Competere Foundation

Competere Foundation: Advice on Application of Competition Policy in Korea.

Overview

1 This report assesses the impact of Korean competition policy on the Korean economy, focusing particularly on digital sector regulation and enforcement by the Korea Fair Trade Commission (KFTC). The ACMD model is applied to quantify resulting distortions and their effect on GDP per capita.[1,2]

Evolution of Korean Competition Law

2 Korean competition law has evolved in three main phases: initially focused on curbing Chaebol dominance, it transitioned through IMF-driven liberalization to an effects-based, consumer welfare approach. However, legacy elements of industrial policy persist.

The Early Period

3 To understand the application of Korean competition law, it is necessary to know the history of the Korean economy going back to the 1980s. Like Japan before it, the Korean export centered model required significant government distortions and subsidies at home. The resultant Chaebol companies were very large behemoths, fed by these anti-competitive market distortions or ACMDs. Korean political reality meant that there was growing public concern about the disparity in wealth between those associated with the Chaebol and regular citizens. This fueled the early call for competition policy as a redistributive tool. Hence from the outset, dealing with inequality was one of the express purposes of Korean competition law.

Early Phase (1980s–1990s):

- Focused on preventing concentration of economic power under the Monopoly Regulation and Fair Trade Act (MRFTA).

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[1] The full details of the SRB and SRB-γ ACMD models can be found in chapters 3 and 4 of Shanker A. Singham, *International Trade, Regulation and the Global Economy: The Impact of Anti-Competitive Market Distortions* (London: Routledge, 2025), https://www.routledge.com/International-Trade-Regulation-and-the-Global-Economy-The-Impact-of-Anti-Competitive-Market-Distortions/Singham/p/book/9781032944166.

[2] Shanker A. Singham and Alden F. Abbott, Trade, *Competition and Domestic Regulatory Policy: Trade Liberalisation, Competitive Markets and Property Rights Protection* (London: Routledge, 2023).

- Consumer welfare was a secondary goal. The primary aim was controlling chaebols and redistributing economic power.
- Enforcement was weak, and market interventions were common.

Transition Phase (1997–2008):

- Post-IMF crisis reforms led to stronger regulatory institutions and greater transparency.
- The Korea Fair Trade Commission (KFTC) gained enforcement powers.
- Introduction of merger review standards and anti-cartel actions began to consider consumer effects more directly.

Modern Phase (2009–Present):

- Move towards closer alignment with OECD and international standards.
- Focusing more on adoption of effects-based analysis and use of economic tools to assess consumer harm.
- Targeted enforcement in digital markets and platforms focused on US firms.

4 In the modern phase, just as in the EU, Japan and other markets, the application of underlying equality concepts has meant that the fundamental goals of consumer welfare (productive and allocative efficiency maximization) tend to become distorted by other objectives.

Table 1: Phases of Korean Competition Law

Phase	Primary Focus	Role of Consumer Welfare	Enforcement Tools
1980s–1990s	Chaebol regulation, power control	Indirect, secondary goal	Limited enforcement powers
1997–2008	Market liberalization	Emerging focus	Cartel enforcement, merger reviews
2009–Present	Digital platform regulation, effects-based	Facing challenges	Perceived attacks on US firms implicating trade policy

Evidence of Korean Competition Law enforcement

5 As we have noted, Korean competition law was initially developed in the 1980s. However, there was a problem with its application from the outset. Included within antitrust's purposes were various social purposes that had nothing to do with antitrust.

6 Korean competition law has undergone a major transformation since the 1980s. Any analysis of the development of Korean competition law cannot ignore the reasons for its inception. The Korean export led growth policy relied on powerful export houses, the Chaebol, knitted together by collusive practices and government privilege. Korean competition law was initially implemented to control the power of these large conglomerates, much as US antitrust law emerged to control the behavior of powerful trusts. The law has gradually evolved into a more modern, consumer-welfare-focused framework. However, this transformation has not been linear or unambiguous.

Summary of Best Practice in Competition Law Enforcement: What Good Looks Like

7 We have written extensively on how competition policy has developed globally and what its true purpose should be.[3] Sound competition policy rests on several foundational principles:

- **Normative benchmark:** Competition law must be implemented to maximize consumer welfare, operationalized as the maximization of productive and allocative efficiency. It should never be a tool to shield competitors for their own sake, nor to engineer market structure absent efficiency justification. The touchstones are effects-based analysis and economics, not legal formalism.
- **US–EU contrast.** The modern US approach has centered on consumer welfare and economic effects, with strong deterrence against cartels but a high bar for monopolization cases. The EU, by contrast, historically blended market-integration objectives, state aid control, and rules-based scrutiny of dominance and vertical conduct. Both systems converged toward economics over time. In recent years, however, US antitrust under the Biden Administration and FTC Chair Lina Khan has departed from consumer welfare, drifting toward competitor-welfare rationales. As we analyze in the Singham-Abbott Framework this risks serious economic harm to the US economy. The EU and UK have likewise shown drift away from economics-based enforcement. These newer iterations are not models for others to follow if growth is their goal.
- **Risks of drift.** New digital platform initiatives (i.e., precautionary regimes and ex-ante laws such as Korea's Online Platform Markets Act (KOPMA)) pull enforcement away from strict consumer-welfare analysis toward fairness and competitor-protection rationales. Unless tethered to demonstrable consumer harm, these approaches risk both static and dynamic efficiency losses.[4]
- **The Cost of Precaution.** Precautionary principles sound like sensible approaches – look before you leap and other similar aphorisms come to mind. But competition agencies need to be very careful to ensure that they do not chill investment in applying

[3] See Annex 1 for an excerpt from Singham and Abbott, *Trade, Competition and Domestic Regulatory Policy*, chap. 3, "The Role of Consumer Welfare in Competition Implementation and Enforcement."; hereinafter referred to as the Singham-Abbott Framework

[4] See Annex 1

precautionary approaches. This can lead to Type 1 error where competition agencies discipline behavior that is actually pro-competitive. There have been some studies on the impact of Type 1 errors. Geoffrey Manne (2020) set out a framework for looking at Type 1 errors. Manne notes the court in Verizon v. Trinko[5] which stated that Type 1 errors were more costly than Type 2 errors because "they chill the very conduct which the antitrust laws were intended to protect."[6] Other authors have noted that Type 1 errors can lead to losses in dynamism.[7] This is a particular concern in the tech space as it can lead to a reduction in the output of firms providing these types of services. Undue reliance on static market models, and market shares without a deep understanding of the durability of market power can also lead to Type 1 error. Sharat Ganapati (2021) finds that increased concentration in firms that are expanding real output leads to innovation and cost reduction.[8] A precautionary approach to antitrust would damage these firms before they had a chance to manifest these positive economic contributions. Wright and Mungan in "The Easterbrook theorem: Application to Digital Markets" note that the overwhelming jurisprudence suggests that false positives are far more economically damaging than false negatives.[9] This is because false negatives can be ultimately disciplined by authorities and are likely to continue to be raised by other parties. By contrast, false negatives have no constituency and the resulting damage to innovation cannot be corrected in the future. How agencies define markets also plays an important role in ensuring innovation. If markets are defined too narrowly, using static thinking, then harm is more likely to be found increasing the risk of Type 1 error.

- **Public restraints and ACMDs.** Major welfare losses also arise from anti-competitive market distortions (ACMDs) generated by laws and regulations. The OECD Competition Assessment Toolkit offers a diagnostic to identify and mitigate such distortions.[10] Competition agencies must not only police private conduct but also advocate for pro-competitive reform.Singham
- **High-tech guidance.** In technology markets marked by network effects and rapid innovation, incipiency-based or structural interventions are especially hazardous. Remedies must be narrow, effects-based, and sensitive to innovation incentives and platform efficiencies.

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[5] *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 US 398 (2004).

[6] Geoffrey A. Manne, "Error Costs in Digital Markets," in *The Global Antitrust Institute Report on the Digital Economy* 3 (Arlington, VA: George Mason Law & Economics Center, 2020), 5.

[7] Ryan A. Decker, John Haltiwanger, Ron S. Jarmin, and Javier Miranda, "Where Has All the Skewness Gone? The Decline in High-Growth (Young) Firms in the US," *European Economic Review* 86 (2016): 4–23, https://doi.org/10.1016/j.euroecorev.2015.12.013

[8] Ganapati, Sharat. "Growing Oligopolies, Prices, Output, and Productivity." *American Economic Journal: Microeconomics 13*, no. 3 (August 2021): 309–27.

[9] Joshua D. Wright and Murat C. Mungan, "The Easterbrook Theorem: An Application to Digital Markets," *The Yale Law Journal Forum* 130 (2021): 622–646, https://www.yalelawjournal.org/forum/the-easterbrook-theorem.

[10] Organisation for Economic Co-operation and Development (OECD), *Competition Assessment Toolkit: Principles, Version 4.0, Volume I* (Paris: OECD Publishing, 2019), https://doi.org/10.1787/5f9fa6ca-en

Historical Arc and Institutional Posture

- **Origins and goals.** Korea's MRFTA was born in an environment of heavy industrial policy, Chaebol concentration, and the post-crisis imperative of market discipline. The KFTC, drawing heavily on German and EU traditions, positioned itself both as enforcer and as advocate for competition.
- **Trajectory toward economics.** Applying the Singham-Abbott Framework, we see that Korea has increasingly adopted economic tools in cartel detection, and merger analysis. Yet fairness and competitor-protection instincts remain, especially where SMEs or national champions are involved. Policy objectives outside the competition agency have influenced enforcement, and their extension to the new media environment carries particular risks.
- **Over time, Korea has moved in the same broad trajectory as the US and EU**: Toward the use of economics-based tools such as cartel detection, and merger analysis. Yet legacies of fairness and competitor protection remain embedded in its posture, especially where SMEs or national champions are concerned. The decisive point is that policy goals outside the competition agency have repeatedly been allowed to shape antitrust enforcement. That risk is magnified in the new media environment, where such departures from consumer-welfare analysis directly damage US firms.

Korea on the US–EU Spectrum

8 The US and EU remain the two most influential enforcement models. For much of their history they stood at opposite ends: the US anchored in consumer welfare, the EU in market integration and rules-based formalism.

- **Analytical style.** Korea today is hybrid. It is more effects-based than in its early years, but still more form- and dominance-attentive than the modern pre-Khan US system. Its orientation remains closer to the EU's suspicion of verticals and platform conduct, and to fairness rhetoric that drifts into competitor welfare if not anchored in consumer welfare.
- **Digital markets.** Korea's focus on platform rules and gatekeeper behavior positions it closer to the EU/regulatory end of the spectrum. The Singham–Abbott Framework warns that such measures must be tied to demonstrable consumer harm and must weigh dynamic efficiency (i.e., innovation, interoperability, investment) to avoid eroding consumer surplus.

Consumer-Welfare Scorecard (Singham–Abbott Framework)

- **Allocative efficiency.** Enforcement that fragments ecosystems or bans preferred bundles risks misallocation, raising prices and reducing features. The test must be price/output effects, not form.
- **Productive efficiency.** Mandates that duplicate billing or infrastructure increase costs borne by consumers. Structural fixes that ignore production costs must be avoided.

- **Dynamic efficiency.** Anticipatory or fairness-driven interventions chill innovation and deter entry. Enforcement must explicitly account for dynamic effects such as platform investment and R&D spillovers.
- **Remedies discipline.** Narrow behavioral remedies, tied to net welfare gains, should be preferred. Structural remedies should be rare, reserved for durable monopolies where efficiency trade-offs clearly justify them.
- **Public-sector distortions (ACMDs).** Korea's own regulatory instruments distort competition. Toolkit-style assessment and KFTC advocacy should pare back these distortions, opening markets and raising IC/DC/PR pillars in our growth model.

Bottom Line: Korea's Current Location and Path Forward

9 Korea sits between the pre-Khan US consumer-welfare pole and the EU's precautionary and form-driven pole, tilting EU-ward in digital and dominance cases. While the system has matured toward economics, industrial policy instincts and fairness rhetoric still influence enforcement, particularly in actions against large firms and US platforms.

We advocate:

1. Refocusing enforcement on measurable consumer harm (i.e., price, output, quality, and innovation) in platforms and verticals.
2. Incorporating dynamic effects explicitly in technology cases.
3. Constraining structural remedies to truly durable monopolies and favoring narrow behavioral remedies.
4. Systematically auditing ACMDs and pressing for pro-competitive regulatory reform through KFTC advocacy.
5. Aligning Korean enforcement with OECD Toolkit diagnostics to strip out non-tariff distortions that private antitrust cannot fix.

10 Failure to re-anchor in consumer welfare risks both domestic costs and international trade consequences.

Application to the New Media Economy[11]

11 Chapter 14 of *Trade, Competition and Domestic Regulatory Policy* shows how the microprocessor revolution reduced transmission costs, shifted value toward content, and transformed platforms into multi-sided systems with strong network effects and economies of scale. Competition here is "for the market," in Schumpeter's sense of temporary monopolies. Interventions that fragment ecosystems or suppress scale blunt these welfare-creating dynamics. The proper baseline is not "openness at any cost," but

[11] See Annex 2 for an excerpt from Singham and Abbott, *Trade, Competition and Domestic Regulatory Policy*, chap. 14, "Impact of the New Media Economy."

effects-based rules that preserve inter-platform rivalry and investment incentives while avoiding fragmentation.

12 The Singham–Abbott New Media Economy framework places the consumer-welfare standard, maximizing productive and allocative efficiency, as the north star. It warns against competitor-welfare drift and precautionary ex-ante regulation lacking proof of consumer harm. In platforms, heavy ex-ante obligations or structural remedies can reduce output and quality, and chill innovation, even where user prices are zero. Agencies must focus on effects, not form, and favor targeted behavioral remedies.

13 Our survey of recent platform regulation (e.g., EU DSA/DMA, Germany's Digitisation Act, UK, France, Japan, Australia, China) confirms the danger. Broad, one-size-fits-all rules raise compliance costs, entrench incumbents, and substitute regulation for competition. The Singham-Abbott New Media Economy framework suggests that comparative evidence on net neutrality regimes also shows limited benefits and credible investment/quality trade-offs, supporting ex post antitrust as the cleaner instrument.

14 Convergence makes fragmentation even more costly**.** As audiovisual, telecom, and internet services converge, measures like content quotas, ownership caps, or local-working rules fracture demand, reduce scale, and raise costs. The opposite of what network-economy welfare requires. The Singham-Abbott New Media Economy framework highlights the WTO interface (GATS, TRIPS, TRIMS), noting that many such rules are both distortionary and disciplinable under trade law. Korea's politicized choice of adopting the ATSC digital television standard illustrates the point.[12] In 1997 the government adopted the US developed ATSC 1.0 system, which was optimized for fixed rooftop reception. To meet mobile and indoor viewing demand, Korea later deployed a separate T-DMB service, while the ATSC-M/H mobile variant arrived late and saw limited uptake. Korea then began migrating in 2017 to ATSC 3.0, which is not backward compatible and requires new receiver chains. This sequence shows how a top-down standard choice can lock in technical trade-offs, create parallel systems, and make later transitions costlier than a technology-neutral, market-led process.[13,14]

15 Placed within this framework, Korea remains hybrid. More economics-led than in its early years, but still more formalistic than the pre-Khan US, and EU-leaning in digital markets. Through the New Media Economy lens, the tilt is sharper still: precautionary or ex-ante digital rules threaten to fragment the NME, undermining inter-platform rivalry and eroding the scale economies that create consumer surplus. When the KFTC evaluates tying, self-preferencing, app store rules, interoperability mandates, or data access obligations, it

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[12] Tae-Han-Kim, "U.S. Standard Chosen for Digital Broadcasting," *The Dong-A Ilbo*, July 8, 2004, https://www.donga.com/en/List/article/all/20040708/235990/1.
[13] Analogue Broadcasting Comes to an End, *KBS World*, December 12, 2012, https://world.kbs.co.kr/service/archive_view.htm?board_seq=73.
[14] Jay Jeon, "Going Global: ATSC 3.0 4K Broadcasting Launched in Korea," *ATSC News*, July 24, 2017, https://www.atsc.org/news/going-global-atsc-3-0-4k-broadcasting-launched-korea/.

must ground decisions in consumer harm and dynamic-efficiency analysis, not in the nationality or status of rivals.

Advice to the Korean Government on Competition Policy in the NME

- **Competition filter and ACMD impact assessment:** Adopt a UK/US-style "competition filter" (e.g., the UK Better Regulation framework[15]; the US Executive Order on anti-competitive regulation[16]) so that any new platform rule must pass structured tests (market-share thresholds, asymmetric burdens, innovation effects) and trigger KFTC review if risks are flagged. This embeds the consumer-welfare test into regulation ex-ante.
- **Ex post first; ex-ante rarely:** Default to effects-based antitrust. Use ex-ante rules only where a clear market failure is shown, with sunset clauses and periodic reviews.
- **Preserve property-rights-based rivalry:** Platforms compete on quality, features, and complements. Avoid compulsory licensing and "essential facility" doctrines except in exceptional cases; favor interoperability solutions that demonstrate net welfare gains.
- **Avoid fragmentation:** Resist content quotas, ownership caps, and local-working mandates that reduce scale and deter investment. These are ACMDs that the OECD Toolkit and Singham–Abbott Framework would flag.
- **Standards:** Allow private actors to lead on standards; regulators should intervene only to resolve deadlock. Avoid both fragmented open dialects and overly closed "walled gardens." The policy goal is consumer welfare, not competitor parity.
- **Remedies discipline:** If intervention is necessary, prefer targeted behavioral remedies with clear metrics over structural separations. Explicitly weigh static gains against dynamic losses, and count enforcement costs before finalizing remedies.
- **Net neutrality calibration:** If revisiting net neutrality, adopt a light-touch approach that allows efficiency-enhancing differentiation while preventing foreclosure. Ex post antitrust is the cleaner backstop.
- **Measurement and governance:** Use the OECD Toolkit and the ACMD taxonomy in the Singham–Abbott Framework to screen media/telecom rules for likely harm to output, quality, innovation, and entry. Prioritize reforms with the largest consumer-surplus gains.

Selective Enforcement and Departures from the Consumer-Welfare Standard

16 Despite rhetoric about consumer welfare, KFTC practice suggests protection of domestic firms and a wider digital-sovereignty agenda. There are also troubling attacks on "bigness",

[15] Department for Business and Trade, *Better Regulation Framework: Guidance*, September 2023, PDF, https://assets.publishing.service.gov.uk/media/67587ba55a2e4d4b993bfa83/better-regulation-framework-guidance-2023.pdf.
[16] Exec. Order No. 14,267, *Reducing Anti-Competitive Regulatory Barriers*, 90 Fed. Reg. 15629 (Apr. 15, 2025), https://www.govinfo.gov/content/pkg/FR-2025-04-15/pdf/2025-06463.pdf.

a concept discarded by leading antitrust agencies for lack of economic foundation. As our earlier analysis shows, the KFTC's non–consumer-welfare priorities have broad effects on large firms. We are beginning to see a disturbing pattern: not only in digital markets, but across other sectors, large US firms are disproportionately targeted.

17 An overweight reliance on dominance standards disproportionately impacts larger firms, and in practice this burden is applied differentially: large Korean firms often shield themselves through domestic lobbying, while US firms cannot. This asymmetry raises acute trade concerns. In the current climate, such practices could place Korea squarely in the crosshairs of the Trump Tariff doctrine, as argued in our White Paper.

18 To understand how KFTC enforcement diverges from consumer-welfare principles, we must analyze recent cases. This exercise demonstrates how far practice has drifted and why Korea must course-correct if it wishes to avoid both domestic inefficiency and international trade conflict.

19 The table below shows recent KFTC cases with a counterfactual applied if a more consumer welfare standard had been followed. In some cases, a US action was also brought so we can actually see the differential approaches in real time:

Table 2: Recent KFTC Cases

Case	Year(s)	Theory / Law	Sector	Respondent HQ	Outcome in Korea	Consumer-welfare counterfactual (US)
Qualcomm licensing practices	2016 fine[17]; 2023 court uphold[18]	Abuse of dominance (licensing/FRAND)	Mobile chipsets	USA	₩1.03tn fine; Supreme Court of Korea upheld most sanctions (Apr 2023)[19]	*FTC v. Qualcomm* reversed by 9th Cir. (2020) Conduct not anticompetitive[20]
75kGoogle Android Anti-Fragmentation Agreements (AFA)	2021	Tying/leveraging, foreclosure of OS forks	Mobile OS	USA	₩207.4bn fine[21]	No comparable US case outcome; would require proof of consumer harm
KFTC fines Google for One Store exclusivity abuse (game launches)	2023	Exclusive dealing / foreclosure	App distribution	USA	₩42.1bn fine[22]	Likely tougher to condemn under rule-of-reason without strong harm evidence
Naver search self-preferencing	2020	Self-preferencing / ranking manipulation	Search/Shopping /Video	Korea	₩26.6bn fine[23]	Self-preferencing not per se illegal; would need consumer-harm proof

[17] Korea Fair Trade Commission (KFTC), *KFTC Imposes Corrective Order and Surcharge on Qualcomm for Abuse of Market Dominance in Mobile Communication Modem Chipset*s, press release, December 28, 2016.
[18] Korea Fair Trade Commission (KFTC), *Supreme Court Upholds Most of KFTC's Qualcomm Decision*, press release, April 2023.
[19] Supreme Court of Korea, Decision 2019Du52386 (Apr. 2023).
[20] *FTC v. Qualcomm Inc.*, 411 F. Supp. 3d 658 (N.D. Cal. 2019), rev'd, 969 F.3d 974 (9th Cir. 2020).
[21] Korea Fair Trade Commission (KFTC), *KFTC Imposes Corrective Order and Administrative Fine on Google for Forcing OEMs to Sign Android Anti-Fragmentation Agreements (AFA)*, press release, September 14, 2021.
[22] Korea Fair Trade Commission (KFTC), *KFTC Fines Google for App Store One Store Exclusivity*, press release, July 2023.
[23] Korea Fair Trade Commission (KFTC), *KFTC Imposes Corrective Order and Administrative Fine on Naver for Abuse of Market Dominance in Search and Shopping Services*, press release, October 6, 2020.

Kakao Mobility (ride-hailing)	2024–2025	Abuse of dominance	Mobility	Korea	Enforcement and appeals activity; provisional fines adjusted on appeal[24,25,26]	Fact-intensive rule-of-reason analysis
German automakers emissions cartel	2023	Cartel (coordination on emissions tech)	Automotive	Germany	₩42.3B fines[27]	Hard-core cartel condemned under both systems[28]
Coupang manipulation of search algorithm	2024-2025 (appeal ongoing)	Unfair trade practices under the MRFTA	E-commerce / online marketplace	USA & Korea	₩162.8B fines[29]	This is an algorithm-based retail practice that would not be considered anticompetitive in the US.

20 The German automakers example shows that consumer welfare enhancing approaches and in the area of hard core cartels do converge between the EU and US.

Economic Impact Using the ACMD Model

21 We have used the SRB-γ ACMD economic model as described in Annex 3. We have shocked the Korean and US systems with pillar score changes based on the impact of the divergence from consumer welfare enhancing norms of the KFTC approach. We include both the substantive divergences as well as procedural issues related to due process in the

[24] Korea Fair Trade Commission (KFTC), *KFTC Imposes Corrective Measures against Kakao Mobility for Abuse of Market Dominance*, press release, October 2024.
[25] Korea Fair Trade Commission (KFTC), *KFTC Revises Fine on Kakao Mobility for Abuse of Market Dominance*, press release, December 2024.
[26] "Supreme Court Hears Fair Trade Commission Appeal Against Kakao Mobility Penalty," *Chosun Biz*, June 12, 2025, https://biz.chosun.com/en/en-society/2025/06/12/2K3I4MR4ZJAQLH7DNBCMNNVBIA/.
[27] Korea Fair Trade Commission (KFTC), *KFTC sanctions German car manufacturers for colluding to avoid competition on the development of emissions cleaning technology*, press release, February 9, 2023, https://www.ftc.go.kr/eng/downloadBbsFile.do?atchmnflNo=17419.
[28] European Commission, *Antitrust: Commission fines car manufacturers €875 million for restricting competition in emission cleaning for new diesel passenger cars*, press release, July 7, 2021, https://ec.europa.eu/commission/presscorner/detail/en/ip_21_3581.
[29] Kim Ju-yeon, "Coupang Appeals Record $121 Million Fine for Alleged Search Manipulation," Korea JoongAng Daily, September 10, 2024, https://koreajoongangdaily.joins.com/news/2024-09-10/business/industry/Coupang-appeals-record-121-million-fine-for-alleged-search-manipulation/2131645.

pillar shock approach below. The pillar shocks include the overall approach which we are seeing from the KFTC in recent cases. Pillar shocks apply over a ten-year projection range.

22 We also include for completeness impacts on the US economy, although we are specifically interested in the impacts to the Korean economy. We include US impacts so that potential US tariff actions can be factored in by the Korean government. This allows us to arrive at an estimation of the GDP per capita losses in Korea from competition implementation and enforcement that departs from a consumer welfare enhancing vision. The ACMD model measures GDP impact from reductions in pillar scores as follows:

Table 3: Changes in Key Pillar Scores (2023)

Pillar	Country	Indicator	Score Before	Score After
International Competition	US	Trade Freedom	6.2	5.7
International Competition	Korea	Trade Freedom	5.8	4.8
Domestic Competition	Korea	Business Freedom	6.2	5.2
Domestic Competition	US	Business Freedom	6.0	5.5
Domestic Competition	Korea	Mobile Phone Access	3.8	3.3
Domestic Competition	Korea	Internet Usage	6.8	6.0
Domestic Competition	Korea	Regulatory Promulgation	4.8	2.5
Property Rights	Korea	Legal Framework	3.44	2.44
Property Rights	Korea	Legal Efficiency	4.2	3.2
Property Rights	Korea	IP Protection	4.6	3.2
Property Rights	Korea	Contract Enforcement	6.5	4.5

Share of Korea Economic Sector Affected

23 We use a coefficient of α to represent the share of impact across the specific Korean market which are specifically affected. The equations used to calculate α are set out in Annex 4.

Table 4: Results (Korea, 2023 USD)

Pillar	Component (weight)	Δ Score	α	Loss % of GDPpc	$ loss / capita	Total $ loss (bn)
IC	Trade freedom (0.29)	1.0	0.7044	1.301%	$430.96	$22.29
DC	Business freedom (0.25)	0.5	0.912	0.915%	$303.20	$15.68
	Mobile access (0.03)	0.5	0.948	0.114%	$37.82	$1.96
	Internet usage (0.03)	0.8	0.974	0.188%	$62.17	$3.22
	Regulatory promulgation (0.25)	1.5	0.912	2.746%	$909.60	$47.04
PR	Legal framework challenges (0.24)	1.0	0.775	1.276%	$422.62	$21.85
	Legal framework efficiency (0.06)	1.0	0.775	0.319%	$105.65	$5.46
	IP protection (0.25)	1.4	0.775	1.861%	$616.31	$31.87
	Investor protection (0.09)	1.0	0.912	0.563%	$186.50	$9.64
	Enforcing contracts (0.09)	2.0	0.775	0.957%	$316.96	$16.39
Total				10.24%	$3,391.80	$175.40

Pillar totals (summing rows):

- **IC** total: 1.301%, $431 per cap, $22.29 billion.
- **DC** total: 3.964%, $1,313 per cap, $67.89 billion.
- **PR** total: 4.976%, $1,648 per cap, $85.22 billion.

Projected Korean economic losses under current KFTC enforcement may reach $175.4 billion over ten years. The KFTC must adopt a consumer-welfare standard set out in the Singham–Abbott frameworks to prevent these losses.

24 **These total losses of $175.4 billion** are very significant for the Korean economy and reflect an economy-wide drag measured by the ACMD model from explicit reductions in Korea's IC, DC, and PR pillars. Table 4 shows a 10.24% hit on the report's GDP per capita metric, with $22.29 billion arising from international competition components, $67.89 billion from domestic competition components, and $85.22 billion from property rights components. We recommend Korean economic policymakers re-anchor enforcement to a consumer-welfare standard and effects-based analysis following the Singham–Abbott Framework and the New Media Economy Framework. This action would tie decisions to measurable consumer harm (price, output, quality, and innovation), account for dynamic effects, discipline remedies toward targeted behavioral solutions, and direct advocacy to pare back public-sector distortions that affect the IC/DC/PR pillars used in our growth model.

Application of ACMD Model to Korean Online Platform Markets Act on Korean economy

25 We have also separately used the ACMD model to analyze the impact of ex-ante regulation (Korean Online Platform Markets Act or KOPMA) on the Korean economy noting its impact on Korean GDP per capita.

Inputs (ACMD model constants and denominators)

- Elasticities: β_IC = 6.37, β_DC = 8.03, β_PR = 6.86.
- Korea 2023 denominators: GDP per capita = $33,121.4, Population = 51,712,619.
- Coverage (Korea α): Trade 0.7044; Business freedom 0.912; Mobile 0.948; Internet 0.974; Regulatory promulgation 0.912; Legal framework (both) 0.775; IP 0.775; Investor 0.912; Enforcing contracts 0.775.
- Component weights (within-pillar): Trade 29%; Business 25%; Mobile 3%; Internet 3%; Reg promulgation 25%; PR components: Legal challenges 24%, Legal efficiency 6%, IP 25%, Investor 9%, Enforcing 9%.

KOPMA pillar score reductions for Korea

- IC – Trade freedom: 5.8 → 4.8 (Δ=−1.0)
- DC – Business freedom: 6.2 → 5.2 (Δ=−1.0)
- DC – Mobile phone access: 3.8 → 3.3 (Δ=−0.5)
- DC – Internet usage: 6.8 → 6.0 (Δ=−0.8)
- DC – Regulatory promulgation: 4.8 → 2.5 (Δ=−2.3)
- PR – Legal framework (challenges): 3.44 → 2.44 (Δ=−1.0)
- PR – Legal framework (efficiency): 4.2 → 3.2 (Δ=−1.0)
- PR – IP protection: 4.6 → 3.2 (Δ=−1.4)
- PR – Investor protection: 5.3 → 4.4 (Δ=−0.9)
- PR – Enforcing contracts: 6.5 → 4.5 (Δ=−2.0)

Method (component-level, then sum)

Score Changes and Weights

$$\Delta_{p,v} = \text{ScoreBefore}_{p,v} - \text{ScoreAfter}_{p,v}$$

$$w_{p,v} \in (0,1) \perp \text{within-pillar weight (e.g., 0.29, 0.25, 0.03, ...)}$$

$$\beta_p \in \mathbb{R}^+ \perp \text{pillar elasticity (\% GDPpc per 1-point change)}$$

$$\alpha_{p,v} \in [0,1] \perp \text{coverage coefficient for component v in pillar p}$$

Component Level Impacts

$$\text{LossPct}_{p,v} = \beta_p * w_{p,v} * |\Delta_{p,v}| * \alpha_{p,v}$$

$$LossPerCap_{p,v} = (LossPct_{p,v} / 100) * GDPpc_{2023}$$

$$TotalLoss_{p,v} = LossPerCap_{p,v} * Pop_{2023}$$

Pillar and Aggregate Impacts

$$LossPct_{p} = \Sigma_{v \in p} LossPct_{p,v}$$

$$LossPerCap_{p} = \Sigma_{v \in p} LossPerCap_{p,v}$$

$$TotalLoss_{p} = \Sigma_{v \in p} TotalLoss_{p,v}$$

$$LossPct_{TOTAL} = \Sigma_{p} LossPct_{p}$$

$$LossPerCap_{TOTAL} = \Sigma_{p} LossPerCap_{p}$$

$$TotalLoss_{TOTAL} = \Sigma_{p} TotalLoss_{p}$$

Applying KOPMA shocks inside Korea

$$\Delta^{KOPMA}_{KR,IC,Trade} = 5.8 - 4.8$$

$$\Delta^{KOPMA}_{KR,DC,BF} = 6.2 - 5.2$$

$$\Delta^{KOPMA}_{KR,DC,Mobile} = 3.8 - 3.3$$

$$\Delta^{KOPMA}_{KR,DC,Internet} = 6.8 - 6.0$$

$$\Delta^{KOPMA}_{KR,DC,RegProm} = 4.8 - 2.5 \perp \text{(or 4.0 - 2.5 in sensitivity)}$$

$$\Delta^{KOPMA}_{KR,PR,LC} = 3.44 - 2.44$$

$$\Delta^{KOPMA}_{KR,PR,LF} = 4.2 - 3.2$$

$$\Delta^{KOPMA}_{KR,PR,IP} = 4.6 - 3.2$$

$$\Delta^{KOPMA}_{KR,PR,Inv} = 5.3 - 4.4$$

$$\Delta^{KOPMA}_{KR,PR,Enf} = 6.5 - 4.5$$

λ-shares when multiple components change in a pillar

$$M_{p,v} = |\Delta_{p,v}| * w_{p,v} * \beta_p$$

$$\lambda_{p,v} = M_{p,v} / \Sigma_{u \in p} M_{p,u}$$

$$\alpha_p = \Sigma_{v \in p} \lambda_{p,v} * \alpha_{p,v}$$

Table 5: Results – KOPMA Impact (Korea, 2023 USD)

Pillar	Component	Δ	Attenuated % GDPpc	$/capita	Total loss (bn)
IC	Trade freedom (0.29)	−1.0	**−1.301%**	**−$430.99**	**−$22.29**

DC	Business freedom (0.25)	−1.0	−1.831%	−$606.40	−$31.36
DC	Mobile phone access (0.03)	−0.5	−0.114%	−$37.82	−$1.96
DC	Internet usage (0.03)	−0.8	−0.188%	−$62.17	−$3.22
DC	Regulatory promulgation (0.25)	−2.3	**−4.211%**	**−$1,394.72**	**−$72.13**
PR	Legal framework (challenges, 0.24)	−1.0	−1.276%	−$422.62	−$21.86
PR	Legal framework (efficiency, 0.06)	−1.0	−0.319%	−$105.65	−$5.46
PR	IP protection (0.25)	−1.4	−1.861%	−$616.31	−$31.87
PR	Investor protection (0.09)	−0.9	−0.507%	−$167.85	−$8.68
PR	Enforcing contracts (0.09)	−2.0	−0.957%	−$316.96	−$16.39
TOTAL			**−12.564%**	**−$4,161.49**	**−$215.20**

26 KOPMA-only Korea loss: ≈ $215.2 billion (≈ −12.56% of GDP per capita; ≈ −$4,161/capita).[30]

Combine with Korea's antitrust loss and apply interaction premium

27 In order to assess the actual harm caused by both ex-ante regulation and competition implementation and enforcement which deviates from consumer welfare standards, we cannot merely add the two together as there are profound interaction effects between the two policies. The policies are not independent; they are mutually reinforcing.

- Ex-ante regulation locks in rigid obligations and asymmetric burdens, raising compliance costs and freezing market structures before any evidence of consumer harm is established. This makes the market appear less competitive, creating the very conditions antitrust authorities then cite as evidence of dominance or abuse.
- Interventionist antitrust enforcement then interprets these distorted structures as confirmation of harm, making infringement findings more likely and remedies more intrusive.

28 This creates a vicious circle in which regulation distorts the market and enforcement validates the distortion. The consequence is a compound effect: allocative inefficiency from higher prices and fewer features; productive inefficiency from duplicated compliance costs; and dynamic inefficiency as investment, interoperability, and innovation are chilled.

We estimate these by including an interaction premium and applying it to the naïve case.

$\tau \in [0.15, 0.20]$

[30] Sensitivity (if you instead use the 4.0 → 2.5 baseline for Regulatory Promulgation, Δ=−1.5): KOPMA-only loss ≈ $190.1 bn (≈ −11.10% GDPpc).

$$TotalLoss^{INT}_{KR} = TotalLoss^{SUM}_{KR} * (1 + \tau)$$

- Antitrust-only Korea loss (base case): $175.4 bn.
- KOPMA-only Korea loss (as above): $215.2 bn.
- Naïve sum: $390.6 bn.
- Interaction premium (mutually reinforcing reg + enforcement):
  - +15%: $449.2 bn
  - +17.5% (midpoint): $459.0 bn
  - +20%: $468.7 bn

Total Economic Loss to the Korean Economy Over Ten-Years

The combined negative effects of the KFTC's antitrust enforcement and KOPMA regulations may cause a total economic loss of $469 billion to the Korean economy over ten years.

29 Applying the KOPMA pillar reductions inside Korea's own economy yields a Korea-only loss of about **$215 billion** (−12.6% of GDP per capita). When added to the **$175 billion** antitrust loss we previously calculated, the total rises to roughly **$391 billion**. But these policies are not independent; they reinforce each other. Using a conservative interaction premium of 15–20% to reflect the circular logic of regulation and enforcement, the true combined loss lies in the **$449–469 billion** range (midpoint ≈ **$459 billion**) over a ten-year period. These are consumer-welfare losses from fragmentation and precautionary intervention, not gains; they reflect the price, output, quality, and innovation foregone when policy drifts from an effects-based standard.

Future Plan and Recommendations

30 No advice to government is complete without a forward-looking work plan to reinforce the positives of competition policy and correct the negatives. The Competere Foundation (see Annex 5) has regularly worked with competition agencies to implement such plans. The touchstone must be consumer welfare, measured through improvements in allocative efficiency (prices, output, choice) and productive efficiency (costs, quality-adjusted performance, innovation). To make these metrics operational, we recommend building a Regulatory Intensity / ACMD Index to quantify how specific rules or remedies shift these efficiencies. The Korean authorities should then employ rigorous empirical methods (i.e., event studies for firm-side finance, Difference-in-Differences (DiD) for market outcomes, synthetic control for idiosyncratic cases, and pre-registered robustness checks) to ensure credible inference.

31 In digital and platform markets, the KFTC should be explicit that broad ex-ante mandates fragment converged markets and suppress dynamic efficiency. These risks should be raised directly with other government ministries. Future analysis should make systematic

use of the Singham–Abbott Framework, and particularly the New Media Economy Framework. The Competere Foundation (see Annex 5) can assist in operationalizing this roadmap and provide our synthetic library of equations underpinning the modules below.

Implementation Roadmap (Modules 1–5)

Module 1 — Difference-in-Differences (market-side analysis)

Objective: Estimate changes in consumer-relevant outcomes in Korea compared to matched control markets after a remedy or commitment.

Design:

- **Treated geography:** Korea.
- **Control group:** a set of similar, unaffected countries matched on pre-intervention trends in outcomes and covariates.
- **Outcomes:**
    - **Prices:** app-store fees; device prices measured using **hedonic methods** (quality-adjusted); and advertising prices proxied by cost-per-mille (**CPM**, cost per thousand ad impressions) and cost-per-click (**CPC**, cost each time a user clicks an ad).
    - **Output and usage:** app downloads; monthly active users (**MAUs**); daily active users (**DAUs**); consumer time spent; and shipment volumes of relevant devices.
    - **Choice and variety:** counts of stock-keeping units (**SKUs**) for apps and devices; app-library size; and market shares of original equipment manufacturers (**OEMs**), browsers, and operating systems (**OSs**).
    - **Quality:** user-rating distributions; crash or failure rates; and performance metrics such as processing speed or latency.
- **Specifications:** Two-way fixed effects (**TWFE**) estimators adjusted for staggered adoption bias. Use modern methods (Sun–Abraham, 2020; Callaway–Sant'Anna, 2021) that restrict comparisons to "not-yet treated" or "never-treated" groups. Where data allow, implement triple-difference designs (e.g., Android versus non-Android products; in-app versus non-in-app transactions).[31]
- **Parallel trends:** Plot pre-treatment trends and test placebo interventions.

[31] Liyang Sun and Sarah Abraham, "Estimating Dynamic Treatment Effects in Event Studies with Heterogeneous Treatment Effects," *Journal of Econometrics* 225, no. 2 (December 2020): 175–199, https://doi.org/10.1016/j.jeconom.2020.09.006.; Brantly Callaway and Pedro H.C. Sant'Anna, "Difference-in-Differences with Multiple Time Periods," *Journal of Econometrics* 225, no. 2 (December 2020): 200–230, https://doi.org/10.1016/j.jeconom.2020.05.018.

Data sources: Data.ai, Sensor Tower, and Similarweb (apps); StatCounter (market shares); Counterpoint, IDC, and Canalys (devices); KIS, Euromonitor, and Nielsen (retail); public tariff data; advertiser dashboards (where accessible).

Deliverables: Event-study plots (pre- and post-coefficients) and Average Treatment Effect (ATT) tables, interpreted in consumer-welfare terms (price, output, choice).

Module 2 — Synthetic Control (deep-dive single cases)

Objective: For idiosyncratic interventions (e.g., the Android Anti-Fragmentation Agreement ruling), compare Korea with a "Synthetic Korea" constructed from unaffected markets.

Steps:

1. Pre-treatment fit on multiple outcomes (market shares, prices, downloads) using covariates such as GDP per capita, smartphone penetration, language/script, and platform mix.
2. Post-treatment analysis of gaps, validated through placebo-in-space tests (reassign treatment to donor countries) and placebo-in-time falsifications.
3. Sensitivity analysis, including pruning of the donor pool, testing alternative outcomes, and applying ridge or elastic-net weighting.

Deliverable: Gap trajectories with inference from permutation distributions, narratively mapped to allocative efficiency: did prices, output, or variety improve or deteriorate?

Module 3 — Regulatory Intensity / ACMD Index (case- and year-level)

Objective: Quantify how far each enforcement action or regulatory measure deviates from a consumer-welfare, effects-based benchmark. Use the index both descriptively and as an explanatory variable in empirical analysis.

Coding framework (0–100 scale, equal weights with robustness to principal-component weighting):

1. **Theory of harm:** effects-based (low) vs. formalistic per se/dominance presumptions (high).
2. **Dominance or Significant Bargaining Power reliance:** none → heavy.
3. **Remedy intrusiveness:** narrow behavioral → broad structural or ex-ante mandates.
4. **Market fragmentation risk:** e.g., app-store or payment mandates that alter interoperability.
5. **Evidence standard:** direct consumer-welfare evidence (prices, output, innovation) vs. structural inference.
6. **Process transparency:** predictable, transparent processes reduce intensity.
7. **Regulatory layering:** overlap with sectoral regulation adds intensity.

8. **Fine proportionality:** magnitude of penalties relative to proven harm.
9. **Judicial calibration:** reversals or reductions by courts lower effective intensity.
10. **Spillovers:** effects on unrelated markets, captured via Difference-in-Differences cross-elasticities.

Derivation. Built on the ACMD "distortions index" logic and the Singham–Abbott frameworks.

Deliverable. Annual Korea scores and per-case scores; regression outputs showing how higher regulatory intensity correlates with poorer outcomes in price, output, and choice.

Module 4 — Selectivity and Consumer-Welfare Accounting

A. **Targeting of "bigness"**: Estimate whether enforcement is systematically biased against large firms. Use a selection model (logit/hazard) where the probability of KFTC action depends on market share, multi-sidedness, switching costs, intensity of domestic complaints, consumer-harm indicators, nationality dummy, and year fixed effects.
B. **Consumer-welfare accounting:** Construct a surplus ledger per case:
    - Allocative: ΔPrice × Quantity.
    - Variety/quality: proxies such as discrete-choice logit inclusive value.
    - Innovation: proxies including patent families filed in Korea, the US, and EU; feature-release cadence.

Deliverable: A running dashboard of case-level outcomes linked to GDP per capita, showing explicitly how KFTC enforcement and advocacy efforts affect Korean consumers and growth.

Module 5 — Governance and Transparency (integrating modules)

Objective: Provide a continuous governance mechanism to operationalize consumer-welfare analysis in enforcement.

- Build a dashboard integrating Modules 1–4, updated annually.
- Link scores and outcomes directly to GDP per capita and productivity growth.
- Use this dashboard to guide KFTC advocacy efforts, highlight ACMD reforms, and report transparently to stakeholders on whether interventions enhance or diminish consumer welfare.

Annex 1: Excerpt from "The Role of Consumer Welfare in Competition Implementation and Enforcement"

Annex 1 reproduces an excerpt from Chapter 3, "The Role of Consumer Welfare in Competition Implementation and Enforcement," in Shanker A. Singham and Alden F. Abbott, *Trade, Competition and Domestic Regulatory Policy: Trade Liberalisation, Competitive Markets and Property Rights Protection* (London: Routledge, 2023). The excerpt is included to give readers the authors' treatment of the risk of drift of enforcement away from consumer welfare toward fairness and competitor-protection rationale referenced in the main text; for full context, consult the cited chapter.

Possible Retreat from Consumer Welfare towards Interventionist Antitrust?

"In the last few years, the rise in economic importance of high-technology digital "platforms," such as Google, Amazon, Apple and Facebook, has led to aggressive EU competition cases against those entities, based on abuses of dominant position. The theories of competitive harm have focused primarily on producer welfare – they have centred on platform conduct that may disadvantage certain competitors, while neglecting to show any actual or plausible harm to consumer welfare. Cases of this sort not only move away from a consumer welfare approach, but they sanction potentially innovative conduct, thereby discouraging the sort of competition that drives dynamic economic welfare improvements. These EU prosecutorial initiatives have been dubbed a form of "precautionary principle" antitrust,[32] in that they condemn novel little understood business arrangements, merely because they might in the future enhance a dominant platform's market power.

Although the US enforcers have not yet explicitly adopted a precautionary antitrust approach with respect to digital platforms, there are significant indications that American antitrust enforcement may also be wavering in its commitment to consumer welfare.[33] Beginning around 2016, a number of interventionist minded critics began to assert that current antitrust enforcement has become ineffective and needs to be redefined. To bolster their case, they cited an alleged rise in American market concentration and diminution in American competitive vigour (claims which have been contested but with little effect thus far on the public policy debate). Some analysts stressed abandoning antitrust's overarching consumer welfare goal and its replacement with a multifactor weighing of diverse interests, including those of fairness, democracy, small business, labour and the environment, among others. Research reports and congressional hearings

[32] See Aurelien Portuese, *European Competition Enforcement and the Digital Economy: The Birthplace of Precautionary Antitrust, in The Global Antitrust Institute Report on the Digital Economy* (Joshua D. Wright and Douglas H. Ginsburg, eds., 2020), at 597–651.
[33] See generally Alden Abbott, *US Antitrust Laws: A Primer*, Mercatus Center at George Mason University (2021), https://www.mercatus.org/publications/antitrust-policy/us-antitrust-laws-primer.

in 2020 and 2021 prompted congressional introduction of legislative proposals to limit or prohibit acquisitions by large firms and impose far tougher monopolisation standards. Lawsuits filed in late 2020 by the Justice Department and the Federal Trade Commission (joined by various states) against Google and Facebook, respectively, stressed harm to competitors, and were in tension with a truly consumer welfare-centric approach to antitrust.[34] Both federal complaints also raised the possibility of a corporate "breakup" to cure the claimed antitrust violations, a drastic remedy that has seldom been employed in American monopolisation cases.

These developments, combined with the rewrite of merger guidelines previously noted, suggest the real possibility of a return to a more restrictive approach to antitrust, perhaps featuring "big is bad" populism in the US and a greater reliance on a rules-based oversight of dominant firms in the EU. Another possibility is the partial deemphasis of antitrust in favour of regulation in the case of dominant platforms.[35] Indeed, in December 2020, the European Commission issued the Digital Market Act (DMA),[36] a form of direct regulation of digital platforms. The DMA, which becomes effective in 2023, requires that digital "gatekeepers" (entities that provide digital "core platform services" characterised by huge scale economies, strong network effects and lock-in, among other factors) comply with a list of requirements, including, for example, allowing third-party interoperability with the gatekeeper services and enabling businesses access to data they generate in the platform. Substantial fines and (as a last resort) behavioural and structural remedies are to be imposed for violation of DMA obligations.

During 2020, 2021 and 2022, other key jurisdictions, including France, Germany, the UK, Japan and Australia, among others, also pursued digital platform- related regulatory initiatives, leading a former Canadian Competition Commissioner to warn of an "emerging patchwork of digital regulation [that] further amplifies existing incoherence and uneven application of competition regimes on the technology sector and digital markets across the

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[34] See Thomas Lambert, "Why the Federal Government's Antitrust Case Against Google Should—and Likely Will—Fail," *Truth on the Market* (18 Dec 2020), https://truthonthemarket.com/2020/12/18/why-the-federal-governments-antitrust-case-against-google-should-and-likely-will-fail; Dirk Auer, "Facebook and the Pros and Cons of Ex Post Merger Reviews," *Truth on the Market* (11 Dec 2020), https://truthonthemarket.com/2020/12/11/facebook-and-the-pros-and-cons-of-ex-post-merger-reviews/.

[35] See generally Gabriella Muscolo and Alessandro Massolo, "Will the Biden Presidency Forge a Digital Transatlantic Alliance on Antitrust," in *The new US antitrust administration* (Concurrences 2021), https://www.concurrences.com/IMG/pdf/03.concurrences_1-2021_on-topic_biden_antitrust-2.pdf?65669/bbc9e79042d0e1899a5ed1e956d8e80f210210d02629ba2d2678d5dabaf05.

[36] *Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act)* (COM (2020) 842), European Commission (2020); see also, "Deal on Digital Markets Act: EU rules to ensure fair competition and more choice for users," Press Release, European Commission (24 Mar 2022), https://www.europarl.europa.eu/news/en/press-room/20220315IPR25504/deal-on-digital-markets-act-ensuring-fair-competition-and-more-choice-for-users (As discussed in the press release, the DMA will be enforceable six months after publication in the European Journal, which will occur 20 days following the finalization of DMA language and approval by the European Parliament and Council.)

globe."[37] The existence of new regulation does not formally displace antitrust but it adds a new layer of obligations that may impose new and potentially inconsistent burdens on large digital companies, depending upon where they operate. While the US has avoided the imposition of new competition-like regulatory requirements on top of antitrust obligations in recent decades, some influential American commentators are now calling for regulation as an adjunct to antitrust in dealing with "big tech" companies.[38] Also, in March 2021, the FTC served notice that it might consider promulgating rules to prohibit unfair methods of competition[39] and in December 2021, the FTC released a "Statement of Regulatory Priorities" that disclosed plans for competition-related rulemakings.[40] Furthermore, during 2022, legislative proposals to impose new antitrust limitations on large companies (including tight restrictions on mergers and various other requirements) remained under consideration in the US House and Senate.

Despite these recent developments, it is still far too soon to proclaim the end of consumer welfare-based antitrust, at least as a general matter. Antitrust enforcement in the US and the EU has come to rely heavily on economic analysis, which lends support to welfare-based measures. Furthermore, particularly in the US (but to some extent in the EU as well, as demonstrated by the February 2022 EU General Court's Intel decision[41]), courts remain in place as a major check on the quick abandonment of decades of doctrinal development focusing increasingly on economic efficiency and consumer welfare promotion. To be sure, the increased focus on public regulation in many jurisdictions (including potentially the US) and the contemplation of possible statutory revisions to American anti-trust law may counteract judicial limitations on changes in antitrust policy direction. Up to now, of

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[37] John Pecman and Antonio Di Domenico, *In Comity We Trust: Utilizing International Comity to Strengthen International Cooperation and Enforcement Convergence in Multijurisdictional Matters*, 3 *Antitrust Chronicle* 2021, Issue 1, at 23.

[38] See Tom Wheeler, Phil Verveer, and Gene Kimmelman, "The Need for Regulation of Big Tech Beyond Antitrust," *Brookings Institution* (23 Sept 2020), https://www.brookings.edu/blog/techtank/2020/09/23/the-need-for-regulation-of-big-tech-beyond-antitrust/. On 21 January 2021, Kimmelman was named a Senior Counselor in the Biden Justice Department, "Senior Advisor Gene Kimmelman Resigns from Public Knowledge to Join Justice Department," *Public Knowledge* (21 Jan 2021), https://www.publicknowledge.org/press-release/senior-advisor-gene-kimmelman-resigns-from-public-knowledge-to-join-justice-department/.

[39] "FTC Acting Chairwoman Slaughter Announces New Rulemaking Group," Press Release, Federal Trade Commission (25 Mar 2021), https://www.ftc.gov/news-events/press-releases/2021/03/ftc-acting-chairwoman-slaughter-announces-new-rulemaking-group.

[40] "Statement of Regulatory Priorities," Federal Trade Commission (2021), https://www.reginfo.gov/public/jsp/eAgenda/StaticContent/202110/Statement_3084_FTC.pdf.

[41] Judgment of the General Court, Case *T-286/09 RENV, Intel Corporation v. Commission* (2022), ECLI:EU:T:2022:19; General Court of the European Union, Press Release No. 16/22, "The General Court annuls in part the Commission decision imposing a fine of €1.06 billion on Intel," January 26, 2022, https://curia.europa.eu/jcms/upload/docs/application/pdf/2022-01/cp220016en.pdf; plus analysis: Skadden, Arps, Slate, Meagher & Flom LLP, "EU General Court Overturns Intel Antitrust Fine," February 7, 2022, https://www.skadden.com/insights/publications/2022/02/eu-general-court-overturns-intel-antitrust-fine.

course, big digital platforms have been the primary targets of those calling for a major competition law overhaul. Firms outside of "big tech" may be a bit less affected. In short, at this time, it is impossible to say whether market-oriented consumer welfare-based antitrust will "weather the storm" and remain more or less intact or be swept away in favour of expansive governmental micromanagement of the terms of competition.

The best weapon to combat the recent fascination with aggressive government antitrust interventionism (and thereby to successfully promote the global acceptance of economics-based consumer welfare analysis) may be a pragmatic focus on the policies that underlie innovation and economic dynamism. In recent decades, the US advanced the most robust consumer welfare approach to antitrust in the world, and the least regulatory approach to the treatment of innovation. During this period, the US brought forth the internet, leading digital technologies and standards, almost all of the world's great digital platforms, most of the world's successful new pharmaceuticals, and the world's greatest biopharma innovations (consider the mRNA technologies that underlie successful COVID-19 vaccines and will likely generate many other medical breakthroughs).[42] There is every reason to believe that this enviable record of welfare-enhancing discoveries owed much to the general American environment of relatively "permissionless innovation,"[43] which featured a far more market-friendly approach to regulation and to antitrust (embodied in the consumer welfare standard) than elsewhere. Hopefully, the marshalling of evidence pointing to this reality could do much to dampen the enthusiasm for sudden and dramatic pro-regulatory changes in antitrust policy."

[42] Derek Thompson, "How mRNA Technology Could Change the World," *The Atlantic* (29 Mar 2021), https://www.theatlantic.com/ideas/archive/2021/03/how-mrna-technology-could-change-world/618431/
[43] Adam Thierer, *Permissionless Innovation: The Continuing Case for Comprehensive Technological Freedom*, 2nd ed. (Arlington, VA: Mercatus Center, 2016).

Annex 2: Excerpt from "Impact of the New Media Economy"

Annex 2 reproduces an excerpt from Chapter 14, "Impact of the New Media Economy," in Shanker A. Singham and Alden F. Abbott, *Trade, Competition and Domestic Regulatory Policy: Trade Liberalisation, Competitive Markets and Property Rights Protection* (London: Routledge, 2023). The excerpt is included to give readers the authors' treatment of the New Media Economy referenced in the main text; for full context, consult the cited chapter.

Excerpt on the New Media Economy

"Big digital platforms unquestionably have conferred substantial economic benefits on society, reducing transactions costs (think of sales generated through Amazon and other platforms), generating instantaneous low-cost transfers of information, and promoting new market segments (consider telemedicine and other gains facilitated through platform improvements). Proposals to impose new far-reaching limitations on digital platform activities appear to ignore how regulation may diminish platforms' ability to continue to provide these benefits as effectively, let alone continue to generate the innovations for which the platforms are noted. Added to these costs must be the costs stemming from regulatory compliance; from reduced economic efficiency due to the regulation-induced propping up of unregulated enterprises; and from reduced competition when dominant platforms manipulate regulation to bolster their monopoly status by undermining rivals and potential entrants. These potential costs should be (but seemingly have not been) weighed by governments against the questionable benefits of the complex regulatory schemes being advanced. Broad-based regulation has had a disappointing track record in the US,[44] and empirical research does not build a strong general case for the success of regulation.[45] Furthermore, the greater the complexity of regulatory proposals, the greater the possibility that error will intrude and undermine the hoped-for benefits of the regulatory scheme. Based on these considerations, it seems unlikely that comprehensive big data platform regulation will advance economic welfare – instead, it may well reduce it.

The net costs (or benefits) of digital platform regulatory oversight will be manifested over time and may be taken as a given. The welfare effects of platform regulation may, however, be considered separately from the legal treatment of the new media that platforms help promote. We turn now to a variety of considerations affecting the treatment of NME. In the context of NME, under the right circumstances narrowly and precisely focused regulation may be more justifiable than the broad-based regulation being imposed on platforms."

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[44] See *Regulatory Breakdown: The Crisis of Confidence in US Regulation* (Cary Coglianese, ed., University of Pennsylvania Press, 2012).

[45] David Parker and Colin Kirkpatrick, *The Economic Impact of Regulatory Policy: A Literature Review of Quantitative Evidence*, Expert Paper No. 3, Organization for Economic Co-operation and Development (2012).

Annex 3: The Singham-Rangan-Bradley (SRB) and the SRB-γ Models

The following annex provides an overview of the Singham-Rangan-Bradley (SRB) and SRB-γ models. The content in this section includes direct excerpts, as well as summarized and rewritten information from *International Trade, Regulation and the Global Economy: The Impact of Anti-Competitive Market Distortion*s by Shanker Singham.[46] For a full, comprehensive explanation of the models, consult chapters 3 and 4 of the cited book.

Overview of the SRB ACMD Model

The Singham-Rangan-Bradley (SRB) model is an econometric framework designed to quantify the impact of anti-competitive market distortions (ACMDs) on a country's economic performance. It is the first model of its kind to provide a basis for evaluating how policy-induced distortions in key areas affect GDP per capita. "The SRB model is founded on the notion that there are three fundamental pillars of economic development through which anti-competitive policies affect market outcomes: property rights protection, domestic competition, and international competition." In other words, distortive government interventions in the economy ultimately operate by undermining one or more of these three pillars, which are all essential to productivity and growth. The SRB model's purpose is to measure and predict how improvements or degradations in these pillars translate into changes in a country's GDP per capita, thereby giving policymakers an objective gauge of the cost of distortive policies and the benefits of pro-competitive reforms.

Structure and Inputs of the SRB Model

Composite Pillar Indices: To capture each pillar quantitatively, the SRB model uses composite indices for Property Rights, Domestic Competition, and International Competition. Each index is constructed from numerous measurable sub-factors reflecting policy conditions and institutional quality in that area. For example, the Property Rights Protection index follows the Heritage Foundation's criteria for grading legal protection of property rights (including enforcement of contracts, expropriation risk, intellectual property protection, judicial effectiveness, etc.). The Domestic Competition index similarly aggregates indicators of regulatory freedom and market conditions such as business freedom, labor market flexibility, financial freedom, infrastructure and utilities access (e.g., electricity availability, logistics performance), and market openness measures to reflect the extent to which government policies enable or restrict competitive behavior in the

[46] Shanker A. Singham, *International Trade, Regulation and the Global Economy: The Impact of Anti-Competitive Market Distortions* (New York: Routledge, 2024), https://www.routledge.com/International-Trade-Regulation-and-the-Global-Economy-The-Impact-of-Anti-Competitive-Market-Distortions/Singham/p/book/9781032944166?srsltid=AfmBOoqXzFG_ToNS1-Dl6VPYsMYz6ttsNaWOkFYlXlVoLCvIEQ-LKICr.

domestic economy. The International Competition index comprises factors like tariff and non-tariff barriers and trade facilitation metrics (logistics performance indicators on customs efficiency, timeliness of shipments, etc.). Each pillar index is thus an aggregate score that captures how conducive a country's policy environment is to competition and property rights in that domain, independent of direct economic outcomes.

Econometric Model Structure: The SRB model links these policy indices to economic outcomes through a two-stage econometric structure grounded in growth theory. First, it identifies a set of fundamental factors that directly determine productivity (and thereby GDP per capita) in an economy. In the initial SRB specification, these factors included the stock of foreign direct investment per capita, domestic credit availability (financial capital from the banking sector), public health expenditures, educational attainment, and the presence of natural resource exports (e.g., fuel, ores, and metals). Together, such variables represent the channels through which policy distortions affect productivity. The model then posits that a country's performance in each of these areas is influenced by the policy "pillar" scores (i.e., by the degree of property rights protection, domestic market competition, and openness to international competition in that country). In other words, the SRB framework models GDP per capita (productivity) as a function of key input factors (investment, credit, human capital, etc.), which in turn are functions of the three pillar indices that reflect the policy environment. This approach follows the insight of Solow-type growth models that emphasize factor accumulation and total factor productivity, while explicitly incorporating institutional quality through the competition and property rights indicators.

Data Inputs and Calibration: The SRB model is calibrated on cross-country data and uses standard controls to ensure robustness. GDP per capita is measured in comparable international-dollar terms (PPP) so that countries can be evaluated on an equal footing. The model deliberately excludes outcome-driven metrics from the construction of its pillar indices, focusing on policy and institutional inputs. This avoids circularity and ensures that the indices are truly exogenous explanatory variables. In the regression analysis, additional control variables such as human capital (e.g., expected years of schooling) and population size (log of population) are included to account for differences in labor force quality and economic scale, to isolate the impact of policy distortions on income. Thanks to its rich specification, the original SRB model achieved a very high goodness-of-fit. In sample, it could explain roughly 90% of the cross-country variation in GDP per capita, with a mean prediction error of only ~4% (i.e., 96% accuracy in estimating income levels from the input variables). This far exceeds the explanatory power of previous single-index measures. Such results underscore that the SRB approach, by assigning appropriate weights to myriad

policy factors across the three pillars, captures the true drivers of productivity more effectively than simpler metrics.

Purpose and Use: By quantifying the relationships between policy-induced competition metrics and economic outcomes, the SRB model allows analysts to simulate the effect of reforms. For example, one can estimate how a given improvement in a country's Domestic Competition score or Property Rights score would feed through to greater investment, credit, and productivity, ultimately increasing per-capita GDP. Indeed, SRB model projections indicate that reducing anti-competitive market distortions yields substantial gains in GDP per capita, in line with findings from other studies (e.g., OECD research on growth impacts of regulatory reform). In practical terms, the model can be used to produce estimates such as "a one-point increase (on a 1–7 scale) in a country's domestic competition index is associated with a double-digit percentage increase in GDP per capita", illustrating the large payoff to pro-competitive policy improvements. These quantitative insights provide an evidence-based rationale for regulatory and trade policy reforms by showing the order-of-magnitude impact on economic welfare.

The SRB-γ Model

As the SRB model was further developed and tested, refinements were made to address certain econometric concerns and to simplify its application. SRB-γ (the SRB "gamma" model) refers to the final, refined version of the SRB econometric model. This version retains the same foundational pillars and purpose but introduces adjustments to improve the model's robustness and usability for policymakers. The main impetus for developing the SRB-γ variant was to resolve endogeneity issues identified in the original specification. In the first SRB model, the three pillars were in effect combined into a single overall policy index (through interaction terms and the multi-stage regression structure), which raised the possibility of multicollinearity and made it harder to discern each pillar's distinct effect. There was also a potential feedback issue insofar as a single composite score might be influenced by GDP itself or by unobserved country traits, complicating causal interpretation.

Refinements in SRB-γ: "This model refines and simplifies the model and correlates the three different pillars separately with GDP per capita." In practical terms, this means the revised model abandons the single-index reduced-form in favor of a clearer specification where each pillar enters as an independent variable in the regression (rather than being multiplied together in complex interactions). By breaking down each pillar and evaluating its relationship with GDP per capita individually, the model eliminates the endogeneity concern that arose from using one combined score. The SRB-γ model is implemented as a panel data regression (covering multiple countries over time) with appropriate fixed effects. Specifically, it models (logged) GDP per capita as a function of the Property Rights, Domestic Competition, and International Competition index values for each country-year,

along with several control variables (e.g., human capital, population, fiscal factors) and includes an unobserved country-specific effect (to capture time-invariant national attributes) and a time-period effect (to capture global trends). This panel approach improves the rigor of the estimates by using within-country changes over time and controlling for country fixed effects, thereby mitigating omitted variable bias and better pinpointing the impact of policy changes.

The SRB-γ variant provides a rigorous, data-driven means to evaluate how anti-competitive distortions in property rights, domestic markets, and trade reduce a nation's economic output, and conversely how pro-competitive policy reforms can boost productivity and incomes. The SRB-γ framework's pillar structure and empirical calibration allow it to translate abstract concepts of competition and market health into concrete numerical estimates of GDP per capita impact. The refinement to the SRB-γ model has enhanced the clarity and reliability of these estimates, making the tool even more useful for guiding policy. This model forms a technically robust annex to policy analysis, enabling stakeholders to quantify the growth dividends of removing distortive regulations and strengthening the competitive foundations of an economy.

Changes to SRB Model

"Initial projections from the SRB model suggest that a reduction in ACMDs does lead to a significant increase in GDP per capita in line with the projections from the agency based model and from other sources, such as OECD and other figures on the impact of anti-competitive regulation on growth.

In order to deal with the concerns which emanate from attempting a single correlation between a single pillar score covering IC, DC and PR we then attempted to break down each pillar or force to correlate that force with GDP per capita by itself. We found this eliminated the endogeneity concern. We also greatly simplified the model specifications as below, incorporating country and time fixed effects.

$$\ln\left(GDP\ per\ capita\right)_{it} = \beta_0 + \beta_1 Domestic\ Competition_{it} + \boldsymbol{X'_{it}\gamma} + v_t + \lambda_i + \epsilon_{it} \quad (1)$$

$$\ln\left(GDP\ per\ capita\right)_{it} = \beta_0 + \beta_1 Property\ Rights_{it} + \boldsymbol{X'_{it}\gamma} + v_t + \lambda_i + \epsilon_{it} \quad (2)$$

$$\ln\left(GDP\ per\ capita\right)_{it} = \beta_0 + \beta_1 International\ Competition_{it} + \boldsymbol{X'_{it}\gamma} + v_t + \lambda_i + \epsilon_{it} \quad (3)$$

We construct a panel data model of GDP as a function of each competition index, several observed control variables and an unobserved time invariant country specific effect and a country invariant time period specific effect." The initial panel data set of 2010-2019 was extended to 2023 and the OLS regressions re-run. The below table shows the coefficients applicable for a one-point increase in each individualized pillar score.

Results of SRB-γ ACMD OLS Regression using longer set of 2010-2023 Panel Data

Independent Variable	Coefficient	Standard Error. Clustered at the country level	t-stat	p-value	Observations
Property Rights	0.0686	0.0283	2.42	0.017	1,852
Domestic Competition	0.0803	0.0373	2.15	0.033	1,798
International Competition	0.0637	0.0367	1.74	0.085	2,042

The dependent variable is the log of country GDP per capita, by year. Estimation results are based on annual data from 2010 to 2023. All regressions include country and year fixed effects. The most demanding specification.

Interpretation: For the Property Rights Index, which ranges from 2.2 to 6.2, the estimate suggests that when a country achieves a one-point increase in the property rights index, then its per capita income increases by 6.9%. A similar interpretation applies to the other two indices.

Annex 4

Equations used for Calculation of α-Coefficient, and estimation of pillar score impacts

$p \in \{IC, DC, PR\}$ — pillar index

v — component index within pillar p

$\Delta_{p,v}$ — score change (points) for component v in pillar p

$w_{p,v}$ — within-pillar weight of component v (decimal; e.g., 25% → 0.25)

β_p — elasticity: %Δ GDP per capita per 1-point change in pillar p (IC=6.37, DC=8.03, PR=6.86)

$\theta_{p,v}$ — coverage factor (share $\in [0,1]$) for component v

$\lambda_{p,v}$ — within-pillar effect-share weight for component v (sums to 1 over the changed components in p)

ϕ_p — share of the modeled country effect attributable to pillar p (sums to 1 over pillars)

α — attenuation coefficient (component-, pillar-, or country-level depending on subscript)

GDPpc_2023 — GDP per capita (current US$) for 2023; Population_2023 — population in 2023

and

Where:

Eq. (1) $M_{p,v} = |\Delta_{p,v}| * w_{p,v} * \beta_p$

Note: Effect magnitude used for λ (component v in pillar p)

Eq. (2) $\lambda_{p,v} = M_{p,v} / \Sigma_{u \in p} M_{p,u}$

Note: Within-pillar effect share for component v ($\Sigma_v \lambda_{p,v} = 1$)

Eq. (3) $\alpha_p = \Sigma_{v \in p} \lambda_{p,v} * \theta_{p,v}$

Note: Pillar-level attenuation as λ-weighted coverage over components

Eq. (4) $Loss_c_pct = \beta_p * w_c * |\Delta score_c| * \alpha_c$

Note: Component-level % loss in GDP per capita (negative for drops)

Eq. (5) $Loss_per_capita_c = (Loss_c_pct / 100) * GDPpc_2023$

Note: Convert % loss to dollars per capita

Eq. (6) $Total_loss_c_bnUSD = Loss_per_capita_c * Population_2023 / 10^9$

Note: Convert to total GDP loss (billions)

Eq. (7) $\alpha_KR = \phi_IC*\alpha_IC + \phi_DC*\alpha_DC + \phi_PR*\alpha_PR$

Note: Country-level attenuation as pillar-share weighted average

Eq. (8) $\alpha_IC = \theta_Trade$

Note: IC pillar attenuation (only Trade component changed in your setup)

Eq. (9) $\alpha_DC = (25*\theta_BF + 25*\theta_Reg + 3*\theta_Mob + 3*\theta_Net) / 56$

Note: DC pillar attenuation (normalize 25+25+3+3=56)

Eq. (10) $\alpha_PR = (24*\theta_LC + 6*\theta_LF + 25*\theta_IP + 9*\theta_Inv + 9*\theta_Enf) / 73$

Note: PR pillar attenuation (normalize 24+6+25+9+9=73)

Eq. (11) $Loss_c_pct = - \beta_p * w_c * \Delta score_c * \alpha_c$

Note: Sign-explicit version (use when Δ carries its sign)

- $\beta IC=6.37$ (increase in GDPpc for 1-point reduction in IC ⇒ a 1-point *worsening* causes a 6.37% loss)
- $\beta DC=8.03$ (increase for 1-point increase in DC ⇒ a 1-point *drop* causes an 8.03% loss)
- $\beta PR=6.86$ (increase for 1-point increase in PR ⇒ a 1-point *drop* causes a 6.86% loss)

Component changes and weights (Korea, 2023 baseline):

- IC – Trade freedom: 5.8 → 4.8 (Δ = −1.0), weight = 29%
- DC – Business freedom: 6.2 → 5.7 (Δ = −0.5), weight = 25%
- DC – Mobile phone access: 3.8 → 3.3 (Δ = −0.5), weight = 3%
- DC – Internet usage: 6.8 → 6.0 (Δ = −0.8), weight = 3%
- DC – Regulatory promulgation: 4.0 → 2.5 (Δ = −1.5), weight = 25%
- PR – Legal framework challenges: 3.44 → 2.44 (Δ = −1.0), weight = 24%
- PR – Efficiency of legal framework: 4.2 → 3.2 (Δ = −1.0), weight = 6%
- PR – IP protection: 4.6 → 3.2 (Δ = −1.4), weight = 25%
- PR – Investor protection: 5.2 → 4.2 (Δ = −1.0), weight = 9%
- PR – Enforcing contracts: 6.5 → 4.5 (Δ = −2.0), weight = 9%

Once each component's Loss % is computed, we get dollars via:

$\text{Loss \% in GDP per capita}_c = \beta_p \times w_c \times |\Delta score_c| \times \alpha_c$

Korea 2023 denominators (World Bank WDI)
GDP per capita (current US$) = 33,121.4; Population = 51,712,619.[47, 48]

IC – Trade exposure coverage (α_IC,Trade)

We proxy the economy's exposure to trade shocks with the union of three OECD TiVA exposures for Korea (latest available 2020, actual data):[49]

- Domestic value added (DVA) driven by foreign final demand: 25.7% of Korea's domestic VA (2020).
- Foreign value-added content of exports: 29.7% (2020).
- Share of imports of intermediates subsequently embodied in exports: 43.4% (2020).

Combined as:

$\alpha = 1-(1-sEVA)(1-sFVA)(1-sIM\rightarrow X) = 1-(1-0.257)(1-0.297)(1-0.434) = 0.7044$

DC – Market/enterprise coverage

- Business freedom & Regulatory promulgation: coverage of market producers proxied by (1 − public employment share). OECD *Government at a Glance 2023* reports public employment = 8.8% of total employment in Korea ⇒ α = 1 − 0.088 = 0.912. (Using employment as coverage for "entities subject to market-regulatory rules" is a standard, documented proxy.)[50]
- Mobile phone access: coverage proxied by smartphone penetration among residents. Korea Communications Commission shows 94.8% in 2023 ⇒ α = 0.948.[51]
- Internet usage: coverage proxied by individuals using the Internet (% of population). WDI/ITU shows 97.4% (2023) ⇒ α = 0.974.[52]

[47] The World Bank, "GDP per capita (current US$) – Korea, Rep.," accessed August 19, 2025, https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=KR.
[48] The World Bank, "Population, total – Korea, Rep.," accessed August 19, 2025, https://data.worldbank.org/indicator/SP.POP.TOTL?locations=KR.
[49] Organisation for Economic Co-operation and Development (OECD), *ICIO-TiVA Highlights: GVC Indicators for Korea*, November 2023, PDF, https://www.oecd.org/content/dam/oecd/en/topics/policy-sub-issues/trade-in-value-added/tiva-2023-KOR.pdf.
[50] Organisation for Economic Co-operation and Development (OECD), "Government at a Glance 2023: Korea," June 30, 2023, https://www.oecd.org/en/publications/government-at-a-glance-2023_c4200b14-en/korea_189a4dcc-en.html.
[51] Korea Communications Commission (KCC), "KCC Announces 2024 Broadcast Media Consumption Behavior Survey Results," news release, January 8, 2025, https://www.kcc.go.kr/user.do;jsessionid=qZPqQ1y73VV5vRTRYuASyE4lVWW5ko8MkNOEUUGp.servlet-aihgcldhome10?mode=view&page=E04010000&dc=E04010000&boardId=1058&cp=3&boardSeq=65045.
[52] World Bank, "Internet users for the Republic of Korea (ITNETUSERP2KOR)," retrieved from FRED, Federal Reserve Bank of St. Louis, March 26, 2025, https://fred.stlouisfed.org/series/ITNETUSERP2KOR

Note: Korea's 2023 value-added shares by industry are published by KOSIS/BOK; we used the documented, official proxy above (market producers share via public-employment complement), which is exact and reproducible from OECD.

PR – Formal economy coverage & IP-intensity

- Legal framework challenges, legal efficiency, enforcing contracts: these primarily bind in the formal economy. We use the World Bank Informal Economy Database (DGE method) for Korea: informal output = 22.5% of GDP (2020) ⇒ formal share α = 1 − 0.225 = 0.775. (Latest official release; Korea-specific figure).[53]
- Investor protection: affects corporate/market activity. Two official proxies:
    - Private/market producers (employment proxy) ⇒ α = 0.912 (same OECD public-employment complement).[54]
    - Listed-equity coverage: Market capitalization = 114.9% of GDP (2023) ⇒ caps at α = 1.0 for full market coverage. (We keep 0.912 in the base case for conservatism.)[55]
- IP protection: There is no single official "IP-intensive VA share" for Korea across all industries.The base case uses the formal-economy share (α = 0.775), since enforceable IP rights require formal transactions. For context, two narrow, published lower-bound proxies include:
    - **ICT sector VA share ≈ 11.7%** (World Bank/KoF "Innovative Korea" 2023, value-added of ICT sector, 2020).[56]
    - **InvestKorea** notes ICT ≈ **13.0%** of GDP (2022).[57]

Results were reported under all three choices (formal-share default; ICT 11.7% and 13% sensitivity).

Component-level results (Korea, 2023 USD)

Elasticities: βIC=6.37, βDC=8.03, βPR=6.86

[53] TheGlobalEconomy.com, "South Korea: Informal economy, DGE method," accessed August 19, 2025, https://www.theglobaleconomy.com/South-Korea/informal_economy_dge/.
[54] Organisation for Economic Co-operation and Development (OECD), "Government at a Glance 2023: Korea," June 30, 2023, https://www.oecd.org/en/publications/government-at-a-glance-2023_c4200b14-en/korea_189a4dcc-en.html.
[55] The World Bank, "Market capitalization of listed domestic companies (% of GDP) – Korea, Rep. (CM.MKT.LCAP.GD.ZS)," accessed August 19, 2025, https://data.worldbank.org/indicator/CM.MKT.LCAP.GD.ZS?locations=KR.
[56] World Bank Group and Korea Development Institute (KDI), "Innovative Korea: Leveraging Innovation and Technology for Development," PowerPoint presentation (PDF), accessed August 19, 2025, https://thedocs.worldbank.org/en/doc/7bda983fda10300f86b43ce5173ca782-0050062023/original/Innovative-Korea-PPT.pdf.
[57] Invest KOREA, "Information and Communication Technologies," accessed August 19, 2025, https://www.investkorea.org/ik-en/cntnts/i-310/web.do.

Denominators: GDPpc2023= $33,121.4, Pop2023= 51,712,619.

Coverage α (base case): Trade 0.7044; BF 0.912; Mobile 0.948; Internet 0.974; Reg 0.912; Legal (both) 0.775; IP 0.775; Investor 0.912; Enforce 0.775.

Annex 5 The Competere Foundation

The Competere Foundation for Trade and Competition Policy is a non-profit educational organization led by international trade and competition expert Shanker A. Singham. Its mission is to alleviate global poverty by promoting policies of open trade, competitive markets, and strong property rights protection. In practice, this means educating policymakers and the public on how free trade and competition-driven market reforms can spur wealth creation and economic growth. The Foundation carries forward ideas developed by Singham's earlier initiatives in trade and competition policy, ensuring that the proven pillars of trade liberalization, competition, and property rights remain central to policy debates.

Predecessor – International Roundtable on Trade and Competition Policy (IRTP): The Competere Foundation builds on the capacity-building work of its predecessor, the International Roundtable on Trade and Competition Policy, Inc., founded by Shanker Singham in 1997. Under Singham's leadership, the IRTP organized numerous training programs and policy forums throughout the late 1990s and 2000s to help emerging economies develop sound competition and trade policies. Key activities of the IRTP included:

- **Latin American Competition Roundtable (1997–2005):** An annual forum for heads of Latin American competition agencies and other officials. These roundtables facilitated the sharing of best practices in antitrust enforcement and trade liberalization across the region. Proceedings and research from the Latin American Roundtable were published in academic outlets, including symposium issues of the *Brooklyn Journal of International Law*. This series of meetings helped Latin American authorities incorporate good competition good practice principles into their regulatory frameworks.
- **Asian (Southeast Asia) Roundtable (mid-2000s):** Building on the Latin American experience, the IRTP expanded its outreach to Asia. Between 2005 and 2008 it hosted annual roundtable meetings in Singapore for competition agency officials from across Asia. These sessions served as capacity-building exercises for Southeast Asian and East Asian regulators (including Korea's Fair Trade Commission), focusing on developing competition law regimes and aligning them with open trade policies. By fostering dialogue among Asian competition authorities, the Roundtable supported the growth of a competition policy community in the region.
- **Korea and Japan Capacity-Building (2005 - 2010):** The IRTP also engaged with individual countries in Asia to address specific competition policy challenges. In

Korea, the Roundtable's Asian forums incorporated Korean competition officials, aligning Korea's antitrust policy discussions with international best practices. In Japan (2005/6), Singham and the IRTP collaborated with the Japan Fair Trade Commission's research arm to advise on pro-competitive regulatory reforms during Japan's postal service privatization. As Chairman of the IRTP, Singham contributed a 2006 study through the JFTC's Competition Policy Research Center on how opening network industries (like postal and telecom sectors) could benefit consumers and enhance competition in Japan.[58] This work with the JFTC's internal think tank exemplified the IRTP's country-specific capacity-building efforts, providing policy guidance on competition and regulatory issues in key sectors.

Policies informing the Competere Foundation: Drawing from the IRTP's experience, the Competere Foundation emphasizes that free trade, competitive markets, and secure property rights are the "tried and true" drivers of economic development. The Foundation's programs and publications highlight how an open trading system (e.g., reducing tariffs and distortive subsidies), robust competition law and policy within national borders, and protection of private property/investment combine to create the conditions for prosperity. These core policy pillars, sometimes described by Singham as the *"three pillars"* of growth, inform all of the Foundation's work. By educating leaders on removing anti-competitive market distortions and implementing pro-market reforms, the Competere Foundation continues the legacy of the IRTP in advancing policies that move societies "from poverty to prosperity" through trade and competition.

[58] Shanker Singham, *Market Distortions in Privatisation Processes* (London: Routledge, 2022).