harwood, 'Under the antitrust spotlight:patent litigation', 2022, <https://www.shlegal.com/insights/under-the-antitrust-spotlight-patent-litigation>.

generation co-operation agreements is still minimal[188] as is that of those under negotiation.[189] Second, these agreements are not free of deficiencies. For instance, the 2013 EU-Switzerland second-generation co-operation agreement only enables information exchanges in cases simultaneously investigated by both jurisdictions. Conversely, the agreement is of no utility in cases prosecuted by only one jurisdiction.[190] Third, second-generation agreements' traditional bilateral nature is ineffective in promoting sufficient international competition co-operation in highly globalised markets, as it is unfeasible for individual authorities to build bilateral relationships with all global peers due to resource constraints. Such a limitation explains the EU's past desire to promote multilateral solutions.[191]

3.3.6. Regional integration arrangements, regional trade agreements, and regional competition co-operation frameworks

While bilateral agreements' limitations have become more evident in recent decades,[192] multilateral solutions have proved more effective and thus have been preferred for vehiculating international competition co-operation.[193] Accordingly, regional integration arrangements (RIAs) and regional trade agreements (RTAs) have played an increasingly prominent role.

RTAs are multilateral trade agreements that differ from Free Trade Agreements (FTAs), negotiated bilaterally between individual countries, and Plurilateral Trade Agreements (PTA), negotiated between one country and a group of countries. RIAs, instead, are a residual grouping recently created for clustering all those arrangements allowing deeper economic

[188] According to OCED-ICN, 'Report on International Co-Operation in Competition Enforcement' (2021) only seven second generation co-operation agreements have been signed thus far: (i) Australia-US (1999); (ii) New Zealand-Australia (2013); (iii) EU–Switzerland (2013); (iv) Australia-Japan (2015); (v) Canada-New Zealand (2016); (vi) Denmark-Finland-Iceland-Norway-Sweden (2017); (vii) MMAC (2020).

[189] According to OCED-ICN, 'Report on International Co-Operation in Competition Enforcement' (2021) only three second generation co-operation agreements were under negotiation: EU-Japan, EU-Canada, and EU-Korea.

[190] M. Martyniszyn, 'Inter-Agency Evidence Sharing in Competition Law Enforcement', 19(1) *International Journal of Evidence and Proof* 11 (2015).

[191] European Commission, Competition Policy in the New Trade Order: Strengthening International Co-operation and Rules. Report of the Group of Experts, COM(95) 359 final (12 July 1995), para 12.

[192] OECD-ICN, 'Report on International Co-Operation in Competition Enforcement' (2021).

[193] In this sense, the OECD-ICN, 'Report on International Co-Operation in Competition Enforcement.' (2021) noted that 'regional relationships and networks are still the source of the most frequent enforcement co-operation for many authorities'. The same report also noted that 'The need for effective co-operation could outstrip the ability of existing bi-lateral mechanisms to cope'.

and/or legal integration despite neither being RTAs, FTAs, or PTAs.[194] Unlike standalone competition agreements, the primary goal of RIAs or RTAs is to deliver regional economic integration, and enhanced competition co-operation is just one of the many related policies underpinning them. Furthermore, RIAs and RTAs go beyond simply entailing supranational competition co-operation, as they often also homologate substantive competition policies and laws.

Existing RIAs/RTAs operating worldwide incorporate competition provisions that vary considerably in terms of both scope and substance. While some simply require the adoption of competition legislation (e.g., the EU/Egypt Association Agreement), others impose detailed regional competition provisions that adhering parties must comply with (e.g., the EU, WAEMU, etc.). Generally, the more detailed RIAs/RTAs' competition provisions are, the deeper the economic integration they seek to achieve.

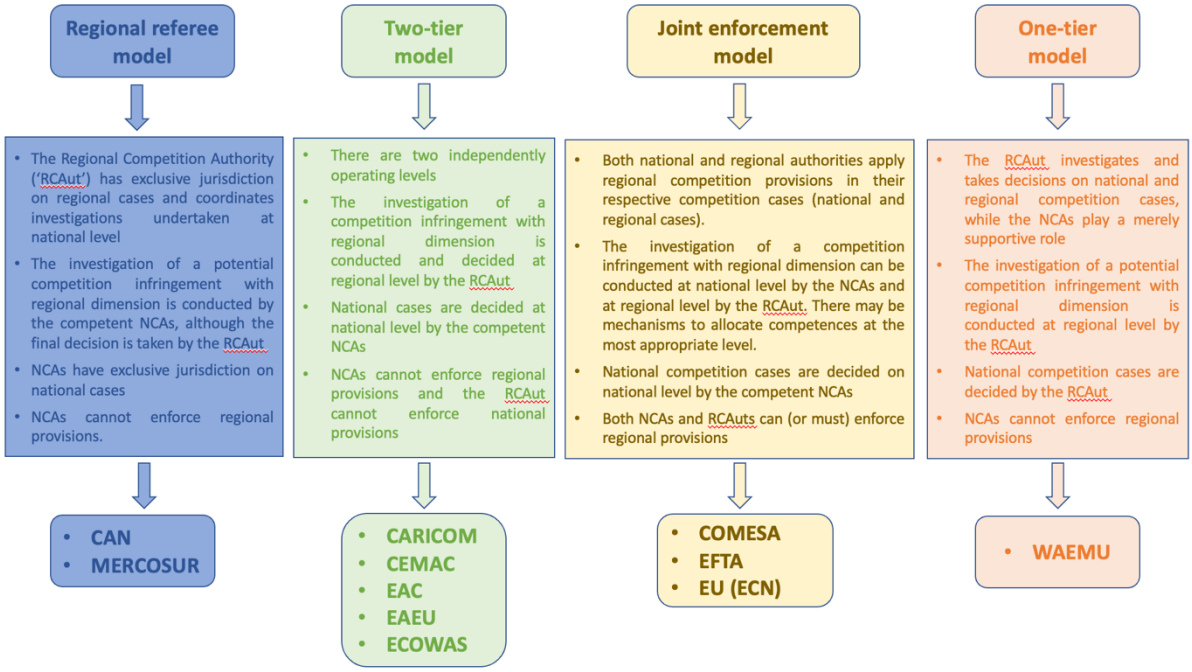
Focusing on international competition co-operation, RIAs/RTAs may provide a wide-array of frameworks with differing degrees of flexibility (e.g., co-operation may be declined for reasons of national security or strategic national interests). Conventionally, flexibility diminishes in RIAs/RTAs establishing regional competition regimes, as compliance with regional rules is key to the regional economic integration remaining viable. RIA/RTA-based competition co-operation frameworks may include mechanisms for mutual notification of anticompetitive behaviours, information exchange, and enhanced investigatory assistance (such as parallel investigations, gathering evidence for foreign peers, negative[195] and positive[196] comity).

Examples of the most successful RIA/RTA-enabled multilateral competition co-operation frameworks (MCCF) include the European Competition Network (ECN); the Andean Community (CAN); the Caribbean Community (CARICOM); the West African Economic and

[194] OCED-ICN, 'Report on International Co-Operation in Competition Enforcement,' (2021), p. 103-105. Examples of RIAs are the Trans-Tasman economic co-operation and the European Competition Network.
[195] Negative comity occurs when an acting jurisdiction takes into account the interests of partner jurisdictions in national enforcement actions.
[196] Positive comity occurs when a jurisdiction starts or expands an investigation at the request of a partner jurisdiction.

Monetary Union (WAEMU); and the Eurasia Economic Union (EAEU).[197] **Figure 2** illustrates the multiple options used for structuring existing regional competition co-operation frameworks.

Figure 2: Different regional competition co-operation frameworks



Source: Infographic as realised by the author by leveraging the work done by OECD, 'Regional competition Agreements: Benefits and Challenges' (2018).

Compared to bilateral solutions, RIA/RTA-enabled MCCFs allow for greater integration and deeper forms of co-operation.[198] Notably, they spur on the adoption or improvement of competition provisions, enable procedural and substantial convergence, simplify information exchange, allow enhanced forms of investigating assistance as well as the development of

[197] OECD, 'Regional competition agreements - inventory of provisions in regional competition agreements' (*OECD*, 2018) <https://one.oecd.org/document/DAF/COMP/GF(2018)12/en/pdf>.

[198] In this sense, see M.S. Gal, 'Regional competition law agreements: an important step for antitrust enforcement.' (2010) University of Toronto Law Journal 60(2) 239-261.

competition enforcement economies of scale, so to speak, which are particularly important for developing and emerging countries[199] and build capacity for less experienced agencies.[200]

However, despite RIA/RTA-enabled MCCFs' theoretical potential, they also suffer several limitations. Firstly, their application is limited to intra-regional competition enforcement co-operation, which is unsatisfactory from a global perspective. Secondly, most of the existing MCCFs did not deliver in terms of enforcement practice[201] as confirmed, for instance, by the negligible degree of enforcement practice realised in MCCFs such as CAN, CARICOM, MERCOSUR, and WAEMU (see further Chapter **4**). Indeed, the extent to which MCCFs' benefits materialise depends on a multitude of factors not all endogenous to competition proceedings.[202] Yet, despite their dissatisfying enforcement results, MCCFs are nevertheless beneficial, especially for developing countries, due to their knock-on effects of propagating a competition culture and promoting capacity building.[203]

3.4. International co-operation accomplishments in competition enforcement

Due to the remarkable work done by international organisations and the multitude of legal instruments enabling competition co-operation that have arisen over time, the number of enforcement cases experiencing some form of international co-operation has registered a growing trend (**Figure 3**). Unsurprisingly, merger and cartel cases saw the highest levels of international co-operation, as shown by **Figure 3**.

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[199] OECD, 'Roundtable on benefits and challenges of regional competition agreements' DAF/COMP/GF(2018)5 (*OECD*, 29 September 2018) <https://one.oecd.org/document/DAF/COMP/GF(2018)5/en/pdf>; OECD, 'Roundtable on Improving International Co-operation in Cartel Investigations' (DAF/COMP/GF(2012)16), referring to M.S. Gal 'International antitrust solutions: Discrete steps or causally linked?' in Drexl et al (eds), *More Common Ground for International Competition Law* (Cheltenham, Edward Elgar 2010).

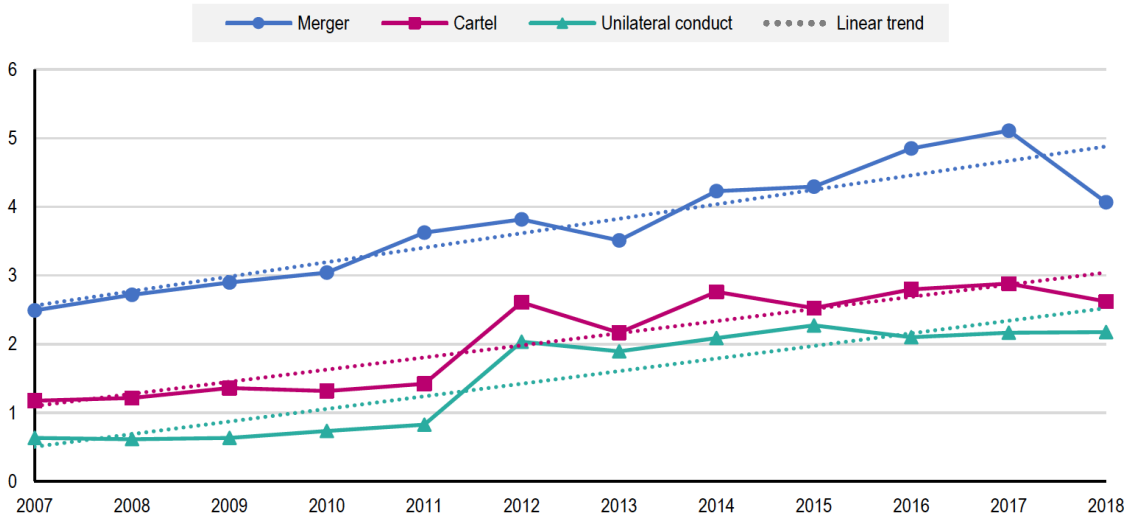
[200] OECD, 'Roundtable on benefits and challenges of regional competition agreements' (DAF/COMP/GF(2018)5 (*OECD*, 29 September 2018) <https://one.oecd.org/document/DAF/COMP/GF(2018)5/en/pdf>.

[201] OCED-ICN., 'Report on International Co-Operation in Competition Enforcement', (2021); OECD, 'Roundtable on benefits and challenges of regional competition agreements' (DAF/COMP/GF(2018)5, (2018); A.M. Alvarez, J. Clarke, V. Silva, 'Lessons from the negotiation and enforcement of competition provisions in South-South and North-South RTAs', in Brusick, Alvarez, Cernat (eds), UNCTAD Competition Provisions in Regional Trade Agreements: How to Assure Development Gains, (2005).

[202] OECD, 'Roundtable on benefits and challenges of regional competition agreements' (DAF/COMP/GF(2018)5, (2018). See also Chapter 4 below for a comparative analysis of the factors influencing regional competition co-operation frameworks' success.

[203] A.M. Alvarez, J. Clarke, V. Silva, 'Lessons from the negotiation and enforcement of competition provisions in South-South and North-South RTAs', in Brusick, Alvarez, Cernat (eds), UNCTAD Competition Provisions in Regional Trade Agreements: How to Assure Development Gains, (2005).

Figure 3: Average number of cases involving international enforcement co-operation by enforcement area (2007-2018)



Source: OCED-ICN, 'Report on International Co-Operation in Competition Enforcement' (2021).

Following *Boeing/McDonnell Douglas (1997)*[204] and *GE/Honeywell (2001)*[205] merger enforcement was substantially synchronised as a broad consensus over methodology and greater convergence over theories of harm and substantive analysis emerged. Moreover, thanks to the institution of the ICN and the simultaneous surge in informal co-operation, competition agencies working on multijurisdictional transactions began to consult frequently, align timelines,[206] and exchange information through waivers or information gateways.

As a result, it is significant that multiple competition authorities around the world have, among others: **(i)** coordinated remedies in *Nufarm/AH Marks (2011)*;[207] *NXP/Freescale(2015);*

[204] *Boeing/McDonnell Douglas*, Case IV 877, 1997 O.J. (L336) 16 (8 Dec. 1997).
[205] Case no. COMP/M.2220, General Electric/ Honeywell (3 Jul. 2001) and Case -210/01, General Electric Co v. Commission, [2005] ECR II-5575.
[206] *Bayer/Monsanto (2018)* as this case was particularly challenging considering the misalignment of the timetables. See the US DOJ, (*Justice.gov*, 2018) <https://www.justice.gov/opa/pr/justice-department-secureslargest-merger-divestiture-ever-preserve-competition-threatened>.
[207] US FTC, FTC Order Restores Competition in U.S. Markets for Herbicide Products, 2010, <https://www.ftc.gov/news-events/press-releases/2010/07/ftc-order-restores-competition-us-markets-herbicide-products>; ACCC, Nufarm Limited – Completed acquisition of AH Marks Holdings Limited,2009, <https://www.accc.gov.au/public-registers/mergers-registers/public-informal-merger-reviews/nufarm-limited-completed-acquisition-of-ah-marks-holdings-limited>; CCB, Competition Bureau requires divestitures in herbicide merger, 2010, <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03264.html>; CMA, OFT closed case: Completed acquisition by Nufarm Limited of AH Marks Holdings Limited,2008, <https://www.gov.uk/cma-cases/nufarm-ltd-a-h-marks-holdings-ltd-oft>.

GE/Alstom (2015); GTCR/PR Newswire (2016)[208]*; Abbott Laboratories/Alere (2017)*[209]*; Praxair/Linde (2018)*[210]; (**ii**) applied the comity principle in *Cisco/Tandberg (2010)*[211]; *Continental AG/Veyance Technologies (2014)*[212]*; Dow/DuPont (2017)*[213]*;* (**iii**) appointed a common monitor trustee in *General Electric/InVision Technologies Inc.(2004)*[214]; *Agilent Technologies/Varian, Inc. (2010)*[215]; (**iv**) approved a common third buyer in *Baxter*

[208] US DoJ , GTCR Agrees to Divest Third Largest Media Contact Database Provider in the U.S. in Order to Proceed With Acquisition of PR Newswire,2016, <https://www.justice.gov/opa/pr/gtcr-agrees-divest-third-largest-media-contact-database-provider-us-order-proceed-acquisition>; CMA, CMA accepts media contact databases merger remedy, 2016,<https://www.gov.uk/government/news/cma-accepts-media-contact-databases-merger-remedy>

[209] US FTC, FTC approves final order preserving competition in the U.S. Markets for two types of medical testing devices, 2017, <https://www.ftc.gov/news-events/press-releases/2017/11/ftc-approves-final-order-preserving-competition-us-markets-two>; EC, Commission approves acquisition of Alere by Abbott Laboratories, subject to conditions, 2017, <http://europa.eu/rapid/press-release_IP-17-147_en.htm>; Canadian Competition Bureau, Competition Bureau statement regarding the acquisition by Abbott of Alere, 2017, <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04308.html>.

[210] US FTC, Linde AG and Praxair, Inc., In the Matter of, 2019, <https://www.ftc.gov/enforcement/cases-proceedings/171-0068/linde-ag-praxair-inc>.

[211] EC, Commission clears Cisco's proposed acquisition of Tandberg subject to conditions, 2010, case M.5669: <http://europa.eu/rapid/press-release_IP-10-377_en.htm>; DoJ, Justice Department will not Challenge Cisco's Acquisition of Tandberg, 2010, <https://www.justice.gov/opa/pr/justice-department-will-not-challenge-cisco-s-acquisition-tandberg>.

[212] Canadian Competition Bureau, Competition Bureau clears Continental's acquisition of Veyance, 2014, <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03862.html>.

[213] EC, Commission clears merger between Dow and DuPont, subject to conditions, 2017, <http://europa.eu/rapid/press-release_IP-17-772_en.htm>; US DoJ, Justice Department Requires Divestiture of Certain Herbicides, Insecticides, and Plastics Businesses in Order to Proceed with Dow-Dupont Merger, 2017, <https://www.justice.gov/opa/pr/justice-department-requires-divestiture-certain-herbicides-insecticides-and-plastics>; CADE, Merger between Dow and DuPont is approved with restrictions, 2017, <http://en.cade.gov.br/press-releases/merger-between-dow-and-dupont-is-approved-with-restrictions>.

[214] US FTC, Preserving Competition, FTC Clears General Electrics $900 Million Acquisition of InVision Technologies, 2004, <https://www.ftc.gov/news-events/press-releases/2004/09/preserving-competition-ftc-clears-general-electrics-900-million>; Bundeskartellamt, Clearance of General Electric/InVision Merger in Close Cooperation with US Competition Authority, 2004, <https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2004/19_08_2004_GE_InVision_eng.html>.

[215] US contribution to the OECD, remedies in cross-border merger cases, 2013, DAF/COMP/WP3/WD(2013)54, <https://www.ftc.gov/sites/default/files/attachments/us-submissions-oecd-other-international-competition-fora/1310merger-remediesus.pdf>; EC, Commission clears proposed acquisition of Varian by Agilent, subject to conditions, 2010, <http://europa.eu/rapid/press-release_IP-10-39_en.htm?locale=en>; Japan FTC, The proposed acquisition of shares of Variant, Inc. by Agilent Technologies, Inc., 2010, <https://www.jftc.go.jp/en/pressreleases/yearly-2010/jun/individual-000018.html>.

International/Gambro (2013)[216]; *Knauf/USG case (2019)*[217]; (**v**) made extensive joint investigative efforts — including exchange of confidential information — in *United Technologies Corporation /Goodrich Corporation (2012)*[218]; *ASML/Cymer (2013); Louisiana Pacific Corporation/Ainsworth Lumber Company Limited (2014)*[219]*; Halliburton/Baker Hughes (2016)*[220]*; Dow/DuPont (2017)*[221]*; Bayer/Monsanto (2018)*[222]; *Horizon Global*

[216] EC, Commission approves acquisition of Swedish medical technology company Gambro by US rival Baxter, subject to conditions, 2013, <http://europa.eu/rapid/press-release_IP-13-724_en.htm>; ACCC, ACCC will not oppose proposed global acquisition of Gambro by Baxter following divestiture remedy, 2013, <https://www.accc.gov.au/media-release/accc-will-not-oppose-proposed-global-acquisition-of-gambro-by-baxter-following-divestiture-remedy>; New Zealand Commerce Commission, Baxter International cleared to acquire Gambro AB subject to a divestment undertaking, 2013, <https://comcom.govt.nz/news-and-media/media-releases/2013/baxter-international-cleared-to-acquire-gambro-ab-subject-to-a-divestment-undertaking>.

[217] ACCC, Knauf's acquisitions of USG and AWI conditionally approved, 2019, <www.accc.gov.au/media-release/knauf%E2%80%99s-acquisitions-of-usg-and-awi-conditionally-approved>; NZCC, Commerce Commission grants clearance for Knauf and USG to merge subject to a divestment, 2019. <https://comcom.govt.nz/news-and-media/media-releases/2019/commerce-commission-grants-clearance-for-knauf-and-usg-to-merge-subject-to-a-divestment>.

[218] EC, Commission approves acquisition of aviation equipment company Goodrich by rival United Technologies, subject to conditions, 2012, case M.6410, <http://europa.eu/rapid/press-release_IP-12-858_en.htm>; CCB, Competition Bureau Statement Regarding United Technology Corporation's Acquisition of Goodrich Corporation, 2012, <http://www.competitionbureau.gc.ca/eic/site/cbbc.nsf/eng/03483.html>.

[219] Competition Bureau, Louisiana Pacific and Ainsworth abandon proposed acquisition of OSB Mills: Competition preserved for the supply of OSB, 2014, <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03724.html>.

[220] US DoJ, Halliburton and Baker Hughes Abandon Merger After Department of Justice Sued to Block Deal,2016,<https://www.justice.gov/opa/pr/halliburton-and-baker-hughes-abandon-merger-after-department-justice-sued-block-deal>; EC, Statement by Commissioner Vestager on announcement by Halliburton and Baker Hughes to withdraw from proposed merger,2016,<http://europa.eu/rapid/press-release_STATEMENT-16-1642_en.htm>; ACCC, Halliburton and Baker Hughes proposed merger terminated,2016,<www.accc.gov.au/media-release/halliburton-and-baker-hughes-proposed-merger-terminated>.

[221] EC,Commission clears merger between Dow and DuPont, subject to conditions,2017, <http://europa.eu/rapid/press-release_IP-17-772_en.htm>; US DoJ, Justice Department Requires Divestiture of Certain Herbicides, Insecticides, and Plastics Businesses in Order to Proceed with Dow-Dupont Merger, 2017, <https://www.justice.gov/opa/pr/justice-department-requires-divestiture-certain-herbicides-insecticides-and-plastics>; CADE, "Merger between Dow and DuPont is approved with restrictions", 18 May 2017, <http://en.cade.gov.br/press-releases/merger-between-dow-and-dupont-is-approved-with-restrictions>.

[222] EC,Commission clears Bayer's acquisition of Monsanto, subject to conditions,2018, <http://europa.eu/rapid/press-release_IP-18-2282_en.htm>; US DoJ,Justice Department Secures Largest Negotiated Merger Divestiture Ever to Preserve Competition Threatened by Bayer's Acquisition of Monsanto,2018,<https://www.justice.gov/opa/pr/justice-department-secures-largest-merger-divestiture-ever-preserve-competition-threatened>; CADE,CADE approves with restrictions Bayer's acquisition of Monsanto,2018,<http://en.cade.gov.br/press-releases/cade-approves-with-restrictions-bayer2019s-acquisition-of-monsanto>; Competition Commission of South Africa,Commission conditionally approves Bayer and Monsanto transaction, 2017, <http://www.compcom.co.za/wp-content/uploads/2017/01/Commission-Conditionally-Approves-Bayer-Transaction-Final.pdf>.

Corporation/Brink International BV case (2018); Illumina/PacBio (2019)[223]; *Sabre/Farelogix (2020);* (**vi**) *de facto* appointed a lead authority to conduct the investigation and handle co-ordination activities in *ThermoFisher/Life Technologies (2014)*; (**vii**) simultaneously launched court action against the same transaction in *Staples/Office Depot (2016)*.[224]

As for mergers, cartel enforcement has made tremendous progress in recent years as problems of clashes and overlaps[225] have been mitigated by the increased level of informal co-operation. Equally, formal co-operation has also improved to a significant extent, with consultation, joint interviews, alignment of timelines, and exchange of confidential information and leniency applications becoming a relatively common practice.

Consequently, competition authorities have: **(i)** exchanged confidential information in the *Marine Hose case (2008-2010),*[226] *Air Ambulance Evacuations case (2012),*[227] and the *Premium Text Messaging case (2014)*; **(ii)** merged multiple investigations into a single one by secondment of staff in the *Towage cartel case (2017)*; **(iii)** applied the 'comity principle' in the *Auto-parts cartel case (Nishikawa) (2016)*;[228] **(iv)** collected evidence on behalf and upon request of another authority in the *Investigation in the Aviation Insurance Market (2017)*[229] and in the *Investigation in the Immunoglobulin Market (2018)*.[230]

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[223] CMA, Illumina has abandoned its anticipated $1.2 billion takeover of PacBio after an in-depth CMA merger probe highlighted serious competition concerns, 2020,<https://www.gov.uk/government/news/illumina-pacbio-abandon-merger>.

[224] CCB,Competition Bureau withdrawing its court challenge of Staples' acquisition of Office Depot, 2016, <https://www.canada.ca/en/competition-bureau/news/2016/05/competition-bureau-withdrawing-its-court-challenge-of-staples-acquisition-of-office-depot.html>.

[225] E.g. *Dyestuff* cartel (1972), *Uranium Westinghouse* Cartel (1982), *Transatlantic Ocean Shipping* Cartel (1983), and *Wood Pulp* Cartel (1988).

[226] EC, COMP/39.406, Marine Hoses; JFTC, Cease and Desist Order and Surcharge Payment Order against Marine Hose Manufacturers, 22 February 2008.

[227] New Zealand's written contribution to the 2012 Global Forum on Competition, DAF/COMP/GF(2012)16, <www.oecd.org/daf/competition/ImprovingInternationalCooperationInCartelInvestigations2012.pdf>; NZCC, "Air ambulance companies warned over price fixing", <https://comcom.govt.nz/news-and-media/media-releases/archive/air-ambulance-companies-warned-over-price-fixing>.

[228] In the sense of relaunching the utilisation of the comity principle see: F. Jenny, 'keynote address', (OECD Competition Open Day, 27 February 2018) webcast: <https://oecd.streamakaci.com/cod2019/>; J. Pecman and D. Pham, 'The Next Frontier of International Cooperation in Competition Enforcement' in F. Jenny, 'Standing Up for Convergence and Relevance in Antitrust' (2019) Liber Amicorum, Concurrences, Paris. Interestingly, in the U.S. in 2021 the 'comity principle' was also applied in a private litigation. See *In re Vitamin C Antitrust Litig.*, No. 13-4791-cv, 2021 WL 3502632 (2d Cir. Aug. 10, 2021).

[229] UK submission at the OECD roundtable on challenges and co-ordination of leniency programmes, DAF/COMP/WP3/WD(2018)38, <https://one.oecd.org/document/DAF/COMP/WP3/WD(2018)38/en/pdf>.

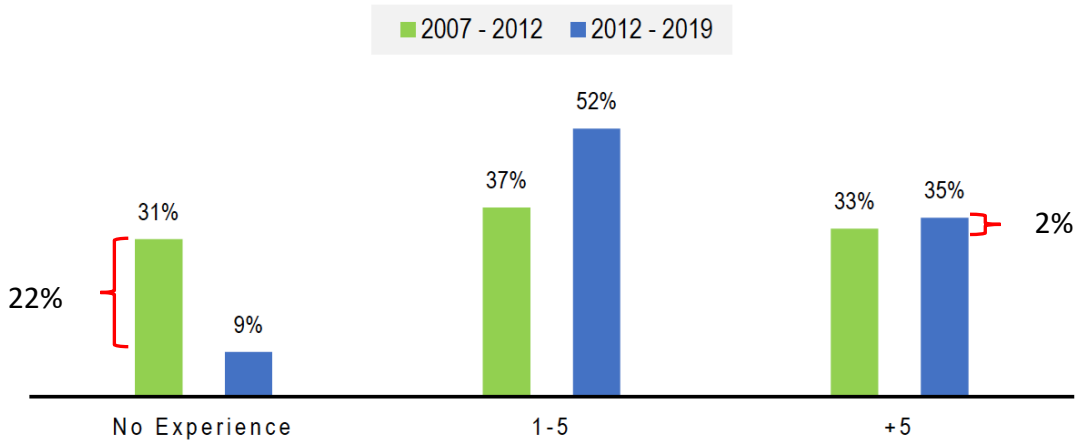
[230] Consiliul Concurentei România, July 2018, <www.consiliulconcurentei.ro/uploads/docs/items/bucket13/id13298/inspectii_imunoglobulina_english.pdf>.

3.5. The persisting limitations of nation-centric enforcement in global markets

The 'quality', so to speak, of existing international competition co-operation still shows room for improvement despite the successes as reported above and regardless of the increased 'quantity' occurring in recent years. Accordingly, **Figure 4** shows that whereas the percentage gap of competition agencies not internationally co-operating in the period 2007-2012 compared with 2012-2019 is reassuring (i.e. -22%), the opposite is true for the percentage gap of agencies that co-operated internationally more than five times over the same period (only +2%). This proves that while international competition co-operation is evolving over time, it has not yet become a common, structural, and standard practice.

The fact that only around 13% of all globally existing competition agencies co-operated more than five times in the period 2012-2019 seems particularly unsatisfactory when contrasted, for instance, with the number of similar/identical investigations occurring across jurisdictions against the same few large global digital firms (e.g. 12 investigations concerning Apple, 14 Facebook, 19 Google, and 14 Amazon).[231] These indicia suggest that although markets have become increasingly supranational, the predominant dimension of competition enforcement has remained exceedingly nation-centric.

Figure 4: Number of cases/investigations in which authorities have co-operated (2007-2012 vs. 2012-2019)



Source: OCED-ICN, 'Report on International Co-Operation in Competition Enforcement' (2021).

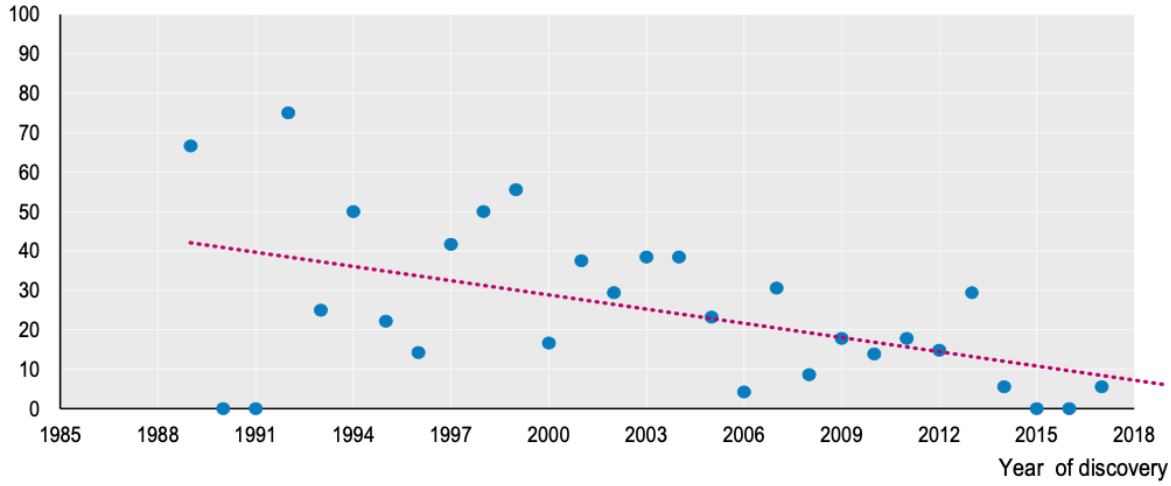
[231] See *supra* footnote n. 121.

Yet, nation-centric enforcement in supranational, highly interlinked and interdependent markets presents several issues that in turn generate an aggregated global enforcement which is problematically asymmetric, flawed, and at times conflicting or excessively politically distorted. Existing issues can be grouped into four main clusters and will now be analysed in turn. Importantly, while each criticality will be analysed independently, they are often interconnected and mutually reinforcing.

3.5.1. Global enforcement asymmetries and the issues faced by developing countries

Asymmetries in competition enforcement occur across all enforcement areas, such as cartel, merger, and unilateral conduct.[232] Starting with the former, according to the OECD, while the total number of international cartels discovered and later sanctioned has increased over the past 20 years, the percentage of those *'investigated by multiple jurisdictions has decreased*'.[233] '*On average, in the past decade less than 20% of all international cartels were investigated and sanctioned by multiple jurisdictions*' (**Figure 5**).

Figure 5: Percentage of international cartel cases investigated by multiple jurisdictions (1985-2018)



Source: OECD, 'Competition Trends' (2020).

[232] M.S. Gal, 'Antitrust in a globalized economy: the unique enforcement challenges faced by small and developing jurisdictions' (2009) 33 Fordham Int'l LJ.
[233] OECD, 'Competition Trends' (2020), <http://www.oecd.org/daf/competition/OECD-Competition-Trends-2020.pdf>.

Therefore, while international cartels are a multijurisdictional problem, they tend to be investigated by a limited number of better-equipped authorities who exclusively protect their economic interests. Notably, decision practice shows that enforcement asymmetries primarily affect developing countries and that the current international framework is not effectively coping with this issue.[234]

One such example is the already mentioned African beer cartel, where national laws were unfit to tackle continent-wide market-sharing agreements.[235] Equally, a more recent example is the so-called LIBOR cartel, where several major banks manipulated the London Interbank Offered Rate, a benchmark interest rate used to set the price of financial products globally. Although the cartel was prosecuted in several jurisdictions (e.g. the U.S. and the EU), it nonetheless remained unpunished in many developing countries equally suffering its effects.[236]

It is likely that developing countries' underenforcement of international cartels is due to reasons beyond lack of resources and technical expertise including, among others, difficulty in detecting the cartels, lack of leniency programmes or their ineffectiveness,[237] and limited access to material evidence. Often, developing countries acquire knowledge of international cartels affecting their jurisdictions through public announcements made by developed countries. As an example, Brazil initiated investigations into the lysine and vitamin cases after

[234] M.S. Gal, 'Free movement of judgments: Increasing deterrence of international cartels through jurisdictional reliance.' (2010) Va. J. Int'l L., 51, 57.

[235] Philippe Perdrix, 'Le marché de la bière africaine monte en pression' *Jeune Afrique* (10/09/2008).

[236] EC, 'Commission fines banks 1.49 billion for participating in cartels in the interest rate derivatives industry', press release, (2013); *In re LIBOR-Based Financial Instruments Antitrust Litigation* 935 F.Supp.2d 666 (2013); *USA v RBS* dated 5 February 2013 <https://www.justice.gov/sites/default/files/criminal-fraud/legacy/2015/05/22/04-12-13the-royal-bank-of-scotland-dpa.pdf>; *USA v RBS Securities Japan* dated 6 January 2014 <https://www.justice.gov/sites/default/files/criminal-fraud/legacy/2015/05/22/01-13-14the-royal-bank-of-scotland-securities-japan-limited-judgment.pdf>; *USA v Anthony Allen* dated 10 March 2016 <https://www.justice.gov/criminal-fraud/file/839511/download>; *USA v Anthony Conti* dated 10 March 2016 <https://www.justice.gov/criminal-fraud/file/839516/download>; *Laydon v. Mizuho Bank, Ltd.* dated 28 March 2014 <http://www.plainsite.org/dockets/mxv0451w/new-york-southern-district-court/laydon-v-mizuho-bank-ltd-et-al/>; *7 West 57th Street Realty Co. v. Citigroup, Inc.* dated 31 March 2015 <http://cases.justia.com/federal/district-courts/new-york/nysdce/1:2013cv00981/407735/172/0.pdf?ts=1427977380>; *Deutsche Bank AG and others v Unitech Global Ltd. and another* [2014] 2 All ER (Comm) 268 (QB) and [2016] EWCA Civ 119 (CA).

[237] For instance, in the vitamin and graphite electrode cases, although the Republic of Korea already had a leniency programme in place at the time, none of the cartelists opted for leniency applications there, thus causing additional difficulties for the KFTC (see UNCTAD, 'Cross-Border Anticompetitive Practices: The Challenges for Developing Countries and Economies in Transition', TD/B/C.I/CLP/16, (2012)).

the U.S. had concluded its proceedings.[238] Similarly, the Republic of Korea began its investigation into the graphite electrode case following U.S. enforcement actions.[239]

However, if public announcements do not contain enough evidence to determine the launch of their own investigations, developing countries will need to further investigate international cartels' effects on their own jurisdictions and may need to gather evidence to this extent. These investigations can be resource-intensive and extremely challenging especially if the alleged infringers have no asset in their jurisdiction. The Korean Fair-Trade Commission (KFTC), for instance, faced evidence-gathering difficulties in its investigation of the graphite electrode cartel,[240] and the Turkish Competition Agency had a discouraging experience when one of the cartelists in the seized coal cartel case closed its Turkish office after the Agency initiated its investigation.[241]

Additionally, developing countries' enforcement asymmetries extend to multijurisdictional mergers. According to the OECD's data, the majority of annual merger decisions are driven '*by a small number of authorities that issue hundreds of decisions each year*'.[242] This trend did not change in 2019.[243] Existing asymmetries, troublingly, are expected to increase given that the number of international mergers is expected to grow steadily in the coming years. According to the OECD's estimations, the number of cross-border mergers expected in 2030 is 66% higher than occurred in 2011.[244]

Multiple factors contribute to merger enforcement asymmetries. In addition to resource constraints, developing countries' reduced enforcement can also be attributed to issues such as the absence of notification by merging parties or the receipt of belated notification after the cross-border transaction has been cleared by larger jurisdictions. Small economies may also face challenges in international mergers as large foreign firms often submit notifications

[238] UNCTAD (2003). Can developing economies benefit from WTO negotiations on binding disciplines for hard core cartels? UNCTAD/DITC/CLP/2003/3.
[239] See contribution from the Republic of Korea to the seventh session of the Intergovernmental Group of Experts on Competition Law and Policy (2006).
[240] Seon Hur J (2006). Competition Law/Policy and Korean Economic Development. Ziumm, Ltd. Seoul, Korea.
[241] Contribution from Turkey to the seventh session of the Intergovernmental Group of Experts on Competition Law and Policy (2006).
[242] OECD, 'Competition Trends' (2020).
[243] OECD, 'Competition Trends' (2021).
[244] OECD, 'OECD@100: Policies for a shifting world' (2014) (ECO/CPE(2014)11).

containing data they use to file with other (more important) jurisdictions. For example, Singapore has complained that foreign international merging parties targeting clearance also from larger jurisdictions often do not provide its jurisdiction-specific data.[245]

Further, developing countries may face challenges in understanding international mergers' effects on their jurisdictions, especially if the merging parties have a multitude of global activities. Moreover, these countries may be unable to impose sufficient remedial measures when none of the merging firms have assets in their jurisdiction, as happened in the *BHP Billiton-Rio Tinto* merger case, when the two companies planned to combine their Western Australian iron ore operations. As neither of the merging firms had assets in Korea, the KFTC was unable to design and implement effective remedies to address its concerns.[246]

Finally, enforcement asymmetries also concern unilateral conduct cases. According to the OECD, against a total number of 182 abuse decisions adopted in 2018, '*three jurisdictions were responsible for half of the decisions and over half of the jurisdictions had fewer than five cases*'.[247] Notably, this trend holds true even if controlled over a longer four-year period.[248] Importantly, while most decisions were adopted in Europe, almost none were in the Asia-Pacific region.[249]

Troublingly, asymmetries between developed and developing countries are likely to increase in the coming years, especially in digital markets, since only a few large jurisdictions have the highly-specialised technical expertise needed to prosecute large global digital actors and have sufficient powers and scale to exercise a commensurate regulatory threat on them. These large jurisdictions, however, will likely only protect their own domestic markets, while allowing anticompetitive effects to occur in third (mostly developing) countries. Interestingly, the Korean Fair Trade Commission suggested that existing asymmetries should not be tackled by strengthening national enforcement regimes (as this strategy would take a long time to

[245] UNCTAD, Cross-border anticompetitive practices: The challenges for developing countries and economies in transition, TD/B/C.I/CLP/16, Geneva, 2012.
[246] Contribution from the Republic of Korea to the Round Table on Cross-Border Merger Control, OECD Global Forum on Competition (2011). The deal was eventually abandoned when it became clear that it would not have been approved by some major jurisdictions.
[247] OECD, 'Competition Trends' (2020).
[248] OECD, 'Competition Trends' (2021). In the period between 2015 and 2019, the top five jurisdictions account for 67% of the share of the total number of abuse of dominance decisions adopted.
[249] OECD, 'Competition Trends' (2020).

implement and could result in additional problems, such as enforcement conflicts, over-regulation, or remedial pile-ups)[250] but through the exploration of new approaches to international competition co-operation.

3.5.2. Flawed nation-centric enforcement regimes: the issue of 'gaps'

The issue of 'gaps' occurs when nation-centric enforcement ignores either anticompetitive state actions or anticompetitive infringements primarily hurting foreigners. Enforcement gaps result from jurisdiction-centric antitrust regimes' tailoring of their enforcement to exclusively protect their own economies, without accounting for the competition distortions that may occur in foreign neighbouring markets. Enforcement gaps can be more or less opportunistic, depending on whether underperforming jurisdictions intentionally 'weaponise' their competition enforcement as part of broader 'trade wars' to hurt those influenced by the ill-effects of the tolerated anticompetitive conduct.

Gaps in competition enforcement occur across all enforcement areas. Starting with cartels, it is noteworthy that some countries either exempt export cartels, or do not consider them as an enforcement priority as several economic arguments have been raised in their favour.[251] First, they are said to help medium firms achieve sufficient scale to compete internationally.[252] Second, export cartels are said to produce efficiency gains (e.g. conducting common sales activities and negotiating shipping rates) which, in turn, may increase competition and lower prices in downstream markets.[253] Third, export cartels may allow exporters to overcome national barriers to entry in foreign markets with restricted competition.[254]

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[250] Korea's contribution to the OECD roundtable on 'cross-border merger control: challenges for developing and emerging economies', DAF/COMP/GF/WD(2011)2.

[251] E.g. section 5(ii) of India's 2002 Competition Act or the U.S. 1918 Webb-Pomerene Act, as well as the 1982 Export Trading Company Act allowed US exporters to act collectively to exercise their collective bargaining power in foreign markets. Further on this topic see M.C. Levenstein, V.Y. Suslow, 'The Changing International Status of Export Cartel Exemptions', *American University International Law Review* 20(3):785-800.

[252] D.D. Sokol, 'What do We Really Know About Export Cartels and What is the Appropriate Solution?', 4 *Journal of Competition Law and Economics* 967 (2008), at 970-71.

[253] J. Davidow, H. Shapiro, 'The Feasibility and Worth of a World Trade Organization Competition Agreement', 37 *Journal of World Trade* 49 (2003), at 67.

[254] F. Becker, 'The Case of Export Cartel Exemptions: Between Competition and Protectionism', 3 *Journal of Competition Law and Economics* 97 (2007), at 116.

Export cartels' justifications are dynamic and do not equally apply for all affected foreign jurisdictions. For instance, an export cartel that could be justified to overcome competition restrictions in country A may not be justified in relation to country B, as was the case with the cartelisation of the potash export market, where Jenny estimated that China paid an average overcharge of about US$900 million per year.[255] Accordingly, export cartels need to be prosecuted and assessed equally to conventional ones, otherwise they will likely result in serious anticompetitive harm.

Additionally, many countries cannot prosecute foreign export cartels even when they impose significant costs on their economies. Beyond situations of lacking enforcement resources or difficulties in accessing relevant evidence, such scenarios may also occur when hurt jurisdictions cannot access alternative sources of supply for the cartelised product, since any enforcement may disrupt import flows, result in punishment by the cartel members in the form of higher prices, or simply prove useless if cartelists continue their practice after having been sanctioned. Noteworthy in this sense is recalling what occurred in India in relation to the American soda ash export cartel.

Export cartels, moreover, while harming foreign affected jurisdictions, are also damaging for the countries adopting them in the long run.[256] Long term, indeed, export cartels are expected to decrease domestic output and increase domestic prices due to the significant portion of capacity they are likely to redirect from the domestic market towards the foreign ones.[257] Additionally, co-ordination in foreign markets can produce overspill effects in domestic ones (e.g. facilitating tacit collusion) which are difficult to prosecute under competition laws.

Secondly, the issue of 'gaps' may also arise in merger proceedings since the benefits of local production may lead certain authorities to ignore or underestimate the negative externalities arising in foreign jurisdictions. An example is the *Holchim/Lafarge* merger case which, despite

[255] F. Jenny, 'Export Cartels in Primary Products: The Potash Case in Perspective in Trade, Competition and the Pricing of commodities.' Simon J. Evenett and Frédéric Jenny, (eds) (February 2012) 99, SSRN: <http://ssrn.com/abstract=2064686>.

[256] E. Fox and J. Ordover, 'The Harmonization of Competition and Trade Law: The Case for Modest Linkages of Law and Limits to Parochial State Action' (December 1995) 19 World Competition L. & Econ. Rev. 5.

[257] C. Schultz, 'Export Cartels and Domestic Markets', 2 Journal of Industry, Competition and Trade 233 (2002).

being conditionally approved in multiple jurisdictions (EU, South Africa, Brazil, US[258]), was said to harm developing countries as it created '*buying power that hurts poor commodity producers (e.g. of cocoa beans), while the developed world is oblivious*'.[259]

Thirdly, as a result of markets' globalisation, gaps issues might also occur in unilateral conduct cases given their increasingly international dimension. Within globalised markets, successful firms acquire positions of so-called supranational market power. Such phenomena are particularly pronounced in the digital sector, where since the *Microsoft* case,[260] an increasing number of cross-border unilateral digital cases have occurred (e.g. *Booking.com, Google*[261] cases' series, *Intel,*[262] *TikTok,*[263] *Facebook,*[264] to name but a few of the most prominent).

Yet, whereas global digital firms engage in cross-border unilateral anticompetitive behaviours, their conduct is only prosecuted by a minority of affected jurisdictions. Two such examples are the EU investigations into Amazon's Marketplace and Buy Box,[265] both of which were settled by the company in December 2022.[266] Despite Amazon offering favourable

[258] Notably, while the US and South African authorities stressed the risks of future collusion in the cement market, the EU focused on the insufficient competitive pressure from the remaining players in the market.
[259] E. Fox, 'Antitrust Without Borders: From Roots to Codes to Networks, E15Initiative' (Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum, 2015).
[260] *United States v. Microsoft Corporation*, 253 F.3d 34 (D.C. Cir. 2001); *United States v. Microsoft Corp.*, 231 F. Supp. 2d 144(D.D.C. 2002); Case T-201/04, *Microsoft Corp. v. Commission of the European Communities*, [2007] II – 3619; Case T-167/08 *Microsoft vs European Commission*, [2012] ECLI:EU:T:2012:323; Case COMP/C-3/37.792 — Microsoft) (OJ 2007 L 32, p. 23; OJ 2008 C 138, p. 10; OJ 2009 C 166, p. 20); Case AT.39530 (Microsoft – Tying) Decision C(2013) 1210 final, March 2013.
[261] EC, AT.39740 *Google Search (Shopping)* (2017); FTC press release, 'Google Agrees to Change its Business Practices to Resolve FTC Competition Concerns in the Markets for Devices Like Smart Phones, Games and Tablets, and in Online Search' (2013), <https://www.ftc.gov/news-events/press-releases/2013/01/google-agrees-change-its-business-practices-resolve-ftc>; CADE,'CADE investigates Google's possible anticompetitive practices in the Brazilian online search market',(2013),<http://en.cade.gov.br/press-releases/cade-investigates-google2019s-possible-anticompetitive-practices-in-the-brazilian-online-search-market>.
[262] EC, 'Commission imposes fine of EUR 1.06 bn on Intel for abuse of dominant position; orders Intel to cease illegal practices', (13 May 2009) <http://europa.eu/rapid/press-release_IP-09-745_en.htm?locale=en>; FTC, 'FTC Settles Charges of Anticompetitive Conduct Against Intel' (4 August 2010) <https://www.ftc.gov/news-events/press-releases/2010/08/ftc-settles-charges-anticompetitive-conduct-against-intel>.
[263] GVH, 'The Competition Authority has initiated a proceeding against TikTok', (8 October 2020), case n. VJ/24/2020 <https://www.gvh.hu/en/press_room/press_releases/press-releases-2020/the-competition-authority-has-initiated-a-proceeding-against-tiktok>.
[264] US FTC, FTC Imposes $5 Billion Penalty and Sweeping New Privacy Restrictions on Facebook, (2019) <https://www.ftc.gov/news-events/press-releases/2019/07/ftc-imposes-5-billion-penalty-sweeping-new-privacy-restrictions>; Bundeskartellamt, 'Official Decision n. B6-22/16,'<https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Entscheidungen/Missbrauchsaufsicht/2019/B6-22-16.pdf?__blob=publicationFile&v=5>.
[265] EC, AT. 40462 *Amazon – Marketplace* (2019); EC, AT.40703 *Amazon – Buy Box*.
[266] EC, 'Commission accepts commitments by Amazon barring it from using marketplace seller data, and ensuring equal access to Buy Box and Prime'(December 2022),

conditions for vendors who use 'Fulfilment by Amazon' in multiple jurisdictions, this behaviour has only been investigated by a minority of them.[267] This uneven enforcement distribution is unlikely to be due to the national dimension of the anticompetitive conduct, the characteristics of national digital markets, or the need to preserve regulatory competition and space for enforcement experimentation. Rather, such enforcement heterogeneity is more likely due to certain jurisdictions' lack of resources and expertise, different priorities, and political interests.

Accordingly, nation-centric competition regimes and their self-interested prioritisation agenda are incapable of preserving competition in global, especially digital, markets absent an effective global multilateral competition co-operation framework enabling reciprocal checks-and-balances of enforcement priorities and remedial actions.

3.5.3. Lack of effective substantial and procedural co-operation: the issue of 'overlaps'

Overlap issues may occur in all areas of competition enforcement and they may assume either a substantial or procedural dimension, although the two are interlinked. Starting with substantial overlap issues in cartels, it is encouraging that the instances of explicit conflicting decisions of the calibre of those that occurred in *Dyestuffs* and *Wood Pulp*, both concerning export agreements deemed legal in the US but sanctioned in the EU,[268] have diminished in recent years.

Though mitigated, overlap issues have not been eliminated. For instance, after the EC imposed huge fines on five Japanese companies in the *Gas Insulated Switchgear* case despite their lack of presence in the EU market, the case generated significant international tension since Japan's fines were calculated on the sales of cartelised products/services, and no firm could be sanctioned absent such sales.[269] Similarly, another conflict emerged with regard to Visa's scheme for cross-border multilateral interchange fees (MIFs). While a U.S. Court found

<https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7777>. Note that the commitments are only valid for the EEA area with the exception of Italy.

[267] Only in November 2023, the US FTC opened its investigation into Amazon, Case n. 2:23-cv-01495 <https://www.ftc.gov/system/files/ftc_gov/pdf/1910134amazonecommercecomplaintrevisedredactions.pdf>.

[268] N. Campbell, M.J. Trebilcock (1993), 'North American Merger Law, Extraterritoriality and Implications of the International Mergers', in E. Kantzenbach, H.-E. Scharrer and L. Waverman (eds.), Competition Policy in an Interdependent World Economy (Baden-Baden: Nomos).

[269] EC, *Gas Insulated Switchgear* cartel, Case COMP/F/38.899, 24 January 2007.

Visa in violation of U.S. competition rules for prohibiting merchants from steering customers to other forms of payment and for fixing interchange fees,[270] the EC concluded that Visa's scheme did not restrict competition under Article 101(1) TFEU.[271] In the *Shipping Liner* case, again, whereas the EC prosecuted shipping liners for using certain price announcement techniques and closed the case with commitments,[272] the Russian Federal Antimonopoly Service (FAS) initially closed the case with a prohibition decision partially conflicting with the EU commitments.[273] Subsequently, however, the conflict was fixed since the FAS — despite having its decision upheld on appeal — terminated its execution through a settlement agreement, allowing the originally fined firms to implement industry guidelines consistent with the EC commitment decision. [274]

Secondly, overlaps in cartels can also be of a procedural nature. For instance, dawn raids in a cross-border cartel in one jurisdiction may jeopardise the investigations of other agencies since it may warn cartel members of the potentially upcoming multiple investigations, leading them to conceive evidence and adopt other precautions to escape sanctions. Accordingly, to prevent such risks, the EC and its Brazilian and US counterparts jointly carried out dawn raids in Brazil, the U.S., and several EU countries in the international refrigerator compressor cartel case.[275]

Moreover, as a result of the surge in leniency programmes' adoption across global jurisdictions due to their utility in detecting illegal cartels, competition authorities face the

[270] In *Re: Visa Check/MasterMoney Antitrust Litigation*.

[271] Commission Decision 2002/914/EC of 24 July 2002 on COMP/29.373 – Visa International – Multilateral Interchange Fee (notified under document number C(2002) 2698), OJ L 318/17, 22.11.2002, paras 27–28. See also A. Veljan, S. McInnes, N. Petit, 'Ex Post Assessment of European Competition Policy in the Payment Sector: The Visa Europe 2010 Commitments Decision', in (eds) A. Komninos, N. Petit, *Ex Post Evaluation of Competition Cases* (Kluwer, 2021).

[272] European Commission Press Release, 'Antitrust: Commission accepts commitments by container liner shipping companies on price transparency' (7 July 2016) <http://europa.eu/rapid/press-release_IP-16-2446_en.htm>.

[273] FAS Official Press Release, 'FAS upheld at Court its decision on a case against container carriers' (13 September 2016) <http://en.fas.gov.ru/press-center/news/detail.html?id=47097>.

[274] Maersk Line, 'Maersk Line and the Russian antimonopoly authority reaches agreement on competition case' (8 February 2017) <https://www.maersk.com/en/news/2017/03/27/ml-and-the-russian-antimonopoly-authority-reaches-agreement-on-competition-case>.

[275] EU Press Release (<https://ec.europa.eu/commission/presscorner/detail/el/IP_11_1511>); Case COMP/39.600.

challenge of how not to reciprocally deter their leniency applications.[276] Indeed, the heterogeneity of requirements demanded by national leniency programmes, together with the differing marker systems existing across jurisdictions[277] have both increased costs and the risks related to leniency applications, causing their drop, in 2018, by a magnitude of around 44% in OECD countries and around 56% in non-OECD countries compared to 2015.[278]

Thirdly, substantial overlap issues can also concern multijurisdictional mergers. Occasionally, pile-up remedies, or conflicting decisions still occur. Deutsche Borse's acquisition of NYSE–Euronext (2011), for instance, despite approval in the US, was blocked in the EU as it would have led to a quasi-monopoly for EU financial derivatives. Similarly, in 2013, the merger between US Airways and American Airlines, while conditionally approved by the EC,[279] was blocked by the DoJ due to risks that the merged airlines would have the ability and incentive to raise airfares.[280] The misalignment, however, was later solved as the DoJ ultimately approved the transaction in exchange for divestitures of slots and gates at seven key airports to low-cost carrier airlines.[281] Again, more recently, whereas Google's acquisition of Fitbit was approved in the EU subject to Google's commitment to preserve rivals' access to its health and fitness data, the merger was not signed off by the DoJ and the Australian Competition and Consumer Commission. Accordingly, conflicting decisions might still arise with regard to this as both authorities are currently investigating the transaction since Google closed the deal without their approval.

[276] OECD, 'Challenges and Co-Ordination of Leniency Programmes - Background Note by the Secretariat' (*OECD* June 2018) <https://one.oecd.org/document/DAF/COMP/WP3(2018)1/en/pdf>. Currently, more than 80 jurisdictions have leniency programmes in place.

[277] While some jurisdictions require little information to grant a marker, some others require a lot; whereas some require written proffers, some do not. In this sense see OECD, 'roundtable on challenges and co-ordination of leniency programmes' (2018) DAF/COMP/WP3/WD(2018)14.

[278] OECD, 'Competition Trends' (2020).

[279] EC, 'Commission approves proposed merger between US Airways and American Airlines holding company AMR Corporation, subject to conditions', (2013), <https://ec.europa.eu/commission/presscorner/detail/en/IP_13_764>.

[280] DoJ, 'Justice Department Files Antitrust Lawsuit Challenging Proposed Merger Between US Airways and American Airlines' (2013), <https://www.justice.gov/opa/pr/justice-department-files-antitrust-lawsuit-challenging-proposed-merger-between-us-airways-and>.

[281] DoJ, 'Justice Department Requires US Airways and American Airlines to Divest Facilities at Seven Key Airports to Enhance System-wide Competition and Settle Merger Challenge. (2013), <https://www.justice.gov/opa/pr/justice-department-requires-us-airways-and-american-airlines-divest-facilities-seven-key>.

Conflicting decisions may be due to: **(i)** different legal principles — as was the case in *Akzo Nobel/Metlac (2012)*, where the British and German authorities used diverging legal tests;[282] **(ii)** different interpretation of identical legal principles — as in the *Eurotunnel/SeaFrance (2012)* case, where the British and French agencies admitted different counterfactuals; **(iii)** different factual contexts — as in the *Reckitt Benckiser/Johnson and Johnson (2015)*[283] case and in the *S&P Global Inc./IHS Markit Ltd (2021)* case.[284] The significance of diverging outcomes in the latter scenario should not be over-problematised as it is justified by objective factual differences. As factual circumstances are often heterogeneous across developed and developing countries, more resourced developing countries might adopt diverging and tailored enforcement outcomes. Novartis' acquisition of Alcon, for instance, while reviewed by multiple jurisdictions (e.g. EU, China, etc.), saw the Mexican Federal Competition Commission subjecting the transaction to a tailored structural divestiture as it identified several Mexican-specific competition concerns.[285]

[282] Whereas the *Bundeskartellamt* cleared the transaction in 2012 by applying its dominance test, the *CMA* prohibited it in 2015 when applying its significant lessening of competition test. See Bundeskartellamt, 'Bundeskartellamt clears takeover of Metlac by Akzo Nobel', (2012), <https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2012/02_05_2012_Akzo_Metlac.html;jsessionid=3AE04F00ECD88904BE48890FA98EB3D7.2_cid387?nn=3591568>; CMA, 'AkzoNobel/Metlac Holding merger inquiry', (2015), <https://www.gov.uk/cma-cases/akzo-nobel-n-v-metlac-holding-s-r-l-merger-inquiry#core-documents>. The CMA prohibition decision was appealed and upheld by the CAT <https://www.catribunal.org.uk/cases/12044813-akzo-nobel-nv>.

[283] In this case, the New Zealand Commerce Commission blocked the merger contrary to other jurisdictions since it had no viable divestiture option in New Zealand.: <https://comcom.govt.nz/__data/assets/pdf_file/0032/76487/2015-NZCC-12-Reckitt-Benckiser-and-Johnson-Johnson-clearance-determination-public-version-24-April-2015.pdf>; OECD 'Summary of discussion of the Roundtable on the Extraterritorial Reach of Competition Remedies' DAF/COMP/WP3/M(2017)2/ANN2 (10 August 2018) <https://one.oecd.org/document/DAF/COMP/WP3/M(2017)2/ANN2/FINAL/en/pdf>.

[284] CMA. S&P Global Inc. / IHS Markit Ltd merger inquiry. Available at: <https://www.gov.uk/cma-cases/s-and-p-global-inc-slash-ihs-markit-ltd-merger-inquiry>; DoJ. Press Release, 'Justice Department Requires Substantial Divestitures and Waiver of a Non-Compete for S&P to Proceed with its Merger with IHS Markit.' (12 November 2021).

[285] Resolución de la Comisión Federal de Competencia Expediente No. CNT-017-2010 (non-confidential version), 31 August 2010; Decision of the European Commission on Case No COMP/M.5778 – NOVARTIS/ALCON.

Fourthly, overlap issues may also concern unilateral conduct cases due to their growing international nature, especially in the digital sector. The *Facebook*[286] and *Booking.com*[287] enforcement sagas are noteworthy examples highlighting the potential for divergent outcomes in unilateral cases. In *Booking.com*, indeed, whereas the Italian, French, and Swedish authorities simultaneously ended the case allowing the so-called 'narrow parity clauses',[288] the latter were later forbidden, among others,[289] by the *Bundeskartellamt* whose decision, despite initially being overturned[290] was later upheld by the German Federal Court of Justice.[291] In *Facebook*, equally, whereas Facebook's violation of consent requirements and users' privacy was qualified as an exploitative abuse by the *Bundeskartellamt*,[292] it was

[286] Think of the difference between the German and the US FTC 2019 Facebook cases. See US FTC Press Release, 'FTC Imposes $5 Billion Penalty and Sweeping New Privacy Restrictions on Facebook.' (2019) <https://www.ftc.gov/news-events/press-releases/2019/07/ftc-imposes-5-billion-penalty-sweeping-new-privacy-restrictions>; Bundeskartellamt, 'Official Decision n. B6-22/16.' Available in English at: <https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Entscheidungen/Missbrauchsaufsicht/2019/B6-22-16.pdf?__blob=publicationFile&v=5>. On this topic see also F. Costa-Cabral, O. Lynskey, Family ties: the intersection between data protection and competition in EU Law, *Common Market L. Rev.*, (2017), *54*.

[287] Bundeskartellamt, Decision B 9-121/13, (2013) <https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Entscheidungen/Kartellverbot/B9-121-13.pdf;jsessionid=20668F5668A0539962F6DDFA27649D9D.1_cid380?__blob=publicationFile&v=2>; AdC, Décision 15-D-06, (2015), <https://www.autoritedelaconcurrence.fr/sites/default/files/commitments//15d06.pdf>; AGCM, Decision I779, (2015), <https://en.agcm.it/en/media/press-releases/2015/4/alias-2207>; Konkurrensverket, Decision 596/2013, (2015), <https://www.konkurrensverket.se/globalassets/dokument/engelska-dokument/beslut/13_0596e.pdf>, etc.

[288] Narrow parity clauses link the price and terms quoted on an online platform to those available directly on the upstream supplier's website, ensuring that the former will not be less attractive than the latter. Wide parity clauses, instead, provide for similar protection on a wider scale, aiming to ensure that the price and terms quoted through the platform in question will not be higher than the price available directly on the upstream supplier's website or on any other platform. In this sense see A. Ezriachi, 'The competitive effects of parity clauses on online commerce', *ECJ*, (2015),11:2-3,488-519. The theory of harm for 'narrow parity clauses' is that they have the effect of preserving the restriction of competition caused by wide parity, because they reduce the incentive for hotels to offer differing room prices on different OTAs.

[289] Narrow Parity clauses were banned also in Australia and New Zealand. In this sense see Trivago Business Blog, What's happening with rate parity in the hotel industry?, March 2019,: <https://businessblog.trivago.com/rate-parity-hotel-industry-status/>.

[290] Az.: VI - Kart 2/16 (V). On this case see S. Heinz, 'The Düsseldorf Court of Appeal quashes the Federal Cartel Office decision and finds a most favoured nation clause on a hotel booking platform to be compatible with antitrust law (Booking.com)', (2019), *e-Competitions Bulletin*, Art. N°90737; A. Kmiecik, 'The Higher Regional Court of Düsseldorf overturns Federal Cartel Office's prohibition of narrow best price clauses (Booking.com)', (2019), *e-Competitions Bulletin*, Art. N 91125.

[291] Case n. KVR 54/20.

[292] Specifically, the Bundeskartellamt treated as an exploitative abuse Facebook's conduct of collecting and assigning to Facebook users' accounts the data processed on WhatsApp, Instagram, and other third-party websites without consumers' consent (and sometimes without their knowledge).

prosecuted under consumer protection provisions in several EU countries[293] and the U.S.[294] Fifthly, overlaps in unilateral conduct cases may concern not just the substantive approaches, but also the remedial measures as was the case in the series of investigations concerning Qualcomm's patent licensing policies, where both types of issue occurred. Qualcomm's abuse of its Standard Essential Patents (SEPs) was penalised by, among others, the Chinese NRDC,[295] the Japanese FTC,[296] the Korean FTC,[297] and the US FTC.[298] Despite some commonalities,[299] the mentioned investigations overlap and partially conflict, both substance and remedies wise.

They overlap because the KFTC and, following the US FTC's complaint (and despite the DoJ's open dissent[300]), the U.S. District Court for the Northern District of California[301] both issued final decisions having worldwide impact as applicable to *Qualcomm's* global patents portfolio.

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[293] AGCM, *WhatsApp fined for 3 million euro for having forced its users to share their personal data with Facebook*, (2017); Autoriteit Persoonsgegevens, *Dutch data protection authority: Facebook violates privacy law*, (2017).

[294] FTC, 'FTC Imposes $5 Billion Penalty and Sweeping New Privacy Restrictions on Facebook', (2019).

[295] National Development and Reform Commission Administrative Sanction Decision (Fagaibanjiajianchufa [2015] No. 1), available in Chinese at NDRC's website (<https://www.ndrc.gov.cn/xwdt/xwfb/201502/t20150210_955999.html?code=&state=123>).

[296] JFTC,Cease and Desist Order against QUALCOMM Incorporated, (2009) <https://www.jftc.go.jp/en/pressreleases/yearly-2009/sep/individual-000038.html>. Notably, the same case was also dropped by the EC after the withdrawal of the complaints. See EC,'Commission closes formal proceedings against Qualcomm,(2009), <http://europa.eu/rapid/press-release_MEMO-09-516_en.htm>.

[297] KFTC's decision of 20 January 2017 (Qualcomm), Case number 2015Sigam2118, translated by the American Consumer Institute Center for Citizen Research, <www.theamericanconsumer.org/wp-content/uploads/2017/03/2017-01-20_KFTC-Decision_2017-0-25.pdf>.

[298] Complaint, *FTC v. Qualcomm, Inc*., No. 5:17-cv-00220 (N.D. Cal. Jan. 17, 2017).

[299] The common denominator of all mentioned investigations was the finding that Qualcomm abused its SEPs portfolio in essentially three ways: **(i)** by charging excessive royalties to its original equipment manufacturers' (OEMs) customers; **(ii)** by imposing unfair terms by refusing to sell its chips to OEMs that did not sign its patent licence agreements, requiring them either to accept a non-challenge clause prohibiting them from challenging Qualcomm's patents validity or to promise not to resell Qualcomm's chips ('so-called 'no licence, no chips policy'), or both; **(iii)** by bundling its non-essential patents with its SEPs by forcing its customers to also accept the former as a condition to obtain the latter.

[300] Remarkably, before Judge Koh issued her final decision, the DoJ filed a 'statement of interest' expressing concern over the impact that an overly broad remedy could have on the markets for 5G technology *(See* Statement of Interest of the United States of America, *FTC v. Qualcomm, Inc*., No. 17-CV-00220-LHK (N.D. Cal. May 2, 2019)). Notably, the DoJ sided with Qualcomm also in appeal (See Brief of the United States of America as *Amicus Curiae* in Support of Appellant and *Vacatur*, *FTC v. Qualcomm Inc*., D.C. No. 19-16122 (9th Cir. Aug. 30, 2019)).

[301] *FTC v. Qualcomm, Inc*., No. 17-CV-00220-LHK (N.D. Cal. May 21, 2019). The decision drew immediate criticism. In this sense, see US FTC Commissioner C. Wilson, *A Court's Dangerous Antitrust Overreach*, Wall St. J. (May 28, 2019).

The US and the Korean remedies, moreover, conflict with one another - first because while the former totally banned (without reservations) Qualcomm's practice of conditioning the supply of its modem chips to OEMs' acceptance of its patent licence agreements, the Korean measures allowed such conduct in exceptional cases (i.e., if OEMs behaved as unwilling licensees or refused to engage in good-faith negotiations). Second, because whereas the US remedies automatically applied to all pre-existing Qualcomm licensing agreements (whose re-negotiation was compulsory), the Korean measures imposed the re-negotiation of existing licensing agreements only upon OEMs' request.

Further, as well as conflicting with each other, the US and the Korean remedies also differed from those imposed by the Chinese NRDC; while the former left Qualcomm the freedom to determine the amount of its royalties as long as they were fair, reasonable and non-discriminatory (FRAND) and to submit, as necessary, to arbitral or judicial dispute resolution, the Chinese NDCR, contrarily, imposed Qualcomm to calculate its royalties for mobile phones sold in China at a rate of 65% of the wholesale net price of handsets sold in Mainland China ('对为在我国境内使用而销售的手机，按整机批发净售价的65%收取专利许可费'). While the two obligations might not necessarily be incompatible, they equally could be if a US judge considered Qualcomm's application in China of the royalties mandated by NDCR to be non-FRAND.

Luckily, some of the divergences illustrated above have recently been solved by the U.S. Court of Appeals for the Ninth Circuit, which unanimously reversed the US worldwide injunction against Qualcomm.[302] Yet, while reducing the tensions existing across the different national remedy measures imposed on Qualcomm's patent practices, the Court of Appeal's decision also clashed with other jurisdictions' substantial approaches. For example, it rejected the reasoning according to which Qualcomm was subject to a duty to deal, and the argument that a violation of FRAND commitments does constitute an independent antitrust violation.

Therefore, overlap issues either substantial or procedural still exist when nation-centric competition regimes attempt to regulate global markets, especially digital ones. Despite these issues not necessarily being problematic, particularly when resulting from objective and

[302] *FTC. v. Qualcomm Inc*., D.C. No. 19-16122 at 55 (9th Cir. Aug. 11, 2020).

justified factual differences, addressing them is only possible through an effective global multilateral competition co-operation framework, enabling reciprocal checks-and-balances of substantive and procedural approaches as well as remedial measures.

3.5.4. 'Governmental contaminations' in competition enforcement

The fourth issue arising from nation-centric enforcement regimes in supranational markets is that of the national governments' contaminations of antitrust proceedings, so to speak. These occur when political interests contaminate, influence, or somehow steer national competition enforcement with considerations that are not purely economic or objectively measurable. Pressure from political interest can come across in multiple ways, including through overlaps (conflicting decisions which water down general enforcement actions), underenforcement (i.e., the issue of gaps), and over-enforcement.

Over-enforcement happens when antitrust law is weaponised to hurt foreign firms as an instrument to conduct trade wars. One such example occurred in the *LCD*[303] cartel case where the jurisdictional nexus of the EC and DoJ investigations was highly debated;[304] it was contentious whether they could prosecute firms that had agreed outside the US/EU the price of product components manufactured outside the US/EU which were only later exported there for sale.

Similarly, political contaminations can also occur in merger or unilateral conduct cases. Mergers, in particular, are the most vulnerable to political influences as shown by the EU debate spurred by the EC's decision to forbid Siemens AG's acquisition of Alstom,[305] despite

[303] The case was investigated in several jurisdictions. See EC, 'Commission fines six LCD panel producers Euro 648 Million for price fixing cartel,(2010),<http://europa.eu/rapid/press-release_IP-10-1685_en.htm>; KFTC, 'KFTC Fines 10 LCD Producers 194 Billion Won for TFT-LCD International Cartel',(2011) <http://www.ftc.go.kr/solution/skin/doc.html?fn=7fd54d9f40612298f8588045925f570cbe259dd16c11ef13dcf437ada33d1df5&rs=/fileupload/data/result/BBSMSTR_000000002402/>; CADE, 'Cade convicts cartel in the market of computer LCD monitors',(2019) <http://en.cade.gov.br/press-releases/cade-convicts-cartel-in-the-market-of-computer-lcd-monitors>; Congressional-Executive Commission on China, 'Chinese Authorities Fines LCD Cartel in First Case Concerning Conduct Outside China' (12 February 2013) <https://www.cecc.gov/publications/commission-analysis/chinese-authorities-fine-lcd-cartel-in-first-case-concerning>.

[304] It consists of a global price-fixing agreement among the major LCD panel producers, realised through multiple meetings in South Korea and Taiwan between 2001 and 2006.

[305] After the European Commission's prohibition decision in the Siemens AG/Alstom merger case where Germany's Economy Minister, Peter Altmaier, and his French equivalent, Bruno Le Maire, called for a reform of European Competition Rules. In this sense see: <https://www.reuters.com/article/us-britain-eu/uks-may-to-promise-new-brexit-debate-in-push-for-more-negotiating-time-idUSKCN1PZ09S>; and the report, '*La politique*

the deal being cleared in Singapore, as it would have created a quasi-monopoly in several railway signalling and high-speed train markets. Governmental contaminations in merger enforcement also occurred in South Africa when employment considerations played a role in the *Walmart/Massmart (2011)* case. The deal was cleared upon the condition that *Walmart* would create a local suppliers' development fund and reintegrate around 500 employees.[306] Similar employment considerations also played a role in *Edeka/Kaiser's Tengelmann (2016)* and *Financière Cofigeo/Agripole Group (2018)*.[307] In the latter case, the French Ministry of Economy unconditionally re-approved a transaction already subjected to divestments by the French *Autorité de la Concurrance*.

Moreover, on top of manifesting itself in various ways and occurring in different enforcement areas, governmental contaminations can happen for a number of substantive reasons, such as employment considerations, media plurality (e.g. the U.K. *Fox/Sky (2018)* case),[308] environmental protection (e.g. the US *Panasonic/Sanyo* (2009) or German *Miba/Zollern (2019)* cases),[309] protection from hostile foreign acquisitions (e.g. the German *Vosslo*

de la concurrence et les intér intérêts stratégiques de l'UE' (April 2019) <http://www.igf.finances.gouv.fr/files/live/sites/igf/files/contributed/IGF%20internet/2.RapportsPublics/2019/2018-M-105-03-UE.pdf>. Contrarily, see M. Motta, and M. Peitz, 'Competition Policy and European Firms' Competitiveness' (20 February 2019) VOX CEPR Policy Portal, <https://voxeu.org/content/competition-policy-and-european-firms-competitiveness>.

[306] *Walmart Stores Inc v Massmart Holdings Ltd* (73/LM/Dec10) [2011] ZACT 42 (29 June 2011), <https://www.saflii.org/za/cases/ZACT/2011/42.html>.

[307] Bundeskartellamt, Decision B2-31/17, (2017); AdC, Decision 18-DCC-95, (2018).

[308] CMA, 21st Century Fox, Inc and Sky Plc - a report on the anticipated acquisition by 21st Century Fox, Inc of Sky Plc., (2018), <https://assets.publishing.service.gov.uk/media/5b1671fde5274a1908919e47/CMAFoxSky_report_nonconfidential.pdf>.

[309] FTC, 'FTC Order Sets Conditions for Panasonic's Acquisition of Sanyo', (2009), <https://www.ftc.gov/news-events/news/press-releases/2009/11/ftc-order-sets-conditions-panasonics-acquisition-sanyo>;
Bundeskartellamt, 'Bundeskartellamt prohibits merger between Miba and Zollern in bearing production sector', (2019),
<https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2019/17_01_2019_Miba_Zollern.html>.

Locomotives/CRRC Zhuzhou Locomotives (2020)[310] the Italian *Pirelli/China National Tyre and Rubber Company (CNRC)*[311]).

Importantly, though, while political contaminations are probably ineliminable, they are not necessarily unjustified.[312] Allowing some leeway to take into account employment, environmental, national security, or media plurality considerations is necessary to impede competition regimes blindly maximising efficiencies, while destroying other conflicting interests having equal or higher constitutional value. As a result, complexity resides in ensuring that governmental contaminations are justified and proportionate. An outcome unachievable absent a global multilateral system of reciprocal checks-and-balances as nation-centric competition regimes are prone to get captured by political interests, especially when national governments either have minor influence over their firms given the latter's huge exposure to international activities,[313] or have such a close relationship with their champion undertakings that they are essentially two faces of the same coin (e.g. OPEC cartel).

Accordingly, nation-centric competition regimes are structurally unfit to protect against governmental contaminations given the intrinsic conflict of interest they generate. Equally, regional competition regimes suffer the same limitations for at least two reasons. Firstly, because from a global perspective they re-propose the same conflicts of interest traditional

[310]In this case, it initially circulated that the German Federal Minister of Economy and Energy would have intervened to block the transaction, although ultimately, he did not do it. See Bundeskartellamt (B4-115/19) 'English Case Summary of 27 April 2020.' (27 April 2020) <https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Fusionskontrolle/2020/B4-115-19.pdf?__blob=publicationFile&v=5>.

[311] This case was highlighted by the EC as a base for justifying the introduction of new powers to limit the competitive distortions resulting from foreign subsidies. See European Commission, 'Commission staff working document Impact Assessment accompanying the Proposal for a Regulation of the European Parliament and of the Council on Foreign Subsidies distorting the Internal Market.' (2021) SWD(2021) 99 final, 13.

[312] For a few examples see *the Dutch Chicken of Tomorrow* case (ACM/DM/2014/206028); the EU *Consumer Detergents* cartel (Commission decision of 13 April 2011, case 39579); the EU CECED case (CECED (IV.F.1/ 36.718) Commission Decision 2000/ 475/ EC [2000] OJ L187/ 47); the French AdC *Décision 17-D-20 relative à des pratiques mises en œuvre dans le secteur des revêtements de sols résilients*; the DoJ 2000 business review letter to the *Akutan Catcher Vessel Association* that planned to replace its old quota system with a new one to protect fishing stocks, (see J. Klein (ed.), *Business Review Letter by Assistant Attorney General Joel I. Klein* (2002)); the authorisation granted in Australia (under Part VII, 90 of the Competition and Consumer Act 2010, the ACCC (2020[62]) on 'environmental benefits' grounds to the Battery Stewardship Council (BSC) for establishing an open nationwide scheme finalised at recycling batteries despite such scheme including an exclusivity obligation to only deal with members of the scheme. (B. Council, (ed.), *Determination Application for authorisation AA1000476 lodged by Battery Stewardship Council in respect of the Battery Stewardship Scheme Authorisation number: AA1000476* (2020)).

[313] T. Philippon, *The great reversal: how America gave up on free markets* (Harvard University Press, 2019).

of national regimes given the likelihood of regional interests being prioritised, though on a slightly bigger geographic scale (i.e. regional instead of national). Secondly, because regional competition regimes are prone to being captured by those member countries having a relatively greater economic power and thus serving their interests.

Once again, therefore, only an effective global multilateral co-operation framework can provide the necessary check-and-balances to neutrally and objectively evaluate governmental contaminations' reasonability and proportionality.

3.6. Conclusions

International competition co-operation has improved since the 1990s, particularly in the spheres of merger and cartel enforcement, where frequent consultations, alignment of timelines, joint interviews, and information exchanges mainly through waivers have become more frequent. Yet, despite these developments, the quality of such co-operation remains wanting. First because it is primarily occurring through informal channels, which lack both the ambition and the potential to deliver enhanced forms of co-operation and render international competition co-operation a common, standard, and structural practice. Second, because the remaining minority of co-operation that is vehiculated through formal channels relies on a fragmented net of legal bases with different nature (e.g. not necessarily competition specific), scope (e.g. bilateral or multilateral), and strength (e.g. binding or not-binding) whose utilisation is costly, ineffective, and time consuming, thus scarce. Particularly revealing in this sense are the mismatches between legal base availability and its relevance/frequency of use (e.g. MoUs, while widely available, are neither the most frequently used, nor the most relevant) or that between theoretical potentials and practical utilisation of certain legal bases (e.g. despite information gateways enabling enhanced forms of international competition co-operation, they are scarcely adopted and even more rarely used).

As a result, the tension between the national dimension of competition enforcement and the global scale of markets has been intensifying due to national economies' growing globalisation and digitalisation, and the proliferation or expansion of nation-centric competition regimes. This mounting tension remains a cause of several major issues such as

enforcement asymmetries, gaps, overlaps, and excessive political contaminations. To mitigate pending issues, only an effective global, multilateral, competition co-operation framework enabling reciprocal checks-and-balances of enforcement priorities and remedial actions has been identified as a viable option. Global normative convergence or a uniform world antitrust enforced by a single global agency are not a desirable outcome since heterogeneous outcomes are not inherently problematic, except when occurring without objective justifications or by disproportionately exceeding them and lacking counterbalancing measures to mitigate their distorting effects. Therefore, the way ahead for international competition co-operation is towards a global, multilateral system of transparent checks-and-balances.

4. Scaling up: the search for a global model across regional competition co-operation frameworks

4.1. Introduction

Understanding the weaknesses of the current global co-operation framework, Chapter 4 will analyse a selection of regional, multilateral, competition co-operation frameworks that have adopted regional competition provisions and established a regional competition authority, as they have proved to be the most effective.[314] The aim will be to discover an imitative model for re-engendering the global co-operation framework or, should no model be found, identify the characteristics underpinning the most successful regional frameworks.

Consequently, all the four typologies of regional competition co-operation frameworks shown in **Figure 2** will be examined through the analysis of their general features, infrastructure, and working mechanisms. Accordingly, Section **4.2** analyses the so-called 'regional referee model' active in the Andean Community (CAN), Section **4.3** focuses on the so-called 'two-tier model' using the Caribbean Community (CARICOM) as a case study. Then, Section **4.4** examines the so-called 'joint enforcement model' applied by the European Competition Network (ECN). The ECN will be analysed at length since it has distinguished itself as a leading co-operation system both in terms of structural design and decision practice.[315] Consequently, Section **4.5** studies the so-called 'one-tier model' through the revision of the West African Economic and Monetary Union (WAEMU). Section **4.6** concludes by analysing the capabilities, potential challenges, and limitations of transposing these regional frameworks to a global context.

[314] Therefore, regional frameworks such as the Australia and New Zealand Closer Economic Relations (ANZCERTA), Asia-Pacific Economic Cooperation (APEC), Association of Southeast Asian Nations (ASEAN), Organisation of Eastern Caribbean States (OECS), Nordic Alliance, North American Free Trade Agreement (NAFTA) and Southern African Development Community (SADC) will not be part of the analysis.

[315] This clearly emerged during the OECD 2018 edition of the Global Forum on Competition during the 'Roundtable on benefits and challenges of regional competition agreements' (12 November 2018) DAF/COMP/GF(2018)5.

4.2. The Andean Community (CAN)

4.2.1. General features

The Andean Community (CAN)[316] concerns the economic integration of Bolivia, Colombia, Ecuador, and Peru. The CAN applies the so-called 'regional referee model', a co-operation framework where the regional competition authority has exclusive jurisdiction on regional cases, whereas national agencies are exclusively competent over national investigations. However, despite the final decision over regional competition infringements being an exclusive competence of the regional agency, the investigation of these cases is still conducted by the national authorities. National authorities, therefore, have full jurisdiction only on national cases, while at regional level they play a mere auxiliary investigative role.

Specifically, the CAN's competition law framework revolves around Chapter X (Article 93 and 94) of the Treaty of Cartagena and Decision 608[317] adopted by the Andean Commission in 2005. Chapter X of the Treaty of Cartagena empowers the Andean Commission to adopt competition rules upon suggestion from the General Secretariat of the Andean Community (SGCA) and attributes the latter jurisdiction over regional anticompetitive conduct (i.e. cartels and unilateral conduct). Significantly, the Cartagena treaty excludes mergers and state aid provisions.

The CAN's institutional design includes the SGCA and the Justice Tribunal of the Andean Community (TJCA). In 2014 the SGCA was divided into three Directions General, covering 21 topics. Within Direction General n. 1, there is a competition unit. The TJCA oversees the legality of all regional matters. Within this framework, the SGCA and the Andean Committee for Defence of Competition (an advisory group formed by representatives of all the competition authorities of the Andean Community's member countries), which provides opinions to the SGCA, have the exclusive power to enforce the regional competition

[316] The Andean Community (formerly the Andean Pact) was established in 1969 and includes an economic integration process for Bolivia, Colombia, Ecuador, and Peru. There are five associate members: Argentina, Brazil, Paraguay, Chile and Uruguay, and one observer: Spain. It covers a market of more than 100 million people and a regional GDP (PPP) of nearly US$1 trillion. See <http://sice.oas.org/Andean/instmt_s.asp>.

[317] Decision 608 was the culmination of a process of 34 years. It started with Decision 45 of December 18th, 1971, which put in place the first basic antitrust regulations. This norm was subsequently replaced by Decision 230, published on December 18th, 1987, and later by Decision 285 published on April 4th, 1991. Finally, in March 2005, Decision 608 (current antitrust regional framework) was approved.

provisions.[318] The SGCA's jurisdiction concerns all anticompetitive practices that produced effects in two or more member countries, regardless of the place within which they occurred, either the territory of a member country or a non-member one. In all other scenarios national competition provisions apply, whose enforcement is exclusively attributed to national competition agencies as per Article 5, Decision 608.

Although NCAs cannot enforce regional provisions, national governments must execute the interim or final decisions adopted by the SGCA. Moreover, despite not being enforceable by national competition agencies, regional provisions remain directly applicable in national settings where a national competition regime is absent.[319] Decision 608's transitory direct applicability of regional competition provisions exists because when Decision 608 was adopted, neither Bolivia nor Ecuador had national competition regimes,[320] and the situation remains unchanged in Bolivia given it has yet to adopt one.[321]

The option of direct applicability of regional competition provisions at national level absent a national competition regime, also known as the 'downloading' option,[322] has recently been confirmed by the TJCA in a pre-judicial opinion in case 472-IP-16.[323] Notably, the TJCA upheld the decision of the Bolivian Authority for the Supervision and Control of Firms sanctioning, under regional competition rules, the national Bolivian brewing company for abuse of dominance, despite the abuse not producing cross-border effects. Further, along with

[318] Its conclusions or recommendations are not binding on the General Secretariat who, however, must justify any departure.
[319] Cubillos, A., J.S. Pachón, and C.M. López-Cárdenas (2014). Los principios de primacía y eficacia directa del derecho comunitario andino: conceptualización, desarrollo y aplicación. *Revista Jurídicas, 11* (2), 148-169.
[320] Article 49 of Decision 608.
[321] Even though Supreme Decree 29519 of 2008 regulates competition and consumer protection in Bolivia, this is not considered a national competition law per international standards (see M. A. Umaña (2018). 'Regional Competition Arrangements: The Case of Latin American and the Caribbean', 17th Global Forum on Competition, 29-30 November 2018).
[322] F. Marcos, 'Downloading competition law from a regional trade agreement (RTA): A new strategy to introduce competition law in Bolivia and Ecuador', (2008), UNCTAD's Seventh Session of the Intergovernmental Group of Experts on Competition Law and Policy – Geneva, 2006.
[323] Interpretacíon prejudicial n. 472-IP-16 de fecha 7.09.2018, Gaceta Oficial del Acuerdo de Cartagena n. 3382, 1.10.2018 <https://www.tribunalandino.org.ec/decisiones/IP/472-IP-2016.pdf>.

affirming the direct applicability and direct effect of the Andean Community's rules, the TJCA also took the opportunity to state the primacy of the regional rules over the national ones.[324]

Concerning the CAN's working mechanisms, as said, whereas the SGCA sanctions cross-border infringements, their investigation is left to national agencies. The SGCA can initiate its investigations either ex-officio or upon request by interested parties.[325] After launching an investigation, the SGCA demands concerned NCAs' collaboration to carry out the investigation. Practically, for each investigation the SGCA, together with involved NCAs, draws up an investigatory plan specifying the type of actions to be taken, the addressee(s) of such actions, and the key features of the investigated conduct. Once the plan is developed, the SGCA and involved NCAs constantly coordinate during its execution. After the investigation, the NCAs report back to the SGCA within a time limit, presenting the results of the investigation, and the SGCA will then take the ultimate decision. Where it deems necessary, it is possible for the SGCA to conduct its own investigation.

4.2.2. Enforcement practice

Despite the number of enforcement decisions being minimal, the SGCA's enforcement record is the most considerable among the co-operation frameworks falling under the regional referee model, such as MERCOSUR, who have not taken any.[326] Nonetheless, the CAN's enforcement record is still a major issue, considering the low number of decisions made;[327] to date, it only amounts to a few.

In one case, for instance, the SGCA issued a communication to reject investigating collusive behaviours in public procurement of the public transport sector, due to the lack of cross-

[324] More recently on this, see also interpretación prejudicial n. 02-IP-2019 de fecha 11.12.2020, Gaceta Oficial del Acuerdo de Cartagena n. 4126, 14.12.2020 <https://www.tribunalandino.org.ec/decisiones/IP/02-IP-2019.pdf>, pp. 4-9.

[325] Complaints can be presented by national competition authorities, other national authorities responsible for the integration of Andean Community's member countries, any natural or legal person including consumers associations and other entities. See Interpretación Prejudicial n. 78-IP-2018 de fecha 7.09.2018, Gaceta Oficial del Acuerdo de Cartagena n. 3383, 1.10.2018 <https://www.tribunalandino.org.ec/decisiones/IP/78-IP-2018.pdf>, footnote 7, p.8.

[326] OECD, 'Regional competition Agreements: Benefits and Challenges', (2018).

[327] J. Cortázar, 'Andean competition law: looking for the private sector, or the quest for the missing link in antitrust', in J. Drexl (ed.), "Competition Policy and Regional Integration in Developing Countries", (Edward Elgar, 2012); Colombia's contribution to the OECD Roundtable on challenges and co-ordination of leniency programmes, (2018), <https://one.oecd.org/document/DAF/COMP/WP3/WD(2018)14/en/pdf>.

border impact. The communication was then upheld by the TJCA, (in case 05-AN-2015), which, while acknowledging that there was no real cross-border impact, also demanded the SGCA to close similar future cases with formal decisions instead of communications.[328]

Another SGCA high-profile investigation originated from a complaint from the Ecuadorian competition authority (Superintendencia de Control del Poder de Mercado (SCPM)) which, by illegally declassifying self-incriminating leniency material, accused one of its leniency applicants (Kimberly-Clark) of anticompetitive conduct in Ecuador, Peru, and Colombia.[329] The case caused turmoil in the region as it questioned the effectiveness of Andean leniency programmes. The SCPM's initiative, indeed, was appealed by Kimberly-Clark Ecuador (KCE) before the Tribunal Distrital de lo Contencioso Administrativo (TDCA). Even multiple agencies (SIC in Colombia and INDECOPI in Peru) publicly condemned the SCPM's behaviour and warned that the disclosure of leniency material might undermine Andean leniency programmes' effectiveness.[330] As the TDCA rejected KCE's appeal,[331] the SGCA went ahead and issued an infringement decision in May 2018,[332] which was later reversed[333] due to some Ecuadoral incidental judicial proceedings invalidating, among others, the SCPM's declassification of KCE's leniency material. [334]

Further, another case of particular interest is the SGCA's prosecution of the Andean soft paper market cartel (case 78-IP-2018), as some of the firms sanctioned by the SGCA were also fined by the Colombian competition authority for fixing prices in the adjacent baby diaper market. One firm sanctioned in both proceedings appealed the decision of the Columbian authority for violating the *ne bis in idem* principle and requested a pre-judicial interpretation from the

[328] Sentencia recaída en el Proceso 05-AN-2015 de fecha 9 de marzo de 2017, Gaceta Oficial del Acuerdo de Cartagena n. 3012, 2.05.2017 <https://www.tribunalandino.org.ec/decisiones/AN/05-AN-2015.pdf>. The TJCA's instructions were followed shortly after in a plurality of cases (e.g. resolution 1855 and resolution 1935).
[329] The SCPM's Complaint to the CAN (N° 2709).
[330] OECD (2021), *OECD-IDB Peer Reviews of Competition Law and Policy: Ecuador*, <https://www.oecd.org/daf/competition/ecuador-oecd-idb-peer-reviews-of-competition-law-and- policy-2021.pdf>, p. 105; C. Mena-Labarthe, J. Barahona, V. Marques de Carvalho, E. Frade, The end of leniency programmes in the Andean Region?, (2018), *CPI*.
[331] Judgement n. 09802-2017-00196, TDCA.
[332] Resolutión n.2006, SGCA, 28th May 2018.
[333] Resolutión n.2017, SGCA, 6th August 2018.
[334] *Ex multis*, see the National Court of Justice and the Constitutional Court's judgement in Case N° 2007-19-EP.

TJCA. [335] The latter, after confirming the existence of the principle, required a triple identity (same subjects, conduct, and legal interests protected) to occur for its applicability.[336]

Finally, more recently, in case 02-IP-2019, the TJCA was required to clarify whether predatory litigation could be classified as illegal conduct, despite not being included among the practices listed in Article 8, Decision 608. The TJCA, reaffirmed the direct applicability and supremacy of the Andean competition rules, [337] clarified that Article 8's illegal practices are not exhaustive and qualified the conduct of predatory litigation as illegal when deployed by a dominant firm.[338]

4.2.3. The merger lacuna

Despite the high concentration and small number of firms in the Andean region, the Treaty of Cartagena does not include regional merger provisions, and national merger regimes reciprocally diverge both substantially and procedurally.

Substantially, assessment criteria to evaluate mergers' legality vary greatly among Andean countries. Whereas Ecuador applies the EU concept of dominance,[339] Colombia uses a less stringent concept ('tends to cause an undue restriction of free competition'[340]) resembling the EU 'slight lessening of competition' standard. As a result, cross-border transactions of concern which are blocked in Colombia might be approved in Ecuador as not necessarily leading to a dominant position.

Secondly, procedural divergences also exist among Andean countries. While certain countries adopt a mandatory pre-merger notification system (e.g. Colombia[341] and Peru), others either do not have one at all (e.g. Bolivia) or combine the mandatory notification system with a voluntary one (Ecuador). Although some countries apply turnover thresholds, others also use

[335] Interpretación Prejudicial n. 78-IP-2018 de fecha 7.09.2018, Gaceta Oficial del Acuerdo de Cartagena n. 3383, 1.10.2018 <https://www.tribunalandino.org.ec/decisiones/IP/78-IP-2018.pdf>.
[336] Case n. 11001333400520170011700, Sección Primera del Juzgado Quinto Administrativo Oral del Circuito de Bogotá, Colombia.
[337] Interpretación prejudicial n. 02-IP-2019 de fecha 11.12.2020, Gaceta Oficial del Acuerdo de Cartagena n. 4126, 14.12.2020 (<https://www.tribunalandino.org.ec/decisiones/IP/02-IP-2019.pdf>), pp.4-9.
[338] *Ibid*, pp.25-39.
[339] OECD (2021), *OECD-IDB Peer Reviews of Competition Law and Policy: Ecuador*, <https://www.oecd.org/daf/competition/ecuador-oecd-idb-peer-reviews-of-competition-law-and- policy-2021.pdf>.
[340] Article 11, Law 1340/09.
[341] Article 9, Law 1340/09.

market share tests (e.g. Ecuador). Additionally, the merger review process also varies, with some countries having a two-phase analysis (e.g. Colombia), whereas others conduct a single-phase review (e.g. Ecuador) or no merger review at all (e.g. Bolivia).

Given that regional provisions do not concern mergers, Bolivia cannot fill its national legislation gaps by applying regional provisions in merger scenarios. Compared to Bolivia, the lack of a merger regime has been less marked in Peru (which established one only recently), as Article 1 of Law 26876, exceptionally provided a premerger notification system for generation, transmission, and distribution of electricity markets. In 2021, however, after the OECD suggested its adoption,[342] Peru introduced through Law n. 31 112/2021 a generalist merger regime that goes beyond the electricity market.

Finally, across Andean countries, differences also exist in terms of records of enforcement. Whereas Peruvian INDECOPI has only reviewed a small amount of transactions and never blocked any, other authorities claim a greater and more intrusive enforcement record (e.g. Colombia).

As a result, existing substantial and procedural differences in merger regimes make co-operation among national competition authorities extremely complex, thus reducing legal certainty in the Andean region and potentially leading to problematic heterogeneous or even conflicting enforcement outcomes.

4.3. The Caribbean Community (CARICOM)

4.3.1. General features

The 1993 Chaguaramas Treaty, signed in Trinidad and Tobago, established the Caribbean Community (CARICOM) with the aim of economic integration among its fifteen full member countries. [343] CARICOM has a market of approximately 23 million people and a GDP of around

[342] OECD (2018), *OECD-IDB Peer Reviews of Competition Law and Policy: Peru*, <https://www.oecd.org/daf/competition/PERU-Peer-Reviews-of-Competition-Law-and-Policy- 2018.pdf>.

[343] See <http://sice.oas.org/CARICOM/instmt_s.asp>. On top of the fifteen full member countries (i.e. Antigua and Barbuda, the Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St Lucia, St Kitts and Nevis, St Vincent and the Grenadines, Suriname, and Trinidad & Tobago), there are also other five associate members (Anguilla, Bermuda, British Virgin Islands, Cayman Islands, and Turks and Caicos) and eight observers (Aruba, Colombia, Curacao, Dominican Republic, Mexico, Puerto Rico, St Martin and Venezuela). However, out of the fifteen full member countries only thirteen actively participate in the CSME and are financial contributors to the CARICOM Competition Commission (Bahamas and Haiti are not yet fully participatory).

US$140 billion. The 1993 treaty was updated in 2001 when the Heads of Government of the Caribbean Community signed the Revised Chaguaramas Treaty (RCT) in Nassau, Bahamas. From a competition viewpoint, the Chaguaramas Treaty likely drew inspiration from the EU model to shape CARICOM's competition regime. Indeed, first, the treaty includes a set of regional competition provisions (Articles 168-183 RCT) to prevent national interests from completing the Caribbean Single Market Economy (CSME); second, like the EU before the decentralisation operated by Regulation 1/2003, the treaty established two independently operating levels of competition enforcement: a regional and a national one that although distinct and independent, reciprocally influence one another.

As such, CARICOM's competition regime is an example of the so-called 'two-tier model' as there are two independently operating levels of enforcement which have exclusive original jurisdiction, conduct investigations, and adopt final decisions. Therefore, contrary to the CAN regional referee model, the Caribbean two-tier model is characterised by the investigation and decision-making of regional competition infringements being fully performed at the regional level by the regional authority. Accordingly, as per the two-tier framework, Article 171 of the Chaguaramas Treaty established the CARICOM Competition Commission (CCC) and assigned it the task of enforcing regional competition provisions.[344]

The CCC was created in 2001, in Suriname, and based on Article 173(1)(a), RCT, the CCC is responsible for developing and promoting competition policy and legislation among CARICOM member states, coordinating the work of national competition authorities, and investigating anti-competitive conduct that affects trade within the CARICOM region. The CCC's jurisdiction is limited to 'anti-competitive cross-border business conduct' as per Article 173(1)(a).[345] Despite the RCT not defining this concept, a 2019 CCC note clarified that it encompasses any conduct that originates in one member country and concludes in another, or that although originating and concluding in one member country, is likely to produce economic consequences in another or in the entire CSME.[346] Consequently, the CCC has

[344] Article 171 and 173, RCT.
[345] Article 173(1)(a), RCT.
[346] See the Commission's Guidance Note entitled 'Clarifying the Cross-Border Jurisdiction of the Competition Commission under the Revised Treaty of Chaguaramas' (August 2019).

jurisdiction over anticompetitive conduct that is either cross-border in nature or that produces cross-border effects.

To carry out the tasks assigned to it by Article 173(1)(a), RCT, the CCC monitors anti-competitive practices occurring in the CSME, resolves cross-border disputes, advises the Council for Trade and Economic Development (COTED) to enhance the Community Competition Policy,[347] promotes the establishment of institutions, the development of harmonised laws and coherent enforcement practices among member states, and supports adhering member countries in protecting consumer welfare.

To accomplish these tasks, Article 174 RCT grants the CCC significant enforcement powers, including the ability to monitor, investigate, detect, make determinations, and take action against companies whose conduct prevents, restricts, or distorts cross-border competition within the CSME. The CCC also has the authority to compel the attendance of individuals, the discovery or production of documents, and take other necessary actions in furtherance of investigations. The CCC can also issue negative clearance concerning the compatibility of business conduct with the regional competition rules.[348] Further, the CCC has the power to terminate and void anticompetitive agreements, issue cease and desist orders, mandate compensation for harmed consumers, and impose fines.

Yet, despite these extensive powers, it is up to the member countries to enact legislation to guarantee that the CCC's decisions are enforceable in their jurisdictions.[349] This is because, contrary to the CAN and the EU, regional competition provisions in CARICOM are not directly applicable across member countries. This feature considerably limits the CCC's autonomy and ability to act. Finally, as in the EU, in 2016 the CCC established the so-called 'CARICOM Competition Network' (CCN) to ensure the development of a consistent competition culture

[347] COTED, indeed, plays an important role, as based on Article 182, RCT, it is authorised to develop and establish 'appropriate policies and rules of competition within the Community, including special rules for particular sectors.' Additionally, based on Article 183, RCT, COTED also has the power to exclude or suspend the application of the prohibition on anti-competitive business conduct to any sector or any enterprise or group of enterprises in the public interest.
[348] Article 180, RCT.
[349] Article 174(6), RCT.

in the Caribbean region and to fully realise the deep degree of enforcement co-operation mandated by the RCT across the national competition authorities.[350]

At the national level, Article 170 RCT mandates member countries to implement national competition regimes[351] and establish national competition authorities.[352] The RCT, along with demanding national competition agencies to enforce national competition rules to address national anticompetitive conduct, demands them to co-operate with the CCC to ensure compliance with regional competition rules for firms engaging in cross-border activities. This co-operation may include the prevention and detection of anticompetitive conduct, investigation assistance, exchange of information, etc.[353]

Despite the theoretical quality of RCT's obligations, their practical application is more problematic. Out of fifteen CSME member countries, only four (Guyana, Jamaica, Barbados, and Trinidad and Tobago[354]) thus far have enacted competition legislation and established national competition authorities. Existing national competition statutes, moreover, exhibit significant differences which can further reduce the enforcement consistency and co-operation mandated by the RCT. Differences concern structural options, substantive tests, and levels of co-operation with the CCC. For example, only two out of the four national competition statutes (in Barbados and Trinidad & Tobago) contain merger provisions.

Acknowledging existing differences and the related limited implementation of Article 170(2) RCT as well as the enforcement gaps occurring in member countries still lacking competition regimes, the Eighteenth Special Meeting of the Conference of Heads of Government, held in December 2018, agreed to explore whether the CCC could also act as a national competition agency for the countries agreeing to such an arrangement. [355] Accordingly, the Reconvened Task Force on Competition Law and Policy in the CSME was tasked to examine the changes

[350] CARICOM, Contribution to the OECD Global Forum on Competition roundtable on 'Regional competition agreements: benefits and challenges', DAF/COMP/GF/WD(2018)62, (2018).
[351] Interestingly, three out of the four national competition legislations mirror these treaty co-operation provisions. The only exception is the 1993 Fair Competition Act of Jamaica which pre-dates the RTC and so does not formally provide for enforcement co-operation between the CCC and the Jamaica Fair Trading Commission.
[352] Article 170 (1)(b) and (2) RCT. Note that Article 170(2) RCT does not mandate the form or structure that national competition regime and authorities shall adopt in detail, the obligation being placed on Member States only to establish and maintain a national competition authority.
[353] Article 170(3), RCT.
[354] The Trinidad and Tobago Fair Trade Act was fully proclaimed in February 2020.
[355] HCG(Spec)2018/18/18/CSC/7.

needed to enable such transformation. After almost two years of proceedings, the Task Force issued multiple reports outlining the reform enabling the CCC metamorphosis. The reform, however, is still on hold, the outstanding issue being member countries' financial contributions needed to operationalise the CCC's dual role.

4.3.2. CARICOM's internal working mechanism and its enforcement practice

The CCC can launch investigations either ex-officio[356] or upon request from a CSME member country or COTED[357] as long as there is evidence of cross-border anti-competitive conduct within the CSME. Notably, individuals or firms cannot directly interact with the CCC, but instead must bring their complaints to their respective governments, which may then request an investigation from the CCC. Investigation requests must be in writing and contain sufficient information for the CCC to make a preliminary assessment.[358] The CCC has 30 days to decide whether to proceed with an investigation[359] and, if that is the case, it may ask the NCAs to carry out a preliminary enquiry.[360] If the CCC is not satisfied with this, it may conduct its own investigation[361] and where justified coordinate with concerned member countries to determine jurisdiction over further investigations.[362] In case of jurisdictional disputes, the CCC stays its proceedings and refers the matter to COTED for resolution.[363]

Once an investigation is launched, it must be completed within 120 days from receipt of the request for investigation to provide legal certainty to firms that otherwise may be adversely impacted by excessively prolonged prosecutions.[364] If circumstances warrant, such a deadline can be extended.[365] Once investigations are over, the CCC notifies defendants of its remedial measures and grants 30 days for compliance.[366] In case of non-compliance, the CCC may request an executive order from the Caribbean Court of Justice (CCJ).[367] Furthermore, the

[356] Article 176(1), RCT.
[357] Article 175(1)-(2), RCT.
[358] Article 175(3), RCT.
[359] Article 175(4)-(5), RCT.
[360] Article 176(1), RCT.
[361] Article 176(3), RCT.
[362] Article 176(4), RCT.
[363] Article 176(5), RCT.
[364] Article 175(6)(b), RCT.
[365] Article 175(6)(c), RCT.
[366] Article 175(9)-(10), RCT.
[367] Article 175(11), RCT.

CCC's decisions can be appealed before the CCJ by any addressee[368] or any member country dissatisfied with the CCC's conclusions.[369] The CCJ is the final court of appeal for the CCC's decisions.

Nationally, countries having established a national competition authority have exclusive jurisdiction over national competition cases and firms or individuals can submit written complaints to them. Whether an NCA encounters infringing conduct with cross-border effects, it has to refer it to the CCC. National authorities' decisions can be appealed to a Judge in Chambers, who may confirm, modify, or reverse the findings.

Moreover, since NCAs can also exempt certain market sectors from national competition rules, conflicts may arise if cross-border anti-competitive conduct occurs in sectors not coherently exempted at the regional level. In such scenarios, NCAs' decisions hinder regional competition law's implementation and may create enforcement gaps potentially at the expense of third member jurisdictions that, despite not exempting the concerned anti-competitive cross-border conduct, are still affected by it.

Equally, conflicts between member countries without national competition regimes and the CCC may also occur as the former can still have some forms of competition enforcement through their sector-specific regulators, some of which have competition enforcement powers (e.g. telecom regulator). Yet, despite the possibility of these enforcement overlaps, the RCT does not mandate sector regulators to co-operate with the CCC, nor do sufficient national provisions exist to enable this type of co-operation.[370] These limitations evidently emerged in the *Republic Bank/Scotiabank* merger case as further explained in the next section. Acknowledging these issues, the CCC included in its 2020-2022 Strategic Plan the importance of building deeper relationships with sector regulators.[371]

Concerning enforcement statistics, despite CARICOM's enforcement record being trivial compared to EU numbers, it positively distinguishes itself from other regional two-tier

[368] Article 175(12), RCT.
[369] Article 176(6), RCT.
[370] CARICOM, Contribution to the OECD Global Forum on Competition roundtable on 'Regional competition agreements: benefits and challenges', DAF/COMP/GF/WD(2018)62, (2018).
[371] CCC, Strategic Plan 2020-2022. A roadmap for the future growth and development, <https://www.caricomcompetitioncommission.com/images/pdf/CCC%20Plan.pdf >.

competition co-operation frameworks, such as CEMAC or EAC, neither of which have yet enforced the regional provisions.[372] Yet, despite this meagre success, CARICOM's competition enforcement record remains unsatisfying.[373] Between 2019-2021, competition authorities in the region prosecuted 37 abuse of dominance cases, 38 mergers, and 2 restrictive agreements.[374] While the growing number of investigations is encouraging, their lack of deterrence is problematic. Indeed, out of the 37 abuse of dominance prosecutions, no company was fined in the Caribbean region.[375] Equally, only five businesses were fined a total of US$10,000 for engaging in cartel activity over the same three-year period.[376] Most enforcement decisions were settled, thus avoiding having to go to court. The CCC itself did not issue any enforcement decisions until 2018,[377] although commenced its first investigation in 2010.[378] Recognising the low competition enforcement record, the CCC advanced several reforms in its 2020-2022 Strategic Plan to strengthen its powers, slimline procedures, and reduce bureaucratic frictions.[379]

4.3.3. The merger lacuna

Like the CAN, the CARICOM competition framework does not include merger provisions. Despite Chapter VIII, RCT, not including merger provisions, it leaves national leeway as Article 177(1)(c), RCT, demands member countries to prohibit within their jurisdiction 'any other like conduct by enterprises whose object or effect is to frustrate the benefits expected from the establishment of the CSME.'[380] As a result, some member countries (e.g., Barbados and Trinidad & Tobago) have adopted national merger control regimes, although there are problematic substantial and procedural differences among them. These differences

[372] OECD, 'Regional competition Agreements: Benefits and Challenges' (2018), para 74. Slightly better is the enforcement record of the EAEU (see OECD, 'Peer Reviews of Competition Law and Policy: Eurasian Economic Union', (2021), <https://www.oecd.org/daf/competition/oecd-peer-reviews-of-competition-law-and-policy-eurasian-economic-union-2021.pdf>.
[373] CCC, State of competition enforcement in the CSME (2019-2021).
[374] CCC, State of competition enforcement in the CSME (2019-2021), p.18.
[375] Ibid, p.18.
[376] Ibid, p.18.
[377] M.A. Umaña, Regional Competition Agreements: The Case of Latin American and the Caribbean, (2018), <https://one.oecd.org/document/DAF/COMP/GF(2018)6/en/pdf>.
[378] CCC, Strategic Plan 2020-2022. A roadmap for the future growth and development, p.4.,<https://www.caricomcompetitioncommission.com/images/pdf/CCC%20Plan.pdf >.
[379] CCC, Strategic Plan 2020-2022. A roadmap for the future growth and development, <https://www.caricomcompetitioncommission.com/images/pdf/CCC%20Plan.pdf >.
[380] Article 177(1)(c), RCT.

undermine legal harmonisation, enforcement consistency and the high degree of co-operation mandated by the RCT.

Recognising these problems and attempting to mitigate them, the CCC has adopted several initiatives. Firstly, it has organised capacity building events with international partners to nurture a coherent competition culture in merger enforcement. Accordingly, for instance, in 2019, the CCC hosted a workshop with the US Federal Trade Commission to train CARICOM region case handlers on merger analysis.[381]

Secondly, despite RCT exclusion of merger provisions, the CCC has attempted to leverage Article 176(1), RCT, which empowers the CCC to investigate 'any business conduct that prejudices trade and prevents, restricts, or distorts competition within the CSME and has cross-border effects', to acquire jurisdiction over cross-border mergers. Such an attempt, however, failed in *Republic Bank/Scotiabank* (a merger deemed to lead to anticompetitive effects in Guyana, Grenada and Saint Lucia[382]) since the absence of competition agencies in Saint Lucia and Grenada hindered the implementation of Article 176, RCT, procedure, only executable with the Guyana Competition and Consumer Affairs Commission (CCAC). Indeed, while the CCC and CCAC revisions were ongoing, the Eastern Caribbean financial sector regulator approved the transaction, although the Guyanese counterpart blocked it based on the competition concerns highlighted by the CCC and the CCAC.[383] As a result, it was concluded that although the transaction fell within its jurisdiction given its cross-border effects, the CCC could not investigate it due to the institutional competition framework's limitations,[384] as designed by Chapter VIII, RCT. These limitations partly derived from some member countries not having established national competition regimes and authorities, and partly from a lack of regional merger provisions and co-operation mechanisms with national regulators. Accordingly, a significant cross-border transaction escaped revision in some impacted CSME countries.

[381] CARICOM, Contribution to the OECD Global Forum on Competition roundtable on 'Regional competition agreements: benefits and challenges', DAF/COMP/GF/WD(2018)62, (2018).
[382] CCC Press Release dated 27 December 2019. Notably, this was the first case where the CCC formally invoked the Article 176 procedure under the RCT.
[383] CCC Press Release dated 02 December 2019.
[384] *Ibid.*

As a result, following some calls from the CCC,[385] COTED agreed in 2011 to develop a regional merger policy for the CSME. Subsequently, in 2016, a draft policy was proposed and after a consultation period the policy was further substantially refined in 2019 by the Reconvened Task Force on Competition Policy. The updated draft is still under COTED's consideration.[386]

4.4. The European Competition Network (ECN)

4.4.1. The ECN's general features

The ECN is representative of the so-called 'joint enforcement model', i.e., a framework for competition co-operation in which two parallel levels of competition law enforcement exist: regional and national, the former being applied by the EC, NCAs, and European and National Courts (NCs), the latter by NCAs and NCs. Within the ECN, every EU member country has its own NCA that enforces both national and EU competition law (so-called 'parallel application model' or 'decentralised regime'). To prevent conflicts between the EU and national competition rules, Regulation 1/2003 foresees a 'principle of supremacy of EU competition law' following the *Walt Wilhelm (1969)* jurisprudence.[387]

Within such a polycentric and decentralised system where competition competencies ebb and flow between the EU and the MSs,[388] the ECN aims at guaranteeing communication and co-operation between the EC and NCAs, as well as contributing to the development of a shared competition culture.[389] Yet, the ECN is neither an institution, nor a legal entity, though it can adopt non-binding recommendations, model programmes,[390] and best practices.[391]

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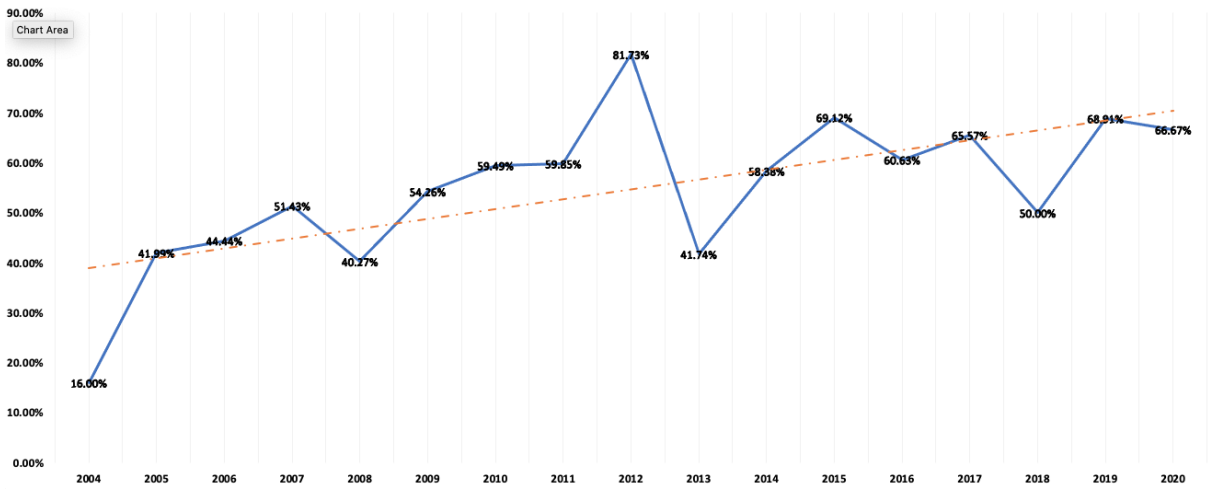
[385] CARICOM, Contribution to the OECD Global Forum on Competition roundtable on 'Regional competition agreements: benefits and challenges', DAF/COMP/GF/WD(2018)62, (2018).
[386] CCC, State of competition enforcement in the CSME (2019-2021), p.10.
[387] Case 14/68, *Wilhelm v Bundeskartellamt* [1969] ECR I; Case C-17/10, *Toshiba Corporation and Others v Úřad pro ochranu hospodářské soutěže*.
[388] U. Diedrichs, W. Reiners, and W. Wessels, *The Dynamics of Change in Eu Governance* (Edward Elgar 2011), 14; c.f. 44; Helen Wallace, Mark Pollack and Alasdair Young (eds), *Policy-Making in the European Union* (Sixth edn, OUP 2010) 483; J. Donahue and M. Pollack, 'Centralisation and Its Discontents: The Rhythms of Federalism in the United States and the European Union' in Kalypso Nicolaïdis and Robert Howse (eds), *The Federal Vision: Legitimacy and Levels of Governance in the United States and the European Union* (OUP 2001); and R. Keohane, J. Nye, 'Transgovernmental Relations and International Organisations' World Politics, Vol. 27, No. 1 (Oct., 1974), 39-62; C.F. Sabel, J. Zeitlin, Learning from difference: The new architecture of experimentalist governance in the EU, *European Law Journal*, (2008), *14*(3), 271-327.
[389] Recital 15 of Regulation 1/2003.
[390] Case C-428/14, DHL Express (Italy) Srl v Autorità Garante della Concorrenza e del Mercato.
[391] For a critical analysis of the ECN, see G. Carovano, 'The ECN Grand Chamber: Updating the ECN to Face the Challenges of the Online World' (2018) European Competition and Regulatory Law, Volume 2, Issue 3, 166-186.

To guarantee satisfying levels of co-operation and convergence, the ECN work-allocation mechanism[392] ensures that cases are conducted by those competition agencies best positioned to effectively deal with them (so-called best-placed authorities).[393] Case allocation decisions are enabled by the ECN's signalling mechanism, according to which any CA must inform the network about the initiation of proceedings or their envisaged outcomes (**Figure 6**). Case reallocations should occur within two months of such initial communications.[394]

Where multiple authorities consider themselves well-placed to act, they can handle the investigation in parallel and appoint one of them as 'lead authority' to coordinate their activities. Parallel actions may be appropriate where the action of a single NCA would be insufficient to end a cross-border infringement and/or sanction it in an adequate manner.[395] In case of jurisdictional conflicts, the only available 'safety valve'[396] is Article 11(6), Regulation 1/2003, which empower the EC to commence a case, thereby relieving the NCAs of their responsibility therein.

Figure 6: Historical evolution of the ratio of Art. 11(4) notifications over the total number of NCAs' cases (2004-2020)



[392] The ECN work-allocation mechanism has been designed by Regulation 1/2003 and integrated by the European Commission (2004) Network Notice.
[393] European Commission, 'Commission Notice on cooperation within the Network of Competition Authorities' (2004) OJ C101/43, para 8. The EC is considered 'best-placed' if either a case produces effects in more than three Member States, or it is closely related to other aspects of EU law or raises novel competition issues.
[394] *Ibid*, para 19.
[395] *Ibid*, para 12.
[396] M. Monti, 'The Network Concept, Competition Authority Networks and Other Regulatory Networks' (2004) European Competition Law Annual 2002, 8.

Source: Analysis by the author based on ECN public data (last accessed June 2021)

The ECN further strengthens international co-operation through its information exchange mechanism which, beyond enabling the exchange of both non-confidential and confidential information gathered during investigations, allows their utilisation as evidence in the application of EU competition law. Additionally, the ECN provides an investigative assistance system which allows ECN members to reciprocally request to undertake investigations on their behalf. Differently from other members, the EC can not only ask, but order an NCA to carry out inspections on its behalf.

Recently, the ECN framework was updated by Directive 1/2019 (so-called 'ECN Plus Directive)[397] which addressed several of its shortcomings in terms of institutional design and distribution of enforcement powers (inspections, investigations, sanctions, and remedies).[398] Accordingly, Directive 1/2019 strengthened NCAs' independence,[399] reinforced their economical, financial, human, and infrastructural resources,[400] harmonised NCAs'

[397] Directive (EU) 2019/1 of the European Parliament and of the Council of 11 December 2018 to empower the competition authorities of the Member States to be more effective enforcers and to ensure the proper functioning of the internal market, O.J. L11,14.1.2019, pp. 3-33. See also H. Andersson, ECN Plus-Should the New EU Directive Empowering National Competition Authorities Be All about Effectiveness?, (2017).

[398] For an analysis of the ECN's shortcomings, see European Commission Staff Working Document, 'Enhancing Competition Enforcement by the Member States' Competition Authorities: Institutional and Procedural Issues', Brussels, 9-7-2014 SWD(2014) 231 final; W.P.J. Wils, 'Competition Authorities: Towards more Independence and Prioritization? The European Commission's "ECN+" Proposal for a Directive to Empower the Competition Authority of the Member States to be more Effective Enforcers', (Conference 'New Frontiers of Antitrust', Paris, June 2017); F. Jenny, 'The institutional design of Competition Authorities: Debates and Trends'(2016) mimeo; G. Monti, 'Independence, Interdependence and Legitimacy: The EU Commission, National Competition Authorities, and European Competition Network' (2014) EUI Working Paper, No. 2014/1; A. Piarkiewicz, M. Botta, 'NCA's Institutional Design and Enforcement Strategies'(2016) EUI Policy Brief, 2016/03.

[399] Commission Staff Working Document, 'Impact Assessment Accompanying the document proposal for a Directive of the European Parliament and of the Council to empower the competition authorities of the Member States to be more effective enforcers', cit., p. 26-27; American Chamber of Commerce to European Union, 'Empowering the national competition authorities to be more effective enforcers' (February 2016) p. 2.

[400] According to the EC ((COM(2017)0142 – C8-0119/2017 – 2017/0063(COD)) some NCAs are confronted with a lack of human and financial resources, which may affect their ability to enforce the EU competition rules effectively.

investigative[401] and sanctioning powers[402] as well as leniency programmes, and enhanced mechanisms for procedural co-operation and investigative assistance.

Despite being less ambitious than desired by some, particularly with respect to leniency programmes[403] and rights of defence,[404] Directive 1/2019 advanced international competition co-operation for at least four reasons.

First, it extended the utilisation of the ECN mutual assistance mechanism for cross-border notifications[405] and for enforcing 101 or 102 TFEU decisions,[406] and enhanced it by establishing the requirement that the officials of NCAs who request assistance shall be permitted to attend and actively assist the officials of requested NCAs while carrying out the requested activities, such as inspections or interviews.

Second, it further binds ECN members by establishing that (Article 25 or 26) co-operation requests can be only refuted by proving (on '*reasonable grounds*') that executing them is contrary to their country's public policy. Accordingly, Directive 1/2019 introduces an 'informal co-operation duty' by limiting NCAs' discretion when evaluating co-operation requests but

[401] For instance, some NCAs lack fundamental investigative powers to collect data and information (for example, the German Bundeskartellamt until recently could not require companies to provide the data and documents requested in the course of investigations if their content could lead to the imposition of a penalty on them), to conduct surprise inspections outside the premises of the company (as is the case in Denmark and Bulgaria) or to consider evidence contained on digital media.

[402] N. Dunne, 'Converging in Competition Fining Practices in the EU', (2016) 53 *Common Market Law Review* 457 ss.; D. Geradin, 'The EU Competition Law Fining System: A Reassessment' (2011) TILEC Discussion Paper No. 2011/52, 35.

[403] F. Ghezzi, and B. Marchetti,' la proposta di direttiva in materia di Rete europea della Concorrenza e la necessità di un giusto equilibrio tra efficienza e garanzie', (2017), *Rivista Italiana di Diritto Pubblico Comunitario*, 1015-1076.

[404] M. Bernatt, M. Botta, and A. Svetlicinii, 'The Right of Defence in the Decentralised System of EU Competition Law Enforcement: a call for harmonisation from Central and Eastern Europe.' (2018) *World Competition* Vol. 41(2018)/Issue 3, 309-334. On this topic, see also W.P.J. Wils, The compatibility with fundamental rights of the EU antitrust enforcement system in which the European Commission acts both as investigator and as first-instance decision maker, *World Competition*,(2014), *37*(1).

[405] Article 25, Directive 1/2019, provides that, at the request of an ECN member, another NCA shall notify the addressees established on its territory on behalf of the former. F. Wagner-von Papp, 'Directive of the European parliament and of the Council to empower the competition authorities of the Member States to be more effective enforcers and to ensure the proper functioning of the internal market ('ECN Plus Directive')' (January 2019) *Competition Policy International*.

[406] Article 26, Directive 1/2019, establishes that ECN members can enforce decisions on behalf of other members when the decision addresses do not have sufficient assets within the jurisdiction of the acting NCA(s), or if the enforcement action proved non-sufficient or fruitless.

counterbalances it by entitling the requested NCA to a reimbursement of all incurred costs.[407]

Third, Directive 1/2019 clarifies that disputes concerning the legality of an act or decision which is to be notified or enforced, are governed by the laws of the requesting NCA's member country. Contrarily, the lawfulness of the measures taken by the requested authority are governed by its country laws.[408] Finally, Directive 1/2019 formalised the *status quo ante* by establishing that the EU budget bears the costs for running the ECN.[409]

4.4.2. The ECN enforcement record

The ECN is one of the most (if not the most) active and advanced regional competition co-operation frameworks in the world (**Figure 7**).[410] Whereas originally established to guarantee the consistent application of EU competition rules, twenty years after its establishment, the ECN has achieved much more by enabling unprecedented (and initially unheeded) co-operation among CAs at any enforcement stage. [411]

[407] Article 27(7)-(8), Directive 1/2019.

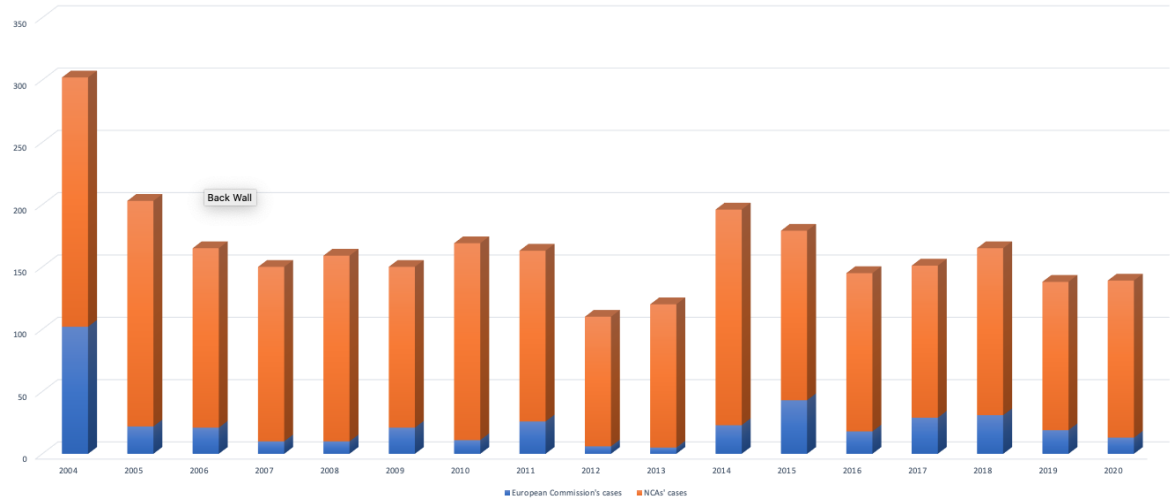
[408] B. Marchetti, 'le garanzie procedurali e processuali delle imprese nella rete europea della concorrenza' (2014) Rivista della Regolazione dei Mercati (1) 5-28; M. Merola and D. Waelbroeck, *Towards an optimal enforcement of competition rules in Europe, Time for a Review of Regulation 1/2003?* (Bruylant, Paris 2010) 306; I. Van Bael, 'Problemi irrisolti nel diritto procedurale antitrust comunitario' (2010) *Conc. merc.*, 435.

[409] Article 33, Directive 1/2019.

[410] This emerged clearly during the OECD 2018th edition of the 'Global Forum on Competition during the Roundtable on benefits and challenges of regional competition agreements', (12 November 2018) DAF/COMP/GF(2018)5, <https://one.oecd.org/document/DAF/COMP/GF(2018)5/en/pdf>.

[411] A. Capobianco and G. Carovano, 'Foreword-Cooperation between NCAs: An overview of EU and national case law' (2019) e-Competition Bulletin, Concurrences.

Figure 7: Evolution of the number of competition cases in Europe (2004-2020)



Source: Analysis by the author based on ECN public data (last accessed June 2021).

Significant in this sense is that ECN members, among others, have: **(i)** conducted parallel investigations as in the *Booking.com (2015);*[412] *Amazon (price parity clauses) (2013);*[413] *Adidas (online platform ban) (2014-2015)* cases; **(ii)** exchanged confidential information in multiple instances, including the *Flour Mill (2008);*[414] *Sugar (2014)*;[415] *Aspen (2016)* cases;[416] **(iii)** conducted joint dawn-raids and coordinated fines as in the *Flour Mill (2008)* case;[417] **(iv)** performed joint interviews as in the *Sugar (2014)* case; **(v)** provided investigatory assistance

[412] Narrow Parity clauses were banned also in Germany due to the December 2015 Bunderskartellamt's infringement decision ordering *Booking.com* to remove all parity clauses from its contracts before January 31, 2016. A temporary injunction filed in May 2016 by *Booking.com* was unsuccessful; the decision remained in force till it was annulled in appeal by the Higher Regional Court (OLG) Dusseldorf in June 2019. The Court argued that *Booking.com*'s narrow parity clauses were not restrictive of competition, but necessary to prevent "*a disloyal diverting of customer bookings*'', (Az .: VI - Kart 2/16 (V)). In this sense see: <https://www.tellerreport.com/news/2019-06-04---bundeskartellamt-disappointed--booking-com-may-prohibit-hotels-lower-prices-in-the-network-.Sy_YZeVRV.html>.

[413] Bundeskartellamt, 'Amazon abandons price parity clauses for good', 26 November 2013, <https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2013/26_11_2013_Amazon-Verfahrenseinstellung.html>; OFT, Case CE/9692/12, <https://www.gov.uk/cma-cases/amazon-online-retailer-investigation-into-anti-competitive-practices>.

[414] The Belgian Competition Council imposes fines on five large flour mills (Werhahn, Meneba, Ceres, Dossche and Brabomills), Concurrences, 28 February 2013, <https://www.concurrences.com/fr/bulletin/news-issues/february-2013/The-Belgian-Competition-Council-52258>.

[415] Bundeskartellamt, 'Bundeskartellamt imposes fines on sugar manufacturers', 18 February 2014.

[416] AGCM, *Case n. A480 – Incremento Prezzo Farmaci Aspen*, Decision n. 26185, 2016, AGCM Bulletin n. 36/2016.

[417] German written contribution to the 2012 Global Forum on Competition, p. 216, DAF/COMP/GF(2012)16, <http://www.oecd.org/daf/competition/ImprovingInternationalCooperationInCartelInvestigations2012.pd>; EC Network Brief, The German Competition Authority coordinates with the Dutch NCA its fining against a German mill involved in a cartel in the flour industry (Mühlen), 12 February 2013, e-Competitions Bulletin February 2013, Art. N° 51205, *Concurrences*.

to other network peers as in the *Aspen (2016)*; *Investigation in the aviation insurance market (2017)*;[418] *Investigation in the immunoglobulin market (2018)* cases;[419] **(vi)** applied the so-called 'comity principle' as in the *Towage cartel (2017)* case;[420] **(vii)** co-operated in the identification of the best-placed authority as in the *Household Appliances (2018)* case.[421]

In *Flour Mill*, for example, following several dawn raids on diverse flour mills conducted by the Bundeskartellamt (BKartA), the German, French and Dutch (ACM) NCAs received leniency applications and initiated parallel investigations in close co-operation by exchanging documents and co-ordinating fines.[422] Indeed, after one of the involved companies pleaded the 'inability to pay' defence, the ACM lowered its initial fine and, in parallel, the BKartA imposed a fine considering the joint assessment of the inability to pay. As a result, the concerned firm withdrew the appeal launched against the ACM's first fine and did not appeal the BKartA's fine.[423]

Euqally, in *Sugar*,[424] the BKartA, the ACM, and the Austrian Bundeswettbewerbsbehörde (BWB) collaborated closely by exchanging confidential information (such as minutes, evidence, and leniency applications) and organising joint interviews.[425] Similarly, in *Aspen*, the Italian AGCM successfully sought investigatory assistance from the Irish Competition and

[418] UK submission at the OECD roundtable on challenges and co-ordination of leniency programmes, DAF/COMP/WP3/WD(2018)38, <https://one.oecd.org/document/DAF/COMP/WP3/WD(2018)38/en/pdf>.

[419] Consiliul Concurentei România, July 2018, <www.consiliulconcurentei.ro/uploads/docs/items/bucket13/id13298/inspectii_imunoglobulina_english.pdf>.

[420] M. Baneke, R. Elkerbout, 'Towage Services Cartel: A new chapter in the collaboration between competition authorities?', *Kluwer Competition Law Blog*, 2018, <http://competitionlawblog.kluwercompetitionlaw.com/2018/02/06/towage-services-cartel-new-chapter-collaboration-competition-authorities/>; ACM, Samenwerking Bundeskartellamt en ACM leidt tot schikkingen sleepsector, 2017, <https://www.acm.nl/nl/publicaties/samenwerking-bundeskartellamt-en-acm-leidt-tot-schikkingen-sleepsector>; Bundeskartellamt, Bundeskartellamt verhängt Bußgelder gegen Hafenschlepper, 2017, <https://www.bundeskartellamt.de/SharedDocs/Meldung/DE/Pressemitteilungen/2017/18_12_2017_Hafenschlepper.html>.

[421] Autorité de la Concurrance, Decision n. 18-D-24, 2018, <https://www.autoritedelaconcurrence.fr/sites/default/files/commitments//18d24.pdf>.

[422] German written contribution to the 2012 Global Forum on Competition, p. 216, DAF/COMP/GF(2012)16, <http://www.oecd.org/daf/competition/ImprovingInternationalCooperationInCartelInvestigations2012.pdf>. One German official also joined dawn raids in France.

[423] European Competition Network Brief, The German Competition Authority coordinates with the Dutch NCA in its fining against a German mill involved in a cartel in the flour industry (Mühlen), 12 February 2013, e-Competitions Bulletin February 2013, Art. N° 51205, *Concurrences*.

[424] Bundeskartellamt, 'Bundeskartellamt imposes fines on sugar manufacturers', 18 February 2014.

[425] German written contribution to the 2012 Global Forum on Competition, p. 216, DAF/COMP/GF(2012)16, <http://www.oecd.org/daf/competition/ImprovingInternationalCooperationInCartelInvestigations2012.pdf>.

Consumer Protection Commission (CCPC) since several of Aspen's subsidiaries were in Dublin.[426]

Notably, the ECN has even enable forms of co-operation not envisaged in Regulation 1/2003 or its complementary notices, such as that realised in the *Towage cartel (2017)* case,[427] where the ACM deferred its enforcement to the BKartA, as best-positioned, and simultaneously seconded a member to the lead agency.[428] Accordingly, this case demonstrated a new way through which EU competition agencies can cooperate beyond parallel proceedings, i.e. by joining multiple enforcement actions into a single one and ensuring that all affected jurisdictions's consumer interests are considered through the presence of seconded foreign officials within the single investigatory team.

4.4.3. The ECN's limitations

Despite its achievements, the ECN still presents some limitations which have been further augmented in the last 10 years by the changed competition landscape resulting from markets' globalisation and digitalisation.[429] Indeed, the problems of overlaps, governmental contaminations, and asymmetries between more and less developed countries also affect the ECN.

Starting with enforcement asymmetries, ECN public enforcement data demonstrates that the EC and the top five EU NCAs, account for the majority of the EU enforcement actions conducted over the last twenty years.[430] Yet, whereas such unequal enforcement distribution might be perceived as normal given the greater likelihood that more developed and populated EU countries have more cross-border anticompetitive conduct to address, such asymmetry could be problematic if resulting not from fewer cross-border anticompetitive practices in less developed countries, but from a lower prosecution rate of such practices in

[426] AGCM, *Case n. A480 – Incremento Prezzo Farmaci Aspen*, Decision n. 26185, 29 September 2016.
[427] See supra footnote 420.
[428] See <http://competitionlawblog.kluwercompetitionlaw.com/2018/02/06/towage-services-cartel-new-chapter-collaboration-competition-authorities/>; <https://www.acm.nl/nl/publicaties/samenwerking-bundeskartellamt-en-acm-leidt-tot-schikkingen-sleepsector>; <https://www.bundeskartellamt.de/SharedDocs/Meldung/DE/Pressemitteilungen/2017/18_12_2017_Hafenschlepper.html.>
[429] A. Tyrie, 'Is competition enough? Competition for consumers, on behalf of consumers' (2019).
[430] ECN, statistics, <https://competition-policy.ec.europa.eu/antitrust-and-cartels/european-competition-network/statistics_en>.

those countries. One such circumstance regarded the cross-border anticompetitive conduct realised by some online booking platforms, who were prosecuted in some EU countries, but not in others, despite being equally present.[431]

Further, EU NCAs significantly differ also by the extent to which they participate in ECN activities. By looking at ECN public data, it appears that although the most active NCAs remain among the most active ECN participants, they are not necessarily the most participative ones.[432] Moreover, based on ECN public data, it seems that, on average, EU NCAs do not notify the ECN of around half of their enforcement decisions. This still insufficient rate of notifications could be due to a lack of resources, but it could equally be caused by other more complex factors. One could be that notifications are strategically omitted, despite being due, to prevent the risk of interference from other countries. Another explanation could be that EU NCAs intentionally define most of their investigations as 'purely national cases',[433] including those having cross-border effects, in order to preserve discretion and prevent interferences, such as the potential avocation of the case from the EC. Notable commentators have argued this to be the case in the German *Facebook (2019)* case and the Polish *Nord Stream 2 (2020)* case.[434]

[431] Think of the Booking.com or Expedia investigations. Similarly on this see also M. Wessex, M.J. Schmidt-Kessen, P. Hukal, Regulating short-term rental platforms: the effects of local regulatory responses on Airbnb's operations in Europe, *Industrial and Corporate Change*, 2024; https://doi.org/10.1093/icc/dtad075.

[432] For present purposes, the most participative NCAs are those which notify ex Art. 11(4), Reg. 1/2003, the highest percentage of their enforcement actions within the ECN.

[433] i.e., cases that, by their very nature, do not require an Art. 11(4) notification.

[434] W. Wils, 'The obligation for the Competition Authorities of the EU Member States to Apply EU Antitrust Law and the Facebook Decision of the Bundeskartellamt' (2019) Concurrences, No. 3-2019. According to Wils, the Commission could, in similar scenarios, theoretically act against Member States for breaching EU Law. Such a scenario, however, is extremely unlikely for a number of reasons.

Secondly, the ECN may also suffer the issue of 'overlaps', which it has already fallen victim to in *Booking.com*;[435] *Facebook*,[436] *Google,*[437] and other cases.[438] ECN overlap issues may also take a procedural dimension as in the *VIMC (2017)*[439] and *Amazon (2021)*[440] cases, while the absence of any internal mechanism to redistribute the benefits of the enforcement actions towards less active/initiating NCAs was brought into focus by the *Flour Mill* case *(2008).*[441] Overlap issues, moreover, did not only concern enforcement actions but also policy matters,

[435] Bundeskartellamt, Decision B 9-121/13, (2013) <https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Entscheidungen/Kartellverbot/B9-121-13.pdf;jsessionid=20668F5668A0539962F6DDFA27649D9D.1_cid380?__blob=publicationFile&v=2>; AdC, Décision 15-D-06, (2015), <https://www.autoritedelaconcurrence.fr/sites/default/files/commitments//15d06.pdf>; AGCM, Decision I779, (2015), <https://en.agcm.it/en/media/press-releases/2015/4/alias-2207>; Konkurrensverket, Decision 596/2013, (2015), <https://www.konkurrensverket.se/globalassets/dokument/engelska-dokument/beslut/13_0596e.pdf>, etc.

[436] Bundeskartellamt, 'Official Decision n. B6-22/16.' Available in English at: <https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Entscheidungen/Missbrauchsaufsicht/2019/B6-22-16.pdf?__blob=publicationFile&v=5>; AGCM, *'WhatsApp fined for 3 million euro for having forced its users to share their personal data with Facebook*' (2017); Autoriteit Persoonsgegevens, '*Dutch data protection authority: Facebook violates privacy law*' (2017); FTC, 'FTC Imposes $5 Billion Penalty and Sweeping New Privacy Restrictions on Facebook', (2019).

[437] Bundeskartellamt, 6th Decision Division B6-126/14 of 8 September 2015, *Google Inc. vs. Third Parties,* <https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2015/09_09_2015_VG_Media_Google.html>; C-299/17 *VG Media Gesellschaft zur Verwertung der Urheber- und Leistungsschutzrechte von Medienunternehmen mbH v Google LLC*, [2019], EU:C:2019:716; Autorité de la concurrence, decision of 9 April 2020, n. 20-MC-01, <https://www.autoritedelaconcurrence.fr/sites/default/files/integral_texts/2020-04/20mc01.pdf>; Spanish Comisión Nacional de los Mercados y la Competencia PRO/CNMC/0002/14, 16 May 2014, <http://cnmcblog.es/wp-content/uploads/2014/05/140516-PRO_CNMC_0002_14-art-322PL.pdf>; AGCM, 'A529-ICA: Google fined over 100 million for abuse of dominant position', 2021.

[438] With regard to vertical restraints, see European Commission, 'Evaluation Commission Staff Working Document Evaluation of the Vertical Block Exemption Regulation' (2020) Brussels, SWD(2020) 172 final, p. 61. With regard to dual pricing (i.e., higher prices charged for products or services which retailers intend to sell online compared to bricks-and-mortar stores), equally, although qualified as a clear cut restriction under paragraph 52(d) of the Vertical Guidelines, whereas some NCAs questioned the relevance of an outright prohibition, stressing the need for suppliers to compensate hybrid retailers for their investments in bricks-and-mortar shops, others stressed that e-merchants may nowadays also be subject to free-riding from shops, thus justifying the prohibition.

[439] Case T-431/16, *VIMC – Vienna International Medical Clinic GmbH v Commission*, Judgment of the General Court of 26 October 2017, ECLI:EU:T:2017:755; Case T-339/04, *France Télécom SA v European Commission* [2007], ECR II-00521, para 82 - 83).

[440] See F.Y. Chee. 2021. Amazon sues EU antitrust regulators for letting Italian case go ahead. *Reuters*; Case T-19/21, *Amazon.com and Others v Commission*, [2021] ECLI:EU:T:2021:730.

[441] German written contribution to the 2012 Global Forum on Competition, p. 216, DAF/COMP/GF(2012)16, <http://www.oecd.org/daf/competition/ImprovingInternationalCooperationInCartelInvestigations2012.pd>; EC Network Brief, The German Competition Authority coordinates with the Dutch NCA its fining against a German mill involved in a cartel in the flour industry (Mühlen), 12 February 2013, e-Competitions Bulletin February 2013, Art. N° 51205, *Concurrences*.

as when the ECN took position against the so-called 'whistle-blowers directive'[442] or against the 'Digital Market Act' calling for greater involvement of NCAs in its enforcement.[443]

Third, although rarer, governmental contaminations are also not entirely unknown within the ECN, as was the case in the Polish *Nord Stream 2* case *(2020)* when the Polish Competition Authority (UOKiK) sanctioned Gazprom with the highest EU fine ever for not obtaining its prior approval before creating a joint venture responsible for the construction and operation of the Nord Stream 2 gas pipeline**.**[444] The UOKiK, importantly, adopted its decision without informing the EC and its ECN peers.[445] Equally, political pressure arose in the aftermath of the *Siemens AG/Alstom* merger, where several EU countries' ministers called for a reform of EU Competition Rules to protect the so-called 'European Champions' from foreign competition-related threats. [446] Moreover, within the EU, there exists a correlation between the countries that constantly under-enforce competition provisions and under-engage within the ECN, and those that are conventionally known to be 'tax havens'. The inferred implication is that these countries intentionally make their jurisdictions more appealing for global firms. Notably, the mentioned correlation is upheld even when looking at the ratio of opened investigations instead of investigations resulting in decisions.[447] Equally, such correlation extends also to other areas of enforcement, such as data protection.[448] Whereas the causes underpinning

[442] The NCAs were concerned about those provisions differentiating between internal and external reporting. According to the NCAs, internal and external reporting should be equated, leaving individuals deciding the preferred route. Contrarily, an obligation to report first internally may jeopardise NCAs investigations' effectiveness.

[443] ECN, 'How national competition agencies can strengthen the DMA' (2021) <https://www.autoritedelaconcurrence.fr/sites/default/files/DMA%20-%20Joint%20EU%20NCAs%20paper.pdf>. Notably, although such a statement was issued under the ECN'S NAME, it was not published on the official ECN website but only on the websites of its member NCAs.

[444] UOKiK Official Press Release, 'Nord Stream 2 – Maximum penalties imposed by UOKiK President.' (7 October 2020) <https://www.uokik.gov.pl/news.php?news_id=16818>.

[445] A. Hernandez; T. Larger, 'Poland hits Gazprom with the world's largest competition fine.' *Politico* (2020).

[446] 'La politique de la concurrence et les intér intérêts stratégiques de l'UE', (April 2019) <http://www.igf.finances.gouv.fr/files/live/sites/igf/files/contributed/IGF%20internet/2.RapportsPublics/2019/2018-M-105-03-UE.pdf>. Contrarily see M. Motta, and M. Peitz, 'Competition Policy and European Firms' Competitiveness' (20 February 2019) VOX CEPR Policy Portal <https://voxeu.org/content/competition-policy-and-european-firms-competitiveness>.

[447] ECN, statistics, <https://competition-policy.ec.europa.eu/antitrust-and-cartels/european-competition-network/statistics_en>.

[448] J. Ryan, A. Toner, 'Europe's enforcement paralysis. Irish Council for Civil Liberties' 2021 report on the enforcement capacity of data protection authorities', (2021) ICCL, <https://www.iccl.ie/wp-content/uploads/2021/09/Europes-enforcement-paralysis-2021-ICCL-report-on-GDPR-enforcement.pdf> that highlights that the Irish DPC, while being the lead supervisory authority for 164 cases of Europe-wide significance, it leaves 98% of these cross-border cases unresolved.

this correlation are uncertain, its existence implies that in the concerned jurisdictions either there are unaddressed systemic enforcement problems, or there are strategic under-enforcement priorities, and the two might just coincide.

4.4.4. Issues underpinning the ECN's limitations

The described ECN shortcomings result from several structural deficiencies of the EU framework. The first ECN issue limiting supranational co-operation is its hierarchical structure, based on which the EC occupies a '*primus inter pares'*[449] position. Despite being rejected by some,[450] the EC's hierarchically supra-ordinated position cannot realistically be disputed given the multiple exclusive powers it enjoys vis-à-vis other ECN members, such as the EC power to issue inapplicability decisions contrary to NCAs[451] or the power to advocate NCAs' cases.[452] Following the decentralisation of EU competition rules,[453] the ECN's hierarchical structure resulted from the need to allow the EC to monitor NCAs and eventually intervene.[454] Such hierarchical structure, however, causes several side-effects, as it creates problematic 'dominant positions' of some members over others (think of the issue of asymmetries) and distorts the natural interdependencies across ECN members by rendering some of them, especially the less experienced ones, unwilling to share their experiences and mistakes.[455] Further, it undermines network stability as it prevents the creation of a level

[449] Case C-375/09 *Prezes Urzędu Ochrony Konkurencji i Konsumentów v Tele2 Polska sp. zoo, now Netia SA w Warszawie* [2011] ECR I-03055.

[450] C. Townley and A.H. Türk, 'The Constitutional Limits of EU Competition Law – United in Diversity, The Antitrust Bulletin' (2019) Vol. 64(2) Section III, 241-248; C. Townley, A framework for European Competition Law: Co-Ordinated Diversity (Bloomsbury Publishing Plc 2018) 352; C. Townley, 'Co-ordinated Diversity: Revolutionary Suggestions for EU Competition Law (and for EU Law too)' (2014) 33 Yearbook of European Law 1; King's College London Law School Research Paper No. 2014-13; C. Townley and A.H. Türk, 'The Constitutional Limits of EU Competition Law – United in Diversity, The Antitrust Bulletin' (2019) Vol. 64(2) 235 - 283.

[451] Case C-375/09, *Prezes Urzędu Ochrony Konkurencji i Konsumentów v Tele2 Polska sp z oo*, devenue Netia SA [2011] ECR I-3055, paras 27–28.

[452] Article 11(6), Regulation 1/2003; W. Sauter, *Coherence in EU Competition Law* (Oxford University Press 2016) 232; R. Schütze, 'From Rome to Lisbon: ''Executive Federalism' in the (New) European Union' (2010) 47 Common Market Law Review 1385, 1405; G. Monti, 'Legislative and Executive Competences in Competition Law', in L. Azoulai (ed.) *The Question of Competence in the European Union* (Oxford University Press 2014) 115.

[453] B.E. Hawk, L.L. Laudati, Antitrust Federalism in the United States and Decentralization of Competition Law Enforcement in the European Union: A Comparison. *Fordham Int'l LJ*, (1996) *20*,18.

[454] F. Cengiz, 'Multi-level governance in competition policy: the European Competition Network' [2010] ELR, 1-16.

[455] F. Cengiz, 'The European Competition Network: Structure, Management and Initial Experiences of Policy Enforcement' EUI Working Papers, (2009) 7; O. Gerstenberg and C. Sabel, 'Directly-Deliberative Polyarchy: An Institutional Ideal for Europe?' in Christian Joerges and Renaud Dehousse (eds), *Good Governance in Europe's Integrated Market* (OUP 2002) 291-2; Y. Svetiev, 'Networked Competition Governance in the EU: Delegation,

playing field among ECN members which, in turn, ensures reciprocal accountability (so as to compel them to explain each decision and its impacts upon others), mitigates the danger of retaliation and externalities,[456] and discourages 'beggar-thy-neighbour' strategies.[457] Consequently, the ECN's hierarchy constitutes an important hurdle to greater competition enforcement co-operation.[458]

Secondly, the ECN lacks sufficient transparency in policy, case allocations, and information exchanges thus prohibiting the formation of co-operation incentives and augmenting risks of overlaps or governamental contaminations. Starting with policy, transparency is likely to increase the variety and diversity of discussants and proposed ideas, ultimately improving the quality of the ECN's policies by marginalising vested interests.[459] Case-allocation decisions, equally, should also be more transparent due to their significance for defendant rights, also in light of the fact that Regulation 1/2003 and the Commission Notice do not provide firms with the right to challenge intra-network allocation decisions,[460] as confirmed in *France Télécom (2007)*[461] and more recently in *VIMC (2017)*[462] and *Amazon (2021)*[463] cases. All these cases demonstrated the excessive protection that the current system affords to

Decentralisation, or Experimentalist Architecture?' in Charles Sabel and Jonathan Zeitlin (eds), *Experimentalist Governance in the European Union: Towards a New Architecture* (OUP 2010), 102-4, 110-4.

[456] C. Townley, 'Co-ordinated Diversity: Revolutionary Suggestions for EU Competition Law (and for EU Law too)' (2014) 33 Yearbook of European Law 1; King's College London Law School Research Paper No. 2014-13.

[457] A beggar-thy-neighbour policy is an economic policy through which one country attempts to remedy its economic problems by means that tend to worsen the economic problems of other countries. On this see F. Scharpf, 'European Governance: Common Concerns Vs. The Challenge of Diversity' in Christian Joerges, Yves Mény and Joseph Weiler (eds), *Mountain or Molehill? A Critical Appraisal of the Commission White Paper on Governance*, vol Jean Monnet Working Paper No. 6/01 (Robert Schuman Centre for Advanced Studies, EUI 2001), 10; U. Böge, 'The Bundeskartellamt and the Competition Authorities of the German Länder' in Claus Dieter Ehlermann and Isabela Atanasiu (eds), *Constructing the EU Network of Competition Authorities* (Hart 2002) 113-5.

[458] E. Fox, 'The Elusive Promise of Modernisation: Europe and the World', (2001) 28 Legal Issues of Economic Integration, 144-5.

[459] C. Townley, 'Co-ordinated Diversity: Revolutionary Suggestions for EU Competition Law (and for EU Law too)' (2014) 33 Yearbook of European Law 1; King's College London Law School Research Paper No. 2014-13.

[460] S. Brammer, 'Concurrent Jurisdiction under Regulation 1/2003 and the Issue of Case Allocation' (2005) CMLRev, 42, 1383; D. Waelbroeck, 'Twelve feet all dangling down and six Necks exceeding long. The EU Network of Competition Authorities and the European Convention on Fundamental Rights' (2002) European Competition Law Annual; A. Andreangeli, 'Competition law and fundamental rights' (2017) *Journal of European Competition Law and Practice* 1-15.

[461] Case T-339/04, *France Télécom SA v European Commission* [2007], ECR II-00521, para 82-83.

[462] Case T-431/16, *VIMC – Vienna International Medical Clinic GmbH v Commission*, Judgment of the General Court of 26 October 2017, ECLI:EU:T:2017:755.

[463] F.Y. Chee. 2021. Amazon sues EU antitrust regulators for letting Italian case go ahead. *Reuters*; Case T-19/21, *Amazon.com and Others v Commission*, [2021] ECLI:EU:T:2021:730.

confidentiality and the need to shield ongoing investigations vis-à-vis defendants' need for more transparency and right to challenge potential violations of their rights. Defendants may have various reasons for preferring prosecution in one jurisdiction over another, including procedural rights, fining levels, relevance of compensations for fine reductions,[464] NCAs decisions' value on follow-on claims, existence of passing-on defence,[465] restitutionary or punitive damages,[466] or class-action regimes.[467] Yet, despite these implications, defendants can neither know, nor verify the arguments underpinning allocation decisions. Identical circumstances occur with regard to intra-ECN information exchanges, which happen with affected firms neither being aware of their occurrence and direction, nor being able in any way to block or limit the flow of exchanged data, not even to prevent the circulation of unlawfully collected information. [468] A situation particularly dissatisfying since, on the one hand it excessively favours the efficiency of antitrust procedure over considerations of substantive justice; and on the other, it seems contrasting with the European General Data Protection Regulation (GDPR)[469] and the rights that it has introduced in terms of collection, storage, exchange, and treatment of personal information.[470] This lack of transparency in

[464] While this point was clearly established in Article 18(3) of the Damages Directive, it was not transposed into the 9th Amendment of the German Competition Act. In this sense, see S. Volker, 'The Damages Directive in Germany', in A. Biondi, G. Muscolo, R. Nazzini (eds), Private enforcement in European Competition Law. After the Damages Directive, (Kluwer, 2021), p.212.

[465] E.g. admitted in the U.K. (see *Sainsbury's v. MasterCard, CA judgement, para 317*)

[466] E.g. in the U.K. the Court of Appeal held that punitive damages could be claimed for breaches of Article 101 TFEU but they could not be awarded where the defendants had already been fined as part of an antitrust investigation (*Devenish Nutrition v. Sanofi-Aventis [2007] EWHC 2394 (Ch).).* Similarly, see the CAT in *2 Travel Group plc (in liquidation) v. Cardiff City Transport Services [2012] CAT 19, paras 448–598.* More extensively on this, see A. Howard, 'The Damages Directive in the United Kingdom', in A. Biondi, G. Muscolo, R. Nazzini (eds), Private enforcement in European Competition Law. After the Damages Directive, (Kluwer, 2021). Differently, punitive damages are not admitted in Italy. See also R.D. Cooter, Punitive Damages for Deterence: When and How Much, (1988), *Ala. L. Rev.*, *40*, 1143.

[467] For instance, in the United Kingdom, opt-out class actions are permitted, while in Italy, only opt-in class actions are allowed. In Germany, class actions for cartel damages are limited to those authorised under Sec. 33(4) GWB, which enables representative actions by specified consumer or professional organisations for cease-and-desist claims, but not for damages. See A. Biondi, G. Muscolo, R. Nazzini (eds), Private enforcement in European Competition Law. After the Damages Directive, (Kluwer, 2021).

[468] L. Idot, 'Pluralism normatif et droit communautaire. L'exemple des pouvoir d'investigation des autorités de concurrence' in C. Baudenbacher et al. (eds), *Liber Amicorum in honor of Bo Vesterdorf*, (Bruxelles 2007) 394.

[469] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) OJ L 119, 4.5.2016, p. 1–88.

[470] Reassuring for NCAs on this point is the opinion released by the EU Data Protection Authority, 'Investigative activities of EU institutions and GDPR' (22 October 2018) WW/OL/sn/ D(2018)2422 C 2018-0632, Brussels <https://edps.europa.eu/sites/edp/files/publication/18-10-30_letter_investigative_activities_eui_gdpr_en.pdf>.

relation to policy, case allocations, and information exchanges impedes reciprocal check-and-balances across ECN members as well as the creation of a system of incentives spurring each NCA to adopt virtuous behaviours, avoid useless overlaps, and reject unjustified or disproportionate political influences.

Thirdly, by minimising the authorities involved in a single case as a caution against excessive national experimentation to avoid departures from the EC's line, the ECN's work allocation mechanism raises chances of conflicting decisions by insufficiently incentivising parallel investigations.[471] The more that identical conduct gets prosecuted by a plurality of NCAs (and without mechanisms in place to ensure consistency), the higher the chances of those investigations resulting in heterogeneous or even conflicting enforcement outcomes, as occurred in the *Booking.com* saga.[472] Accordingly, existing allocation mechanism disincentivises national experimentation, increases the likelihood of conflicting decisions, and subsequently pauperises the overall quality of EU competition enforcement.[473]

Fourthly, the ECN further increases the likelihood of conflicting decisions as it does not have a resolution mechanism to solve intra-network disagreements. Internal conflicts can only be addressed through the EC's power to advocate cases under Art. 11(6), Reg. 1/2003. This power, however, has multiple limitations. First, it only addresses top-to-bottom vertical conflicts, while disregarding horizontal or vertical bottom-to-top ones. Second, its utilisation centralises power towards the top and undermines ECN members' relationships as it is not an expression of a horizontal, cooperative, and consensus-based mechanism, but of a hierarchical one. Unsurprisingly, it has been used only once,[474] despite having existed for almost sixty years.[475] The *Amazon* saga demonstrates its *de facto* inapplicability. Indeed, the

[471] A. Israel, J. M. Lang, F. Hübener, 'A Practitioner's View on the Role and Powers of National Competition Authorities' (2016) European Parliament. See also European Council and European Commission, 'Joint statement of the Council and the Commission on the functioning of the network of competition authorities' (2002) (15435/02 ADD 1 RC 22) para 16.
[472] F. Cengiz, 'An Academic view on the Role and Powers of National Competition Authorities' (2016) European Parliament.
[473] Ibid.
[474] Case A542, *Provvedimento n. 29845,* Bollettino Anno XXXI - n. 43, p. 5-6, <https://content.mlex.com/Attachments/2021-11-02_D88KX1A33726MK69/Google%20Italy%2043-21.pdf>.
[475] This computation counts Art. 11(6), Regulation 1/2003 equivalent predecessor, i.e., Art. 9(3), Regulation 17/62.

two Amazon proceedings of the *Bundeskartellamt*[476] and the *Bundeswettbewerbsbehörde,*[477] opened after the 'P2B Regulation'[478] to address some of its limitations, were both simultaneously closed with commitments just one day before the EC launched its own Amazon investigation.[479] These coincidences are suspicious as they seem to provide a practical way to elude Art. 11(6) mechanism. Equally, when the EC started investigating Amazon's preference for vendors using its logistics services,[480] it did not advocate the identical Italian investigation.[481] Notably, when Amazon appealed the EC's decision not to advocate the Italian case, the General Court rejected Amazon's claim, among others, because Article 11(6) does not grant firms any right to have their case dealt in its entirety by the EC.[482] This conclusion further remarks Article 11(6)'s limitations, while perhaps contrasting with fair trial protections afforded by the EU Charter when EU law is applied (even if at national level).[483]

4.4.5. The merger lacuna

The ECN does not allow for co-operation in merger cases as their discipline is contained in the 'merger regulation'.[484] This lacuna however is gradually exposing the limits of the ECN for at least three reasons. First, because the EU one-stop-shop does not ensure against unjustified overlaps and potential heterogeneity of decisions due to the recent reforms adopted to catch so-called 'killer acquisitions'. *Meta/Kustomer*, for instance, was unusually reviewed by both

[476] Bundeskartellamt's press release, 'Bundeskartellamt obtains far-reaching improvements in the terms of business for sellers on Amazon's online marketplaces' (17 July 2019) <https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2019/17_07_2019_Amazon.html>.

[477] Austrian Federal Competition Authority report, 'Amazon.de Marketplace' (2019) <https://www.bwb.gv.at/fileadmin/user_upload/Fallbericht_20190911_en.pdf>.

[478] Regulation (EU) 2019/1150 of the European Parliament and of the Council of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services [2019] OJ L 186/57.

[479] Case AT.40462 where the Commission investigated how Amazon was exploiting the non-public business data of the independent sellers who use its marketplace to the benefit of its own retail business (which directly competes with those third-party sellers).

[480] Case AT.40703.

[481] AGCM Press Release, 'A528—*Amazon*: investigation launched on possible abuse of a dominant position in online marketplaces and logistic services' (April 16 2019) <https://en.agcm.it/en/media/press-releases/2019/4/Amazon-investigation-launched-on-possibleabuse-of-a-dominant-position-in-online-marketplaces-and-logistic-services>.

[482] Case T-19/21, *Amazon.com and Others v Commission*, [2021] ECLI:EU:T:2021:730, para 45.

[483] Charter Of Fundamental Rights of The European Union (2000/C 364/01), Art. 47.

[484] Council Regulation No. 139/2004, of 20 January 2004, OJ L 24, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32004R0139&from=en>.

the EC and the *Bundeskartellamt*[485] and although both authorities ultimately approved the transaction, the latter expressed disapproval.[486] *Meta/Kustomer*, moreover, led to heterogeneous decisions since while subjected to conditions by the EC and *Bundeskartellamt* (and perhaps the latter even desired for a tougher approach), the UK CMA approved it unconditionally.[487]

Second, because turnover thresholds are an imperfect technique to identify cross-border transactions deserving regional attention.[488] Consequently, the EC updated the referral mechanism to enable the referral to the EC of any merger that, despite not having either an EU, or a national dimension, affects trade between Member States[489] and threatens to significantly affect competition within the territory of the referring member country(ies).[490] Importantly, the new referral mechanism has been endorsed by the EU General Court in the *Illumina/Grail (2022)*.[491]

Third, the ECN's merger lacuna is in contrast with the evolution of other regional frameworks.[492] Significantly, on top of CARICOM Competition Commission's attempt to adopt

[485] EC, 'Commission approves acquisition of Kustomer by Meta (previously: Facebook) subject to conditions', 27.01.2022, <https://ec.europa.eu/commission/presscorner/detail/de/ip_22_652>; Bundeskartellamt, 'Freigabe der Übernahme von Kustomer durch Meta (ehemals Facebook)', 2022, <https://www.bundeskartellamt.de/SharedDocs/Meldung/DE/Pressemitteilungen/2022/11_02_2022_Meta_Kustomer.html>.

[486] President Mundt declared in an official press release that he approved the transaction not without some 'stomach ache'. See Bundeskartellamt, 'Freigabe der Übernahme von Kustomer durch Meta (ehemals Facebook)', 2022, <https://www.bundeskartellamt.de/SharedDocs/Meldung/DE/Pressemitteilungen/2022/11_02_2022_Meta_Kustomer.html>.

[487] CMA, 'The CMA investigated and cleared the anticipated acquisition by Facebook, Inc. of Kustomer, Inc.', 2021, <https://www.gov.uk/cma-cases/facebook-inc-dot-slash-kustomer-inc>.

[488] EC, Guidance on the application of the referral mechanism set out in Article 22 of the Merger Regulation to certain categories of cases, C(2021) 1959 final, Brussels, para 9-10.

[489] Notably, according to the Commission Notice on Case Referral in respect of concentrations, OJ C 56, 5.3.2005, point 43, concentrations fulfil the 'affects trade between Member States' requirement if they produce some 'discernible influence on the pattern of trade between Member States'. Further, the concept of 'trade' covers all cross-border economic activity and encompasses cases where the transaction affects the competitive structure of the market. Consequently, NCAs have considerable discretion in deciding which under-threshold concentrations deserve referral.

[490] Article 22 EUMR was originally designed to deal with the situation of Member States that, at that time, had no merger control rules (e.g. the Netherlands).

[491] Case C-611/22 P, *Illumina v Commission*. This was the first case referred to the EC by France and then by Iceland, the Netherlands, Greece, Belgium, and Norway. Notably, Illumina attempted to prevent national competition authorities in France and the Netherlands from requesting a referral by filing legal proceedings in both countries, however, these efforts were unsuccessful.

[492] OECD, 'Local nexus and jurisdictional thresholds in merger control' (2016) DAF/COMP/WP3(2016)4.

a regional merger regime in the Caribbean, merger competences were recently included into the renewed Nordic Co-operation Network which is now more advanced (at least in theory) than the ECN itself given that it enables confidential information exchanges also in merger cases contrary to Regulation n. 1/2003.[493]

Consequently, it appears appropriate to enable the ECN to cover merger cases, not least because this shift is already underway due to Article 14(1), Digital Markets Act (DMA),[494] which mandates gatekeeper platforms to inform the EC of all planned acquisitions of tech companies or transactions that enable data collection, and Article 14(4) allowing the sharing of such information with the NCAs, who may then make a referral to the EC under Article 14(5), DMA. Thus, in the digital sphere alone, a new approach to mergers is already on the way to being implemented.[495]

4.5. The West African Economic and Monetary Union (WAEMU)

4.5.1. General features

The West African Economic and Monetary Union (WAEMU) was established in 1994 with the Treaty of Dakar and comprises a trade and currency union across eight countries[496] sharing a common currency (the CFA franc) and a common market. With regard to competition policy, primary provisions are contained in articles 76(c), 87-90 of the amended WAEMU Treaty, Article 3 of Additional Act No. 05/99 adopting the WAEMU Common Industrial Policy, and subsequent implementing acts.[497] Based on the application of these provisions, the WAEMU

[493] See Articles 3 and 4 of the 2017 Nordic Co-Operation Agreement.

[494] Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act), OJ L 265,12.10.2022, p.1-66.

[495] More recently, calling for an expansion of EU merger rules, see also René Repasi's report for EU lawmakers on EU merger control. See L. Crofts, 'EU merger reviews should be faster, broader and deeper, draft lawmakers' report says', MLex, 2023, <https://content.mlex.com/#/content/1446632?referrer=email_dailycontentset&dailyId=c23ce51267864c3ba3f3741c2bf6b1fd&paddleid=1&paddleaois=2000;2003;2005>.

[496] Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, and Togo.

[497] Three regulations and two directives were adopted on 23 May 2002 to implement articles 76 (c) and 88 to 90 of the WAEMU Treaty: Regulation No. 2/2002/CM/UEMOA on anticompetitive practices; Regulation No. 3/2002/CM/UEMOA on the procedures for addressing cartels and abuse of dominant position; Regulation No. 4/2002/CM/UEMOA on State aid and on the procedures for applying article 88 (c) of the Treaty; (iv) Directive No. 1/2002/CM/UEMOA on transparency in financial dealings between member States and either State-owned enterprises or international or foreign organisations; Directive No. 2/2002/CM/UEMOA on cooperation between

adopted the so-called 'one-tier model', a type of regional co-operation framework where the regional competition authority, the WAEMU Competition Commission (WCC), investigates and decides both national and regional competition cases, while NCAs play a mere supportive role. The WCC is a Directorate of the Department of the Regional Market Trade, Competition, and Co-operation within the WAEMU Commission, the executive regional body also responsible for competition enforcement matters. The WCC's decisions are subject to review by the WAEMU Court of Justice (WCJ).[498] Currently, the WAEMU is the only regional framework applying the one-tier model.

The WCC can launch investigations either ex-officio or upon request. Ex-officio investigations, however, are not frequent as they can only result from market studies that scarcely occur due to resource constraints. Once a prosecution is launched, the WCC must choose between a non-adversarial and an adversarial procedure. Under the former, the WCC publishes within six months a summary investigation notice and grants negative clearance. Contrarily, where the WCC considers likely the anticompetitive nature of the investigated conduct, it adopts the adversarial procedure as per Article 16, Regulation No. 3/2002/CM/UEMOA, which requires the WCC to inform the NCAs about the pending procedure and the latter must provide assistance. Once the investigation is complete, the WCC performs a three-stage procedure to achieve a final decision. First, the WCC submits a draft decision to the Advisory Committee on Competition,[499] consisting of two officials from each WAEMU NCA, who provide non-binding opinions on pending cases. Second, draft decisions are reviewed by the cabinet directors, and then in the third final stage, they are presented to the Board of Commissioners for signature by the WAEMU Commission President. Investigations may result in negative clearances,[500] infringement decisions, or individual exemptions,[501] with potential fines of up to 10% of the

the Commission and the national competition agencies of the member States in applying articles 88 to 90 of the WAEMU Treaty.

[498] Article 90 of the WAEMU Treaty. The Court has full jurisdiction to hear appeals against Commission decisions that set a fine or periodic penalty payment. It may modify or annul a decision, reduce, or increase the amount of a fine or periodic penalty payment, or impose specific obligations.

[499] The Committee was created under chapter IX of Regulation No. 3/2002/CM/UEMOA.

[500] Article 3.1 of Regulation No. 3/2002/ CM/UEMOA.

[501] Individual exemptions might occur when an agreement, decision, concerted practice, or abuse of dominance respectively meet the conditions set under either Article 7 or Article 6.2 of Regulation No. 2/2002/CM/UEMOA.

preceding business year's turnover[502] and the possibility to issue periodic payments.[503] The WCC can also adopt interim measures[504] and exemption regulations.[505]

Notably, the WAEMU one-tier model did not directly result from the Treaty of Dakar but arose from an opinion of the WCJ (No. 003/2000) which established regional exclusive competition jurisdiction as a response to WAEMU member states' attempts to favour their domestic economies.[506] The WCJ clarified that national competences are limited to criminal law aspects of anticompetitive infringements and breaches of other market regulations.[507] Accordingly, since the current WAEMU power distribution was case law based, the system lacks clarity on the division of powers and on the co-operation mechanisms existing between the WCC and NCAs.[508]

Moreover, although several WAEMU states have established competition regimes, others have not, such as Guinea-Bissau. Further, existing competition regimes differ significantly from one another.[509] Whereas some have merger regimes (e.g., Mali[510] and Côte d'Ivoire), others do not. While some countries, such as Benin, Côte d'Ivoire, Burkina Faso, Mali and the Niger have recognised the supremacy of regional competition provisions, others have not (e.g., Mali, Senegal, and Togo).[511] Additionally, most national competition regimes go beyond conventional cartel and unilateral conduct competences also addressing unfair competition

[502] Article 22, Regulation No. 3/2002/CM/UEMOA.
[503] Article 23, Regulation No. 3/2002/CM/UEMOA.
[504] Article 5 of Regulation No. 3/2002/CM/ UEMOA. Interim measures are valid for a maximum of six months and automatically expire upon the adoption of a final decision by the Commission. The Commission has the power to modify, suspend, or revoke the interim measures through a decision at any time. Appeals against interim measures may be brought before the WAEMU Court of Justice.
[505] Article 89(3) of the WAEMU Treaty and Article 7 of Regulation No. 2/2002/CM/UEMOA. The Commission can issue block exemption regulations following consultation with relevant parties and the Advisory Committee on Competition.
[506] Opinion 03/2000/CJ/UEMOA.
[507] *Ibid*.
[508] UNCTAD, Preparatory report for the post review of the competition policy of the West African Economic and Monetary Union, UNCTAD/DITC/CLP/2020/2, (2020). Regulation No. 3/2002/CM/UEMOA of 23 May 2002, indeed, only lays down the terms of operation of the Advisory Committee on Competition. Similarly, Directive No. 2/2002/CM/ UEMOA only focuses on the distribution of powers between the Commission and the NCAs rather than on the mechanics of co-operation between the mentioned institutions.
[509] J. Conrad, What we learn from WAEMU for regional integration on the African continent, Growth Lab, (August 2022).
[510] Act No. 2016-006 of 24 February 2016.
[511] Directive No. 2/2002/CM/UEMOA explicitly requires that national competition laws be amended to reflect the primacy of community rules.

practices,[512] invoicing and price transparency issues, over which NCAs retain full jurisdictional power. National regimes' expansion stemmed as a response to the WCC's excessive power concentration as it is the case with NCAs' decision practice to prioritise disputes over which they have full jurisdiction.[513]

Furthermore, NCAs have multiple limitations. First, they have no decision-making power against anticompetitive practice. Second, NCAs are not fully independent given that in all WAEMU countries NCA heads are appointed by the governments and in some the secretary-generals are also appointed upon the advice of trade ministers. Moreover, in countries that still are without NCAs (this is still the case in Benin, Mali, the Niger, and Togo), trade ministry departments perform competition authorities' conventional duties.

Lastly, WAEMU member states' simultaneous membership in the Economic Community of West African States (ECOWAS) adds confusion, as the ECOWAS operates a different two-tier model regional competition regime, with NCAs having decision-making powers on national cases. Consequently, NCAs simultaneous presence in both systems causes friction in reconciling rules and competencies.[514]

4.5.2. Enforcement practice

The WCC enforcement is marked by slow decision-making and a low number of decisions. Between 2007 and 2019, the WCC only adopted eight decisions, out of which only two concern conventional anti-competitive infringements (the other concerned state aid measures[515]). In one the WCC terminated SONAPOST's abuse of dominance which, by leveraging a monopoly granted in 1988, made seizures and sanctioned the competing firm

[512] These provisions address some types of infringements irrespective of their effect on competition.
[513] UNCTAD, Preparatory report for the post review of the competition policy of the West African Economic and Monetary Union, UNCTAD/DITC/CLP/2020/2, (2020), p.22, footnote 28.
[514] *Ibid*.
[515] See *Société des Ciments du Togo SA v. WAEMU Commission* case (Commission Decision No. 1467/DPCD/DC/547 of 7 July 2000); the *ASKY* case (Commission Decision No. 002/2011/COM/UEMOA of 29 August 2011); the *West Africa Commodities v. Senegal* case (Commission Decision No. 007/2010/COM/UEMOA of 4 June 2010); the *West African Gas Pipeline* and the *SOCOCIM v. Senegal and Les Ciments du Sahel* cases (M. Bakhoum, Étude sur la révision du cadre institutionnel de mise en œuvre des règles communautaires de concurrence de l'UEMOA (Munich: WAEMU and the Max Planck Institute for Intellectual Property and Competition Law, 2012)). Importantly, in all these cases the WAEMU Commission did not benefit from the co-operation of the NCAs, although such co-operation is theoretically possible.

STAF for having unlawfully transported and distributed mail.[516] In the other the WCC sanctioned SONABHY's discrimination in the liquefied petroleum gas market in favour of SODIGAZ APC.[517] Between these two cases, fines were only imposed in the latter and were minimal.[518]

The slow pace of decision-making results from several factors, including scarce resources, irregular meetings, exceeding intermediary consultation steps and limited NCA participation as a consequence of the WCC's excessive concentration of power. Due to its significant delays, the WCC closed some proceedings without substantial measures and discouraged the raising of regional competition complaints. Consequently, the slow, scarce, and modest competition enforcement actions taken by the WCC results in a WAEMU competition regime lacking deterrence.

Nonetheless, despite the WCC's two decades of under enforcement, noteworthy is its recent increased amount of activities, with a dozen new pending investigations. Further, also promising is the WCC's attempt at rebalancing its focus to include more competition cases against private firms' anticompetitive conduct (four) over those involving State practices (six).[519]

The WAEMU competition regime's ineffectiveness is based on several institutional and operational factors. The primary WCC institutional weakness is its limited availability of resources as it has a budget of just around half-a-million dollars and only five case handlers. Consequently, although the WCC's enforcement record is modest, it is nonetheless commendable given existing resources.[520] At the operational level, the WAEMU's modest competition enforcement first results from the NCAs' scarce co-operation and involvement due to their lack of power over competition proceedings. Second, the NCAs are not sufficiently independent to play an intermediary role between the WCC and WAEMU Member States.[521] Third, sectoral regulators often expand their authority over anticompetitive

[516] Commission Decision No. 003/2013/COM/UEMOA of 13 February 2013.
[517] Commission Decision No. 08/2019/COM/UEMOA of 5 November 2019.
[518] Decision No. 08/2019/COM/UEMOA on anticompetitive practices in the liquefied petroleum gas sector in Burkina Faso. The fine amounted to 50 million CFA francs (around 75.000 EUR).
[519] UNCTAD, Preparatory report for the post review of the competition policy of the West African Economic and Monetary Union, UNCTAD/DITC/CLP/2020/2, (2020).
[520] *Ibid*, p.25.
[521] *Ibid*.

practices by subsuming such conduct under other provisions. Fourth, firms prefer advocating to national sector regulators rather than the WCC, due to a lack of awareness or the hope of obtaining a quicker resolution.

4.5.3. Merger regime

Despite the WAEMU treaty not including merger control provisions, secondary legislation accounts for them.[522] Under the WAEMU merger regime, relevant concentrations are those that hinder effective competition by creating or strengthening a dominant position.[523] As such, merger control is based on abuses of dominance provisions.[524] Accordingly, when the WCC investigates mergers, it must abide by the same powers and procedural rules of abuse of dominance investigations. When opting for the adversarial procedure, the WCC may block the acquisition or require the necessary changes to preserve competition. When the adversarial procedure is not completed within 12 months this is tantamount to a negative clearance.

From an enforcement viewpoint, the WCC's experience is limited and it has yet to prohibit a transaction.[525] Notable examples of WAEMU merger cases include *Orange-Airtel (2016)*,[526] *Orange-MTN (2018)*,[527] and another case in the palm oil sector in Côte d'Ivoire[528] where the WCJ, while upholding the WCC's negative clearance decision, demonstrated a certain deference towards the WCC's economic assessment by not verifying its substantive reasoning, and clarified that the adversarial procedure is discretionary.[529]

[522] Regulation No. 2/2002/CM/UEMOA.
[523] Article 4(1), Regulation No. 2/2002/ CM/UEMOA.
[524] Article 4(1)-(3), Regulation No. 2/2002/CM/UEMOA.
[525] UNCTAD, Preparatory report for the post review of the competition policy of the West African Economic and Monetary Union, UNCTAD/DITC/CLP/2020/2, (2020).
[526] Where Orange and its subsidiary, Orange Côte d'Ivoire, acquired control over Airtel Burkina Faso SA (the second largest mobile operator in Burkina Faso) and Airtel Mobile Commerce Burkina Faso SA.
[527] In this case Orange submitted an application for negative clearance for the creation, together with MTN, of a joint venture called Mowali, to manage a platform for the technical interoperability of digital money transfer services.
[528] Commission Decision No. 009/2008/ COM/UEMOA of 22 October 2008.
[529] Court of Justice judgement No. 002/2018 of 9 May 2018.

4.6. Conclusions

From the analysis of the above regional competition co-operation models, some observations emerge.

First, a good institutional design alone is not sufficient for determining competition co-operation frameworks' success and effectiveness. Indeed, although the CAN shares some of the ECN's features (e.g. the supremacy and direct applicability of regional competition provisions), it has not been as successful.[530] The WAEMU experience equally shows that the establishment of a free trade common market and a single currency does not guarantee the success of the regional competition regime. The degree to which competition co-operation frameworks' potential benefits materialise depends on a plurality of factors, including political and economic ties, mutual trust, common culture, the independence and reliability of NCAs, the adequacy of NCAs' budgets, the extent of differences across national competition regimes, institutional design, etc.[531] Despite these factors often aligning among countries in geographic proximity, such proximity is neither a precondition (as evidenced by the MMAC) nor a guarantee for their occurrence (the CAN, CARICOM, and WAEMU were found to suffer from highly heterogeneous national competition regimes, mutual distrust, and weak NCA independence).

Second, whereas the factors underpinning effective supranational competition co-operation do not naturally emerge, a successful co-operation framework should embrace and control for the relationships and differences existing across the countries it incorporates (and their national and/or regional competition regimes) so as to artificially recreate them through game-theory incentives. While such an aim is challenging and costly, it is not impossible, as evidenced by the ECN's relative success, and supranational competition co-operation frameworks' ultimate benefits are worth the effort. These benefits include reduced financial and technical resource constraints, the possibility to solve difficulties for enforcing penalties or collecting evidence on firms located elsewhere, economies of scale in educational,

[530] M. Botta, The Role of Competition Policy in the Latin American Regional Integration: A Comparative Analysis of CARICOM, Andean Community and MERCOSUR, IX Annual Conference of the Euro-Latin Study on Integration And Trade Network (ELSNIT), Revisiting Regionalism, Appenzell, Switzerland, October 21-22, (2011).
[531] OECD, 'Roundtable on benefits and challenges of regional competition agreements' (DAF/COMP/GF(2018)5, (2018).

enforcement, and advocacy activities, improved mechanisms to counteract state-driven competition distortions and pressure from powerful multinationals or interest groups, higher consideration of enforcement externalities and opportunity to counter-balance them, greater leverage (particularly important for smaller economies) and deterrence, and overcoming limitations such as corruption or mutual distrust.

Third, although differences across countries are often justified by underlying factual or historical objective reasons, equally as often they are neither justified, nor proportionate. Unclear for instance, is why some Caribbean countries have national merger regimes (e.g. Barbados and Trinidad & Tobago) and others do not.

Fourth, whereas supranational frameworks mitigate NCAs' resource constraints, they still require a sufficient amount of financial and human resources to operate effectively. The absence of these minimal resources impedes any international co-operation activity as well as the chance to enjoy its resulting benefits.

Fifth, supranational integration delivers benefits up to a breakpoint, past which the returns decrease. Excessive supranational integration indeed, as shown by the WAEMU's experience, may have drawbacks as it might reduce overall enforcement, NCAs' willingness toward international co-operation, diffusion of national competition cultures, and could favour local monopolies. Accordingly, the significance of preserving some level of national autonomy and diversity should not be undermined. Supranational authorities indeed cannot completely replace national ones without generating local enforcement gaps and preserving co-operation between the two is crucial, especially when resources are limited.

Sixth, countries' concurrent presence in multiple supranational frameworks can create insurmountable frictions, particularly if they significantly diverge from one another as was the case between the WAEMU and the ECOWAS.

Moreover, from the perspective of this thesis' declared objective (i.e., re-engineering the existing global competition co-operation framework through AI and blockchain technologies) this chapter highlights several other important insights.

First, the most successful regional competition co-operation framework to draw inspiration from is the ECN, as proven by its decision practice. Yet, despite its achievements, the analysis

of the ECN suggests not to transpose it at global level in its entirety given its multiple issues in terms of hierarchical structure, lack of transparency, suboptimal allocation of enforcement cases, and absence of a resolution mechanism to solve intra-network disagreements. Indeed, the negative externalities resulting from the ECN's limitations would be far more troubling on a global scale due to the absence at global level of most of the political, economic, and legal ties underpinning the ECN's infrastructure and success.

Second, the ECN's history shows that competition co-operation frameworks can evolve over time to meet adhering countries' needs. As political and economic ties among EU countries strengthened, the ECN replaced the 'two-tier' model with the 'joint-enforcement' one to solve the enforcement backlog that the former generated. Accordingly, a renewed global co-operation framework may start in one form and slowly evolve into another to reflect cross-country development. Consequently, any reform of the global competition co-operation framework should not be too ambitious and aim for the type of supranational co-operation that at this given point in time strikes the better and more stable balance between the multiple playing forces (e.g., the need to integrate, to preserve national discretion, to ensure consistency, etc.). As such, a successful global competition network should be sufficiently flexible to accommodate all adhering countries' needs, while providing incentives for making them as co-operative as possible.

Third, the ECN's history has also showed that the development of an effective supranational competition co-operation framework takes time. The decentralisation realised through the current 'joint-enforcement' model took almost forty years to materialise.[532] Consequently, it is advisable not to assess within a short time frame the quality of any renewed global competition co-operation framework.

[532] The decentralisation realised by Regulation 1/2003 occurred almost forty years after the adoption of Council Regulation No 17/1962 (EEC): First Regulation implementing Articles 85 and 86 of the Treaty, OJ No. 013, 21.02.1962.

5. Re-engineering the framework for international co-operation in competition proceedings through artificial intelligence and blockchain technologies

5.1. Introduction

Although globalisation and digitalisation have allowed the rise of multinationals surmounting national borders and traditional operational constraints, the global competition co-operation framework has not proportionately evolved.[533] Existing legal instruments enabling international competition co-operation were found to be fragmented, uncoordinated, non-competition specific, inefficient, time consuming, burdensome, of limited scope and utility, and often outside the sole control of competition agencies. Existing tools also exhibit mismatches either between legal base availability and its relevance/frequency of use, or between their theoretical potentials and practical utilisation.

Moreover, the utility and utilisation of such existing tools were found to depend on a plurality of factors (e.g. mutual trust, enhanced transparency, etc.), not all endogenous to competition proceedings, which rarely occur at global level given the conflicting political and economic relations (e.g. US and Russia), the highly diversified cultural and legal values (e.g. US and China), the differing economic and industrial structures (e.g. Europe and Africa), the diverging strategic interests, etc. Consequently, the dimension of competition enforcement was found to be excessively nation-centric vis-à-vis the global scale of markets and this has generated a globally aggregated antitrust enforcement that is problematically asymmetric, flawed, and at times disproportionately conflicting or excessively contaminated by political interests.

Against this backdrop and by drawing from the lessons learnt from the analysis of the world's most developed regional competition co-operation frameworks, Chapter **5** aims at re-engineering international competition co-operation by advancing a proof of concept ('PoC') that embraces cross-countries' differences and attempts to control them through AI and

[533] OCED-ICN, 'Report on International Co-Operation in Competition Enforcement' (2021).

blockchain technologies.[534] The intended outcome is to deliver a system enabling advanced procedural co-operation without departing from existing nation-centred competition regimes.

Accordingly, since countries engage in international competition co-operation based on cost/benefit evaluations of various factors (e.g. the political and economic implications of co-operation, decision-making autonomy, public policy priorities, strategic importance of co-operation, reputational concerns, etc.), re-engineering the global competition co-operation framework requires creating a system providing acceptable trade-offs for all parties (i.e. co-operating is not compulsory but convenient). Yet, enabling cost/benefit analysis in turn requires transparency, reciprocal understanding of enforcement regimes, enforcement predictability, and mutual trust.[535] Consequently, crucial preconditions to garner sufficient buy-in for a renewed global competition network are: its non-hierarchical structure and sufficient flexibility to accommodate heterogeneity of ends and means; its ability to safeguard NCAs' independence and confidentiality protections; its inclusion of mechanisms to solve intra-network disagreements, and its attitude to rewarding transparency; its incentives to boost co-operation, and countries relinquishing full control over their cases and adopting non-nation-centric or excessively narrow-sighted focuses.[536] Where these preconditions do not naturally emerge, they need to be artificially re-created.

[534] Technology is indeed been used also to advance other areas of law, see T. Luijken, M. Martini, The role of technology in reducing corruption in public procurement, *Anti-corruption Helpdesk. Transparency International, (2014).*

[535] A.A. Klip, E. Versluis, J. Polak, Improving Mutual Trust amongst European Union Member States in the Areas of Police and Judicial Cooperation in Criminal Matters, in N. Marlèn Dane, A.A. Klip (eds), An Additional Evaluation Mechanism in the Field of EU Judicial Cooperation in Criminal Matters to Strengthen Mutual Trust 86, (Celsus Legal Publishers 2009). Significant, in this sense, is also the Competition Enforcement Co-operation Database that the OECD Competition Committee compiled and published in 2022 with the aim to help improve transparency and trust in international enforcement co-operation between competition authorities by sharing data provided by over 60 jurisdictions worldwide. <https://qdd.oecd.org/subject.aspx?Subject=CompetitionEnforcement>.

[536] Dysfunctional institutions and political interferences to competition law enforcement are among the common problems of many developing countries. See, M. Dabbah, Competition Law and Policy in Developing Countries: A Critical Assessment of the Challenges to Establishing an Effective Competition Law Regime, 33 World Competition 457, 463–469 (2010); I.Lianos, J. Leblanc, Trust, Distrust and Economic Integration, in I. Lianos, O. Odudu (eds), Regulating Trade in Services in the EU and the WTO. Trust, Distrust and Economic Integration, (Cambridge U. Press 2012); W.E. Kovacic, D.A. Hyman, Competition Agency Design: What's on the Menu? 8 European Competition J. (2012).

The PoC, accordingly, proposes the institution of the so-called 'Global Antitrust Network' (GAN), a global-wide, blockchain-based, AI-driven, multilateral, decentralised, voluntary, and non-hierarchical system enabling cross-border procedural competition co-operation. The GAN neither advocates for a single global antitrust, nor for more substantive convergence, the latter being perceived more as a natural by-product of more effective procedural co-operation. Further, the GAN does not modify either conventional nation-centred antitrust regimes, nor their legal substructures. It involves the creation of a single, global, AI-driven, and blockchain-based platform that vehiculates all existing nation-centred antitrust regimes' operations. As such, the GAN is expected to concentrate, standardise, and automatise NCAs' daily working activities to maximise their international procedural co-operation and mitigate existing asymmetries and the risks of gaps, overlaps, and political contaminations.

For instance, while currently to submit a complaint to two different NCAs it would be necessary to connect to the websites of each authority and separately follow their rules and procedures in terms of complaint's contents, formats, mediums, timings, etc.; under the proposed GAN, within a single online platform any interested user would benefit from an online, unique, AI-driven platform that automatise the filings of simultaneous complaints in all the multiple jurisdictions of interest for the complaining party, in compliance with the legal requirements of each.

Accordingly, whereas back-end nothing will change as all jurisdictions will continue to maintain their autonomy, powers, and apply their specific procedural and substantive rules, the GAN would revolutionise the front-end of antitrust enforcement by providing a unique AI-driven, blockchain-based platform that automatises the interactions of all NCAs, both with their interested users and among themselves. The GAN, therefore, will not impact the rights secured to prosecuted firms by the laws of any adhering jurisdiction, but will offer a structural, organised, non-fragmented, competition-specific global platform that enables greater international procedural co-operation and reduces the general cost of antitrust enforcement.

In this context, while **Section 5.2.** explains the GAN's political feasibility, **Section 5.3.** analyses the GAN's policy case, illustrates the benefits of using AI and blockchain technology, and clarifies how the latter could be reconciled with the demands of human rights protection. Subsequently, **Section 5.4.** examines the potential legal instruments for realising the GAN

together with their pros and cons, and **Section 5.5.** specifies the GAN's technical infrastructure, institutional design, governance and inner working mechanisms as well as some other key features. Then, while **Section 5.6.** provides a preliminary illustration of the GAN's practical potential applications and how they could mitigate the persisting issues identified in **Section 3.6**. (i.e., asymmetries, gaps, overlaps, and political contaminations), **Section 5.7.** concludes.

5.2. The GAN's political feasibility

The mismatch between the demand and supply of international competition co-operation has generated a global competition enforcement which is asymmetric, flawed, and at times unnecessarily conflicting or excessively politically distorted. To rectify these problems, multiple options are available. Whereas at one end of the spectrum, policy makers could continue ignoring the problem (so-called 'do nothing option'), at the other end, they could re-attempt the realising of a brand new global antitrust, perhaps amid the WTO,[537] which applies a unique set of competition provisions (so-called 'global antitrust option'). Neither option, however, seems desirable given that, respectively, the unequal welfare distribution may further increase up to a point where it could transcend into socio-political issues or even wars,[538] or an excessive supranational integration may result, which could backfire and cause suboptimal welfare equilibriums for adhering countries.

Between these two options, a range of alternatives exists, each with its own pros and cons. Among them, this thesis proposes the creation of an initially purely technical global-wide, blockchain-based, AI-driven, multilateral, decentralised, voluntary, and non-hierarchical platform enabling cross-border competition procedural co-operation as the option that strikes the best equilibrium between political feasibility and the need to mitigate the

[537] A renewed involvement of the WTO was mentioned during the OECD roundtable on Subsidies, Competition and Trade, Global Forum on Competition, 2022.

[538] The ordoliberal movement has already denounced the interlink existing between ineffective antitrust enforcement, excessive economic concentration, and political instability issues. See D.A. Crane, Ordoliberalism and the Freiburg School, in D.A. Crane, H. Hovenkamp (eds.), The making of competition policy: legal and economic sources, OUP, (2013), p.252-281; G. Amato, antitrust and the bounds of power: the dilemma of liberal democracy in the history of market (Bloomsbury publishing, 1997). Similarly, more recent research has proven a direct correlation between merger concentration and increased lobbying activities (See B. Cowgill, A. Prat, T. Valletti, Political Power and Market Power, (August 2022), (<https://arxiv.org/pdf/2106.13612.pdf>).

asymmetries, flaws, conflicts and at times excessive political contaminations of global competition enforcement.

Indeed, thanks to the alignment of a plurality of conditions, the case for deeper international competition co-operation has never been stronger.[539] First, because nation-centric competition regimes have limitations within a globalised economy, unsolvable either by the extraterritorial application of national rules, or by comity.[540] Second, because the factors boosting the demand for international co-operation in the 1990s have all skyrocketed during the last two decades.[541] Third, because all existing tools vehiculating international co-operation have proved ineffective or lacking sufficient scale.[542] Fourth, because although in the past a global multilateral solution encountered opposition, there are now at least two reasons to believe that past barriers can be overcome.

Firstly, the global geopolitical situation has evolved so much that western developed countries (especially the U.S.) can no longer regulate the global economy without co-operating with the eastern economic powers that have risen since the 1990s.[543] Notable in this sense are the calls to reactivate the WTO competition working group.[544] Secondly, developing countries' past fear of losing autonomy by joining supranational organisations could be won over by embedding the GAN with certain guarantees obtainable through new technologies so as to make it a voluntary, decentralised, non-hierarchical system only enabling cross-border procedural co-operation. Making international co-operation voluntary, asynchronous, limited to procedural aspects, and embedded in a decentralised non-hierarchical structure while enabling enforcement transparency and reciprocal enforcement

[539] M.k. Ohlhausen, Guidelines for Global Antitrust: The Three Cs – Cooperation, Comity, and Constraints, (2017), IBA 21st Annual Competition Conference.
[540] Both solutions proved ineffective and caused unprecedented market concentration, rising mark-ups, and left a few digital super-firms maturing historically unmatched powers vis-à-vis the States theoretically entitled to regulate them within the boundaries of their jurisdictions.
[541] Therefore, while effective and efficient international co-operation in competition proceedings was desirable in the 1990s, it is essential now. In this sense, see A. Mundt, 'International Competition Convergence Pathways, Challenges, and Prospects for Success', (Forty-third Annual Fordham Competition Law Institute Conference on International Antitrust Law & Policy, 2017.)
[542] See above Sections 3.3. and 3.5.
[543] World Economic Forum, 'America's dominance is over. By 2030, we'll have a handful of global powers', (Nov. 11, 2016), <https://www.weforum.org/agenda/2016/11/america-s-dominance-is-over/>.
[544] OECD, Global Forum on Competition, Roundtable on Subsidies, Competition and Trade (2022); OECD, Global Forum on Competition, Roundtable on Trade, Development and Competition (2021).

oversight, would also protect each adhering NCA's decision-making powers, thus enabling space for justified heterogeneous decisions and a certain degree of healthy experimentation and regulatory competition.

This leeway for national differentiation, while initially key to lure in adherents, is also long-term non-problematic since once the GAN and its reciprocal checks-and-balances mechanisms were in place, the GAN itself would provide the game-theory incentives disincentivising non-co-operative deviations and penalising enforcement actions that are excessively egoistic and nation-centric (e.g. advertisement of stats identifying the more protectionist and less co-operative countries).

5.3. The policy case for using blockchain and AI technologies

Effective international competition co-operation demands multiple conditions to co-exist (i.e. reciprocal transparency and trust, multidirectional accountability even among countries characterised by conflicting relations, NCAs' independence, enforcement predictability, etc.). Consequently, due to the global scarcity of these preconditions, the GAN needs to artificially create them through blockchain and AI technologies.

5.3.1. The advantages of blockchain technologies

A. Bringing trust where there was not

Through blockchain technologies, the GAN can solve the issue of those countries lacking trust in each other by eliminating the need for mutual trust. Indeed, through a decentralised, transparent, unmodifiable, and public permissionless ledger recording the hash-records of all NACs' enforcement actions, the GAN creates the preconditions for building reciprocal trust among historically conflicting countries as any action and its timing will be neutrally notarised on a ledger that cannot be unilaterally modified.

Whereas non-blockchain-based solutions can also provide secure record-keeping, they cannot eliminate the need to trust a centralised entity and its correlated hierarchically superordinate position, as it could always be possible for one (or more) central administrator(s) to delete or modify internal records. Similarly, blockchain's efficacy in removing the need to trust a centralised authority and its hierarchically superior position

cannot be defeated by conventional legal instruments enabling multilateral co-operation. Noteworthy, in this context, is the comparison with the multilateral co-operation system in tax law matters created by the Convention on Mutual Administrative Assistance in Tax Matters ('MAAC'). Despite the MAAC representing the most advanced global international co-operation system, it still exhibits some centralisation and hierarchy since its functioning is overseen by a co-ordinating body[545] assisted by the OECD Secretariat. The lack of trust in these institutions, amid other factors, explains why not all world jurisdictions joined the MAAC despite its effectiveness in reducing tax avoidance and evasion.

It follows that public-permissionless blockchain protocols are the best option to bring trust among countries not trusting each other and that do not want to submit their jurisdictional powers to an untrusted, hierarchically superordinate authority.

Accordingly, for instance, blockchain technology would enable the historically thought impossible[546] global one-stop-shop markers system for receiving leniency applications, since the occurrence of a leniency application, its timing and its later unlawful modification[547] could be verified and undisputedly proven if the hashes[548] of each application, as soon as received by any concerned competition agency, were then recorded on a public-permissionless blockchain protocol. This procedure, indeed, would enable the formation of a global immutable register of the time, content integrity, and order of any leniency application. *Mutatis mutandis*, based on the same procedure, the GAN could also enable the creation of a global immutable register of the time, content integrity, and order in which competition complaints and merger filings are deposited.

[545] Made up of representatives of some of the competent authorities of the parties to the Convention. See Article 24, MAAC.

[546] Due to countries' mistrust with regard to the effective recipience, the timing and content of any leniency application submitted to any international peer.

[547] The content non-alternation is ensured because if after the registration on the public-permissionless blockchain protocol of the hash-record of a given leniency application the latter gets modified, the hash-record of the modified leniency application will not match the hash-record originally registered on the blockchain, thus rendering the unlawfully modified version of the application legally invalid and meaningless.

[548] Hashing data consists of passing some data through a formula that for a given input produces a single and unique output, called a hash. The hash is usually a string of characters and the hashes generated by a formula are always the same length, regardless of how much data is fed into it. Additionally, the hash, despite being the single and unique output for a given input, does not reveal any information of the original input, nor is it possible to turn the hash back to its original data, even if the hashing formula is known.

As a result, the GAN enables a globally trustable, virtual and multilateral[549] one-stop-multishop platform for submitting leniency applications, complaints, and filing mergers.

B. Enhancing transparency and accountability

By creating a tamper-proof record of the hashes of all actions taken during competition investigations, blockchain technology enhances the transparency and accountability of global competition enforcement thus enabling traceability and reciprocal check-and-balances (without undermining confidentiality, secrecy, privacy, or legal privileges as further explained below), all conditions that in turn reduce the risks of gaps and exposure to disproportionate political influences.

C. Advanced automation

By enabling smart contracts, blockchain technology can also automatise the redistribution of the cost of international co-operation, while ensuring that such redistribution occurs fairly across all competition enforcers. Such an evolution would stop international competition co-operation from being treated as charitable work, often at the expense of more developed jurisdictions, and transform it into a true, bidirectional service.

D. Compliance with procedural safeguards

Blockchain technologies are suited for underpinning the GAN since they align with the demands of protection of due process, confidentiality, privacy, legal privilege and the other procedural safeguards dictated by human rights legislation. Whether the GAN is indeed based on a hybrid format (as further explained in Section **5.5.1.),** mixing both public-permissioned and public-permissionless protocols with each performing certain functions, it can enable multilateral international transparency without harming procedural rights in any adhering jurisdiction. This occurs because while the public permissionless protocol only publishes the hash-records of all NCAs' investigative actions, the investigative actions themselves and the confidential information embedded in them will be vehiculated through the public-

[549] The GAN virtual one-stop-shop remains multilateral because although it automatises and simplifies such operations, it will still provide for multiple submissions or filings from a legal perspective, one in any concerned jurisdiction of interest for the submitting or filing party.

permissioned protocol, which is mostly run secretly in a restricted and encrypted fashion by the NCAs adhering to the GAN.

In the hypothesis of a multijurisdictional leniency submission, for instance, the GAN will not cause any fundamental rights violation in any jurisdiction because when the leniency submissions occur, the leniency applicant will use the GAN platform running on the public permissioned protocol, and thanks to a dedicated AI-driven assistant (based on a generative large language model), it could simultaneously submit multiple encrypted leniency applications to all the jurisdictions of interest while respecting the specific rules of each. Once the multiple applications are submitted, only the addressed NCAs will have the decryption keys to fully access them, while any other NCA, even if adhering to the GAN, or any external actor will not. Once each application has been accessed by its addressed NCA, each authority will pass the entire submission through a hash function thus obtaining a unique alphanumeric hash-value that indisputably identifies the single leniency application and its content without revealing any information of its content. Then, each addressed NCA will register on the public permissionless protocol the hash-record (and only the hash record) of the received leniency application. Once done, this will indisputably prove the existence of a leniency application in a specific jurisdiction, its timing, and the integrity of its contents, without anyone being later able to modify such registration. At this point, each addressed jurisdiction will initiate its own investigation, if any, will grant or not grant a reward to the leniency applicant (e.g. immunity or fines discount) based on its national rules, and will co-operate in an encrypted fashion with foreign peers, through the GAN platform and its public permissioned protocol, to the extent allowed by its applicable rules, thus without infringing any procedural safeguards or fundamental rights as provided by their national legislation. Equally, the GAN blockchain-based infrastructure will not affect the national judicial review of the evidence and information collected and vehiculated through the GAN, which will continue to be informed by the national provisions of the acting NCAs.

5.3.2. The advantages of AI technologies

AI technologies can not only improve the global competition co-operation framework but improve competition enforcement effectiveness more generally, by innovating most NCA daily activities. This is so for several reasons.

A. Democratising, digitalising, and automating competition enforcement's inputs

AI technologies digitise and automate most NCA daily activities, by helping, for instance, complainants to submit their complaints in more structured and legally effective forms, with less effort, and with reduced assistance from specialised lawyers. Equally, the same benefits apply to merger filings and leniency applications. AI can therefore revolutionise the way in which firms and consumers interact with NCAs and increase their interactions. This, in turn, may also help at better redistributing competition enforcement benefits across new demographics given that preliminary studies found that the vast majority of individuals lodging complaints are white, middle-aged, well-educated, and wealthy men.[550]

Secondly, by automatising the submission of complaints, leniency applications, and merger filings, AI reduces the marginal costs of submissions in multiple jurisdictions. Imagine the case of a consumer victim of some cross-border anticompetitive infringement, who, without legal assistance, and with help from a generative large language model could submit, through the GAN, multiple complaints in different jurisdictions, in multiple languages, in real time and with little effort, while satisfying the procedural rules of each.

B. Simplifying enforcement data filtering, categorisation, clustering, and mining

AI technology could also enable NCAs to develop data pipelines[551] to filter, categorise, cluster, and mine complaints, leniency applications, and merger filings thus boosting their efficiency and effectiveness.[552] For instance, AI software could filter complaints, reject those firmly irrelevant, and rank the remaining based on preselected weighted parameters (e.g. likelihood of success, investigation duration, novelty of the issue concerned, magnitude of impact on vulnerable consumers, etc.). Notably, the UK CMA has rolled out a tailored evidence submission portal to digitise and automatise documents' collection and analysis. Thanks to this, the CMA can now very efficiently collect millions of documents of different types (e.g.

[550] In the context of data protection authorities, similar evidence was found by A. Courmont, 'Le plaignant type? Un homme, diplômé et cadre', LINC, (2022), <https://linc.cnil.fr/fr/le-plaignant-type-un-homme-diplome-et-cadre?s=09>.

[551] A data pipeline is '*a set of data processing steps from a data source to a destination data set, with the output of one step being the input of the next'.* See S. Hunt, The technology-led transformation of competition and consumer agencies: the CMA's experience. (2022).

[552] S. Hunt, The technology-led transformation of competition and consumer agencies: the CMA's experience. (2022).

email, pdf, jpg, word docs, excels, etc.) quickly unpack and inspect them to ensure the absence of corrupt files, and immediately highlight any issue to the e-discovery teams, who will then go back to the submitting parties to fix any pre-identified problem.

C. Offering data enrichment services

AI technology could assist NCAs' investigative teams by offering data enrichment services. As submitted evidence moves across internal data pipelines, AI technology can elaborate metadata to support the downstream analysis of those documents. For instance, machine learning systems could enable automated content extraction from submitted documents,[553] including the identification of poignant words, and structure, tag, and label extracted data to improve their usability. Such services may increase NCAs' effectiveness given that the average number of documents to be handled in each investigation has been growing, particularly in cases with cross-border effects. In the recent *Nvidia/Arm* merger case, for example, the CMA received 7 million documents.[554]

D. Enhancing data acquisition capabilities and analytical tools

AI technologies could also provide new data collection avenues and analytical tools.[555] For instance, the UK CMA is experimenting with company register network analysis to inform merger investigations, and academic researchers are proposing new network analysis techniques and machine learning tools to conduct dominance assessments.[556] Likewise, in Switzerland, the Swiss COMCO used a cartel-screening software to uncover procurement collusion in the road construction sector.[557] Similarly, the Mexican COFECE not only relied on

[553] For instance, to identify which products are the object of received complaints, the CMA uses Named Entity Recognition and a neural network-based algorithm.

[554] S. Hunt, CMA Data, Techonology and Analytics Conference, 2022, <https://www.youtube.com/watch?v=coUqcFpsVqc&list=PLJREEEp2I-xckXWl5O-_BELnqA0tf1bu-&index=7>.

[555] OECD, Data Screening Tools in Competition Investigations, DAF/COMP/WP3(2022)5, 2022; T. Schrepel, T. Groza, The adoption of computational antitrust by agencies: 2021 Report, Standford Computational Antitrust, 78 (2022); D. Kim, Korean Public Procurement Law, K-Law Academy, Korea Legislation Research Institute, <https://www.researchgate.net/publication/348618992_Korean_Public_Procurement_Law>; Danish Competition and Consumer Authority, Collusion detection in public procurement using computational methods, Competitive Markets and Consumer Welfare, (April 2022).

[556] B. Pellegrino, Product Differentiation and Oligopoly: a Network Approach (Feb. 2023).

[557] H. Wallimann, Imhof D., M. Huber, A machine learning approach for flagging incomplete bid-rigging cartels, arXiv preprint arXiv:2004.05629, https://arxiv.org/pdf/2004.05629.pdf; COMCO, OECD-BWB Workshop on Complex Cartel Case Management, <https://www.slideshare.net/OECD-DAF/swiss-competition-commission-on-cartel-detection-and-screening-in-public-procurement>.

AI tools to uncover a procurement cartel for insulin, but based most of its case on evidence derived from AI screening tools. On appeal, such evidence was found to be sufficiently ample, clear, and decisive to establish the facts underpinning the decision.[558] Again, a variety of price monitoring algorithms have been developed to monitor price fluctuations in several sectors.[559] Scraping techniques and network analysis, equally, have also been used to identify firms using fake reviews and to locate clusters of fake reviewers.[560] These tools might prove particularly helpful in cases with a supranational dimension, given the difficulty of accessing traditional types of evidence often located abroad.

E. Improving advocacy activities and remedies design

AI tools can also enhance advocacy activities of NCAs. Accordingly, the Colombian NCA has implemented an AI software detecting regulation hindering competition.[561] Moreover, AI software can also help with running horizon-scanning services or enhancing remedies design by, for instance, enabling new redress measures (e.g. targeted compensations).[562] In Tobii*/Smartbox,* significantly, the CMA used algorithmic solutions to inform its remedies.[563] Furthermore, AI can advance NCAs' ability to monitor remedies' effectiveness, as the CMA is currently experimenting in the *Google privacy sandbox* case.[564]

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[558] COFECE, The Supreme Court of Justice decides on bid rigging in social security public tender case, COFECE-009-2015, <http://www.competitionpolicyinternational.com/assets/COFECE-009-2015-English.pdf>.

[559] For example, see systems like AdFisher or Xray that would enable the user to automate randomised, controlled experiments for studying and monitoring certain AI-driven markets (R. S. Zemel, Y. Wu, K. Swersky, T. Pitassi, and C. Dwork, 'Learning fair representations' (Proceedings of the 30th International Conference on Machine Learning, ser. JMLR:W&CP, vol. 28. JMLR.org, 2013) 325–333; M. Lécuyer, G. Ducoffe, F. Lan, A. Papancea, T. Petsios, R. Spahn, A. Chaintreau, and R. Geambasu, 'XRay: Increasing the web's transparency with differential correlation' (Proceedings of the USENIX Security Symposium 2014).

[560] CMA, CMA to investigate Amazon and Google over fake reviews, (June 2021), <https://www.gov.uk/government/news/cma-to-investigate-amazon-and-google-over-fake-reviews>; CMA, 'Fake and misleading online reviews trading' (April 2021) <https://www.gov.uk/cma-cases/fake-and-misleading-online-reviews>.

[561] This tool received an award during the 2022 ICN Annual Conference in Berlin.

[562] To draw inspiration of what could be done with new AI tools, see A. Ezrachi, M. Ioannidou, Public Compensation as a Complementary Mechanism to Damages Actions: From Policy Justifications to Formal Implementation, *Journal of European Competition Law & Practice*, (2012), *3*(6).

[563] In *Tobii/Smartbox* a remedy was proposed to open source the code from Tobii <https://www.gov.uk/cma-cases/tobii-ab-smartbox-assistive-technology-limited-and-sensory-software-international-ltd-merger-inquiry>.

[564] CMA, Investigation into Google's 'Privacy Sandbox' browser changes, <https://www.gov.uk/cma-cases/investigation-into-googles-privacy-sandbox-browser-changes>. Equally, the CMA used scraping tools to check compliance with CMA remedies in the payday lending market investigation <https://www.gov.uk/cma-cases/payday-lending-market-investigation#final-order> and in the ongoing consumer enforcement case on social media endorsements <https://www.gov.uk/cma-cases/social-media-endorsements>.

F. Enhancing transparency and accountability

AI together with blockchain technologies can advance the transparency and accountability of competition enforcement. The GAN, by rendering available unprecedented troves of enforcement data, could allow, for instance, the measurement of NCAs' efficacy by computing the conversion ratio of 'competition enforcement demand vs its supply', breaking it down by jurisdiction, and making comparisons and benchmarks. Furthermore, if such a ratio is measured against the amount of each NCA's available resources, the GAN enables the checking of NCAs' priorities and dismissal decisions. Additionally, the GAN would also permit comparisons as to how efficient each NCA is vis-à-vis its international peers.

G. Enabling new game-theory incentives

AI could further allow for the formation of new analytics, whose public release would generate new game-theory incentives spurring GAN-adhering NCAs to maximise international engagement. Accordingly, new AI software could, for instance, calculate for each jurisdiction the ratio of national vis-à-vis foreign prosecuted firms, the ratio of average fines amount suffered by national vis-à-vis foreign undertakings both in absolute and relative (as a percentage of their annual turnover) terms, or the ratio between the number of accepted or rejected complaints vis-à-vis claimants' nationality. These data could then be used to cluster and classify trusted third party jurisdictions. Further, NCAs' degree of independence could also be estimated by using either pre-identified parameters (e.g. budget thresholds; management appointment procedures; quantity, variety, and scope of exemptions; etc.), or ranking techniques based on on-network engagement variables or reciprocal anonymous voting mechanisms among peers. These data would allow the most or least neutral and co-operative NCAs to be identified and, respectively, rewarded or penalised.

H. Enabling new forms of international co-operation

AI tools can also modify the way in which NCAs conventionally co-operate, both on-chain (i.e., within the GAN) and off-chain (i.e., outside the GAN). This is so first because AI could allow the exchange of significant intelligence without sharing its underlying data. Such outcomes

are enabled by privacy enhancing technologies such as homomorphic encryption,[565] federated analysis,[566] differential privacy,[567] or zero-knowledge proofs.[568] Second, because the sharing of AI models will be more useful than the sharing of the confidential information they extract, as a mere recalibration of the former will allow obtaining the latter natively from the concerned jurisdiction. And notably, the sharing of AI models is legally-wise not as restricted as the sharing of confidential information.[569] Therefore, the more NCAs develop dedicated AI tools to address competition issues and the more they circulate them within the GAN, the stronger will be the latter network effects.[570] Encouragingly in this sense, the Danish Competition and Consumer Authority has already co-operated with its Spanish and Swedish counterparts to co-develop an AI screening tool to detect collusion in public procurement.[571]

I. Reshaping firms' self-assessment of their competition law compliance

Once AI technologies are implemented by NCAs, they could also be used by firms to *ex-ante* self-assess the competitive lawfulness of their envisaged future conduct.[572] Deutsche Bahn, for instance, is already implementing AI tools for cartel detection within its supply chain.[573]

5.3.3. The potential risks of applying AI technologies in competition law enforcement

Despite its benefits, integrating AI into competition enforcement may raise doubts concerning its compatibility with the demands of protection of human rights legislation in any jurisdiction (due process, confidentiality, privacy, principle of equality, etc.). Eminent commentators have already warned against the potential shortcomings that could result from using AI tools in law enforcement, such as the risks of: biased/discriminatory enforcement outcomes; reductions in enforcement explicability; impediments to exercising the individual right to a fair trial; and privacy violations. However, despite these risks also materialising in

[565] Data is encrypted before sharing so that it can be analysed but not decoded into the original information.
[566] Involved parties share the insights from the analysis of their data without sharing the data itself.
[567] Noise is added to the data so that it is impossible to reverse-engineer the original individual inputs.
[568] Users can prove the existence of a value or their knowledge of a value without revealing the value itself.
[569] S. Hunt, The technology-led transformation of competition and consumer agencies: the CMA's experience. (2022).
[570] OECD, Data Screening Tools in Competition Investigations, DAF/COMP/WP3(2022)5, 2022.
[571] Danish Competition and Consumer Authority, Collusion detection in public procurement using computational methods, Competitive Markets and Consumer Welfare, (April 2022).
[572] R. S. Zemel, Y. Wu, K. Swersky, T. Pitassi, and C. Dwork, 'Learning fair representations' supra.
[573] H. Beth, O. Gannon, Cartel screening- can competition authorities and corporations afford not to use big data to detect cartels?, CL&PD, 2022, V.7,2,pp.1-12.

competition proceedings, since they are subject to fundamental rights safeguards, in the latter context they are less troubling and pernicious than other law fields.

A. The risk of biased/discriminatory enforcement outcomes

Discriminatory outcomes are very unlikely in competition proceedings as the primary concern is with firms' rather than individuals' conduct which, by its very nature, does not correlate with legally protected attributes (e.g. gender, race, ethnicity, religious belief, etc.). Indeed, contrary to AI facial recognition tools used in police investigations,[574] AI tools to detect public procurement cartels are totally disconnected from legally protected attributes. Equally, none of the applications of AI tools suggested in the previous section (e.g. network analysis, data extractions, etc.) require factoring in protected attributes for their processing.

Despite this, within the boundaries of their laws, NCAs should nonetheless account for bias risks when developing, training, deploying or otherwise using AI tools and they should monitor, report, and mitigate any resulting issue. Accordingly, for instance, NCAs should avoid disproportionate prioritisations of cases either signalled by or affecting individuals with certain attributes, specific sectors of the economy, or a specific sub-part of the territory (e.g. prioritising national firms' complaints over foreign ones, or public firms' complaints over private ones, or enforcement actions that primarily benefit high-end consumers).

Yet, AI tools seem to be more a solution rather than a causing factor of bias risks given that, while there is no evidence to deny that some of the mentioned potential bias pre-dated AI tools, the latter can enable analysis to identify and mitigate it. Preliminary to any analysis, it will be vital that global NCAs agree on what 'biased competition enforcement' actually (and legally) means.

Further, AI competition enforcement tools could re-balance how AI tools tend to be used in society since 'AI tools are mostly used to make predictions about poor people, while leaving whole swathes of society untouched by those tools (e.g. insider trading or corporate

[574] For an example of a case where the use of automated facial recognition techniques in the context of police enforcement was found to be illegal, see Royal Court of Justice, *R v The Chief Constable of South Wales Police*, [2020] EWCA Civ 1058.

frauds)'.[575] Accordingly, AI tools' integration within antitrust proceedings will likely reduce the chance of these new forms of discrimination happening among the beneficiaries of AI-driven enforcement.

B. The risk of reducing law enforcement transparency, accountability, and explicability

AI integration in some enforcement areas was accused of making the latter less transparent, accountable, and explicable. With regard to police enforcement, for instance, Prof. Elizabeth Joh noted that 'it is often very difficult for individual criminal defendants even to know what types of technologies might have been used in their particular case. Of course, that adds to the difficulty of raising challenges to a particular technology when you are not even sure what combination of licence plate reader data, facial recognition technology or predictive policing software might have led to the identification of you as a particular suspect.'[576] This transparency lacuna, in turn, further leads to accountability issues. According to the U.K. Committee on Standards in Public Life, AI in law enforcement may obscure the chain of organisational accountability, may undermine the attribution of responsibility for decision-making, and might inhibit meaningful explanations of AI-based decisions.[577]

Despite their legitimacy, the described concerns seem less severe in antitrust proceedings for at least three reasons. First, because competition defendants are not poor defenceless individuals, but well-founded firms (often monopolists) not lacking either the resources, or the expertise to understand AI tools' application, working functionalities, and litigate their potential misuses if need be.

Second, contrary to others, competition proceedings can easily accommodate the additional complexity eventually resulting from AI tools' utilisation. Competition proceedings, indeed, have often involved extremely complex econometric modelling and assessments that are as incomprehensible to most citizens as many AI tools might be. The EU Google shopping investigation, for instance, where Google was sanctioned for favouring its own comparison-

[575] House of Lords, Justice and Home Affairs Committee, Technology Rules? The advent of new technologies in the justice system, 1st report of session 2021/22, Q 60 (Professor Karen Yeung).
[576] House of Lords, Justice and Home Affairs Committee, Technology Rules? The advent of new technologies in the justice system, 1st report of session 2021/22, Q 44 (Professor Elizabeth Joh).
[577] Committee on Standards in Public Life, Report on Artificial Intelligence and Public Standards, (February 2020), <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/868284/Web_Version_AI_and_Public_Standards.PDF>.

shopping service vis-à-vis rivals, lasted around seven years and resulted in almost 215 pages.[578] Similarly, while in Perindopril (Servier) the EC adopted a decision running up to 812 pages,[579] the U.K. CMA in Paroxetine adopted a decision that, with annexes, counted 717 pages.[580] NCAs, therefore, would lack neither the resources, nor the opportunities to sufficiently explain which AI tools were used, to what extent, their limitations (if any), and how the latter were solved. If anything, it is more likely that AI tools will simplify competition investigations, by enabling more granular and detailed analysis or enriched modelling simulations, thus improving their explicability and subsequent accountability.

Third, the AI tools suggested in Section **5.3.2.** will not harm the explicability and accountability of competition investigations as they will not alter conventional standards of proof, competition analysis, motivation duties, and procedural safeguards. They will simply deliver so-called 'process innovation' by improving NCAs' ability to accomplish their tasks without modifying them.

Despite the above, NCAs should nevertheless explain through both guidelines and as part of their decisions, what AI tool they use, when, how, to what extent, its limitations (if any) and potential remedial measures. Noteworthy in this sense is the AI judicial guidance recently issued to explain how judicial office holders can use AI tools.[581] Moreover, when AI tools produce evidence underpinning decisions, as part of their administrative law motivation duties, NCAs must insert in their decisions detailed explanations on used AI tools.[582] Otherwise, NCAs will likely witness their decisions annulled on appeal as was the case in

[578] EC, AT.39740 Google Search (Shopping), <https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_39740>. Similarly, in FEG, the EC was admonished that eight years to reach a decision was unreasonably long (see Case IV/33.884 – Nederlandse Federative Vereniging voor de Groothandel op Elektrotechnisch Gebied and Technische Unie (FEG and TU) (OJ L39/1) [152]).

[579] EC, Decision AT.39612 Perindopril (Servier), (2016).

[580] CMA, Case CE-9531/11, Paroxetine, 2016, <https://assets.publishing.service.gov.uk/media/57aaf65be5274a0f6c000054/ce9531-11-paroxetine-decision_-.pdf>. Interestingly, researchers have illustrated a dramatic increase in the length of antitrust decisions over time (see P.I. Colomo, A. Kalintiri, 'The Evolution of EU Antitrust Policy: 1966-2017', 83 *Modern Law Review* (2020), p. 348). Similarly, O. Odudu, 'Do competition agencies harm welfare?', *Concurrentialiste*, (March 2022).

[581] Courts and Tribunal Judiciary, Guidance for responsible use of AI in Courts and Tribunals, (2023), <https://www.judiciary.uk/wp-content/uploads/2023/12/AI-Judicial-Guidance.pdf>.

[582] Similarly, see House of Lords, Justice and Home Affairs Committee, Technology Rules? The advent of new technologies in the justice system, 1st report of session 2021/22, Supplementary written evidence from Dr Arianna Andreangeli (NTL0039).

United Parcel Service, Inc. v Commission where the EU Court of Justice annulled the EC decision since the EC relied on a price concentration econometric model different from that disclosed during the merger clearance procedure.[583] Where appropriate, NCAs could further consider open sourcing some of their AI tools to allow increased democratic control over their operations. The U.K. CMA, for instance, has been particularly vocal in showcasing its integration of AI tools within its daily activities.[584]

C. The risk of compromising the right to a fair trial

General concerns have warned that AI tools could also undermine defendants' right of defence and right to a fair trial. In the criminal justice system, for instance, AI tools were said to impede individuals' right of defence and right to a fair trial by rendering them unable to check the reliability of the evidence moved against them and eventually appeal.[585] Forensic analysts also warned against potential risks of evidence alteration without defendants' awareness as algorithmic error correction software could be built into CCTV systems so that 'parts of a vehicle, or a person, could be constructed artificially'.[586]

Despite their importance elsewhere, such concerns do not extend to competition proceedings. First, because the type of AI tools suggested in **5.3.2.** will not modify the core substance of competition proceedings, including their standard of proofs, motivation duties, and procedural safeguards. They will simply automate most of their daily activities. Second, because competition defendants are often well-equipped firms capable of fully understanding AI tools' inner working mechanisms and eventually litigating their limitations. In fact, recent enforcement practice shows that most often it is the defendants (especially big tech defendants) who enjoy a data analysis advantage vis-à-vis NCAs, as was the case in *Google Shopping*.[587] Thus far, indeed, only a few minor concerns have been raised against

[583] Case C-265/17 P, *United Parcel Service, Inc. v Commission,* [2020], ECLI:EU:C:2020:655.
[584] S. Hunt, The technology-led transformation of competition and consumer agencies: the CMA's experience. (2022).
[585] House of Lords, Justice and Home Affairs Committee, Technology Rules? The advent of new technologies in the justice system, 1st report of session 2021/22.
[586] House of Lords, Justice and Home Affairs Committee, Technology Rules? The advent of new technologies in the justice system, 1st report of session 2021/22, written evidence from David Spreadborough (NTL0015).
[587] EC, AT.39740 Google Search (Shopping) (2017).

textual analysis tools in competition proceedings, although they were not sufficiently serious to halt their deployment.[588]

Moreover, eminent commentators have stressed that constitutional and human rights objections are excessively strategically used to win or delay cases.[589] Prof. Richard Wish noted that 'The authors of the ECHR would probably have been surprised at the frequency with which major multinational corporations, with access to the finest and most expensive competition lawyers in the world, have invoked their 'human rights' (…)'.[590] Therefore, strategic and excessive claims of fundamental rights violations should not prohibit AI tools' integration in competition enforcement. Importantly, the European Court of Human Rights in *SA-Capital Oy v Finland* (2019) also highlighted that the protection to be afforded to firms infringing competition law cannot equate to that afforded to natural persons in criminal cases, the latter being wider.[591]Accordingly, the margin for experimentation with AI tools in competition proceedings is slightly wider than elsewhere.

Yet, despite the above, the integration of AI tools in competition proceedings cannot be left completely unregulated. Accordingly, while it is key to adapt them to the specific field of competition law enforcement, it is opportune that, moving forward, specific procedural rules regulating AI tools' utilisation are adopted. NCAs, therefore, should co-ordinate for the development of such rules and guidelines.

D. The risk of privacy and confidentiality violations

As AI technologies involve the collection and processing of large amounts of data, there might be concerns that the GAN leads to privacy, confidentiality, and other fundamental rights (such as legal privilege) violations. As the GAN will process large amounts of data, NCAs must ensure that this data is safeguarded from unauthorised access and misuse and that national and supranational data provisions applicable to them are fulfilled. This can be done through using

[588] House of Lords, Justice and Home Affairs Committee, Technology Rules? The advent of new technologies in the justice system, 1st report of session 2021/22, supplementary written evidence from Dr Arianna Andreangeli (NTL0039).
[589] R. Whish*, Do Competition Lawyers Harm Welfare?, Concurrentialiste*, (May, 2020).
[590] *Ibid*.
[591] Similarly on this see also Case C-338/00 P, *Volkswagen v Commission*, I-9208, ECLI:EU:C:2002:591, AG Ruiz-Jarabo Colomer, para 66.

cryptographic techniques, implementing strong and resilient security measures, and establishing strict privacy policies.

Accordingly, EU NCAs, for instance, should engineer their data pipelines to be information secure and data protected by design. This might mean that received data are divided by case upon recipience and classified individually with key metadata such as their security classification and associated asset owner to ensure accountability. Unmarked data must remain inaccessible until properly classified, and unused data automatically deleted if no action is taken after a relevant period of time. Case-handlers access to data must be temporary, only possible through the GAN public-permissioned protocol, and granted through a rigorous process. All interactions with data must be auditable and attributable to ensure accountability.

E. Preliminary examples of AI tools' integration within antitrust proceedings

Although AI tools' integration in antitrust proceedings is not without challenges, there are no conclusive legal obstacles blocking their integration. Notably, several NCAs have already started integrating AI tools in their daily enforcement. Among the few, the U.K. CMA stands out for having been the first to establish a Data, Technology and Analytics (DaTa) Unit, composed of tech-engineers, data-scientists, behavioural-scientists, and technology strategic insight advisers.[592] These experts helped shaping new enforcement approaches, developing screening tools,[593] automatising data collection and processing, and designing enhanced AI-based remedies. Among others, the DaTa Unit proved vital **(i)** for the 'online platforms and

[592] Notably, the U.K. Government has also recently approved the introduction of a new dedicated Digital Markets Unit (DMU) to introduce and enforce a new 'code of conduct' to govern the behaviours of digital gatekeeper platforms. <https://www.gov.uk/government/news/new-competition-regime-for-tech-giants-to-give-consumers-more-choice-and-control-over-their-data-and-ensure-businesses-are-fairly-treated>.

[593] The U.K. CMA has already trialled some 'predictive coding algorithms' to help streamline document reviews in case investigations. Further details on the CMA's initiative can be found at the following link: <https://competitionandmarkets.blog.gov.uk/2020/07/24/predictive-coding-how-technology-could-help-to-streamline-cases/>.

digital advertising' market study;[594] **(ii)** for the work on 'fake or misleading reviews';[595] **(iii)** and for the work conducted during the Covid-19 pandemic.

During the pandemic, importantly, the CMA deployed a COVID Taskforce which created a webform to receive COVID-complaints and a bespoke data pipeline to scale data analysis and processing capacities. Thanks to such an AI-led system, the CMA handled more than 100.000 daily complaints, thus managing to track UK price variations almost in real-time and identify both the sectors most affected by the pandemic[596] and the firms putting in place the more consumer-harming behaviours.[597] Consequently, the CMA sent timely warning letters to infringing companies to correct their behaviours before causing serious harm. Notably, the CMA's efficiency improved so much during the Pandemic due to the utilisation of these AI tools that they almost changed its DNA, transforming it from a reactive to proactive agency.[598]

Similarly, the Australian ACCC established a Strategic Data Analysis Unit[599] which proved key in uncovering the fact that Trivago had misled consumers by claiming it helped users identify the cheapest rates available for a given hotel query, when instead it ranked hotel booking sites by prioritising those that paid Trivago the highest cost-per-click fee, which often did not correspond to the cheapest rates.[600] Again, the new Unit enabled the ACCC to sanction a cartel in the construction industry as the former developed a software providing evidence of meetings among competitors based on call charge records data (e.g. call times and

[594] See CMA, 'Online platforms and digital advertising' (July 2020); S. Thornton, C. Jenkins, G. Mason, and D. Griffiths, 'Opening the black box: an analysis of Google's behaviour in search and display advertising using large-scale datasets' (October 2020) CPI Antitrust Chronicle.

[595] CMA, CMA to investigate Amazon and Google over fake reviews, (June 2021), <https://www.gov.uk/government/news/cma-to-investigate-amazon-and-google-over-fake-reviews>; CMA Press Release, 'Fake and misleading online reviews trading' (April 2021) <https://www.gov.uk/cma-cases/fake-and-misleading-online-reviews>.

[596] To understand which sectors businesses operate in, the CMA uses a supervised machine learning classifier – a gradient-boosted tree trained on hand-labelled data according to a predetermined classification – to allocate complaints to industry sectors. See S. Hunt, The technology-led transformation of competition and consumer agencies: the CMA's experience. (2022).

[597] For this the CMA used unsupervised clustering techniques to identify business names automatically.

[598] See S. Hunt, The technology-led transformation of competition and consumer agencies: the CMA's experience. (2022).

[599] See ACCC Australian Competition and Consumer Commission, 'Digital Platforms Inquiry' (July 2019) 31.

[600] See ACCC Press Release, 'Trivago misled consumers about hotel room rates' (January 2020) <https://www.accc.gov.au/media-release/trivago-misled-consumers-about-hotel-room-rates>.

locations).[601]

Along with the UK and Australia, other NCAs have been building up internal AI expertise. Among others: **(i)** the U.S. FTC established both a 'Technology Task Force'[602] and an 'Office of Technology Research and Investigation' (so-called 'Otech');[603] **(ii)** the EC has established a high-level expert group on Artificial Intelligence and a European Centre for Algorithmic Transparency (so-called 'ECAT');[604] **(iii)** the Canadian Competition Bureau has launched a Digital Enforcement Unit.[605]

As a result, many NCAs already have the skills and expertise needed to realise the GAN and ensure its proper working.

5.4. The legal foundations of the new global antitrust network

The GAN's implementation could be based on various legal instrumentals, each with its own advantages and disadvantages. Accordingly, while this thesis leaves for the NCAs the decision of the best legal option, since they know better what is achievable in practice, it remarks that it would initially suffice to establish the GAN as a purely technical platform, through a multilateral, non-binding legal instrument given the complexity to obtain an internationally binding one. The latter, instead, might be adopted once the GAN has acquired sufficient international consensus. A two-step approach is therefore believed to be more effective for institutionalising the GAN.

5.4.1. Option n. 1: the GAN as an ICN framework

As a mere global-wide, blockchain-based, AI-driven, multilateral, decentralised, informal, voluntary, and non-hierarchical platform enabling cross-border procedural competition co-operation, the GAN might be operationalised without adopting particularly complex legal

[601] OECD, Investigative power in practice, Breakout session n. 1: Unannounced Inspections in the Digital Age, Contribution from Australia, DAF/COMP/GF/WD(2018)18, (2018).

[602] See FTC Press Release, 'FTC's Bureau of Competition launches task force to monitor technology markets' (February 2019) <https://www.ftc.gov/news-events/press-releases/2019/02/ftcs-bureau-competition-launches-task-force-monitor-technology>.

[603] See FTC, 'Office of Technology Research and Investigation' <https://www.ftc.gov/about-ftc/bureaus-offices/bureau-consumer-protection/office-technology-research-investigation>.

[604] EC, European Centre for Algorithmic Transparency, <https://algorithmic-transparency.ec.europa.eu/team_en>.

[605] I Lianos, Computational law and economics: an inception report <https://www.epant.gr/en/enimerosi/computational-competition-law-and-economics.html>.

instruments. In its simplest form the GAN could be established as an 'ICN framework' through a decision of the ICN Steering Group, as recently done for the 'ICN framework for competition agencies procedures' (so-called 'CAP').[606] As with the CAP, the GAN would also constitute a non-binding tool open to all national, multinational, or customs territory competition agencies, including non-ICN member agencies, who willingly adhere to its substantive working mechanism with the aim to maximise international competition co-operation consistently with their applicable laws.

Accordingly, the first option to operationalise the GAN would be that of an open to all, opt-in, non-binding, multilateral, inter-agency commitment facilitated by the ICN Steering Group. Such an approach would enable a quick roll out of the GAN, while avoiding the hurdles that traditionally accompany legally binding international instruments. Indeed, although lacking the latter binding force to derogate the national legal barriers obstructing international co-operation, the GAN would still provide, even in this purely technical configuration, various incentives to maximise NCAs' international engagement.

First, the GAN will offer higher transparency and reciprocal accountability that in turn are expected to maximise the exploitation of the co-operation legal options that, although available, remain underused (e.g., information gateways).[607] This way, thanks to its net of soft incentives and reward/punitive mechanisms, the GAN is expected to mitigate some of the conventional limitations of non-binding interagency agreements by making full use of existing but underutilised legal bases.

Second, the GAN will offer new forms of international competition co-operation thus reducing the importance of those activities that although occuring rarely, are considered vital for international co-operation. For instance, instead of exchanging confidential evidence, under the GAN, NCAs could exchange AI software enabling automated evidence collection (e.g. software allowing the scraping of certain markets' data (e.g. financial markets) or to locate

[606] For more information on CAP, see <https://www.internationalcompetitionnetwork.org/frameworks/competition-agency-procedures/>.

[607] During the interviews conducted by this author, it emerged that while some NCAs had an information gateway, they did not use it extensively as there was not enough transparency on how receiving jurisdictions would have processed received information. For further information on the multiple types of incentives that the GAN could provide, see also later Section 5.3.

the position of alleged cartel members). Sharing such software is legally easier than the exchange of the collected data.

5.4.2. Option n. 2: a multilateral memorandum of understanding

Secondly, the GAN could be established through a multilateral memorandum of understanding ('MMOU') like that used by the International Organisation of Securities Commissions ('IOSCO').[608] The IOSCO MMOU, delivered a high level of co-operation between securities and financial regulators thus ensuring compliance with, and enforcement of, their securities and derivatives laws and regulations in their respective jurisdictions.

The MMOU option remains in the realm of non-binding agreements lacking the force to supersede any co-operation obstructing domestic provision. The IOSCO MMOU, however, circumvented such limitation by allowing, on the one hand, its signature only to those agencies having the authority to fully comply with its obligations;[609] and, on the other, by granting authorities without such powers the possibility to be listed on an appendix (i.e., Appendix B) of the MMOU if they want to commit to seeking the legal authority necessary to enable them to become full signatories to the IOSCO MMoU. Through this flexible procedure, the IOSCO MMOU over time has secured 129 countries to effectively provide mutual assistance, including the sharing of confidential information. The IOSCO MMOU describes the conditions according to which assistance requests can be made[610] and rejected[611] and prohibits denials simply because the conduct for which investigation assistance is sought does not amount to be a violation of the laws of the requested authority.[612]

Concerning procedural rules applying to the execution of the assistance requests, the MMOU establishes that they follow the rules of the jurisdiction of the requested authority.[613] Additionally, Article 11, IOSCO MMOU, establishes that assistance requests made under the MMOU are confidential as well as their contents, and any matters arising under the MMOU,

[608] IOSCO MMOU (https://www.iosco.org/library/pubdocs/pdf/IOSCOPD386.pdf).
[609] IOSCO MMOU signatories must indeed represent that '*no domestic secrecy or blocking laws or regulations should prevent the collection or provision of the information set forth in 7(b) to the Requesting Authority*'.
[610] Articles 7 and 8, IOSCO MMOU.
[611] Article 6(e), IOSCO MMOU.
[612] Articles 7(c), IOSCO MMOU.
[613] Article 9(d), IOSCO MMOU.

such as consultations between or among the MMOU adhering authorities.[614] Accordingly, requesting authorities cannot disclose any information received under the MMOU.[615] As a result, the number of IOSCO-MMOU-enabled information exchanges occurring yearly has continuously increased since 2003, reaching a peak of 4674 exchanges in 2020[616], a figure much higher than what seen in the competition enforcement field (Chapter **3**).

Consequently, while a MMOU-enabled GAN will likely reproduce some of the ICN framework option's benefits (e.g. relatively easy to arrange and set up) and limitations (e.g. it is not binding and cannot supersede blocking national provisions), a GAN MMOU, structured as the IOSCO model, could also provide a deeper commitment mechanism to persuade individual jurisdictions to advocate for the removal of their legal barriers to international activities. Moreover, there is nothing to prevent a GAN MMOU being disseminated and facilitated by the ICN, the OECD, or the UNCTAD[617] through their internal channels and legal instruments. The OECD, for instance, through a new or an updated recommendation could invite its member countries to adhere to the GAN MMOU.

5.4.3. Option n. 3: OECD decision

The GAN could also be established through an OECD Decision[618] which, contrary to the previous options, have legally binding effects and can supersede conflicting national provisions. Article 5(a) of the OECD Convention, indeed, establishes that OECD member countries are bound under international law by OECD decisions by virtue of their membership to the OECD.[619] Article 6(3), OECD Convention, completes OECD decisions' legal regime by

[614] Article 11(a), IOSCO MMOU.
[615] Article 11(b), IOSCO MMOU.
[616] See detailed statistics at: https://www.iosco.org/about/?subsection=mmou.
[617] UNCTAD can issue guidelines under Section F of the United Nations Set Of Principles And Rules On Competition originally adopted by the UN General Assembly, in its resolution 35/63 of 5 December 1980(Now see UNCTAD, 'The United Nations Set of Principles and Rules on Competition', TD/RBP/CONF/10/Rev.2 (2000)). In this sense, for instance, The 18th session of the UNCTAD Intergovernmental Group of Experts on Competition Law and Policy (October 19-23, 2019) approved the document 'Guiding Policies and Procedures under Section F of the UN Set on Competition' <https://unctad.org/system/files/official-document/ccpb_comp1_%20Guiding_Policies_Procedures.pdf>.
[618] All existing OECD Decisions can be found at: <https://legalinstruments.oecd.org/en/instruments?mode=advanced&typeIds=1&dateType=adoption>.
[619] Convention on the OECD, 14th December 1960, Paris <https://www.oecd.org/about/document/oecd-convention.htm >, Article 5(a) states that 'in order to achieve its aims, the Organisation may take decisions which, except as otherwise provided, shall be binding on all the Members'.

establishing that 'no decision shall be binding on any Member until it has complied with the requirements of its own constitutional procedures. The other Members may agree that such a decision shall apply provisionally to them.'[620]

Consequently, despite producing legally binding effects, OECD decisions suffer a significant limitation to the extent that their binding force only applies to OECD member countries who have ratified the OECD Convention.[621] Despite there being 18 of these countries, representing a significant portion of the world economy and population, they do not provide the needed scale to guarantee the GAN's effective implementation and operation. This limitation, however, is not insurmountable given that non-OECD member countries can also adhere to OECD Decisions (either at the time of their adoption or at any time thereafter) through an exchange of letters. In the latter case, the OECD decision also legally binds non-OECD member adherents.

5.4.4. Option n. 4: international treaty

The GAN could also be established through a legally binding multilateral international treaty ('MIT'). This option may unleash the GAN's full potential by removing the national provisions obstructing international competition co-operation.[622] From this perspective, the Convention on Mutual Administrative Assistance in Tax Matters ('MAAC')[623] represents the most comprehensive multilateral instrument for facilitating international co-operation against tax evasion and avoidance.[624] Currently, it counts 146 adherent jurisdictions and enables various co-operation types ranging from exchange of information, simultaneous tax examinations, to the recovery of foreign tax claims. Remarkably, Article 6 MAAC, through a multilateral

[620] Article 6(3), Convention on the OECD.

[621] The full list of OECD member countries is <https://www.oecd.org/about/document/ratification-oecd-convention.htm>.

[622] MITs are subject to two levels of law. First, the law governing international treaties (e.g., the 1969 Vienna Convention on the Law of Treaties) which, among others, sets the rules for interpreting and amending international treaties unless stated otherwise. Second, the ratification act needed in most jurisdictions before MITs enter into force in many domestic legal orders.

[623] <https://read.oecd-ilibrary.org/taxation/the-multilateral-convention-on-mutual-administrative-assistance-in-tax-matters_9789264115606-en#page4>. The Convention was developed jointly by the Council of Europe and the OECD in 1988 and recently amended by Protocol in 2010.

[624] For a comprehensive list of all existing taxes to which the Convention applies see Annex A.

agreement (so-called 'competent authority agreement')[625] currently signed by 119 jurisdictions, enables adhering parties to mutually exchange information automatically,[626] while respecting taxpayers' fundamental rights.[627]

Importantly, Section 5 of the competent authority agreement ensures confidentiality in automated data exchanges in two ways. First by establishing that all information exchanged through the platform is subject to the confidentiality rules provided for in the Convention and 'in accordance with the safeguards which may be specified by the supplying Competent Authority as required under its domestic law and listed in Annex C.'[628] Second, by establishing sanctions and remedial actions against any confidentiality breach. Further, Article 24, MAAC, establishes a coordinating body to coordinate the treaty's implementation, recommend amendments, and provide interpretative guidance on its provisions.

The MAAC, therefore, demonstrates that more advanced co-operation that is binding, multilateral and open is possible and shows that flexible commitment schemes are needed to gain countries' adherence and participation.

5.5. The new global antitrust network key features

5.5.1. The network protocol design

The GAN could run on a blockchain protocol whose configuration may vary from private-permissioned, to fully public-permissionless, with multiple options in between.[629] While a private-permissioned protocol would lead to an invite-only, limited access, constrained network, a public-permissionless one would be publicly accessible and fully utilisable. Although public-permissionless protocols offer many benefits (e.g. any actor can be a

[625] It implements the standard for automatic financial account information exchange, specifying the details of what information can be exchanged, when, and how.
[626] Article 6, MAAC.
[627] Articles 21-23, MAAC.
[628] Section 5, multilateral competent authority agreement.
[629] The public/private nature of a blockchain refers to whether access to use a given blockchain is subject to a previous authorisation or not. See P. Jayachandran, 'The difference between public and private blockchain' *IBM* (31 May 2017). A blockchain's permissioning refers to the powers that a user can exercise on a blockchain. For example, the Libra blockchain developed by Facebook is a permissioned but public blockchain (originally it was planned for it to become permissionless, though these plans have now been abandoned); see Libra Association (now Diem Association) 'White Paper' (2020) <https://wp.diem.com/en-US/wp-content/uploads/sites/23/2020/04/Libra_WhitePaperV2_April2020.pdf>.

validator, anonymity or pseudo-anonymity of network participants,[630]etc.), they also have drawbacks due to the tensions between transparency and procedural integrity, and between scalability and security.[631] Differently, such tensions do not exist in private-permissioned protocols, though at the price of reduced transparency, data permanence, and censorship-resistant capabilities, which are the key features of blockchain solutions. Yet, private-permissioned networks operated by highly trustable nodes may deliver high security and integrity, while addressing the scalability and anonymity downsides of public-permissionless equivalents.

Due to such trade-offs, the most balanced solution to implement the GAN would be that of a strategically designed hybrid blockchain, thus marrying the scalability of a private-permissioned protocol with the greater integrity of public-permissionless ones. In the GAN's context, a hybrid blockchain means a two protocol-level network where one public-permissioned protocol provides scalability and a full protection of the confidentiality and secrecy of competition investigations,[632] while the other public-permissionless one guarantees transparency, tamper-evident record-keeping, and an unprecedented amount of enforcement data, which would in turn boost accountability, public control, and mutual trust among NCAs.

Within the GAN, therefore, each base-layer protocol performs certain functions. Whereas the public-permissionless protocol (e.g. Ethereum or Bitcoin) notarises any enforcement operation's hash record, the operations themselves would instead be vehiculated via the public-permissioned protocol in an encrypted fashion to each jurisdiction of concern and by

[630] Verification is, indeed, the result of a degree of consensus across a collection of validators. Consequently, to sabotage the verification process requires coordination amongst large numbers of pseudonymized validators. For more details, see D. Shrier, *Basic Blockchain: What it is and how it Will Transform the Way We Work and Live*. (Robinson, 2020).

[631] Innovations in the blockchain technology ecosystem may also address scalability and anonymity challenges in the future, strengthening the case for permissionless blockchains and reducing the incremental value of permissioned blockchains. The challenge of maintaining anonymity may be addressable with modern techniques such as Zero-Knowledge-Proof (ZKP) cryptography. In this sense, see World Economic Forum, 'Exploring Blockchain Technology for Government Transparency: Blockchain-Based Public Procurement to Reduce Corruption' (June 2020) <http://www3.weforum.org/docs/WEF_Blockchain_Government_Transparency_Report.pdf>.

[632] Notably, the public-permissioned protocol is public only to the extent that the general public has the possibility to realise some operations on it (e.g. submitting complaints, leniency applications, or filing a merger) although every operation is encrypted and anyone (and no NCA) can have entire visibility over any processed operation and its specific content unless being the direct addresses of such operation.

complying with the latter's procedural rules. As such, for instance, while the hashes of encrypted leniency applications will be recorded on the public-permissionless protocol, they will be submitted in an encrypted fashion on the public-permissioned protocol. As a result, thanks to the combination of the two protocols, the GAN can simultaneously ensure the secrecy and confidentiality of each leniency application as well as the publicity and verifiability of their time and order of arrival and of their contents' watermark (to protect against later changes).

Additionally, while the public-permissioned protocol also runs any intra-network co-operation activity, legally permitted under applicable laws between adhering jurisdictions (e.g. exchange of information of intelligence, substantive coordination, etc.), the public-permissionless protocol registers and publishes the hash-records of these operations. Further, the public-permissionless protocol could also be used to release non-confidential versions of infringement or non-applicability decisions and market inquiries reports.

5.5.2. The network institutional design

The GAN should be designed as a technical platform delivering procedural co-operation. GAN's adherence should be open and each country having a competition regime should at least have one node within the GAN represented by its NCA. For countries with multiple NCAs, while each could be an independent node, the GAN's consensus algorithm would account for such intra-jurisdiction heterogeneity to avoid undue over-representation of some jurisdictions.

The public-permissioned protocol is 'public' because it is accessible to some extent by any subject, and it is 'permissioned' since it is run by an ex-ante vetted group of verified nodes (i.e., the NCAs). Despite users having certain read/access/interaction rights (e.g. possibility to submit complaints, leniency applications, etc.), most protocol activities will be secretly run by NCAs in a restricted and encrypted fashion (e.g. once submitted to one or more jurisdictions, the leniency material will be processed by each NCA in accordance with its provisions). Accordingly, the GAN will prevent any disclosure of confidential information.

5.5.3. The 10 principles informing the GAN's structure, governance, and working mechanisms

As the GAN necessitates to artificially recreate the preconditions enabling regional competition co-operation at global level, the ECN's experience is particularly informative for the theorisation of its main features.

First, the GAN should reject any form of hierarchical structure to gain the trust of developing countries that have historically feared losing their autonomy by joining supranational organisations. Each node should have equal status and powers within the public-permissioned protocol. The consensus algorithms should consider intra-jurisdiction heterogeneity to avoid undue over-representation.

Second, intra-network co-operation should be voluntary. Mandatory requirements should only concern some procedural aspects, such as the recording on the public-permissionless protocol of the hashes of any investigative act by any NCA.[633] By rendering international co-operation voluntary, the GAN ensures that each adhering NCA retains full decision-making discretion, while preserving some space for decisional heterogeneity and healthy regulatory competition.

Third, the GAN should deliver transparency across adhering NCAs around their powers, procedures, substantive rules, co-operation practices, processes, and preferences. This, while allowing reciprocal understanding, would also contribute to building mutual trust among NCAS.

Fourth, the GAN should not pursue substantive convergence but rather procedural co-operation since there might be objective reasons justifying divergences.

Fifth, while not imposing substantive convergence, the GAN should discourage unjustified or disproportionate heterogeneous enforcement outcomes. Accordingly, the GAN should include rewarding or punitive mechanisms to mitigate unjustified or disproportionate enforcement heterogeneity, such as anonymous enforcement rating among NCAs with final

[633] As a comparison, think of the ECN's early warning system and the mandatory communications requested under Articles 11 and 14, Reg. 1/2003.

publication of aggregated statistics to reward or penalise the NCAs that, respectively, were rated as most or least co-operative.

Sixth, any information circulated through the GAN should be treated as secret and protected in accordance with the domestic provisions of the requesting country. The utilisation of exchanged information should be limited to the purposes for which it was collected (e.g. Article 12, Reg. 1/2003).

Seventh, the GAN should be solution-agnostic, so to speak, concerning the forms in which procedural co-operation occurs. The GAN should, for instance, be modular and sufficiently flexible to enable the formation of sub-chambers of nodes for specific instances of co-operation.[634] As shown above, procedural co-operation could occur in different forms such as exchange of information, joint interviews, secondment of staff (which could also occur remotely), parallel investigations, comity requests, etc.

Eighth, the GAN should allow for multiple consensus algorithms given its modularity. Accordingly, the consensus algorithm used in a specific instance of co-operation should be decided by the nodes joining a specific network's sub-chamber.[635] For instance, while using unanimity to schedule a date for a joint online interview, a qualified majority could be more appropriate for taking substantial decisions in parallel investigations.[636] The consensus algorithm should be decided upfront only for the more fundamental network decisions, such as upgrades to the GAN protocol itself. Importantly, the GAN's consensus algorithms should be crafted to ensure that no node can pressure others towards unfair practices; node collusion is avoided; dishonest nodes are penalised; and virtuous behaviour is rewarded.[637]

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[634] Think of the Multilateral Pharmaceutical Merger Task Force established in March 2021. See FTC Official Press Release, 'FTC Announces Multilateral Working Group to Build a New Approach to Pharmaceutical Mergers' (2021) <https://www.ftc.gov/news-events/press-releases/2021/03/ftc-announces-multilateral-working-group-build-new-approach>.

[635] For an example of an already existing opt-in model of international co-operation, see the ICN Framework for Competition Authorities Procedures, established for addressing enforcement co-operation-related issues (e.g., regarding transparency and treatment of confidential information). See ICN, 'ICN Framework on Competition Agency Procedures.' (2019) <https://www.internationalcompetitionnetwork.org/wp-content/uploads/2019/04/ICN_CAP.pdf>.

[636] The permissioned protocol could easily allow for such consensus heterogeneity since the need for consensus can be loosened as much as to a single-node verification process.

[637] For instance, incentive mechanisms — perhaps employing cryptocurrency — could be used to change behaviours when engaging with the network. As such, more active nodes could receive crypto-asset-based awards for the due diligence with which they participate in the network's activities. Similarly, crypto-incentives

Ninth, the GAN should attempt to ex-ante mitigate issues of gaps and undue political interference. Adhering nodes should be invited to consider their enforcement's externalities on peers, and the GAN should reward or penalise accordingly. Second, to reduce risk of undue political contamination, the GAN should enable a system of checks and balances to avoid distortions in competition enforcement. As such, the GAN, for example, could envision either blocking minority, or peer-reviewed second assessments, extra motivation duties, or counterbalancing measures when national decisions with important global consequences are opposed by a qualified number of adhering NCAs.[638] Further, the GAN introductory legal instrument may include sympathetic consideration obligations of other nodes' decisions, remedies, and economic interests[639] or mutual good-faith commitments not to balance one jurisdiction's negative effects with the positive effects of other(s).[640] Such commitments should mitigate excessively self-focused nation-centric enforcement actions.

Tenth, the GAN public-permissioned protocol should also include a resolution mechanism to address intra-network conflicts. Such a system could be modelled on a variation of the ECN's Advisory Committee. For instance, the resolution body's members could be rotated on a temporary, issue-specific, and randomly chosen basis to guarantee a fair selection process. Further, the body should also ensure proportional composition across developed and developing countries. Its resolutions do not need to be legally binding as their authoritative value results from the shaming mechanisms penalising deviations.

5.5.4. The GAN security, storage, maintenance, and transparency

The GAN should also guarantee robust security through a stable development and support technical team constantly working to solve bugs and implement upgrades. Notably, whereas the security of the public-permissioned protocol is ensured by its vetted group of adhering

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could also be considered to encourage external monitoring activities which could be carried out by journalists, citizens, consumers, or even specialised analytics providers.

[638] This would be to ensure that adversarial externalities of 'minority nodes' are sufficiently considered and not underestimated.

[639] Similarly in this sense, see E. Fox, 'Antitrust Without Borders: From Roots to Codes to Networks, E15Initiative' (Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum, 2015).

[640] Similarly see the obligations required by Article 43 of the EU guidelines on the application of Article 101(3), TFEU, <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52004 XC0427%2807%29>. See also E. Fox, 'Antitrust Without Borders: From Roots to Codes to Networks, E15Initiative' (Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum, 2015).

NCAs, the external public-permissionless protocol should be identified with the goal to achieve strong security. Accordingly, with the Ethereum blockchain being the smart-contract-capable protocol with the highest hash-rate (a key security parameter) and the largest ecosystem, it might be a potential candidate, although other alternatives exist.

Related to the GAN's security is the topic of storage capacity, but this should not be considered a serious concern given that, while passing through the public-permissioned protocol, the bulk of the GAN transitioning material will ultimately be locally stored by the receiving NCAs as per their procedural rules. Similarly, the material transitioning on the public-permissionless protocol will not create storage issues since merely consisting of hash records. Further, to secure hash data against eventual instabilities of the hosting public-permissionless protocol, investigative actions' hashes could be routinely stored in decentralised file storage systems since they do not amount to confidential information.[641]

Concerning the GAN's maintenance, as NCAs must cover the operational and maintenance costs of their nodes, they should apportion sufficient resources within their budget expenditures. Notably, as the cost of running a node will be negligible compared to its likely benefits, such a GAN cost distribution does not unfairly favour developed NCAs vis-á-vis less-developed ones as the latter are expected to be the ones benefiting the most from the GAN, given that without its increased procedural co-operation they could not afford to handle as many investigations. Consequently, on top of reducing the enforcement costs for infringers and NCAS, the GAN is also expected to reduce enforcement asymmetries across developed and developing countries.

With regard to GAN's operational transparency, despite most of the operations occurring on the public-permissioned protocol being secret and encrypted, providing some degree of transparency on the protocol design seems appropriate. Such transparency, indeed, while improving public understanding and confidence in the GAN, would also be needed to ensure proper fundamental rights protections. Where possible, NCAs could also open source the software running the public-permissioned protocol to enable democratic monitoring and better identification of vulnerabilities or biases. Such transparency could also enable new

[641] One such example could be the IPFS, a leading distributed file storage system compatible with the Ethereum blockchain network.

forms of multi-stakeholder participation potentially leading to new forms of so-called 'participative antitrust' (e.g. think of new academic-developed AI enforcement tools).[642]

5.5.5. User precautions

The GAN's success lies in the level of engagement from consumers and firms. Accordingly, user interfaces should be appealing and simple and complemented by user guidelines. Moreover, to maximise consumers' engagement in carrying out public monitoring or audit of markets' competitiveness, through the GAN NCAs may develop initiatives to raise consumer competition awareness such as the development of AI-based chatbots providing educational or explanatory services,[643] particularly targeting specific sub-groups of most vulnerable stakeholders.

5.6. Exploring the GAN and its potential applications

Despite there not being a precise correspondence between the problems the GAN mitigates and the solutions it offers, the GAN-enabled greater international competition co-operation is likely to mitigate, although not eliminate, the asymmetries and the gaps, overlaps, and political contamination issues resulting from the excessively nation-centric and local enforcement of competition in globalised markets. Accordingly, the following sections provide a preliminary and non-exhaustive account of the efficiencies the GAN delivers against those issues.

[642] Among others, see J. Tirole, OECD, 'Global Forum on Competition, Roundtable on "Competition under fire"' (Paris 2019) <http://www.oecd.org/competition/globalforum/competition-under-fire.htm>.

[643] For a few examples of educational material developed by competition authorities in the consumer protection field, see ICPEN, 'International Consumer Protection and Enforcement Network. Consumer Education Awards' <https://icpen.org/consumer-education-awards>. Noticeably, The Authority for Fair Competition and Consumer Protection (AFCCP) of Mongolia has developed — in collaboration with teachers, ministries, other agencies, business entities and non-profit organisations — a campaign titled 'Child is a consumer' to enhance children's consumer education. Similarly, while the EC has recently launched an itinerant debate series titled 'Markets for People' <https://competition-policy.ec.europa.eu/consumers/reaching-out/markets-people_en>, the Estonian Consumer Protection and Technical Regulatory Authority (CPTRA) launched a campaign called 'Buy wisely. Trade correctly. Also, in E-store' to raise consumers' rights awareness on e-commerce websites.

5.6.1. Reducing competition enforcement asymmetry between developed and developing countries

A. Asymmetry in cartels enforcement: problems and potential solutions

Developing countries' asymmetries in cartel enforcement were found to be partly due to difficulties in detecting international cartels, the ineffectiveness of national leniency programmes, and the limited access to material evidence.[644] The GAN, importantly, can help address all the identified compounding factors.

A 'one-stop-multishop platform' for filing complaints

The GAN improves developing countries' international cartel detection capacities by enabling the formation of a one-stop-multishop platform for filing complaints. This will enable the submission not of a single globally-valid complaint (as would have been the case had the GAN been designed as a one-stop-shop platform) but instead multiple simultaneous filings, one for any concerned jurisdiction.

Filing successful competition complaints is a relatively demanding activity, often requiring extensive legal and economic skills particularly in instances of multi jurisdictional filings. Accordingly, only a minority of consumers and firms can successfully present them, as shown by preliminary evidence indicating that the majority of complaints are lodged by white, middle-aged, well-educated, and wealthy men.[645] Further, the highest complaint filing rates in developed jurisdictions depend on the highest enforcement economic returns expected there. Third, only a minority of filed complaints make it to the investigative stage due to lack of investigative resources (and related prioritisation issues) to further inspect complaints originally not significantly relevant. Consequently, because of these factors developing countries are not sufficiently informed of international cartels.

[644] Access to material evidence located abroad is not an unknown issue also in developed countries. On this, recently, see joint judgement on *BMW AG v CMA* and *R (on the application of VW AG) v CMA,* [CAT 7 2023], case n. 1574/10/12/22, 8 February 2023, recently reversed by the Court of Appeal in *CMA v Volkswagen AG & BMW AG Kingdom ([2023] EWCA Civ 1506).*

[645] In the context of data protection authorities, similar evidence was found by A. Courmont, 'Le plaignant type? Un homme, diplômé et cadre', LINC, (2022), <https://linc.cnil.fr/fr/le-plaignant-type-un-homme-diplome-et-cadre?s=09>.

Against this backdrop, through its one-stop-multishop, AI-driven, blockchain-based platform,[646] the GAN will enable more complaints, in more jurisdictions, and from a wider range of stakeholders (i.e. not only white, middle-aged, well-educated, and wealthy men). This is the case first because GAN-enabled AI tools based on foundational models, for instance, could assist complainants' submissions in multiple languages, jurisdictions, and in more legally effective forms, thus reducing costs and complexity especially in instances of multi jurisdictional filings. Further, the GAN, thanks to its public-permissionless blockchain backbone, would allow registration of the time and proof of content of all global complaints.

As a result, the GAN one-stop-multishop platform will not only increase complaint filings in developing countries, but would also raise access to justice for more vulnerable consumers and firms not having the resources or skills to make successful complaints. Accordingly, the GAN could also designate a privileged complaint filing status to certain stakeholders (e.g. associations representing vulnerable consumers, or consumers on lower incomes). Moreover, the GAN could include AI tools to cluster complaints made by otherwise vulnerable consumers to detect their specific problems and prioritise them. A similar regime already exists in the U.K., so-called the 'super-complaint procedure', where designated consumer bodies can bring complaints on behalf of consumers and the CMA must state its intentions on the complaint within 90 days upon its arrival.

Lastly, NCAs should not fear receiving an excessive number of complaints through the GAN as it would also provide the AI tools needed to automatically sort and classify digitised complaints, thus improving NCAs' overall efficiency.

A 'one-stop-multishop platform' for leniency applications and a 'one-stop-shop system' for markers

Due to the same logic, but *mutatis mutandis*, the GAN can improve developing countries leniency programmes' effectiveness despite their decline in recent years.[647] Currently, indeed, the costs of multiple leniency submissions often surpass their benefits[648] and

[646] For an example of a successful cross-border 'one-stop-shop' for filing complaints, see econsumer.gov, a portal for reporting international online scams.
[647] Decline of around 56% in non-OECD countries, see OECD, 'Competition Trends' (2020).
[648] BIAC contribution to the OECD 'Roundtable on challenges and co-ordination of leniency programmes' (23 May 2018) DAF/COMP/WP3/WD(2018)34.

infringers are discouraged from filing, particularly in developing jurisdictions.[649] Against this backdrop, whereas the GAN alone cannot effectively revitalise leniency programmes in general, it can reduce their effectiveness gap between developed and developing countries. This is possible if the GAN introduces a one-stop-multishop platform for submitting leniency applications, forces all leniency applicants to grant GAN-wide confidentiality waivers,[650] and mandates adhering NCAs to report their peers' uncovered infringement affecting them.

Thanks to its one-stop-multishop platform, the GAN will enable, at minimal cost and without effort, the filing of AI-assisted, multiple (even diversified where necessary based on each jurisdiction's rules), and encrypted leniency submissions, one for any adhering jurisdiction of interest,[651] thus increasing the chances that developing countries receive as many submissions as developed ones for infringements with cross-border effects. Then, even if a developing country did not receive a submission despite the disclosed infringement impacting its jurisdiction, the GAN would still enable this country to be aware of the leniency applications received by developed ones on the same infringement, and eventually demand and obtain the transmission of the relevant material (thanks to the waivers). Moreover, even if leniency applications of cross-border infringements are filed to both developed and developing countries, the GAN will allow these countries to know which other countries, if any, are affected by the same conduct. Accordingly, they will be in a position to co-operate early on and eventually share (if applicable provisions allow) relevant material.

Further, the GAN can deliver the 'one-stop-shop system for markers' advocated by many and so far never realised due to trust issues.[652] This would be possible thanks to the GAN blockchain-based backbone that will allow the indisputable notarisation of the time and proof of content of any leniency submission by registering on the public-permissionless protocol its encrypted hash record.[653]

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[649] J. Faull, A. Nikpay, (eds) *The EU Law of Competition* (Oxford 2014).
[650] To draw inspiration for a model waiver, see ICN, *Waivers of confidentiality in merger investigations,* (2005), <https://www.internationalcompetitionnetwork.org/wp-content/uploads/2018/05/MWG_ModelWaiver.pdf>.
[651] And not a single global-valid application as it would have been had the GAN been designed as a one-stop-shop platform.
[652] ICC, proposal to ICN for a one-stop-shop for leniency markers, March 2016.
[653] For how such a system would work in more detail, see above Sections 5.3.1. and 5.3.2.

Consequently, thanks to AI and blockchain technologies, the GAN is expected to enable multiple, simultaneous, and encrypted leniency submissions at minimal cost, while also delivering a global-wide, transparent, publicly available, unmodifiable, and tamper-proof registry of the time, order, and proof of content non-alteration of submitted leniency applications.

Yet, despite these improvements, the GAN alone cannot guarantee leniency programmes' effectiveness since this is primarily undermined by the risk of follow-on damage claims[654] and by the excessive differences existing across national leniency programmes, which reduce the likelihood of obtaining the same benefits across multiple countries. The GAN, indeed, with its increased international competition procedural co-operation, can do little against these two issues as the former requires protecting leniency applicants from follow-on claims (as the German Bundeskartellamts is considering doing)[655] and the latter greater substantial harmonisation across national leniency regimes. The two issues, importantly, are interlinked when it comes to cross-border infringements, since affording follow-on damage protection in just one or a few countries does not suffice to encourage infringing firms to apply for leniency, not even in the countries affording such protection, given that infringers would still risk follow-on damage claims in the jurisdictions not converging on such a solution.

Therefore, leniency programmes' revitalisation requires national leniency regimes' international alignment around, among others, follow-on damage protections for first-class leniency applicants. Accordingly, the GAN's institutionalisation might offer the opportunity to achieve such a convergence, particularly if the GAN is realised through an internationally binding legal instrument.

Limited access to material evidence

The GAN can improve developing countries' international cartel enforcement by improving access to material evidence or by reducing the significance of such access. First, the GAN

[654] Especially in developed countries with opt-out class action regimes.

[655] J. Aranze, 'Mundt touts immunity from damages for leniency applicants' (2021) Global Competition Review). For an analysis of the EU regime, see A. Andreangeli, *Balancing effective public enforcement against the needs of access to justice: Current debates on the access to NCA-held evidence in the course of civil proceedings*. *Antitrust Chronicle* (2019) n.1.

improves the ability of developing countries to receive leniency or complaints' material, thus in turn reducing the importance of exchanging such material.

Second, if established with a legally binding international instrument, the GAN will improve developing countries' access to material evidence by removing the legal barriers currently limiting confidential information exchanges. Adhering NCAs could then use the GAN to realise enhanced forms of multilateral procedural co-operation. The GAN, for instance, could enable the automatisation of encrypted information exchanges with open algorithms (OPALs)[656] each of which including a micropayment embedded into a smart contract to redistribute co-operation costs.[657]

Third, the GAN decreases developing countries' necessity to acquire conventional evidence by introducing new evidence collection methods and new evidence types. For instance, instead of sharing a price-cartel proving email retrieved from a server in a developed country, NCAs could exchange AI tools for collecting evidence ultimately equivalent to proving the price collusion (e.g. software scraping certain markets' data or locating the position of cartel members). Exchanging such tools, while being no less important, will legally be far easier than sharing confidential information. And notably, the more NCAs develop AI solutions to competition problems and share them within the GAN, the greater the benefits as it would generate direct network effects maximising GAN-adhering NCAs' willingness to procedurally co-operate internationally.

B. Asymmetry in mergers enforcement: problems and potential solutions

On top of resource constraints, the factors causing developing countries' underenforcement of international mergers are: **(i)** the absence of notification or the receipt of delayed notifications after developed jurisdictions' clearances;[658] **(ii)** the submission of incomplete

[656] The concept of OPAL evolved from several research projects conducted within the Human Dynamics Lab at the MIT Media Lab. For further info, see T. Hardjono, D.L. Shrier, and A. Pentland, 'Trusted Data. A new Framework Identity and Data Sharing' (2019) MIT Connection Science & Engineering.

[657] In this sense see Art. 27 of the EU Directive n. 1/2019 or Section n. 99J of the New Zealand Commerce Act.

[658] Korea's contribution to the OECD roundtable on 'cross-border merger control: challenges for developing and emerging economies', DAF/COMP/GF/WD(2011)2. Notably, the Korean Fair Trade Commission has been vocal in highlighting that any solution to merger enforcement asymmetry cannot rely on the strengthening of national enforcement regimes, as this approach would take a long time to implement and could lead to other problems such as enforcement conflicts, over-regulation, or remedial pile-ups.

notifications based on developed jurisdictions' data[659] and the related difficulty of understanding international mergers's effects in their jurisdictions; **(iii)** developing countries' inability to impose remedial measures absent merging firms' assets in their jurisdiction.[660]

Against this backdrop, the GAN can remedy the first two factors by increasing developing countries' likelihood of receiving timely and more accurate merger notifications through its one-stop-multishop platform for filing mergers. As for complaints and leniency, this AI-driven blockchain-based platform would enable simultaneous and encrypted merger filings in any jurisdiction of concern[661] and the notarisation of the hashes corresponding to these filings in the blockchain public-permissionless protocol. Accordingly, the GAN will considerably reduce the costs and effort needed to submit multiple merger notifications in different jurisdictions.

Notably, AI tools will adapt and translate any submission according to the laws and language of concerned jurisdictions. Each country's filing will be individually encrypted and only the addressed NCAs will decrypt the jurisdiction-tailored submitted material. As for leniencies, the GAN platform's benefits could be further increased by requiring merging parties to declare whether notified transactions affect other jurisdictions as part of any country merger filing procedure, and waive the submitted material to maximise intra-network co-operation over the notified transaction. The GAN's one-stop-multishop platform for merger filings, moreover, would enable the formation of a global, transparent, unmodifiable, and tamper-proof register of all merger notifications and their timing which, in turn, by enhancing NCAs' ability to detect 'gun-jumping cases', incentivise complete merger filings also in developing countries.

Second, the GAN can mitigate developing countries' international merger underenforcement by offering new analytical tools to run their merger assessments.[662] International merger assessments, indeed, could be integrated by new types of analysis, such as network analysis.

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[659] UNCTAD, Cross-border anticompetitive practices: The challenges for developing countries and economies in transition, TD/B/C.I/CLP/16, Geneva, 2012.

[660] See above Section 3.6.1. for further details.

[661] Therefore, the GAN does not allow for the submission of a single globally-valid merger filing, as would have been the case had the GAN been designed as a one-stop-shop platform.

[662] D. Dorrell, Building new data acquisition capabilities for the CMA, CMA Data, Technology, and Analytics Conference, 2022, <https://www.youtube.com/watch?v=T3pCCD_cmSs&list=PLJREEEp2I-xckXWl5O-_BELnqA0tf1bu-&index=8>.

Importantly, the UK CMA is already testing company register network analysis in merger assessments.[663] Likewise, academics are suggesting new network analysis techniques evaluating merging firms' market power based on their relative positioning within the network of firms composing the relevant market.[664]

Third, the GAN can mitigate the third factor causing developing countries' international mergers underenforcement since, by increasing procedural co-operation between developed and developing countries, it increases the likelihood that the former consider the latter's necessities as part of their mergers' assessments.[665] Once a merger has been notified, indeed, the GAN ensures that all NCAs of impacted jurisdictions are made aware of the transaction almost simultaneously and hence can start co-operating very early on, to the extent consistent with their applicable laws and while preserving the power to tailor national substantive decisions. At this point, the GAN enables the formation of case-specific opt-in sub-chambers, a sort of the 'opt-in house clearing system',[666] where adhering NCAs can concordantly conduct their analysis and co-ordinate substantive outcomes. Something similar occurred with the multilateral task force for pharmaceutical mergers created in March 2021 between several NCAs.[667] Therefore, the more international mergers lead to GAN's sub-chambers, the more likely that multijurisdictional interests get considered at the investigative phase (including developing countries' interests) and that national remedy measures align or that deviations will be justified and proportionate. These outcomes result from the fact that

[663] S. Hunt, The technology-led transformation of competition and consumer agencies: the CMA's experience. (2022).
[664] B. Pellegrino, Product Differentiation and Oligopoly: a Network Approach (Feb. 2023).
[665] D.D. Pham, Resolving Conflicts in International Merger Reviews through Merger Remedies, *World Competition*, (2016), *39*(2).
[666] IGAD Climate Prediction and Applications Centre (ICPAC)), Report of the International Competition Policy Advisory Committee to the Attorney General and Assistant Attorney General for Antitrust (ICPAC Report) (2000), 76-78. Similarly, E. Fox, 'Antitrust Without Borders: From Roots to Codes to Networks, E15Initiative' (Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum, 2015). proposed a common clearinghouse for premerger notification by firms that elect to opt into such a system. More recently, a similar call — though with some differences — has been made by Terry Calvani and Andreas Mundt, see T. Calvani and A. Mundt, 'International Competition Convergence Pathways, Challenges, and Prospects for Success' (Forty-third Annual Fordham Competition Law Institute Conference on International Antitrust Law & Policy, 2017).
[667] FTC, Official Press Release: 'FTC Announces Multilateral Working Group to Build a New Approach to Pharmaceutical Mergers' (2021) <https://www.ftc.gov/news-events/press-releases/2021/03/ftc-announces-multilateral-working-group-build-new-approach>. The task force included the US FTC, the Canadian CB, the EC, the UK's CMA, the US DOJ.

within GAN's sub-chambers NCAs will need to motivate to one another the reasons underpinning their substantive solutions and eventually be penalised through the GAN's shaming mechanisms in case of unjustified differentiated remedies.

C. Asymmetry in unilateral conduct enforcement: problems and potential solutions

Developing countries' unilateral conduct underenforcement, particularly in digital markets, is due to the high complexity of this type of investigation, the difficulties in accessing material evidence, and the asymmetries existing in terms of resources and expertise between these countries and the large digital firms they are supposed to regulate.

Against this backdrop, as well as for cartels and mergers, the GAN can first mitigate developing countries' underenforcement by reducing their need to access traditional evidence, through the development and sharing of new analytical tools enabling digital evidence collection. Second, by increasing procedural co-operation through developing countries' participation in GAN's sub-chambers, the GAN will make it more likely that their interests are taken into consideration when designing remedies. Within GAN's sub-chambers, for instance, developing countries' NCAs could demand their peers in developed countries either adopt global-wide remedies or extend their remedies, or a variation thereof, to their jurisdictions. Such approaches would allow developing countries' NCAs who would not have otherwise prosecuted such cases (for reasons of lack of resources, expertise, or issues of opportunity cost) to mitigate the anticompetitive effects resulting from them.[668] Such an evolution could initially be restricted to very large digital firms' infringements, given the likely cross-border nature of their actions.[669] Significantly, in the *Google privacy sandbox* case, the UK CMA imposed global-wide commitments on Google.[670]

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[668] Some case law which has matured under the abuse of process doctrine might already enable such an outcome (*Iberian UK Ltd v BPB Industries Plc* [1996] 2 CMLR 601*)*. See R. Nazzini, 'The Effect of Decisions by Competition Authorities in the European Union' (2015) Italian Antitrust Review n.2, 68-97.

[669] Similar mechanisms are already active in some Member States at private enforcement level. In Germany, for instance, decisions of other EU NCAs produce binding effects on national civil courts in the context of damages actions. See S. Volker, 'The Damages Directive in Germany', in A. Biondi, G. Muscolo, R. Nazzini (eds), Private enforcement in European Competition Law. After the Damages Directive, (Kluwer, 2021), p.206.

[670] CMA, Investigation into Google's 'Privacy Sandbox' browser changes, (<https://www.gov.uk/cma-cases/investigation-into-googles-privacy-sandbox-browser-changes>). Equally, the CMA used scraping tools to check compliance with CMA remedies in the payday lending market investigation (<https://www.gov.uk/cma-cases/payday-lending-market-investigation#final-order>) and in the ongoing consumer enforcement case on social media endorsements (<https://www.gov.uk/cma-cases/social-media-endorsements>).

5.6.2. Mitigating gaps in competition enforcement

A. Gaps in cartels enforcement

Despite some countries excluding or exempting them, a global ban on export cartels is unwise because some have valid pro-competitive justifications that existing nation-centric regimes cannot effectively deal with because they lack supranational, neutral, multilateral mechanisms to syndicate these justifications and eventually adopt counterbalancing measures in countries where those justifications do not apply.

Against this backdrop, the GAN could mitigate export cartels' lacuna by mandating adhering NCAs to individually assess export cartels and create national databases of all exempted export cartels, their time and geographic extension, their underpinning justifications, and subsequently aggregating those databases into a unique global one.[671] The latter would allow a global monitoring system whereby importing countries' NCAs could either act against export cartels affecting them or alternatively demand a review of such cartels' justifications and proportionality to the exporting countries' NCAs tolerating them.

The GAN's global export cartels database should then offer dashboards disincentivising non-co-operative and excessively egoistic solutions and penalise them through reputational penalties. For instance, the GAN could enable the identification of the countries underreporting or tolerating more export cartels, requiring minimal motivation to justify them, or behaving more uncooperatively. This reputational damage will likely persuade adhering countries to cure their competition regimes' flaws and more accurately verify the proportionality and objectivity of their cartel exemptions. Moreover, the value of this reputational damage could be further increased by combining it with other additional penalties (e.g. countries having a low reputation might see their status or vote powers decreased in intra-network decisions).

B. Gaps in mergers enforcement

Gaps in international merger enforcement occur either when NCAs over-prioritise international transactions' local benefits while underestimating the damage those

[671] Similarly, see F. Jenny, 'Export Cartels in Primary Products: The Potash Case in Perspective in Trade, Competition and the Pricing of commodities.'

transactions cause abroad, or when designing remedies for international transactions without considering the negative externalities the latter might have on foreign jurisdictions. Both issues could be mitigated by the GAN-enabled greater procedural co-operation occurring through the GAN's enforcement sub-chambers. By enabling and promoting joint investigations, the GAN increases the likelihood that all concerned jurisdictions' interests are considered at the decision or remedy design stage.

Further, the GAN should include general, mutual, good-faith commitments based on which negative effects occurring in one jurisdiction cannot be compensated by the positive effects occurring in another.[672] Moreover, to guarantee that adhering NCAs abide by such commitments, the GAN could use multiple levers. First, GAN's sub-chambers could envision consensus algorithms allowing blocking minorities, thus enabling minoritarian groups (of likely less-influential NCAs) to block a given clearance or remedial option when not sufficiently addressing the negative effects occurring on their jurisdictions. Second, the GAN could create artificial incentives through soft shaming mechanisms to reward or penalise, respectively, the jurisdictions that more or less take into account other adhering jurisdictions' economic interests.

C. Gaps in unilateral conduct enforcement

The scenario of gaps in unilateral conduct might occur when the local benefits of certain international anticompetitive behaviour leads the benefitting countries' NCAs to ignore, deprioritise, under punish, or under remedy the damage which that very same behaviour causes for national customers/consumers or foreign jurisdictions. To mitigate these gaps, the GAN could provide the same benefits, *mutate mutandis*, described in the previous section.

[672] Similarly see the obligations required by Article 43 of the EU guidelines on the application of Article 101(3), TFEU.

5.6.3. Mitigating overlaps in competition enforcement

A. Overlaps in cartels enforcement

Although reduced, overlap issues in cartel enforcement still occur primarily due to the lack of procedural coordination when conducting asynchronous investigative acts[673] and the heterogeneity of requirements to qualify for 'leniency' across jurisdictions and the various marker systems.[674] In this context, the GAN can help on both fronts.

First, the GAN can mitigate overlap issues resulting from leniency programmes' heterogeneity, by improving procedural coordination across concerned NCAs through the establishment of the one-stop-multishop platform for leniency submissions and the one-stop-shop system for markers described in Section **5.6.1.A**. Through these platforms, while not affecting the heterogeneity of national leniency regimes, the GAN will allow approached NCAs to be aware early on of which other NCAs received leniency submissions on the same matter, despite not having access to them. As a result, concerned NCAs can start co-operating very early on through dedicated sub-chambers within which the early co-ordination is likely to mitigate overlaps in the application of heterogeneous leniency regimes, by improving NCAs' alignment on leniency rewards, while each NCA will still preserve the power to decide independently.

Second, the GAN is likely to mitigate overlap issues resulting from asynchronous investigative acts since, thanks to its one-stop-multishop platform for submitting complaints, it allows approached NCAs to receive their individual complaints simultaneously and to know which other NCAs were approached for the same matter, despite not having access to the other NCAs' complaints. Consequently, concerned NCAs can collaborate without delay, in the same way as with leniency submissions, and can co-ordinate their procedural investigative acts while preserving the power to take heterogeneous substantial decisions once the investigation phase is over, thus accounting for the specific circumstances of their jurisdiction.

[673] E.g. dawn raids in one country may jeopardise later dawn raids in another against the same company(ies) by removing the surprise effect.

[674] Some jurisdictions require little information to grant a marker, and some require a lot of information; some require written proffers, and some do not. The risk of not satisfying the requirements in some jurisdictions may be a significant disincentive to seek leniency in any of them. In this sense see OECD, 'roundtable on challenges and co-ordination of leniency programmes' (2018) DAF/COMP/WP3/WD(2018)14.

B. Overlaps in mergers enforcement

Overlap issues in mergers enforcement were found to primarily result from different legal principles, different interpretation of identical legal principles, and different factual contexts. Against this backdrop, while the GAN cannot remedy overlap issues resulting from different legal principles, it can help in the other two scenarios. First, the GAN reduces heterogeneous interpretations' overlaps by improving procedural co-operation. The more that NCAs co-operate at the investigation stage, the more likely they are to develop similar reasonings and conclusions.

Second, the GAN can also mitigate factual differences' overlaps by impeding their pretextual unjustified or disproportionate utilisation. This occurs, first, because the GAN reduces enforcement misalignments by improving procedural co-operation, which in turn increases the likelihood of more effort being made to secure a compromise on homogeneous solutions.[675] Second, because the GAN, by increasing transparency, allows NCAs to reciprocally verify the justifiability and proportionality of their enforcement deviations and enables mechanisms to disincentivise them, such as anonymous reciprocal rating of enforcement actions. Such a rating system is indeed likely to mitigate unjustified and/or disproportionate local deviations as GAN-adhering NCAs will likely try to avoid being ranked negatively.

C. Overlaps in unilateral conduct enforcement

Overlap issues may also concern unilateral conduct cases, particularly in the digital sector given the often international nature of many digital players. Since these issues do not differ from those occurring in cartels or mergers cases, the remedies the GAN can provide to mitigate them are identical, *mutatis mutandis*, to those already described in the previous sections.

5.6.4. Exposing political contaminations in antitrust enforcement

Political contaminations may influence enforcement outcomes by causing overlaps (conflicting decisions watering down other NCAs' initiatives), underenforcement (i.e., gaps),

[675] D.D. Pham, Resolving Conflicts in International Merger Reviews through Merger Remedies, *World Competition*, (2016), *39*(2).

or over-enforcement (e.g., using competition enforcement against foreign firms representing certain jurisdictions). Despite political influences upon competition enforcement being ineliminable to a certain extent and not always unjustified, existing nation-centric competition regimes lack checks-and-balances mechanisms to verify their justifiability and proportionality. Absent these mechanisms, the risk of NCAs' regulatory capture is likely particularly in instances of state-owned firms or large firms that, despite being powerful, cannot be controlled by their hosting countries given their significant international exposure.[676]

Against this backdrop, by enhancing competition enforcement's transparency and accountability, the GAN may enable multilateral checks-and-balances to assess governmental contamination's justifiability and proportionality. Through unprecedented amounts of enforcement data, the GAN, for instance, could allow the measurement of the conversion ratio of 'competition enforcement demand vs its supply', which in turn could be used to evaluate whether NCAs' priorities reflect firms/consumers' needs or political agenda. Moreover, the GAN could also enable advanced scrutiny of NCAs' priorities. The GAN, indeed, by individually measuring NCAs' above conversion ratio against their resources, permits the scrutiny of NCAs' dismissals legitimacy, often grounded on lack of resources. Further, the GAN could allow for the measurement of the ratio of prosecuted national firms vis-à-vis foreign ones, the average fines amount suffered by national firms against foreign ones both in absolute and relative (as a percentage of their annual turnover) terms, and the number of accepted and rejected complaints vis-à-vis claimants' nationality. The GAN could also use this data to enable international comparisons and benchmarks, to measure NCAs' relative productivity or independence from political agenda compared to international peers.

Additionally, the GAN could allow the assessment of NCAs' degree of independence by enabling regression analysis on pre-identified parameters (e.g. budget thresholds; management appointment procedures; quantity, variety, and scope of exemptions; etc.) to identify trust-worthy peers and penalise the others. Similarly, the GAN could deploy ranking techniques based on on-network engagement or reciprocal anonymous voting among NCAs

[676] T. Philippon, *The great reversal: how America gave up on free markets* (Harvard University Press, 2019).

to identify and, respectively, reward or penalise the most or least neutral and co-operative competition jurisdictions.

As a result, despite the above analytics having their own limits, their publication enables the GAN to produce the game-theory incentives motivating adhering NCAs to behave correctly without falling for unjustified or disproportionate governmental demands.

5.7. Conclusions

Against the tension existing between the nation-centric dimension of competition enforcement and the global scale of markets, and the resulting enforcement being problematically asymmetric, flawed, and at times conflicting or excessively politically driven, this Chapter proposed to re-engineer international competition co-operation and presented the GAN: a technical, global-wide, blockchain-based, AI-driven, multilateral, decentralised, voluntary, and non-hierarchical platform enabling cross-border competition procedural co-operation.

Specifically, the GAN lies on an AI-driven, hybrid, two-protocol blockchain where one secretly-run, public-permissioned protocol provides high transaction throughput and confidentiality to handle daily enforcement operations and co-operation activities, and a complementary public-permissionless one guarantees tamper-evident record-keeping of those operations, thus enabling higher transparency, accountability, and public control of NCAs' enforcement actions. Blockchain technologies were found best suited to ensure the balanced, simultaneous occurrence of most of the necessary preconditions for allowing effective international procedural co-operation, as they simultaneously provide permanent, transparent, and tamper-evident record-keeping; the elimination of any hierarchically supraordinated authority; information ownership within processes; auditability; automated actions through smart contracts; and strong due process safeguards. Therefore, although some GAN activities could theoretically equally occur without needing to be registered on a blockchain protocol, the latter is a necessary condition to deliver that satisfactory degree of transparency and mutual trust, enabling international co-operation across countries that do not trust each other.

Moreover, since the blockchain backbone is complemented by AI tools, the GAN is also likely to reduce the costs and hurdles that both firms and NCAs face, respectively, when filing complaints, leniency applications or mergers especially if in multiple jurisdictions, or when enforcing national competition provisions or internationally co-operating for their enforcement. AI tools indeed can improve most NCA day-to-day practices by **(i)** simplifying and reducing the costs of interested stakeholders' interactions with NCAs also across jurisdictions; **(ii)** enhancing NCAs' ability to receive, process, filter, and prioritise submissions even if containing large evidence sets; **(iii)** enabling new analyses to detect infringements, inform their investigation, or to support market studies and advocacy; **(iv)** offering new modalities to co-operate internationally through the sharing/co-developing of AI enforcement tools; **(v)** improving abilities in remedies design and monitoring.

As a result, whereas back-end preserving the powers, autonomy, and substantive and procedural rules of adhering jurisdictions, the GAN modifies the front-end of competition enforcement by enabling, consistent with applicable laws, a structural, organised, non-fragmented, competition-specific, global platform to vehiculate interactions with and across NCAs which, in turn, is expected to increase both national competition enforcement effectiveness and international competition procedural co-operation, and hence mitigate the asymmetries, flaws, and occasional unjustified conflicts or excessive political contaminations characterising current competition enforcement.

By decreasing the cost and effort needed for NCA interaction, together with the cost NCAs face when co-operating internationally, the GAN is firstly expected to mitigate enforcement asymmetries and reduce the occurrence of heterogeneous decisions. Indeed, the less costly interacting with NCAs becomes, the greater the likelihood that developing countries' NCAs access relevant evidence to run their own investigations. And the more developing countries' NCAs become active, the more likely the enforcement spread reduction between developed and developing countries. Again, the more active NCAs exist and the more they co-operate, the more they will reciprocally consider their enforcement externalities, thus reducing the risks of unjustified heterogeneous decisions.

Secondly, by increasing transparency in global competition enforcement, the GAN enables the formation of a net of network incentives rendering politically unwise any instance of

unobjectively justified and/or disproportionately egoistic national enforcement action or lack thereof. This way the GAN spurs concerned jurisdictions to tackle their national enforcement regimes' flaws (e.g. through global certified dashboards shaming the most protectionist jurisdictions), and reduces instances of political contamination or unjustified/disproportionate heterogeneous outcomes (e.g. through global certified dashboards measuring jurisdictions' antitrust independence - based on pre-identified parameters; and through use of global certified NCA rankings gained from reciprocal anonymous voting to, respectively, reward or penalise the most or least neutral and co-operative competition jurisdictions).

The GAN, moreover, while effective in addressing identified problems, was also found to be politically feasible due to several reasons. First, within a globalised economy, nation-centric competition regimes have their shortcomings, which neither extraterritorial application of national rules, nor comity can solve. Second, because in the last twenty years the reasons provoking previous demand for international co-operation have soared.[677] Third, because of the ineffectiveness or lack of scale of the current tools enabling NCAs to cooperate. And fourth, because despite past opposition to a global multilateral solution, there is now reason to assume that past barriers can be overcome.

Concerning the GAN's legal institutionalisation, despite Chapter **5** finding internationally binding legal instruments being the most effective legal option, since obtaining such a new legal instrument is politically demanding, it suggested establishing the GAN initially as a purely technical platform through a multilateral, dedicated, non-binding instrument given the positive outcomes that the GAN is nonetheless expected to deliver. Moreover, as concerned stakeholders familiarise with the GAN, sufficient consensus may emerge to back the GAN with a binding legal instrument that unleashes its full potential, thus enabling new forms of enhanced co-operation going beyond what is currently consistent with applicable laws (e.g. automatic sharing of confidential information, enhanced investigative assistance, etc.).

[677] Therefore, while effective and efficient international co-operation in competition proceedings was desirable in the 1990s, it is essential now. In this sense, see A. Mundt, 'International Competition Convergence Pathways, Challenges, and Prospects for Success', (Forty-third Annual Fordham Competition Law Institute Conference on International Antitrust Law & Policy, 2017.)

Moreover, concerning the risks associated with the GAN's compatibility with human rights protections (e.g. due process, confidentiality, privacy, equality principles, etc.), Chapter **5** concluded that they are negligible in competition enforcement, differently than other legal domains, given that the GAN neither affects traditional competition analysis, national standards of proof, procedural safeguards, nor undermines national enforcement's transparency, accountability, and explicability. Yet, Section **5.3.3.** nonetheless stressed the significance of some regulatory supervision and suggested the development by GAN-adhering NCAs of guidelines and procedural rules explaining the utilisation of these technologies in competition enforcement.

6. Conclusions

Despite international competition co-operation's development, it remains unsatisfactory given its over-reliance on ineffective legal tools rendering co-operation occasional and of limited quality, rather than a common and structural practice. Globalisation and digitalisation of national economies, together with the proliferation of national competition regimes have further increased the mismatch between demand and supply of international co-operation, creating tensions between the nation-centric dimension of competition enforcement and the global scale of markets, resulting in an enforcement which is problematically asymmetric, flawed, and at times conflicting or excessively politically driven.

Although these issues have long been recognised, past potential resolutions have failed, owing to nations' differing beliefs - developed countries not seeing any additional benefit, and developing nations fearing a reduction of their powers. As a result, the asymmetries, gaps, overlaps and excessive political distortions have been augmenting over time, to the point that the case now for deeper international co-operation has never been stronger, due to the changed global geopolitical situation (developed countries can no longer regulate the global economy without co-operating with some developing countries who have now become economic powers) and to the fact that developing countries' past fears could be remedied through AI and blockchain technologies.

Against the current impasse of international co-operation, between an old system that is dying and a new one that cannot be born, this thesis has posed its contribution, by advancing

a proof of concept of what a renewed global antitrust network might entail. By leveraging the potentials of AI and blockchain technologies as well as the lessons learnt from the world's most developed regional competition co-operation frameworks, the thesis has sketched the key features of a renewed and politically feasible global antitrust network, which neither aims for a unique global antitrust, nor the modification of existing nation-centred competition regimes, nor mandates more substantive convergence, nor violates any nationally recognised human rights protection (e.g. due process, confidentiality, privacy, equality principles, etc.).

Accordingly, the GAN has been designed as a mere technical platform standardising, automatising, and globally connecting adhering NCAs' daily working activities (without altering their powers, legal rules, independence, or derogating any fundamental rights protection they currently guarantee), and providing the pre-conditions and incentives for delivering enhanced procedural co-operation to mitigate the asymmetries, gaps, overlaps, and excessive political interferences characterising current competition enforcement.

Importantly, while the first generation of GAN-enabled procedural co-operation cannot overcome the boundaries of applicable national laws (including those blocking, limiting, or slowing down enhanced forms of procedural co-operation) and the GAN's co-operation-inducing incentives might not appear sufficiently persuasive (as mostly resulting in reputational damages), once the GAN is established, its effectiveness may be easily increased over time through an internationally binding legal instrument.

An international binding instrument, for instance, while removing national blocking barriers to international competition co-operation, may further improve the GAN's net of incentives supporting the latter by envisioning specific sanctions for countries ranked as very protectionist, whose NCAs are poorly independent, and those with minimal enforcement records. These sanctions might amount to monetary fines or increased tariff against their products, may result in the suspension trade agreements, or could cause the degradation of these countries' status either within the GAN, or within other international organisations (e.g. behaving below certain thresholds may cause the expulsion from the OECD competition committee), or both.

Yet, despite the fact these advanced rules and incentives are unlikely to be accepted during the GAN's first implementation as they will likely discourage countries' adherence, they may

be introduced over time as adhering countries strengthen their ties and evolve their needs. Accordingly, the first-generation GAN introduced here simply represents the base-layer of an infrastructure that is yet to come. Nevertheless, despite being a mere technical platform at its core, this initial iteration of the GAN still lays the vital foundations of such a future infrastructure as it immediately enables mutual trust among those countries lacking it, reduces the significance of certain practices conventionally considered key to enable enhanced international competition co-operation (e.g. exchange of confidential information), and provides new, self-reinforcing, direct network incentives maximising adhering NCAs' willingness to procedurally co-operate internationally. As a result, although not completely eliminating them, the GAN is likely to mitigate most of the asymmetries, gaps, overlaps, and excessive political interferences currently characterising competition enforcement.

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