STATE OF THE POSTAL SECTOR 2025

Postal power reimagined: scale, service and survival

UPU
UNIVERSAL
POSTAL
UNION

Version 1

Published by the Universal Postal Union (UPU)
Berne, Switzerland

Printed in Switzerland by the printing services
of the UPU International Bureau

TITLE: State of the Postal Sector 2025,
Postal power reimagined: scale,
service and survival

ISBN: 978-92-95116-40-5

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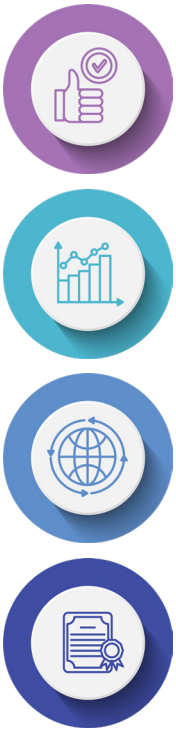

STATE OF THE POSTAL SECTOR 2025

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EXECUTIVE SUMMARY

The global postal sector in 2025 faces a paradox: while cross-border e-commerce volumes have never been higher, the infrastructure carrying them has fragmented into a costly patchwork of parallel systems.

This year's State of the Postal Sector report examines how this fragmentation emerged, measures its impact on postal development worldwide, and charts a path toward a more integrated and resilient future.

There is a fragmentation crisis in the global postal sector

The COVID-19 pandemic served as both catalyst and revealer. When passenger flights vanished overnight in 2020, taking with them the belly-hold capacity that had carried much of the world's international mail, the sector's response inadvertently created lasting structural damage.

What had been 30–50 high-frequency postal corridors in 2019 splintered into over 150 different pathways by 2025, each with its own labels, tracking systems, and pricing structures.

Our analysis reveals that this fragmentation imposes measurable welfare costs through four channels: eroded economies of scale in transportation; increased border compliance friction; constrained market access for small exporters; and reduced network resilience.

The burden falls disproportionately on developing countries, whose thin traffic volumes cannot justify direct routes, and whose businesses depend on affordable postal services to reach international markets.

The sector has significantly decoupled from global GDP growth

Beyond infrastructure fragmentation lies a more fundamental disruption: the historic relationship between postal revenues and economic growth has broken down.

While global gross domestic product (GDP) grew by 75% between 2006 and 2023, postal revenues increased by only 4% – creating an unprecedented 71% performance gap. This decoupling threatens the very sustainability of universal service provision.

Yet our econometric analysis of 118 postal operators reveals remarkable heterogeneity in outcomes. The critical finding: every 10% reduction in letter-post dependence improves performance by 0.5% annually, while network consolidation through post office closures actually worsens the gap by 1.7% per standard deviation increase.

Success requires both revenue diversification and maintained physical presence – operators pursuing only one strategy consistently underperform.

A persistent development divide continues to hinder sector growth

The 2025 Integrated Index for Postal Development (2IPD) assessment of 180 countries exposes persistent and widening disparities. The gap between the highest-performing region (industrialized countries at 94.4) and the lowest (Latin America and Caribbean at 32.3) exceeds 60 points. Most developing regions score well below the global median of 50.8.

However, strategic investments can overcome structural constraints. Countries like Estonia, Thailand and Mauritius demonstrate that targeted modernization – automated sorting, digital services, expanded networks – can propel middle-income operators to world-class performance levels.

Conversely, our natural postal development analysis reveals numerous countries delivering results 75% or more below what their geography and income would predict, indicating massive untapped potential.

THE PATH FORWARD

The solutions to address challenges requires multi-stakeholder effort

Our evidence-driven analysis points toward three interconnected solutions to these challenges:

1. The creation of a global, distributed postal grid.

Implementation of a polycentric hub-and-corridor architecture with at least three accredited hubs per major trading region. This could restore scale economies while preventing monopolistic control, potentially reducing routing permutations from 176 to 54 and lifting average freighter load factors by 9%.

2. The need for strategic diversification of postal services.

Enabling postal operators to become multi-service platforms offering parcels, financial services, e-government solutions, and digital identity services. The type of diversification matters less than its breadth – what counts is reducing letter dependence while maintaining network density.

3. Providing targeted development support to postal operators.

Focusing investments on the four pillars that determine postal success: reliability (service quality); reach (international connectivity); relevance (market adaptation); and resilience (shock absorption). Countries excelling in all four achieve postal development levels 8–10; weakness in any pillar keeps operators trapped in lower tiers.

These efforts must be coordinated at all levels

This transformation requires coordinated action for stakeholders at multiple levels:

At a global level:

we need to adopt differentiated multilateral rules that align obligations with capacity, implement the distributed postal grid through the UPU Dubai cycle (2026–2029), and establish funding mechanisms that recycle scale economies to support network upgrades.

At the domestic level:

governments need to focus on modernizing universal service obligations from static access requirements to dynamic capability mandates, recognize postal networks as platforms for innovation rather than cost centres, and enable broad commercial freedom within appropriate safeguards.

At the postal operator level:

posts need to maintain physical networks as the foundation for digital services, invest in automation and data capabilities, and develop partnerships that extend service portfolios beyond traditional mail.

The window for transformation is narrowing but not yet closed.

As global e-commerce approaches 8 trillion USD by 2030 and societies grapple with digital divides, postal networks offer unique capabilities: physical presence where digital infrastructure remains weak; trusted relationships with citizens; and last-mile expertise that pure-play logistics providers cannot replicate.

The choice facing the sector is stark: evolve into multi-functional platforms that lower transaction costs, expand market access, and strengthen social cohesion – or accept permanent marginalization in the digital economy.

History shows that postal services have successfully navigated previous technological disruptions. The difference today is that adaptation must be faster, more comprehensive, and globally coordinated.

This report provides the empirical foundation for that transformation. It quantifies both the costs of inaction, and the benefits of strategic reform.

Most importantly, it demonstrates that postal excellence remains achievable for operators at every development level – provided they make the right choices today.

The 2026–2029 UPU strategic cycle presents a critical opportunity to secure the postal sector's future as an enabler of inclusive prosperity in the digital age.

INTRODUCTION

The global postal sector stands at a critical juncture in 2025. After nearly two decades of digital disruption and accelerating e-commerce growth, the industry faces a paradox: while cross-border packet volumes have never been higher, the infrastructure that carries them has fragmented into a costly patchwork of parallel systems.

This year's State of the Postal Sector report examines how this fragmentation emerged, measures its impact on postal development worldwide, and charts a path toward a more integrated and resilient future.

The COVID-19 pandemic served as both catalyst and revealer. When passenger flights vanished overnight in 2020, taking with them the belly-hold capacity that had carried much of the world's international mail, postal operators scrambled for alternatives. Platform-controlled fulfilment centres proliferated, carrier-specific data formats multiplied, and what had been a unified global network splintered into hundreds of ad-hoc routings.

By 2025, this fragmentation has hardened into the new normal: international packets that once flowed through 30 to 50 high-frequency postal corridors now scatter across nearly 150 different pathways, each with its own labels, tracking systems, and pricing structures.

This structural shift carries profound implications for global commerce and development. Our analysis reveals that fragmentation imposes costs through four interconnected channels: it erodes economies of scale in transportation; it creates compliance friction at borders; it constrains market access for small exporters; and it reduces network resilience to future shocks.

The burden falls disproportionately on developing countries, whose thin traffic volumes cannot justify direct routes and whose businesses depend on affordable, predictable postal services to reach international markets.

Yet the picture is far from being uniformly bleak.

This report documents remarkable heterogeneity in how postal operators have adapted to the digital age. While the median designated operator saw its revenues decouple from GDP growth by 70% between 2006 and 2023, one in seven Posts kept pace with, or outperformed, their national economies.

We find that the difference lies not in geography or income level, but in strategic business choices.

Operators that diversified beyond traditional letter mail while maintaining dense physical networks achieved dramatically better outcomes than those that pursued aggressive cost-cutting through outlet closures.

The 2025 report is organized in three complementary sections which, together, provide a comprehensive assessment of the sector's challenges and opportunities:

Section I diagnoses the fragmentation problem through an empirical examination of international packet flows. Drawing on the UPU's big-data repository, it demonstrates how volume concentration in a handful of mega-corridors coexists with the atomization of smaller routes, creating an hourglass-shaped network that fails to capture available economies of scale.

The analysis then proposes a concrete solution: a polycentric hub-and-corridor grid that would re-aggregate thin flows while preserving competitive access through multiple gateways per region. By modelling the welfare gains from such a system and outlining the governance architecture needed to implement it, this section makes the case for renewed multilateral coordination as the only viable path to defragmentation.

Section II follows on from this and dives deeper into the most fundamental challenge facing the sector: the decoupling of postal revenues from economic growth. Using a newly harmonized database covering more than 120 operators over nearly two decades, it quantifies how digital substitution has broken the historic lock-step relationship between postal performance and GDP.

Our econometric analysis reveals two critical findings:

First, revenue diversification matters more than the specific substitute activity – a 10-percentage-point reduction in letter dependence narrows the postal–GDP gap by approximately nine points over the study period.

Second, network density remains economically valuable – operators that maintained or expanded their physical footprint significantly outperformed those that pursued aggressive consolidation, even after controlling for business mix changes.

Section III shifts focus from infrastructure to performance, presenting the ninth edition of the Integrated Index for Postal Development (2IPD). This flagship measurement tool evaluates 180 countries across four dimensions – reliability, reach, relevance, and resilience – to produce a comprehensive picture of postal capabilities worldwide.

The 2025 results reveal persistent and widening gaps: industrialized countries cluster at development levels 9 and 10, while most of Africa and Latin America remain at levels 3 to 5. Yet the analysis also highlights exceptional performers like Estonia, Thailand and Mauritius, which have broken out to higher tiers through targeted investments in service quality and network modernization.

By benchmarking each country against its "natural" potential given geographic and economic constraints, the 2IPD identifies where policy interventions can deliver the greatest impact.

Together, these three perspectives – infrastructure fragmentation, growth decoupling, and development disparities – paint a nuanced picture of a sector in transition. The evidence firmly rejects both technological determinism and one-size-fits-all solutions.

Instead, it points toward a more sophisticated understanding of postal economics in the digital age: success requires simultaneously managing network effects at the global level, closing capability gaps at the national level, and maintaining service breadth at the local level.

The policy implications are equally multifaceted. At the international level, the report calls for a new multilateral compact that pools traffic while preserving competition and encouraging hyper-collaboration.

At the national level, it advocates for capability-based universal service obligations that reward innovation and reach, rather than merely mandating minimum service levels.

At the postal operator level, it underscores the importance of maintaining strategic flexibility to experiment across parcels, financial services, e-government, and other growth areas.

As the postal sector approaches the 2026–2029 UPU strategic cycle, the choices made today will determine whether it remains a vital enabler of inclusive growth, or becomes increasingly marginalized in the digital economy.

This report provides the empirical foundation for those choices, demonstrating that postal decline is neither inevitable nor universal – but that capturing the opportunities of the digital age requires coordinated action at multiple scales. The transformation will not be easy, but the evidence shows it is both necessary and achievable.

SECTION 1

FROM A SEAMLESS NETWORK TO A PATCHWORK OF HIGHWAYS

KEY TAKEAWAYS

The postal network is heavily fragmented: COVID-19 severely disrupted international postal networks, while at the same time accelerating the expansion of global e-commerce logistics infrastructure and operations and their transformation. The subsequent fragmentation of the global postal network has inherently led to increased operational complexity, costs, and delivery delays. Fragmentation is a network-wide problem, not a niche phenomenon tied to a single postal product.

This fragmentation leads to higher net costs as well as lost scale: Postal traffic is scattering across many routes with a small number of mega-lanes still large enough to book dedicated freighters, followed by a vast, evaporating tail consigned to ad-hoc routings. Each extra hand-off that keeps those thin flows aloft erodes scale economies, lengthens delivery times, and sustains air-freight surcharges. This brings forth reduced scale benefits to the overall network, raises unit costs, and increases prices for customers.

Diminishing network reliability is a core issue: Although the pandemic spike in postal delivery delay has moderated, none of the product categories have returned to their 2018 baseline. Furthermore, variability remains stubbornly high. Both of these affect customers' propensity to choose postal channels over others, and this has led to competing logistics channels capitalizing on that gap. Governance, not macroeconomic demand, is the binding constraint on evaporating postal volumes.

The compliance burden has increased in cost and complexity: Emerging from the post-pandemic period, there is a proliferation of non-standardized data formats, which have complicated customs processes. Postal operators now face tougher regulatory requirements and higher compliance costs.

Small businesses relying on postal channels face business risks: Fragmentation has made international logistics expensive and unpredictable. The emergence of alternate delivery channels, brought about by COVID-19-related logistical challenges faced by postal operators, mean that smaller businesses using the postal network struggle to compete internationally, owing to higher costs and unreliable delivery.

The future is a polycentric, hub-corridor-based distributed postal grid: This entails the creation of a coordinated network of regional hubs and standardized corridors under the aegis of the UPU. Operationally, it translates to three hubs in every major trading basin – East and South-East Asia; the Gulf and Western Asia; Africa; Europe; and the Americas. This model would restore scale, lower costs, improve reliability, and avoid dependency on dominant hubs.

SYSTEMIC TRANSFORMATION OF THE POSTAL NETWORK

At the close of the last decade, cross-border e-commerce appeared to rest on a single, friction-light infrastructure: the international postal network created under the 1874 Treaty of Berne.

By 2019, lightweight small packets flowed along a dense lattice in which virtually every origin could reach every destination through a handful of standard international mail processing centre (IMPC) exchanges and a common data schema. This arrangement worked because most rules were rather uniform and postal customs clearance processes were predictable, even though terminal dues created significant price distortions – particularly for e-commerce packets originating from Asia and destined for developed markets. In that year alone, international small packets under two kilogrammes grew 25%, pushing total volumes to their historical peak and confirming the postal channel's role as the primary conduit for MSME participation in world e-commerce.

The COVID-19 shock up-ended that equilibrium with astonishing speed. The pandemic dramatically accelerated the expansion and transformation of global e-commerce logistics infrastructure and operations.

Between 2020 and 2024, the warehousing and fulfilment landscape underwent significant changes. The global third-party logistics market grew by over 100% over this period. Amazon doubled its fulfilment capacity in 24 months during 2020–2021. Micro-fulfilment centres were projected to grow by over 4000% between 2021 and 2031.

At the same time, the proliferation of proprietary carrier labels and data formats accelerated sharply, as cross-border e-commerce sellers and logistics providers adopted a wide range of routing solutions to navigate air capacity disruptions driven by the pandemic. The number of distinct label formats and data requirements increased significantly, with major postal and customs authorities noting a marked rise in non-standardized documentation and compliance complexity for cross-border shipments.

In the wake of the COVID-19-induced lockdowns, the collapse of passenger air capacity and postal block-space agreements led to a sharp increase in the use of dedicated, non-consolidated cargo charters for cross-border e-commerce. This shift drove a documented 25% increase in total air freight emissions and raised carbon intensity per tonne-kilometre on intercontinental routes by an estimated 6% to 19%.

The result was a measurable worsening of the environmental footprint for global e-commerce logistics.

What once looked like a unified, low-friction highway for cross-border e-commerce now resembles a patchwork of parallel roads – some fast, many congested, none universally accessible. These figures are not merely operational trivia; they capture a textbook case of network externalities exacerbated by collective-action failure. When actors shift individually to short-term alternatives, scale economies collapse for the system as a whole, and no single stakeholder has the incentive (or authority) to restore them.

History warns that such fractures can leave long scars. Postal statistics from the first globalization wave show that, in 1913, international parcels reached 7.7% of total parcel traffic – only to fall by nearly one-third during the inter-war years when shipping lanes closed and bilateral fees multiplied. Max Roscher's 1933 survey documented a 33% contraction in German outbound parcels in a single half-year as protectionism and exchange controls proliferated. The analogy is uncomfortable: once fragmentation gains momentum, restoring a genuinely multilateral pathway can take decades.

Three drivers make the present scenario especially risky:

First, platform logistics is path-dependent. Once an e-retailer has invested in an alternative fulfilment workflow – complete with address labels, tracking APIs and customer-service scripts – the switching cost of returning to the postal option is no longer zero.

Second, compliance complexity is sticky. Customs and security agencies that receive high-quality pre-arrival data from proprietary carriers will push postal operators to match that standard before reopening fast lanes.

Third, environmental hotspots become politically salient. As COP30 negotiations approach, the optics of redundant "ghost flights" carrying fragmented packet flows will sharpen calls for sector-specific mitigation measures.

International postal policymakers therefore face a strategic choice: either allow today's patchwork to harden into the default architecture, or rebuild a multilateral pathway that once again internalizes network benefits.

We argue for the second course. Using fresh clustering evidence on volumes, service times and prices, we can demonstrate that fragmentation is measurable, costly and reversible. We also outline how a hub-and-corridor grid, governed by a two-tier treaty and financed by a solidarity levy, can restore density without reproducing the dependency traps seen in other hub-and-spoke systems.

The argument proceeds as follows. Having shown that fragmentation imposes concrete welfare costs,

the next segment steps back to examine the political-economy logic behind those costs, contrasting the dependency risks of classic hub-and-spoke systems with the safeguards built into a polycentric postal grid.

To support our narrative, we turn to data-driven evidence.

We quantify fragmentation through volume clustering, followed by delivery-time disparities, and trace the lingering price surcharges that fragmentation sustains. We then knit these three empirical strands together, translating them into five measurable defragmentation indicators to establish a technical case.

We then sketch a two-tier treaty architecture which fosters the creation of a distributed postal grid to balance enhanced obligations for hubs with light-touch rules for other operators. This chapter closes by returning to the broader development agenda, arguing that a multilateral postal grid can restore universal service, safeguard inclusive digital trade, and align the postal sector with the UN Sustainable Development Goals (SDGs).

WHY FRAGMENTATION MATTERS: FOUR TRANSMISSION AXES

Economic theory treats a high-density transport network as a textbook example of a natural monopoly: fixed costs dominate; marginal costs fall with volume and network externalities. Each additional consignment makes the route more valuable to every other user, generating welfare that no single actor can fully appropriate. Fragmentation of this network breaks those conditions, and the resulting loss propagates through four interlinked and interdependent axes.

The first axis is cost.

When traffic is dispersed across multiple ad-hoc routings, operators forfeit economies of scale in first-mile collection, air-freight procurement and terminal handling. Average cost therefore rises with declining volume, the classic inverse-elasticity rule for natural monopolies. Because prices in competitive transport markets gravitate toward average cost plus a risk premium, higher unit cost is quickly passed through to shippers and, ultimately, to customers.

Pre-UPU transit levies provide the historical analogue: bilateral fees collected at Paris and Vienna forced merchants to pay several times the direct cost of moving a parcel from Geneva to Berlin, an early illustration of how fractured corridors inflated prices.

A second axis is regulatory compliance.

Modern border-management regimes value information more than physical inspection, rewarding consignments that arrive with complete, standardized data. Fragmented flows seldom meet that standard. From the standpoint of enforcement agencies, each proprietary label or missing data element raises the probability of non-compliance, shifting the consignment into the high-risk queue and imposing additional dwell time on the network.

Economists describe this as an asymmetric-information externality: one party's incomplete information forces the regulator to impose costs on all parties in that risk class.

During wartime censor regimes, the same logic applied: packets that broke standard pouch protocols were detained for days, while sealed UPU bags passed with minimal interference.

Market access forms the third axis.

Trade models that incorporate heterogeneous firms predict that small exporters exit when fixed market-entry costs increase or when variable trade costs become more volatile. Fragmentation raises both.

Higher logistics charges reduce the delivered-duty-paid price competitiveness of many products, while irregular clearance times inject uncertainty into fulfilment promises, discouraging smaller sellers from listing abroad.

The creation of the European Conference of Postal and Telecommunications Administrations in 1959 illustrates the point: peripheral Posts sought multilateral guarantees precisely because bilateral arrangements threatened to relegate them to spoke status and cut their firms out of a deepening continental market.

Finally, fragmentation undermines systemic resilience.

Reliability theory shows that network robustness hinges on redundant paths: a lattice in which nodes are connected by several corridors can absorb shocks without catastrophic failure, whereas a sparse, hub-and-spoke structure collapses when a single hub is compromised.

The oil-price spike of 1973 exposed that vulnerability: when wide-body capacity was suddenly withdrawn, small-island operators with no alternative gateways saw outbound volumes stall for weeks. The same fragility re-emerged during the first wave of COVID-19, when the absence of redundant postal corridors stranded personal protective equipment in origin warehouses.

These four axes – escalating cost, compliance friction, constrained market access and reduced resilience – describe a cumulative welfare loss that is larger than the sum of its parts.

Higher costs feed into retail prices, lower sales volumes thin the network further, thinner flows erode the incentive to invest in data quality, and reduced compliance increases uncertainty, discouraging additional trade. Left unchecked, the system converges on a low-volume, high-cost equilibrium familiar from the theory of multiple network equilibria.

Because the externalities are system-wide, unilateral remedies are insufficient; individual operators cannot capture the full social benefit of re-aggregation. Game-theoretic models of coordination problems demonstrate that a multilateral focal point – in this case, a grid of interoperable hubs connected by open corridors – can shift the system back to a high-volume, low-cost equilibrium if three conditions hold: the rules eliminate discriminatory access; the governance regime makes information symmetric; and the cost of compliance is proportionate to capacity.

The hub-and-corridor architecture proposed in this report is engineered to meet those conditions: at least three gateways per region prevent monopoly rents; a common data schema restores information symmetry; and a two-tier rulebook places heavier obligations on hubs, where resources and benefits are largest, while keeping baseline requirements light for smaller operators.

The four axes of welfare loss point to a clear economic remedy: re-aggregation through multilateral coordination.

Yet the design of such coordination cannot be divorced from questions of power and control. Creating hubs to consolidate traffic makes economic sense, but it also risks concentrating market power in ways that could reproduce the very problems fragmentation was meant to solve.

The next segment, therefore, examines the political economy of hub-based networks, drawing on historical precedents and contemporary theory to distinguish between architectures that entrench dependency and those that preserve competitive balance.

Only by understanding these dynamics can we design a governance framework that captures the efficiency gains of consolidation while preventing the extraction of monopoly rents.

POLITICAL-ECONOMY LENS: WHEN HUBS ENTRENCH DEPENDENCY AND WHEN THEY DO NOT

Modern network design cannot be understood without reference to political economy, for the distribution of bargaining power embedded in a transport lattice largely determines who captures its rents. The political economy of hub-and-spoke postal networks can be understood through two complementary theoretical lenses.

First, Albert O. Hirschman's (1945) analysis of asymmetric trade dependencies demonstrates how structural positions create bargaining power – a dynamic clearly visible when certain airports become dominant packet-processing hubs.

Second, Hirschman (1970) also observed that economic relations generate leverage whenever one actor enjoys exit options that others do not; in his vocabulary, the party that can credibly "exit" forces those trapped in the relationship to "voice" concessions or accept dependency. They may exit (shift to proprietary logistics), voice concerns (through UPU negotiations), or remain loyal to traditional postal channels despite mounting inefficiencies.

The logic is particularly acute in hub-and-spoke structures: the hub processes a disproportionate share of flows, and every spoke needs the hub more than the hub needs any individual spoke. Unless rules curb that asymmetry, the central node can exact price, regulatory or geopolitical concessions that bear little relation to underlying cost.

This application of Hirschman's Exit, Voice, and Loyalty theory (1970) to infrastructure networks illuminates why collective action problems persist even when all parties would benefit from consolidation. Recent studies on "weaponized interdependence" (Farrell and Newman, 2019) further develop these insights, showing how network positions can be deliberately exploited for coercive purposes.

Historical experience in the postal domain illustrates the point with unusual clarity.

In the 1850s, France controlled the overland routes that linked southern Europe to the industrial north. By charging droits de transit (transit charges) on every foreign mailbag crossing its railways, Paris converted geographic centrality into fiscal rent.

Archival correspondence from the Swiss administration notes mark-ups of up to 300% on Geneva–Berlin parcels, a premium unrelated to handling cost but justified by the spoke's absence of alternative paths – a textbook Hirschman trap. Resistance coalesced only when enough peripheral states recognized their shared predicament and used the Treaty of Berne to impose reciprocity and transparency. Under the new rules, France could no longer set bespoke fees; its centrality was preserved, but the associated revenue now derived from throughput rather than extraction.

Geography had not changed – governance had.

The same oscillation between dependency and service obligation re-appears in other sectors. Bilateral free trade agreements radiating from Washington or Brussels grant the hub asymmetric tariff preferences, allowing it to combine the cheapest inputs from every spoke and export back to all of them.

Empirical estimates suggest that in the 1990s the United States secured more than half of aggregate welfare gains from the North American Free Trade Agreement (NAFTA) precisely because Mexico and Canada faced residual frictions when trading with each other.

Against that backdrop, the rise of platform-controlled e-commerce logistics has already elevated a handful of airports – Liège, Singapore, Addis Ababa – to de facto hub status for packet traffic. The policy choice is not whether hubs will exist; it is whether their power will remain unchecked or be embedded in a rule-set that restores Hirschman's balance between exit and voice.

We posit that a polycentric grid with at least three certified gateways per basin, open-access corridors, and a public pricing schedule changes the exit calculus entirely.

If Addis Ababa or Liège raises transit fees beyond cost-plus levels, Nigeria's Post or Brazil's Post can reroute through Dubai or Frankfurt the following week. Centrality is preserved, but the threat of contestable exits inherently disciplines behaviour.

Transparency carries equal weight. When transit tariffs and on-time statistics are published quarterly, information asymmetry – the second pillar of Hirschmanian leverage – evaporates. A spoke that can see the hub's performance and compare it with alternatives is no longer hostage to private information.

Designing rules that achieve that equilibrium calls for more than good intentions: it requires aligning obligations with capacity.

The two-tier UPU convention outlined later in this report does so by granting hub licences only to operators that accept audited 24-hour processing, real-time data disclosure and a ceiling on transit mark-ups, while leaving baseline duties light for non-hubs. Most importantly, certification is open; any Post that can meet the technical criteria may become a hub, preventing first-movers from freezing the hierarchy.

The Brussels dispute of 1853 on international postal charges at the International Statistical Congress and its resolution in 1874 offer a final lesson. Geography produced the initial asymmetry, but multilateral rules rewired incentives so that centrality morphed from a source of rent to a service obligation.

The World Bank's experience with energy grids and regional fibre backbones shows that this shift is both necessary and sufficient to crowd in investment from peripheral nodes: once spokes trust that the hub cannot squeeze them, they willingly commit traffic to shared corridors, restoring the volumes on which scale economies depend.

The balance of this chapter now turns from theory to measurement. The next segments test whether today's international postal flows, delivery times and prices display the dependency patterns that Hirschman would predict in a fragmented network.

They then ask whether the safeguards baked into a polycentric postal grid – multiple hubs, open corridors, mandatory transparency – are empirically capable of neutralizing those patterns. Only after the evidence has been weighed does the analysis return to treaty language, finance and political arithmetic. In this way, the argument moves from the abstract insight that exit options determine power to a concrete design that reallocates those options across the global postal nexus.

EMPIRICAL CORE I: VOLUME CLUSTERS REVEAL THE SCALE OF FRAGMENTATION

The cross-border e-commerce shipments market has been buffeted by two opposing forces since 2019: a collapse in traditional small packets in the international letter post stream – governed by the UPU – and an explosion in low-value and lightweight e-commerce pieces reported by customs authorities. We illustrate this through a series of graphs on the page 22.

Total international letter-post tonnage – containing small packets and correspondence – fell 66.5% in the February-to-May window of 2025 relative to the same months in 2019 (Figure 1), while international barcoded letter-post items declined an even steeper 75% (Figure 2).

EMS volumes contracted more moderately – tonnage fell 43% (Figure 3) and items declined 59% (Figure 4) – yet these losses remain substantial.

International parcel post presents a striking contrast: while tonnage dropped only 16% below pre-pandemic levels (Figure 5), the number of items surged 38% (Figure 6). This growth, however, is highly concentrated, with a handful of intra-European trade lanes driving most of the expansion.

However, in a shifting of business models, customs data illustrates where most merchandize items now enter the system. The European Union processes roughly 13 million low-value parcels each day; the United States around four million. Both figures are multiples of their 2018 baselines.

Unlike pre-COVID mailbags, these pieces arrive through a mosaic of channels: postal; express integrator; third-party consolidator; and platform-owned fulfilment. Each channel has its own label format, tracking API and line-haul procurement method.

The macro indicators therefore confirm the theoretical diagnosis in the previous section that volume is not falling across the board, but traffic is scattering across many more routes and service providers.

To measure how that scattering reshapes the postal lattice itself, international postal flows were extracted from the UPU big-data repository, aggregated by origin–destination pair and then submitted to advanced clustering analysis.

The analysis uses a common time window – 1 February to 15 May – for 2019 and 2025, thereby stripping out seasonal noise. Each year's matrix was z-standardized to neutralize scale effects, and columns with zero variance were removed to prevent artefactual clustering.

Volume cluster 1: international letter post

In 2025, international letter-post traffic can be grouped into six main categories (namely clusters) based on how much mail moves along each route.

At the very top, just 12 major country pairs – such as China to the United States and China to Germany – carry a huge share of the world's cross-border volumes: 28% of the total weight and 24% of all individual items[1]. The next level down includes 94 other high-traffic routes, which together move another 31% of the total mail weight. But after these, the vast majority of routes – over five thousand – handle only small amounts of mail, not enough to justify direct shipping.

This uneven distribution means that a few routes are extremely busy, while most are very quiet. Statistically, this imbalance is so pronounced that, were it to be describing income rather than mail traffic, it would be considered extremely unequal.

Simulation results indicate that, prior to 2020, if long-tail clusters were routed through a consolidated network, they would have funnelled through thirty-six high-frequency trunk corridors.

By early 2025, under conditions where network fragmentation persists and operators seek alternative solutions, the same lanes are projected to splinter across approximately 140 routings, managed by integrators, freight brokers, and platform-controlled charters. This simulated shift illustrates how changes in network structure and routing incentives can dramatically increase the number of operational pathways.

A long-horizon perspective underscores the abnormality of the current pattern. Tracing parcel and small packet volumes from 1880 to 2024 shows two earlier plateaus: the inter-war collapse; and the 1973 oil-shock retrenchment. In both cases the lattice thinned, but overall demand was also contracting. Today's data reveals the opposite: demand, as proxied by customs entries of low-value goods, is expanding rapidly even as the postal web loses density.

Governance, not macroeconomic demand, is therefore the binding constraint.

1 Applying Hartigan–Wong k-means clustering technique to the 2025 matrix yields six distinct clusters. At the apex sit just twelve mega-pairs, led by China ↔ United States and China ↔ Germany, which together account for 28% of global weight and 24% of pieces in international letter post. A second tier of 94 large flows moves another 31% of weight. The remaining four clusters house more than 5,000 lanes with traffic too thin to sustain direct line-haul. The head-tail imbalance pushes the Gini inequality coefficient on tonne-kilometres to 0.81, a level that would be considered extreme if it described income distribution.

Figure 1: **Weekly total tonnage for Letter Post**

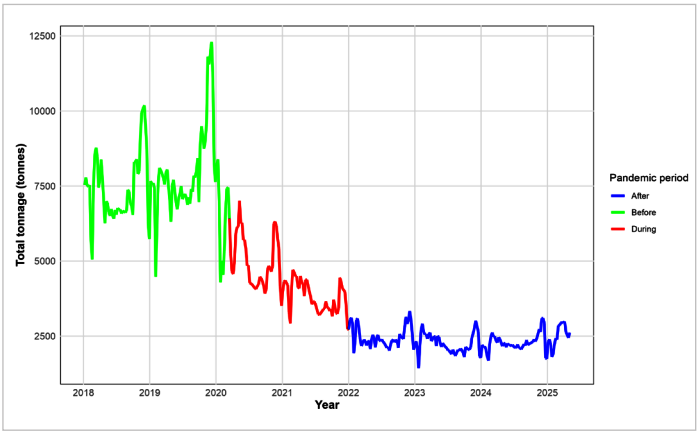


Figure 2: **Weekly total barcoded items for Letter Post**

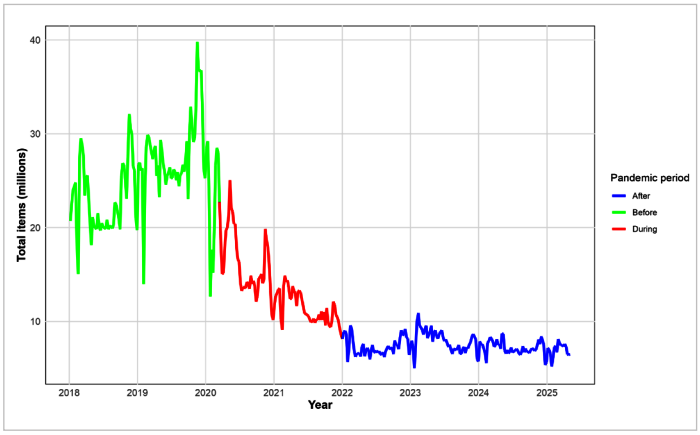


Figure 3: **Weekly total tonnage for EMS**

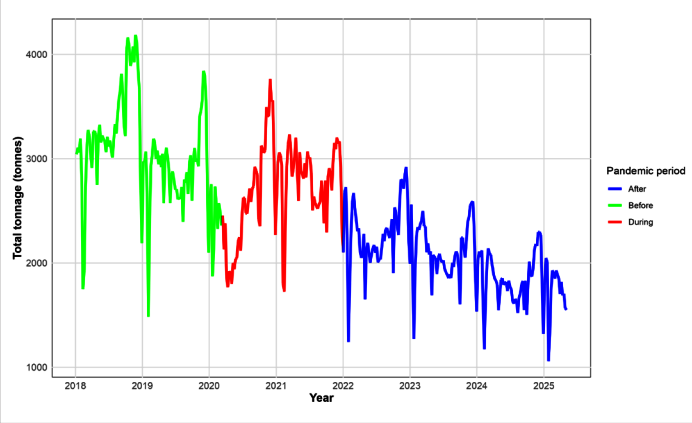


Figure 4: **Weekly total barcoded items for EMS**

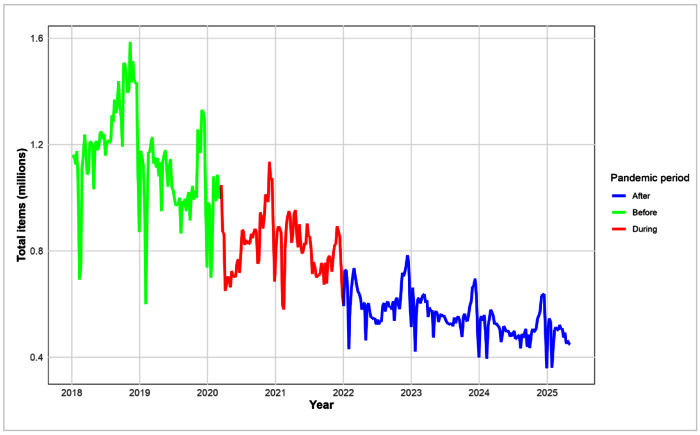


Figure 5: **Weekly total tonnage for Parcel Post**

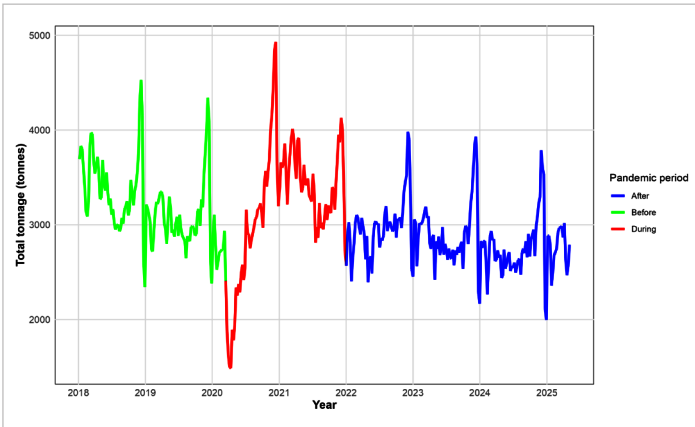
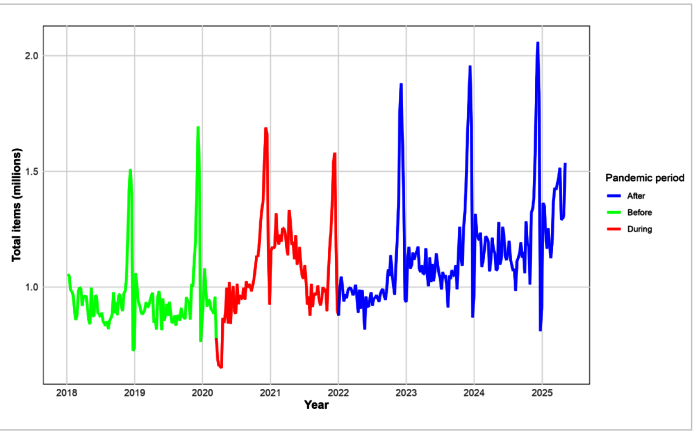


Figure 6: **Weekly total barcoded items for Parcel Post**



Source: UPU

Two policy insights follow our clustering analysis:

First, dramatic economies of scale still lie within reach: pooling just the traffic from clusters 4–6 into the lift already purchased for clusters 1 and 2 would restore freight densities last seen in 2018 and potentially cut network-wide carbon intensity by an estimated 12%.

Second, regional gateways are indispensable. The 5,000 micro-pairs in the tail cannot amass direct lift, yet collectively they represent more than one-fifth of global international postal pieces. Only a polycentric hub-and-corridor grid can re-aggregate those flows at scale and frequency.

Volume cluster 2: EMS

A natural question is whether the fragmentation pattern observed in letter post is confined to that category or is mirrored in the heavier streams – EMS and parcel post – that share air-freight capacity but differ in service promise and tariff.

Re-running the same clustering routine on EMS items and on international parcel-post items (up to 30 kg) shows that the three mail classes follow the same broad geometry but diverge in degree. The EMS matrix again breaks cleanly at k = 6 (i.e., the number of clusters) after running the cluster analysis, but the head is less extreme.

The largest cluster moves 31% of global EMS weight. The Gini coefficient across EMS lanes is 0.78, three points lower than in letter post, reflecting the product's traditional role as a premium channel with more diversified origin structure.

Nevertheless, the long tail persists: roughly 2,700 EMS pairs carry less than 300 kg in the February–May 2025 window, and their volumes have contracted by nearly half since 2019.

Without hub aggregation, these lanes face the same cost spiral documented for international small packets, albeit from a slightly higher revenue base.

Volume cluster 3: international parcel post

Parcel traffic tells a different quantitative story.

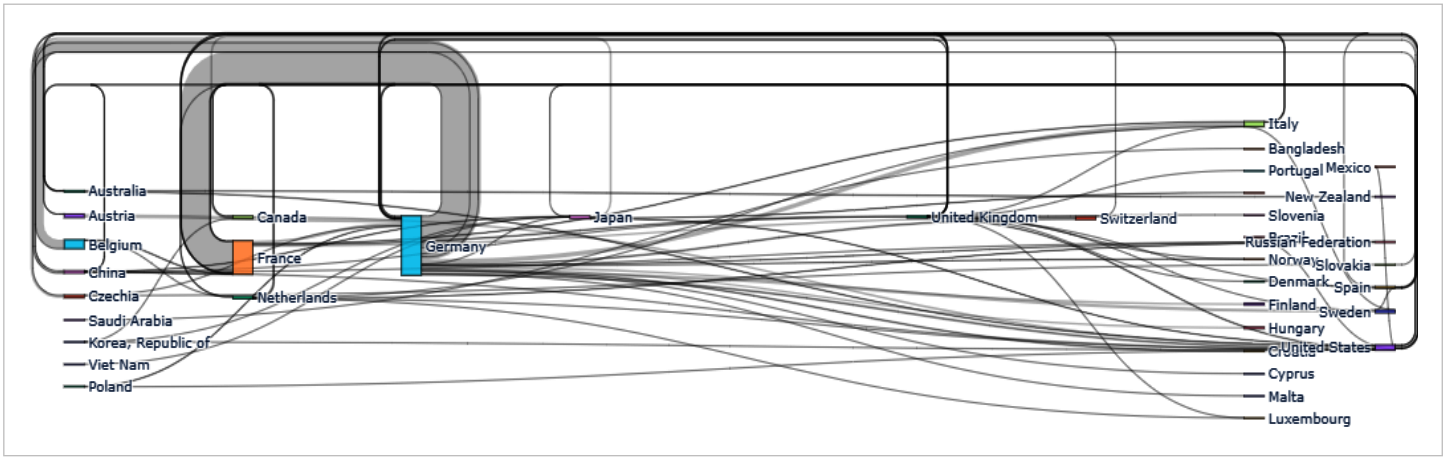
Total tonnage in 2025 is only 16% below the 2019 benchmark and the number of items has actually risen 38%, yet the clustering algorithm still yields six groups with a pronounced head–tail structure.

Within these six major groups, the biggest lanes account for a cumulative of 74% of total parcel tonnage. These high-volume lanes are shown in the Sankey diagram below.

The parcel Gini stands at 0.74, confirming slightly better balance.

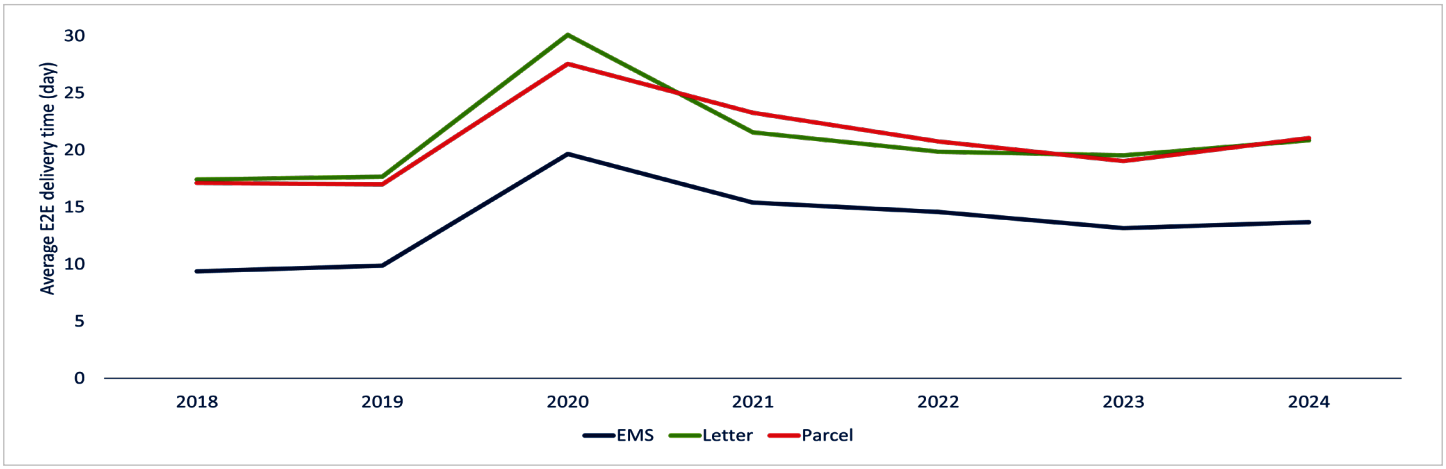
Still, more than 1,500 parcel pairs fall below a tonne for the entire window, volumes too small to justify direct lift in the high-fuel-price environment of 2025. These are natural candidates for hub consolidation; left untouched, they replicate the cost and carbon penalties already diagnosed in smaller formats.

Figure7: **Largest international parcel-post lanes**



Source: UPU

Figure 8: **Average end-to-end delivery times across all classes**



Source: UPU, Antwerp University

Cross-class comparison

Taken together, the three clustering exercises reinforce the theoretical channels identified in the previous segment.

Scale economies evaporate first and most visibly in the lightest category – international letter post – because its thin consignments cannot absorb price shocks. EMS shows the same shape with slightly lower concentration, while parcel post, though healthiest in absolute tonnage, still exhibits a long tail that strains lift procurement.

Fragmentation is therefore a network-wide problem, not a niche phenomenon tied to a single product. And, operationally, the comparison strengthens the case for a polycentric grid.

A hub-and-corridor architecture that funnels letter post and EMS tails into the freighter belly space already reserved for growing parcel flows can restore density across all three classes simultaneously.

AI-driven simulations indicate that merging the tails of letter post and EMS with the lower tiers of parcel post at three continental gateways could potentially lift average load factors on east–west freighters by 9% and cut routing permutations for the combined network from 176 to 54 – a scale gain large enough to reverse much of the cost escalation documented since 2020.

The next section tests whether the physical disintegration captured here is mirrored in delivery-time dispersion, thereby shifting the lens from kilogrammes and pieces to the metric that most directly shapes consumer trust – how fast an item arrives at their doorstep.

EMPIRICAL CORE II: DELIVERY TIMES, RELIABILITY AND THE HUMAN COST

End-to-end performance: the global benchmark

Delivery time is the yardstick by which consumers judge cross-border commerce. When parcels arrive late, sellers lose repeat business, irrespective of freight price.

Figures 8 to 11 provide a panoramic view of end-to-end (E2E) performance from acceptance at origin to the final delivery scan for three international mail classes across six years.

Two facts stand out. First, although the pandemic spike in delay has moderated, none of the categories have returned to their 2018 baseline: EMS averages 13.7 days versus 9.4 days pre-crisis. Letter post and parcel post both take 21 days compared with 17, roughly four full days longer than before. Second, variability remains stubbornly high. The inter-quartile range for letter post reaches almost 6 days, 4.3 days for EMS and 6.5 days for parcels.

Competing logistics channels have capitalized on that gap.

Figure 9: **Delivery time variability for international letter post**

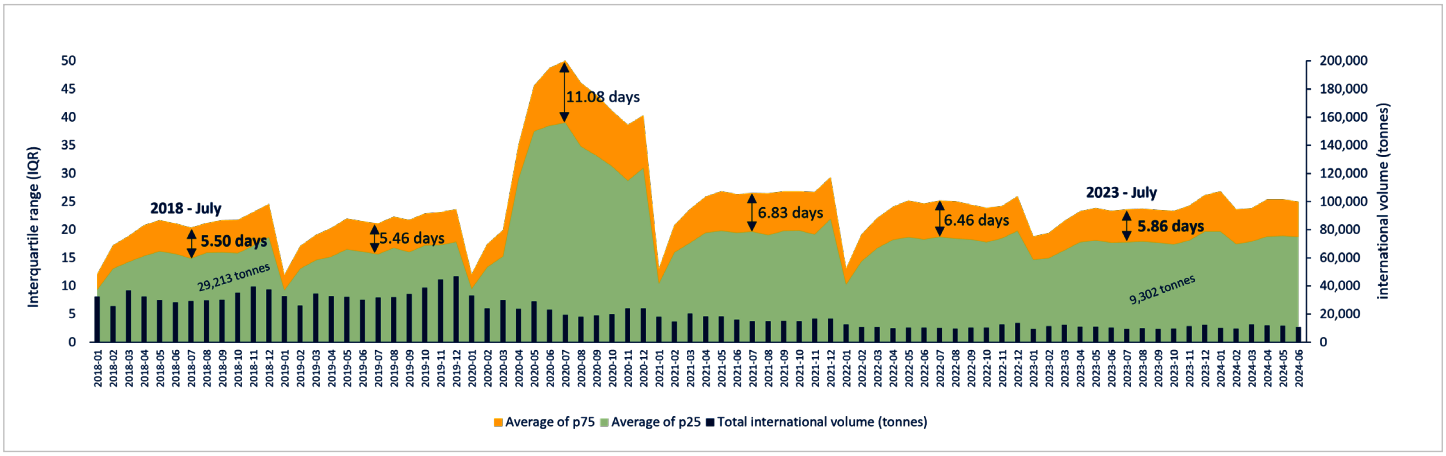


Figure 10: **Delivery time variability for EMS**

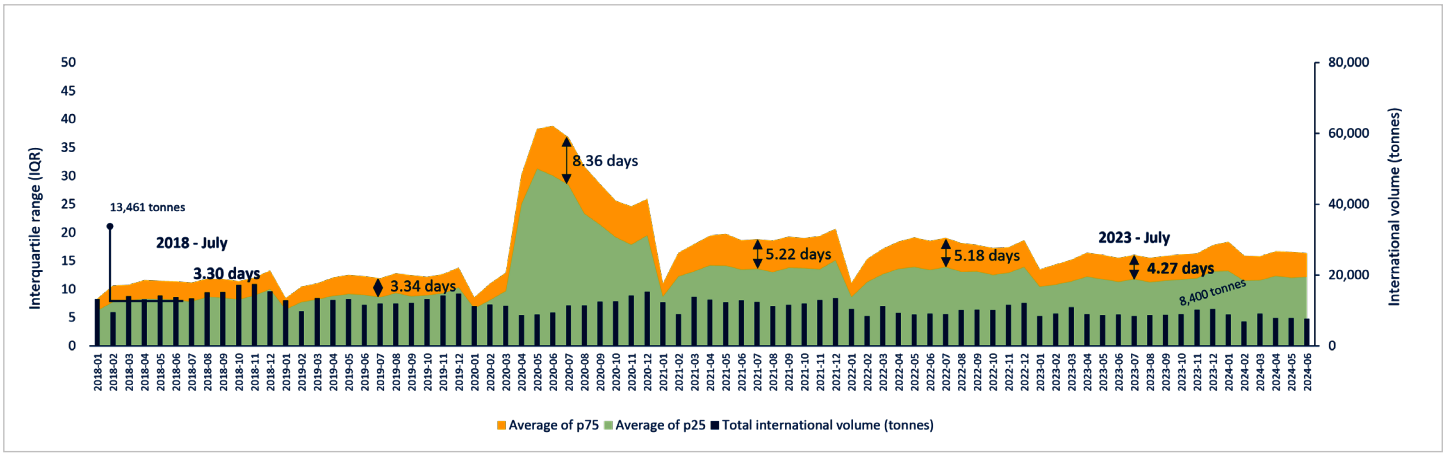
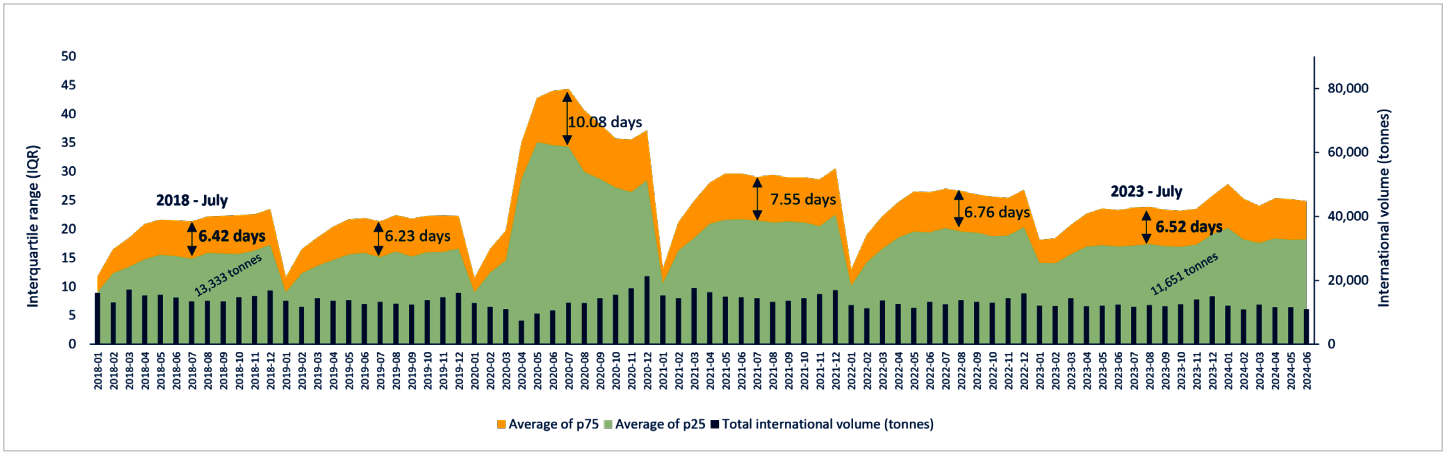


Figure 11: **Delivery time variability for international parcel post**



Source: UPU, Antwerp University

In the China–United States lane, the four fastest carriers in Q3/2024 – all non-postal – averaged just below 3.6 days door to door. Similar disparities appear in other routes, and every single day of excess transit on major corridors erodes the postal brand and shifts platform defaults toward integrators and logistics models which match evolving delivery-promise algorithms in real time.

The divergence thus crystallizes the welfare stakes identified – lost speed translates into lost demand, which in turn thins the network and pushes costs higher.

Domestic-segment clustering: where the clock really stops

The E2E lens, while illuminating, blends long-haul and in-country processes. A separate database, limited to 2023–2024, isolates the interval between the arrival scan at the destination IMPC and the last-mile delivery scan, thereby shining the spotlight on border agencies, sorting plants and final-mile operations.

After standardization, the data sorts into eight domestic-time clusters, and the geography of performance is strikingly coherent.

DELIVERY CLUSTER 1
DOMESTIC DELIVERY IN 48 HOURS

Consisting of 77 top-tier postal operators – stretching from Nordic Europe through the Gulf to North-East and South-East Asia and down to Australia – that deliver both parcel (or EMS) and small packet items in roughly two days once the aircraft lands.

What unites these seemingly disparate systems is institutional design: advance electronic data is virtually universal; customs officers share a mezzanine with postal security; and the first dispatch truck leaves within hours of touchdown. Urban density and six-day delivery rounds complete a virtuous circle in which domestic delay is almost flat year on year.

DELIVERY CLUSTER 2:
DOMESTIC DELIVERY IN 4–6 DAYS

A second tier of 56 operators, concentrated in the Caribbean, sub-Saharan Africa and lower-middle-income Asia, requires four to six days for the same domestic leg.

Anecdotal evidence confirms that the bottleneck is not airside connectivity – since most of these states enjoy at least one dependable daily flight to Miami, Madrid, Dubai or Addis Ababa – but is the result of outdated border and sortation processes: manual risk assessment; batch clearance; overnight depot schedules conceived for pre-e-commerce letter flows.

Economic appraisal suggests that single-window clearance, co-located postal-customs facilities and basic route-planning software would shave at least a third off cycle time at reasonable costs.

DELIVERY CLUSTERS 3 AND 4:
INEFFICIENT CUSTOMS INTEGRATION

Smaller clusters that highlight divergent domestic policy priorities.

A dozen operators have cut EMS and parcels delays by 15% yet allow small packets to linger 30% longer, an imbalance traceable to courier-style gateways that bypass customs while legacy packet streams queue in manual channels.

DELIVERY CLUSTER 5:
INADEQUATE INVESTMENT

Another cluster shows uniform deterioration, signalling an urgent need for operational resilience – such as fuel for shuttle trucks, scanner spares – before technology upgrades can take hold.

DELIVERY CLUSTERS 6 AND 7:
UNSTABLE POLITICAL CLIMATE

Two micro-clusters suffered systemic breakdowns in 2024, their domestic lead times quadrupling amid crises ranging from civil unrest to the sudden loss of ground-handling contracts.

Finally, one singleton outlier displays data anomalies so extreme that measurement rather than performance is the likely culprit.

We can draw three key lessons from these clusters:

1. **Predictable arrival slots and compliant electronic data – delivered by the hub-and-corridor grid – are necessary conditions for faster customs release, but sufficient gains depend on border agencies and domestic carriers adopting the operating template already standard in the two-day tier.**

2. **Heterogeneity within clusters suggests a sequencing strategy. There is a clear need to extend existing data interfaces from express to tracked packets where partial automation already exists; fortify basic operations where networks are brittle; and plan for capacity rather than speed where leaders approach saturation.**

3. **Domestic clusters provide a monitoring scaffold. Success should be judged by the migration of operators from slower clusters to faster ones, not by the disappearance of all variance – small islands will always load a truck less often than Paris or Seoul. A realistic five-year target is to shift three-quarters of today's four-day operators into the two-day tier, halving the global inter-quartile range and raising export readiness across the lower-middle-income cohort.**

By reframing the data in this way, the analysis aligns with development banks' logistics-performance agenda: the true barrier to reliable cross-border delivery is no longer the long-haul aircraft, but the efficiency of border agencies and domestic networks.

Investments that tighten those links will translate the macro-scale grid into door-level gains, closing the reliability gap that currently drives sellers and platforms away from postal alternatives. The price dimension – whether the same grid can unwind residual pandemic surcharges – forms the subject of the next section.

EMPIRICAL CORE III – PRICE CLUSTERS, PANDEMIC SURCHARGES AND A LEGACY OF FRAGMENTATION

Price is the final ledger on which fragmentation writes its costs.

Unlike delivery time, which consumers observe only ex-post, postage tariffs are posted ex-ante and shape purchasing decisions at the margin – especially for low-value e-commerce packets. To map the current landscape, composite price indices were calculated for every sender-recipient pair in two reference periods: post-COVID pricing; and pre-COVID pricing.

Clustering price changes identifies four groups:

Price cluster 1, by far the largest with 1,950 lanes, is a "moderate, sticky inflation" group: prices jumped during the COVID-19 pandemic, fell back with the return of passenger lift, and have stabilized 30–40% above their pre-crisis level.

Price cluster 2 gathers 270 sticky-surcharge lanes whose indices remain triple the global median.

A compact price cluster 3, centred on 80-odd lanes originating in East Asia and terminating in Africa or Latin America, shows structural repricing: tariffs have quintupled, not because of line-haul scarcity but because Posts used the disruption to align chronically underpriced lanes with real handling cost.

Price cluster 4 is a statistical curiosity: 19 lanes where prices halved, driven by short-term promotions or currency collapses. Together, the four clusters explain 82% of the post-pandemic price variance, confirming that global dispersion is driven not by hundreds of idiosyncratic quirks but by three dominant behaviours.

The China–United States corridor stands as a clear outlier in the global tariff landscape.

Its composite price index has stabilized at approximately five times the global median, firmly categorizing it within cluster 3. This elevated pricing is not accidental but reflects intentional policy choices. Following the 2019 Extraordinary Congress, the United States Postal Service implemented self-declared rates, resulting in increased inbound remuneration from China.

Concurrently, China Post adjusted its pricing for residual small-packet flows. Crucially, these increases are embedded within the terminal dues framework rather than in the line-haul segment. As a result, while the proposed hub-and-corridor grid can enhance service quality and improve cost predictability, it cannot unwind tariffs to pre-2019 levels on this lane. The China–United States example thus delineates the limits of network design: operational fragmentation is addressable through structural reform, but price floors rooted in remuneration policy will persist until the next negotiated round.

Taken together with the findings of previous analysis, the price evidence completes a coherent picture. The same long-tail lanes that dilute lift density and crowd the slow-delivery tier are also those where surcharges have proved most stubborn.

In statistical terms, the high Gini on tonne-kilometres, the widened inter-quartile range on transit times, and the double-humped distribution of tariffs describe one and the same structural flaw: fragmented routing. A grid that funnels thin volumes through shared hubs simultaneously raises load factors, compresses delivery-time variance, and eliminates the residual air-freight premium – three re-enforcing gains that restore the economic logic of a universal postal territory.

Because tariffs influence consumer choice long before parcels leave the cart page, the price chapter closes the empirical core by completing the risk triad: tonnes, days, and dollars.

The next two segments translate those findings into design principles for a two-tier treaty, and sequence an implementation plan that locks the gains into a transparent, self-correcting governance framework.

SYNTHESIS – FROM PATCHWORK TO A DISTRIBUTED POSTAL GRID

An economic policy assessment rests on a straightforward yardstick – does an intervention tackle the binding constraint on welfare, and can it be delivered through an institution with the reach to make the cure stick?

The statistical portrait painted in the preceding segments is emphatic. Global packet traffic has become an hourglass: a narrow head of mega-lanes still large enough to book dedicated freighters, and a vast, evaporating tail consigned to ad-hoc routings.

Each extra hand-off that keeps those thin flows aloft erodes scale economies, lengthens delivery times and sustains pandemic-era air-freight surcharges. Density, predictability and inflated tariffs are therefore one problem seen through three lenses. A remedy confined to a single dimension will simply move the distortion elsewhere; a credible fix must collapse the three fault-lines together.

The functional answer is the creation of a polycentric, hub-and-corridor-based, distributed postal grid (DPG).

But the DPG cannot be willed into existence by any one operator or bilateral bargain; it requires a platform of rules, clearing mechanisms and mutual oversight broad enough to bind 192 countries and their postal sector policies.

That platform already exists in the guise of the UPU.

Multilateralism is not a decorative add-on in this context; it is the irreplaceable hardware that turns network design into enforceable practice. The UPU alone issues globally binding conventions, maintains the common coding and data standards that make electronic advance data interoperable, governs terminal dues and other remuneration systems and, crucially, can command a revenue-clearing system through which solidarity levies can flow from large hubs to resource-constrained spokes. Without that multilateral spine, the grid would fragment the moment a hub or a carrier faced a liquidity crunch or a political dispute.

Operationally, the DPG architecture calls for at least three accredited hubs in every major trading basin – East and South-East Asia; Central Asia; the Gulf and Western Asia; Africa; Europe; and the Americas.

The redundancy is deliberate: it pre-empts the monopoly rents Albert Hirschman warned against by giving spokes a credible exit option. Each hub receives traffic only if the consignments arrive with the UPU's harmonized electronic data set; each hub dispatches under the same label, so the system retains the single-packet visibility that made the postal channel the default on cross-border e-commerce in the first place.

Corridors between hubs are codified as "common carrier" routes: any operator that meets the data and security specification may book capacity at the published tariff, and the treaty explicitly prohibits bilateral carve-outs that would constrain that right. Quarterly publication of transit fees, clearance dwell and carbon metrics provides the transparency that market discipline needs in order to function under a multilateral roof.

Governance embeds the architecture in treaty language.

A two-tier convention is envisaged. Tier-A licences confer hub status but load the holder with heavy duties: 24-hour IMPC operations, audited STOP or ICS-2 and other similar compliance schemes, real-time performance disclosure, and a ceiling on transit mark-ups. Tier-B operators face only the baseline requirement to transmit compliant data and use the global label.

A solidarity levy, collected through the UPU's existing clearing system and managed through the UPU's Quality of Service Fund (QSF), funds scanners, software and training for Tier-B Posts. No separate trust fund is required; the multilateral machinery that has settled terminal dues for more than 50 years can channel the cross-subsidy at negligible administrative cost.

Success will be gauged by five publicly reported indicators. The following examples could represent sensible targets:

The tonne-kilometre Gini coefficient must retreat from 0.81 toward 0.65, signalling that tail flows are re-aggregating.

STOP-compliant and other safety and security-scheme-compliant packets must rise past 90%, because even a perfect corridor fails if Customs cannot trust the data.

Tariff dispersion on like-for-like lanes must shrink to a 15-point band, evidence that pooled lift is lowering prices.

In-airport dwell times should fall until four-fifths of packets leave the apron within six hours, showing that hubs are more than ornamental badges.

Finally, every spoke must have at least two corridors to each major market, safeguarding contestability.

The UPU's Postal Operations Council (POC) could host a "Defragmentation Dashboard," updating these metrics quarterly and displaying them alongside established quality-of-service tables. Reputational competition – long a force in the World Bank-supported port reforms – will complement treaty enforcement.

Implementation of the DPG would fundamentally alter the postal network's economics.

The concentration of volumes in mega-corridors – previously a source of fragmentation – would instead provide the scale necessary to anchor efficient operations. Thin-volume routes would achieve viability by pooling traffic through shared infrastructure, enabling cost recovery at sustainable price points.

The empirical evidence suggests two measurable welfare gains: first, the elimination of residual price premiums currently affecting 270 international lanes; and second, service reliability improvements that would exceed pre-pandemic benchmarks by approximately 25%, as measured by on-time delivery rates and variance reduction.

The UPU's multilateral rule book, often dismissed as being no longer fit for purpose, would prove once again to be the only instrument with the universality and neutrality to rebalance incentives across a physically asymmetric system.

With the analytical case now completed, we assess the political sequencing required to convert this design into enforceable treaty text.

POTENTIAL GOVERNANCE ARCHITECTURE: DIFFERENTIATED MULTILATERALISM AND REGIONALIZING THE UPU

The centrepiece of the proposed reform is a shift from the UPU's original symmetry of rights and duties to a structure that recognizes the functional differentiation that now characterizes the international postal and logistics network, designated operators and wider postal sector players.

The empirical record leaves no doubt that capacity is distributed unevenly: a handful of gateways process most of the world's tonne-kilometres and electronic data, while dozens of small operators handle traffic measured in single-digit tonnes a week.

When one treaty article asks dissimilar actors to satisfy identical obligations, the result is chronic under-investment at the core and defensive free-riding at the periphery, a pattern that Buchanan's club-goods theory (1965) and Ostrom's research (1990, 2010) on polycentric regimes both predict.

Differentiated integration – granting heavier obligations and broader operating space to high-capacity actors while preserving universal rights for the rest – is therefore not an erosion of multilateralism but its logical update.

In practical terms, the treaty must recognize two layers. Accredited hubs would occupy the upper tier. They would obtain that status only by demonstrating continuous IMPC operations, audited compliance with STOP or ICS-2 data, real-time publication of transit fees, carbon metrics and performance indicators, and adherence to an ex-ante limit on transit mark-ups. Accreditation should be open: any operator meeting the checklist could apply, and the POC would be obliged to rule within six months, subject to appeal before the Council of Administration (CA).

All other designated operators would remain in a baseline tier whose duties extend no further than the transmission of standardized advance data and the use of the single global label, thereby keeping compliance costs modest for low-volume Posts.

Finance would be aligned with capacity. Every kilogramme transiting an accredited hub would attract a solidarity levy. The QSF would channel the proceeds into a global Distributed Postal Grid Support Fund (DPGSF). To ensure that the fund's resources reach those who need them soonest, disbursement would be organized through the UPU's regional structures and the restricted unions in the respective regions.

Restricted unions and UPU regional offices would receive earmarked allocations calibrated to their members' volumes and readiness gaps, then procure scanners and other relevant hardware, AI-driven risk-analysis software and training.

This regionalization would give the reform a local face; it would also accelerate disbursement by leveraging staff who speak the languages of national Customs and postal regulators and who understand the idiosyncrasies of border Posts.

The proposed governance reforms face minimal legal obstacles. Implementation would require three straightforward amendments to the UPU Convention:

1. **Introducing definitions for "accredited hub" and "open-access corridor";**
2. **Modifying the transit provisions to incorporate cost-plus pricing ceilings and probationary mechanisms; and**
3. **Establishing regulations that specify accreditation criteria, quarterly audit requirements, and levy administration.**

These Convention-level changes would require only a two-thirds majority at Congress to enter into force – bypassing the need for individual parliamentary ratification.

This streamlined procedure follows the established precedent of the 2019 Extraordinary Congress, which successfully implemented self-declared rates through the same mechanism, demonstrating that transformative postal reforms can be achieved within existing institutional frameworks.

Concern that hubs might morph into monopolies is legitimate, but three safeguards contain the risk. Open entry would prevent incumbents from freezing the hierarchy; the redundancy rule would require that every spoke be able to route traffic through at least two gateways; and quarterly disclosure of tariffs, dwell and carbon would eliminate the information asymmetry on which monopoly rents depend. In short, the regime would supply the antidotes that Hirschman prescribed: credible exit and transparent information.

Regionalization amplifies these safeguards.

Each restricted union would maintain a redundancy monitor, publishing semi-annual maps that show which spokes have fallen below the two-corridor threshold. When the monitor flagged a gap, the CA could fast-track an application from a prospective hub, or mandate the DPGSF to underwrite incremental capacity on an existing corridor. The UPU's regional offices could also host dispute-resolution mechanisms so that pricing or service grievances were aired and settled before being escalated to Congress.

Multilateralism, far from being diluted, would gain two new virtues in this structure. First, by differentiating obligations according to capacity, it would build on the reciprocity principle that made the Treaty of Berne self-enforcing: large actors would once again gain enough benefit to justify the costs they incurred. Second, by devolving implementation to restricted unions while keeping rule-making universal, it would further the regionalization agenda and pair scale with local knowledge.

The union would retain a single postal territory, but now would equip regions to manage the practical work of convergence.

CONCLUSION – TOWARD A RESILIENT AND INCLUSIVE GLOBAL POSTAL ECONOMY

Global commerce has entered an era in which the world's smallest enterprises can sell to the world's most distant consumers, yet the infrastructure that should knit those exchanges together has been drifting apart.

The empirical core of this section traced that drift in three dimensions. Volumes concentrate in a handful of mega-corridors, while thousands of micro-lanes dissolve into cost-prohibitive fragments; delivery times bifurcate between a fast tier that meets modern expectations and a slow tier that erodes consumer trust; tariffs polarize into moderate, sticky inflation on the one hand and residual pandemic surcharges on the other.

These distortions flow from a single cause – loss of network density – and produce a cascade of welfare losses that fall heaviest on the very exporters and consumers multilateralism was meant to protect.

The polycentric hub-and-corridor distributed postal grid proposed here addresses that binding constraint in the only way consistent with both economic efficiency and political feasibility. It re-aggregates thin flows through open-access gateways, restores scale economies in lift procurement, and shortens border dwell by embedding predictable clearance at the hub.

Differentiated obligations align duties with capacity, ensuring that operators able to internalize externalities are made to shoulder the heaviest reporting and service standards, while resource-constrained Posts retain universal rights at a compliance cost they can bear. Financing follows the same principle: a solidarity levy on transit flows recycles scale rents into scanners, data interfaces and training where they are needed most. By coupling operational reform with asymmetric burden sharing, the scheme converts the UPU's founding ethos – unrestricted exchange among nations – into a governance model fit for the asymmetries of the digital age.

Success is measured in numbers: a tonne-kilometre Gini coefficient; a high threshold for security and safety compliance data; tariff dispersion compressed to a narrow band; a small number of packets clearing airports in under six hours; and every spoke enjoying at least two corridors to each major market.

Yet the deeper metric is resilience.

A lattice with redundant paths and transparent

rules cannot be weaponized by any single actor, nor can it be toppled by the next external shock, whether epidemiological, climatic or geopolitical.

In that sense, the DPG will speak directly to economic development twin goals: promoting shared prosperity by lowering the logistical tax on small firms in low- and middle-income economies, and helping end extreme poverty by widening consumer access to essential goods that would otherwise be priced out by freight premiums.

The design also advances SDG 9 on resilient infrastructure and SDG 10 on reduced inequalities, anchoring postal reform within the broader development agenda.

Finally, we argue for the broader relevance of differentiated multilateralism. A two-tier convention that rewards high performers with operating latitude and mobilizes their scale rents for system-wide upgrades offers a template beyond the postal sphere.

If the UPU – the second oldest of all multilateral institutions – can adapt its rule-set to a polycentric world while preserving universal entry, it will demonstrate that reform need not choose between efficiency and equity. It can deliver both.

The distributed postal grid therefore stands not only as a technical fix for cross-border e-commerce logistics, but as a proof of concept for future-proof multilateralism – a pragmatic handshake between scale and solidarity, ready for the next cycle of global integration.

The distributed postal grid therefore stands not only as a technical fix for cross-border e-commerce logistics, but as a proof of concept for future-proof multilateralism – a pragmatic handshake between scale and solidarity, ready for the next cycle of global integration.

Having examined the fragmentation of the global postal network and proposed a distributed postal grid as a structural solution, we now turn to a more fundamental challenge facing postal operators worldwide.

While the DPG framework addresses the inefficiencies of fragmented international flows, it cannot in itself resolve the growing disconnect between postal sector performance and national economic growth. This decoupling phenomenon – where postal revenues systematically lag behind GDP expansion – threatens the very sustainability of universal service provision that underpins the postal network. Understanding the drivers of this divergence is essential, as it reveals which strategic choices enable some operators to thrive in the digital age while others fall further behind.

The following section presents a comprehensive empirical analysis of postal–GDP decoupling across 118 operators, identifying the business model adaptations and network strategies that determine whether Posts can maintain their economic relevance, or face inevitable decline.

SECTION 2

POSTAL DECOUPLING AND ITS DRIVERS: A LONG-RUN ANALYSIS

KEY TAKEAWAYS

The historic link between postal revenues and GDP growth is broken: while economies grew by an average of 75% between 2006 and 2023, postal revenues grew only 4% – creating an unprecedented 71% performance gap that threatens universal service sustainability.

Reducing dependence on letter post is critical for survival: every 10%-point reduction in letter revenue share improves postal performance by 0.5% annually. The average operator's 18% in letter dependence avoided 15% of potential decline.

Network consolidation, as a means of cost savings, backfires economically: closing post offices to cut costs actually worsens performance – each standard deviation increase in people per post office widens the performance gap by 1.7% annually, offsetting 40% of diversification gains.

The type of service diversification matters less than its breadth: whether operators shift to parcels, financial services or other activities yields similar benefits – what matters is reducing letter dependence, not which specific service replaces it.

Physical presence remains economically valuable: maintaining dense post office networks helps operators keep pace with GDP growth, while staff reductions show no significant impact once network density is controlled for.

Success requires both diversification AND network preservation: operators that pursued only one strategy underperformed – sustainable growth requires simultaneously broadening revenue sources while maintaining physical accessibility, pointing to capability-based rather than cost-based universal service models.

POSTAL SECTOR–GDP GROWTH: DECOUPLING AFTER A CENTURY OF GROWTH

For more than a century the performance of national postal operators tracked the pulse of the macro-economy almost one-for-one: when real GDP grew, mail volumes and revenues rose in tandem; when output contracted, so did the Post.

Over the last two decades, this historical relationship has broken down.

Digital substitution has accelerated the secular decline of letter-post traffic, while the expansion of e-commerce has only partially offset the shortfall through parcel delivery. Across 192 countries that report statistics to the UPU, aggregated real postal revenue grew by 23.7% between 2006 and 2023, even as world GDP increased by roughly 68% at purchasing-power parity (PPP).

The resulting gap – what we call postal–GDP decoupling – poses an existential challenge to the universal service model on which most operators and regulators still rely.

Existing research has established the basic contours of this phenomenon. Empirical studies for the United States, Western Europe and Japan show that broadband penetration, electronic billing and digital government services explain a large share of the fall in mail demand. Case-study evidence also suggests that successful diversification into parcels and, more recently, postal financial services can cushion – but rarely reverse – the revenue loss from letters. Yet the literature remains largely silent on how these forces combine to shape the stark cross-country dispersion in postal–GDP decoupling.

Within the context of this report, we address these questions by reframing the problem around the differential between postal and macroeconomic growth.

Instead of modelling postal revenue directly, we analyze the growth-rate difference between real postal revenue and real GDP over the 2006–2023 interval. Using the UPU's global statistical database, we construct for each operator a set of explanatory variables which captures both the revenue mix – initial dependence on letters, parcels and financial services and the subsequent change in those shares – and the network response – changes in inhabitants per post office and per postal employee. We then estimate the association between these adjustments and the decoupling outcome, controlling for universal drivers of digital substitution with an Internet-user variable, for structural heterogeneity with regional fixed effects, and for idiosyncratic outliers through country dummies for China and Angola.

Three key econometric results emerge:

First, revenue diversification continues to narrow the postal–GDP gap. A 10%-point decline in letter-post share – offset by parcels, financial services or other revenue streams – lowers decoupling by roughly 0.5–0.6% on an annualized basis[2], bringing aggregate postal growth closer to that of the wider economy.

Second, network retrenchment moves the gap in the opposite direction. Because the regression coefficient on the change in inhabitants per post office is negative, a rising ratio – fewer outlets per capita – widens negative decoupling. In other words, closing or consolidating offices pulls postal-revenue growth below GDP growth, whereas maintaining a dense bricks-and-mortar presence helps the sector keep pace. Changes in inhabitants per employee remain statistically indistinguishable from zero once outlet density is controlled for.

Third, the main diversification benefit is not clearly tied to any one activity line: parcels/logistics, financial services and "other" products each exhibit similar, individually imprecise coefficients once letter-post revenues are excluded from the model.

2 Postal–GDP decoupling can be estimated either on a cumulated basis over the 2006–2023 period, or annualized. The annualized decoupling can be obtained after estimating the compounded annual growth rates (CAGR) of the real postal revenue and the real GDP for each observation (at the country level) between 2006 and 2023 and then calculating the difference, in percentage points, between the respective growth rates.

Taken together, our estimates imply that **digital substitution does not predetermine a uniform secular decline for the sector.**

Where Posts succeed in **broadening their revenue base beyond letters and refrain from hollowing out their physical footprint, postal growth can still keep pace** with – and occasionally outstrip – the expansion of the wider economy. Because the incremental returns to parcels, financial services and other non-letter activities are statistically similar, the critical margin appears to be the breadth of diversification rather than the specific line of business.

By contrast, strategies that rely chiefly on aggressive outlet consolidation deliver short-run savings but deepen negative decoupling, pushing real postal revenues further below the macroeconomic benchmark.

These findings speak directly to current policy debates: they caution regulators against equating cost cutting with sustainability, and underscore the importance of allowing, and indeed incentivizing, Posts to experiment across a wide range of ancillary services while maintaining a network scale that remains responsive to local demand.

Researchers converge on digital substitution as the primary demand shock behind that divergence.

A second strand of the literature evaluates operators' business-model responses – diversification into parcels, logistics and financial services – and their effectiveness in narrowing the revenue gap. The UPU classifies three regional archetypes:

- Accelerated diversification beyond parcels (Africa, Arab countries, Asia-Pacific);
- Parcel-driven diversification while retaining a letter core (industrialized countries, Latin America); and
- Continued reliance on letters (Eastern Europe and CIS).

Network adaptation itself constitutes the third theme. Traditional cost studies emphasize economies of scale and density in last-mile delivery; shrinking letter volumes therefore raise unit costs unless outlets, routes or staff are scaled back. Finally, policy and market-structure studies provide a broader context.

In sum, the extant literature establishes:

- A robust but uneven global pattern of postal–GDP decoupling;
- Digital substitution as the dominant negative demand shock;
- Revenue diversification, parcel-driven e-commerce growth and selective network retrenchment as the principal managerial responses;
- Sizeable socio-economic externalities tied to postal outlet density; and
- Regulatory openness as an enabling condition for innovation.

What remains under-explored is how those firm-level adjustments interact quantitatively to explain the stark cross-country dispersion in decoupling. By modelling the growth-rate differential directly and by separating revenue-mix from network-density effects, we intend to fill that knowledge gap.

DATA, VARIABLE CONSTRUCTION AND SAMPLE DEFINITION

Our analysis uses data from the UPU's annual statistical survey, which collects financial, operational and network information from every recognized postal operator worldwide. In 2023, this survey covered 679,125 permanent post offices globally (the majority in Asia-Pacific) and about 4.6 million postal employees across six world regions.

To understand how postal services have performed compared to their national economies, we combined this postal data with economic data from the World Bank, including population figures, economic output (GDP), and Internet usage rates. We converted all monetary values into a common currency (2017 US dollars adjusted for purchasing power) to ensure fair comparisons across countries.

The main measure we looked at was whether postal revenues kept pace with the broader economy between 2006 and 2023. We calculate this by comparing the growth rate of postal revenues to the growth rate of the national economy. When this number is negative, it means the postal service grew more slowly than the economy. When positive, the postal service outperformed the economy.

From this assessment, we have identified two main strategies that postal operators have used to adapt to a decline in revenue:

1. **Changing their business mix:** We measure how much revenue came from letters, parcels, financial services and other activities in 2006, and how these proportions changed by 2023.
2. **Adjusting their physical network:** We look at how many people each post office serves and how many people per postal employee, tracking changes in these ratios to understand network consolidation and workforce adjustments.

We also account for the rise of the Internet by tracking changes in Internet usage from 2006 to 2023. We group countries by region and treat China (owing to its exceptional parcel growth) and Angola (owing to economic volatility) as special cases.

We started with 192 postal operators, but needed complete data for our analysis. After excluding operators missing key information about revenues, business mix, or network size, we formed a balanced panel to analyze 118 operators representing about 91% of global postal revenue.

The findings are striking: while **national economies grew by an average of 75% over this period, postal revenues grew by only 4% – a gap of 71%-points.**

Letter revenue dropped from 51% to 32% of total postal income, and the typical post office now serves 49% more people than in 2006, showing significant network consolidation. Meanwhile, Internet usage increased by 50%.

With this comprehensive dataset covering the period when postal services began falling behind their national economies, we can now examine how this gap varies across different regions and income levels.

ECONOMETRIC FRAMEWORK

By looking at the full 16-year period as one comparison rather than year-by-year changes, we gain two benefits:

First, this approach automatically filters out temporary economic disruptions that affect both the postal service and the economy equally – like recessions, currency fluctuations, or data revisions.

Second, it makes the results easier to understand: when we see that changing revenue mix by one percentage point affects the performance gap, we can interpret that impact directly.

For each postal operator, we examine how its performance gap relates to:

- **Changes in business mix:** how much the revenue from letters, parcels, financial services and other activities changed as a percentage of total revenue.
- **Network adjustments:** changes in how many people each post office serves and how many people per postal employee.
- **Internet adoption:** the increase in Internet usage in their country.

We also account for:

- **Starting conditions:** the operator's initial size and business mix in 2006.
- **Regional differences:** which of six UPU regions the operator is in.
- **Special cases:** China (owing to exceptional parcel growth) and Angola (owing to economic volatility)

While our analysis reveals patterns and relationships, three issues deserve mention:

1. **Reverse causation:** postal operators expecting problems might have changed strategies pre-emptively. This could make some strategies appear less effective than they actually are.
2. **Interconnected changes:** the four revenue categories must sum to 100%, so changes in one area necessarily affect others. We include all four in our analysis to capture the complete picture.
3. **Different operator sizes:** we use statistical methods which ensure that very small postal operators do not distort the overall findings.

To check whether any single business line drives the results, we run the analysis multiple times, each time leaving out one revenue category (letters, parcels, financial services, or other). This helps us understand which changes matter most.

When interpreting our findings:

Revenue mix coefficients show direct impacts: for example, a coefficient of -0.05 means that shifting 10% of revenue toward that service reduces the performance gap by half a percentage point annually;

Network density impacts are expressed in standardized units to make their economic importance clear.

Our analysis covers 118 operators with complete data (from an initial 124), representing the most comprehensive examination of postal adaptation strategies to date. The next section presents and discusses these results in detail.

HOW DO POSTAL REVENUES DECOUPLE FROM GDP?

Table 1 shows the outcome of this global postal–GDP decoupling robust regressions analysis (Eicker-Huber-White standard errors). In this regression analysis, the dependent variable was real postal revenue growth rate – real GDP growth rate (2006–2023).

Table 1: **Postal–GDP global decoupling robust regressions (Eicker-Huber-White standard errors)**

Explanatory variables	1	2	3	4	5
	All	Letter Post	Parcels and Logistics	Financial Services	Other Services
Initial Postal Conditions					
Real postal revenue per capita, PPP (2006)	0.192 *(0.283)*	0.100 *(0.257)*	-0.032 *(0.310)*	0.085 *(0.342)*	-0.101 *(0.315)*
Share of letter post in revenue, % (2006)	0.014 *(0.023)*	-0.022 *(0.017)*			
Share of parcels and logistics in revenue, % (2006)	0.015 *(0.030)*		-0.022 *(0.024)*		
Share of financial services in revenue, % (2006)	**0.056**** *(0.024)*			0.022 *(0.021)*	
Share of other services in revenue, % (2006)					-0.022 *(0.022)*
Postal business and production factors changes					
Change in share of letter-post revenue, pp (2006–2023)	**-0.051***** *(0.019)*	**-0.057***** *(0.016)*			
Change in share of parcels and logistics revenue, pp (2006–2023)	0.007 *(0.017)*		0.007 *(0.015)*		
Change in share of financial services revenue, pp (2006–2023)	0.018 *(0.024)*			0.018 *(0.023)*	
Change in share of other services revenue, pp (2006–2023)					0.002 *(0.019)*

Explanatory variables	1	2	3	4	5
	All	**Letter Post**	**Parcels and Logistics**	**Financial Services**	**Other Services**
Change in inhabitants per post office, pp (2006–2023)	**-0.00005***** *(0.000001)*	**-0.00001***** *(0.000001)*	**-0.000008***** *(0.000002)*	**-0.000008***** *(0.000002)*	**-0.000009***** *(0.000002)*
Change in inhabitants per postal employee, pp (2006–2023)	-0.000008 *(0.000005)*	0.000000 *(0.000004)*	-0.000008 *(0.000013)*	0.000002 *(0.000006)*	-0.000004 *(0.000015)*
Technological change					
Change in proportion of the population connected to the Internet, pp (2006–2023)	-0.007 *(0.019)*	-0.014 *(0.018)*	-0.009 *(0.021)*	-0.005 *(0.020)*	-0.018 *(0.021)*
Time-invariant controls					
China	**6.562***** *(1.440)*	**7.773***** *(1.013)*	**8.422***** *(0.919)*	**6.568***** *(1.570)*	**8.163***** (1.023)
European Union	0.180 *(0.741)*	-0.048 *(0.721)*	0.143 *(0.692)*	0.186 *(0.730)*	0.090 *(0.726)*
UPU Arab region (developing countries)	1.583 *(1.734)*	2.138 *(1.580)*	**2.926*** *(1.686)*	**3.497*** *(1.931)*	2.776 *(1.810)*
UPU Asia-Pacific region (developing countries)	-1.425 *(1.135)*	-1.559 *(1.107)*	-1.149 *(1.254)*	-0.532 *(1.300)*	-0.822 *(1.366)*
UPU Europe and CIS region (developing countries)	2.107 *(1.516)*	2.173 *(1.373)*	1.396 *(1.562)*	1.829 *(1.628)*	2.227 *(1.623)*
UPU Latin America and Caribbean region (developing countries)	1.536 *(1.265)*	1.432 *(1.124)*	1.529 *(1.364)*	1.854 *(1.315)*	1.532 *(1.469)*
UPU industrialized countries group (advanced economies)	0.896 *(1.633)*	1.131 *(1.517)*	1.774 *(1.720)*	1.704 *(1.884)*	1.841 *(1.907)*
Constant	**-7.916***** *(2.037)*	**-3.974***** *(1.295)*	**-3.895**** *(1.645)*	**-5.565***** *(1.314)*	**-3.360**** *(1.480)*
Number of observations	118	124	124	120	122
R-squared	**0.464**	**0.423**	**0.341**	**0.374**	**0.355**

Notes

The dependent variable (decoupling) is expressed as the annualized difference (in percentage points, pp) between the real postal revenue growth rate (in %) for the period 2006–2023 and the real GDP growth rate (in %) for the period 2006–2023.The real postal revenue per capita is expressed in natural logarithm value and calculated using purchasing power parity (USD, PPP).

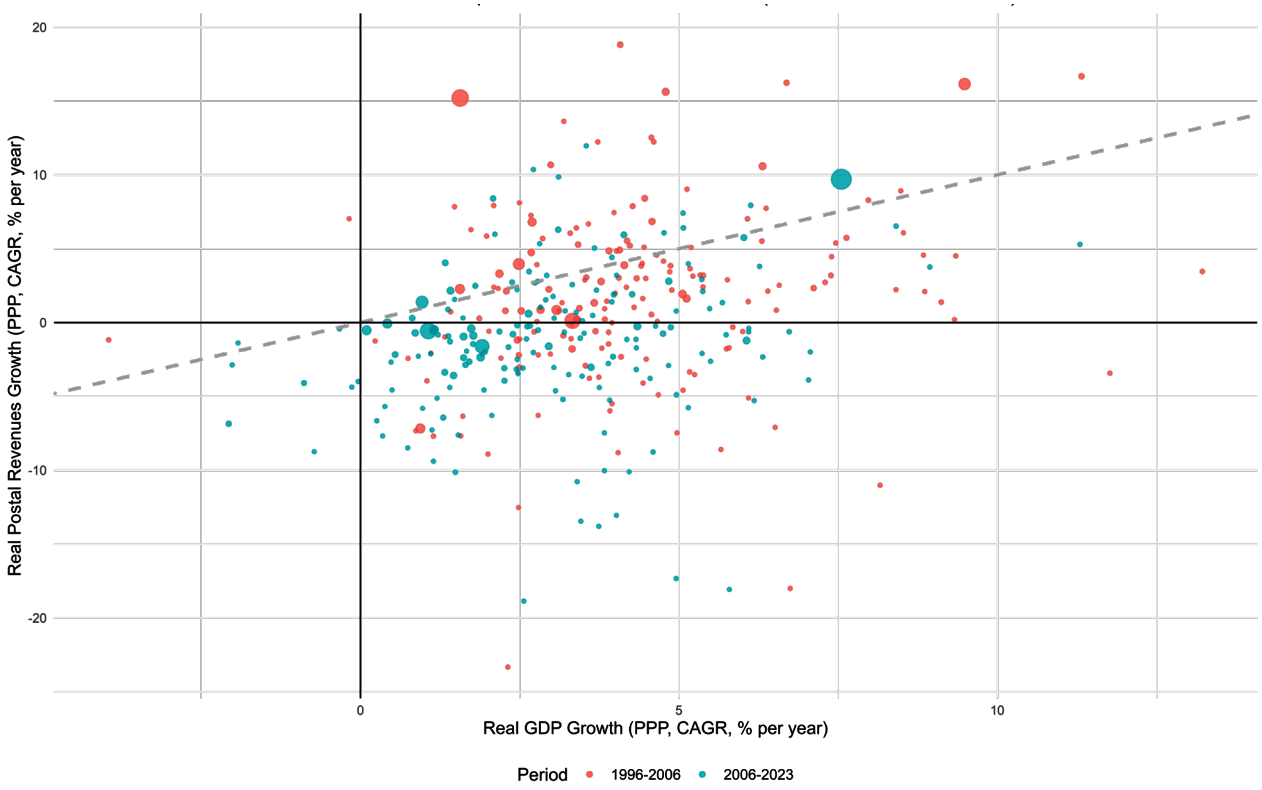
The share of any activity or service in total postal revenue is expressed in percentage (%) and its difference between the years 2006 and 2023 in percentage points (pp). The 2006–2023 change in the proportion of population (%) connected to the Internet is also expressed in percentage points.

Indicator variables (1 if true, 0 otherwise) are used for time-invariant geographic and development levels controls. Observations were available at country level. The values of postal variables correspond to the UPU's designated operators. ***, ** and * indicate 1%, 5% and 10% level of statistical significance respectively.

Standard error values are shown in parentheses below the value of each regressor coefficient in econometric specifications (1) to (5).

Data sources: UPU Postal Statistics, World Bank's World Development Indicators, International Monetary Fund, 2006–2023.

Figure 12: **Postal versus economic growth, world (1996–2023)**



Data source: UPU, World Bank, International Monetary Fund (1996–2023)

Visually, plotted on a scatter graph, we can plot for every operator in our balanced panel the compound-annual growth (CAGR) of real postal revenue on the vertical axis against the corresponding growth of real GDP on the horizontal axis.

The underlying data comes from the UPU's Postal Statistics merged with PPP-deflated GDP from the World Development Indicators.

We clearly segregate two clusters: red dots cover the pre-smartphone decade 1996–2006; blue dots the digital era 2006–2023. Bubble size, proportional to the operator's revenue, underscores that the change is not driven solely by small markets; large incumbents are well represented in the lower half of the graph.

In the earlier period most observations hug the 45-degree line, indicating rough parity between postal and macro performance. In the later period the entire cloud shifts downward.

The visual confirms at a glance the macro-scale break that we identified: since 2006 postal activity has systematically lagged the economy at large, and the dispersion around the trend has widened markedly.

Three key observations from this analysis are:

1. **First, our model works well for most operators:** the majority of postal services cluster tightly around the diagonal line, meaning our predictions closely match reality. Our analysis explains 46% of the differences between operators, with typical prediction errors of only 2.7% – quite accurate given the wide range of outcomes we observe globally.

2. **Second, the biggest prediction errors relate to network decisions.** When our model is significantly wrong, this is usually because of extreme choices about post office networks:

Kenya and Zimbabwe performed 4%+ worse than predicted, largely owing to aggressive office closures.

Morocco performed 3% better than predicted by deliberately expanding its rural post office network despite the global trend toward consolidation.

This reinforces our finding that decisions about maintaining or closing post offices have outsized impacts on performance.

3. Third, certain regions show systematic patterns. Our model tends to:

Over-predict performance in Sub-Saharan Africa, where currency crises and conflicts hurt postal services more than general economic conditions would suggest;

Under-predict performance in Asia-Pacific, where some operators capitalized on booming e-commerce more successfully than their average parcel growth indicates.

These regional patterns remind us that, while broad strategies matter greatly, local conditions and specific policy choices can still make a significant difference.

The comparison between predictions and reality reinforces our main findings:

Our straightforward set of strategic factors explains nearly half of all performance differences globally;

The largest prediction errors occur precisely where theory suggests they should – with extreme network expansion or consolidation decisions.

Even in similar regulatory environments like the EU, operators' specific choices about diversification and network maintenance determine whether they keep pace with or fall behind their economies.

REGIONAL ANALYSIS OF POSTAL REVENUE – GDP DECOUPLING

The following series of graphs shows the same scatter plot for each of the UPU's six geographic groupings. Although the axes and colour coding remain identical, the regional pictures differ sharply:

Industrialized countries (Figure 13). Blue points cluster below both axes, with a mean postal growth rate of –0.4% per year against GDP growth of 1.6%. Digital substitution dominates the narrative: only Germany (during the period 1996 to 2006) and Luxembourg (between 2006 and 2023) manage strong positive decoupling, and both did so with moderate GDP growth, hinting at successful parcel pivots rather than extraordinary macro tailwinds.

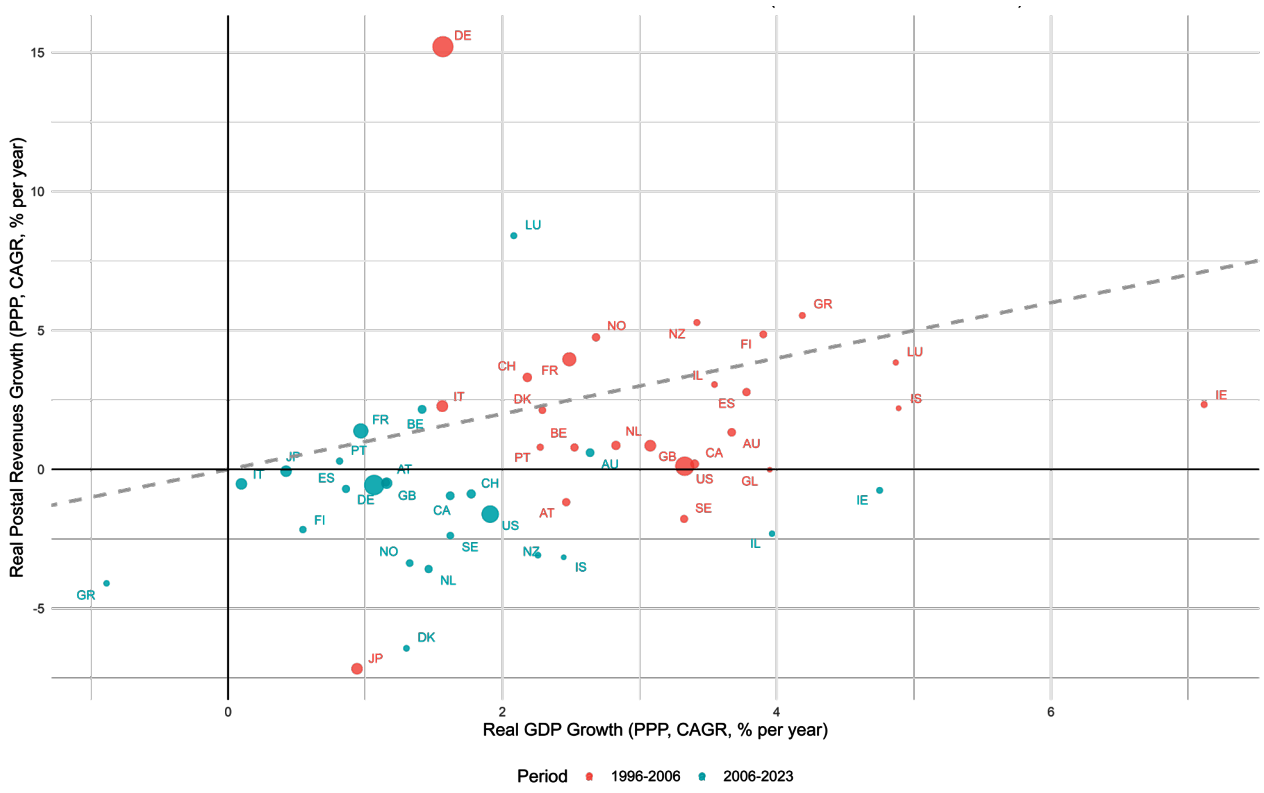
Asia-Pacific developing economies (Figure 14). The cloud shifts upward and to the right, pulled by China, Viet Nam and, to a lesser extent, India. Parcel-led e-commerce and financial services drive postal revenue deep into positive territory – China Post reports 9.9% annual postal growth against 7.6% GDP. Yet dispersion is extreme: more than half the sample sits below the horizontal axis, illustrating that parcel logistics is not a rising tide that lifts all boats.

Sub-Saharan Africa (Figure 15). Points are tightly packed near the origin, reflecting low, often volatile, GDP growth and near-stagnant postal revenues. A few Posts (Angola, Gabon, Togo, Burkina Faso) break above the line, but the median operator records negative values on both axes. The shallow regression slope suggests that, in the absence of large-scale diversification, weak macro performance is transmitted almost one-for-one to the Post.

Arab region (Figure 16). The picture bifurcates. Some Gulf Posts (Qatar, Oman) and Morocco show robust postal and GDP growth, while several conflict-affected economies (Sudan, Libya) sit deep in the lower-left quadrant. The scatter plot suggests that even high-growth contexts seldom translate GDP momentum fully into postal revenues.

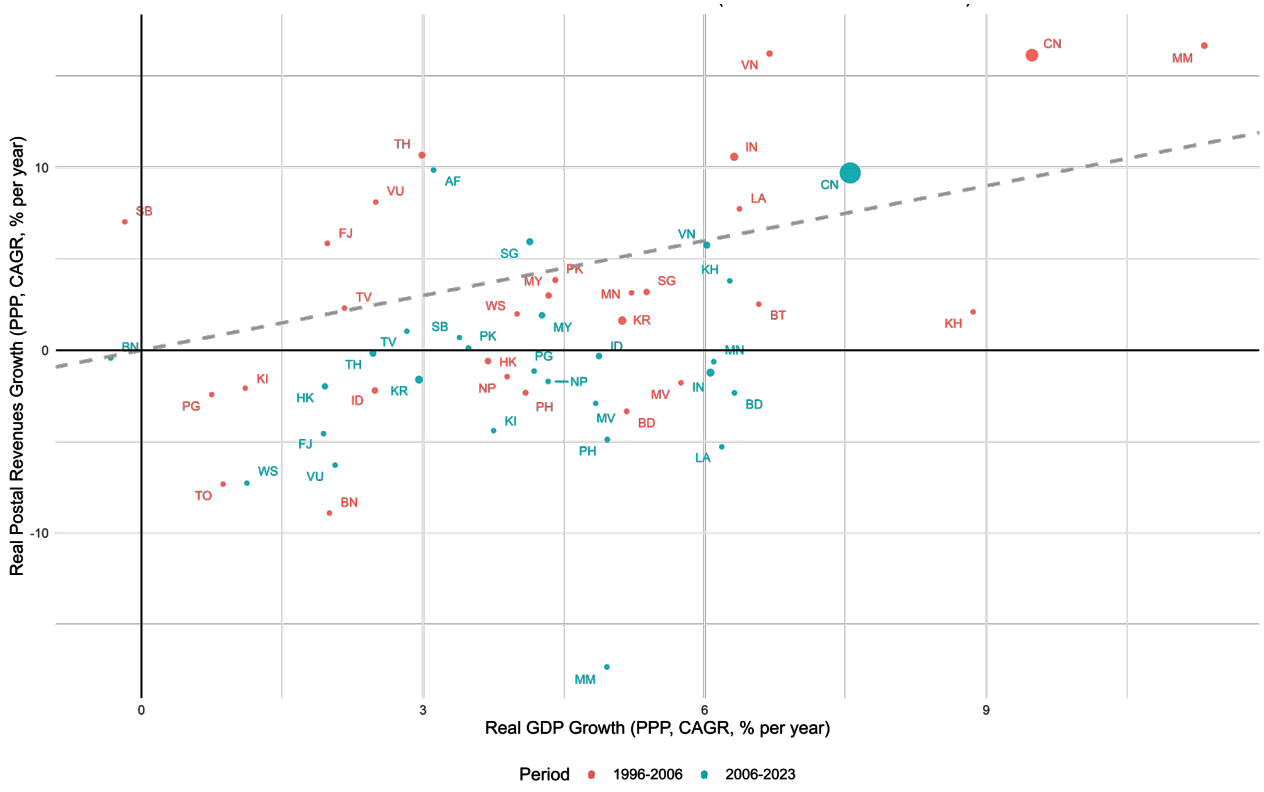
Latin America and Caribbean (Figure 17). In Latin America and the Caribbean, the macro-postal link is still weak. This figure spans GDP growth from about -1% in Bermuda (BM) to nearly 10% in oil-rich Guyana (GY), yet postal outcomes range from -18% (Panama, PA) to +12% (Guatemala, GT). Caribbean islands with similar GDP paths scatter vertically. Business/operational strategy, not macro growth, therefore drives most of the region's postal–GDP decoupling.

Figure 13: **Postal versus economic growth, industrialized countries (1996–2023)**



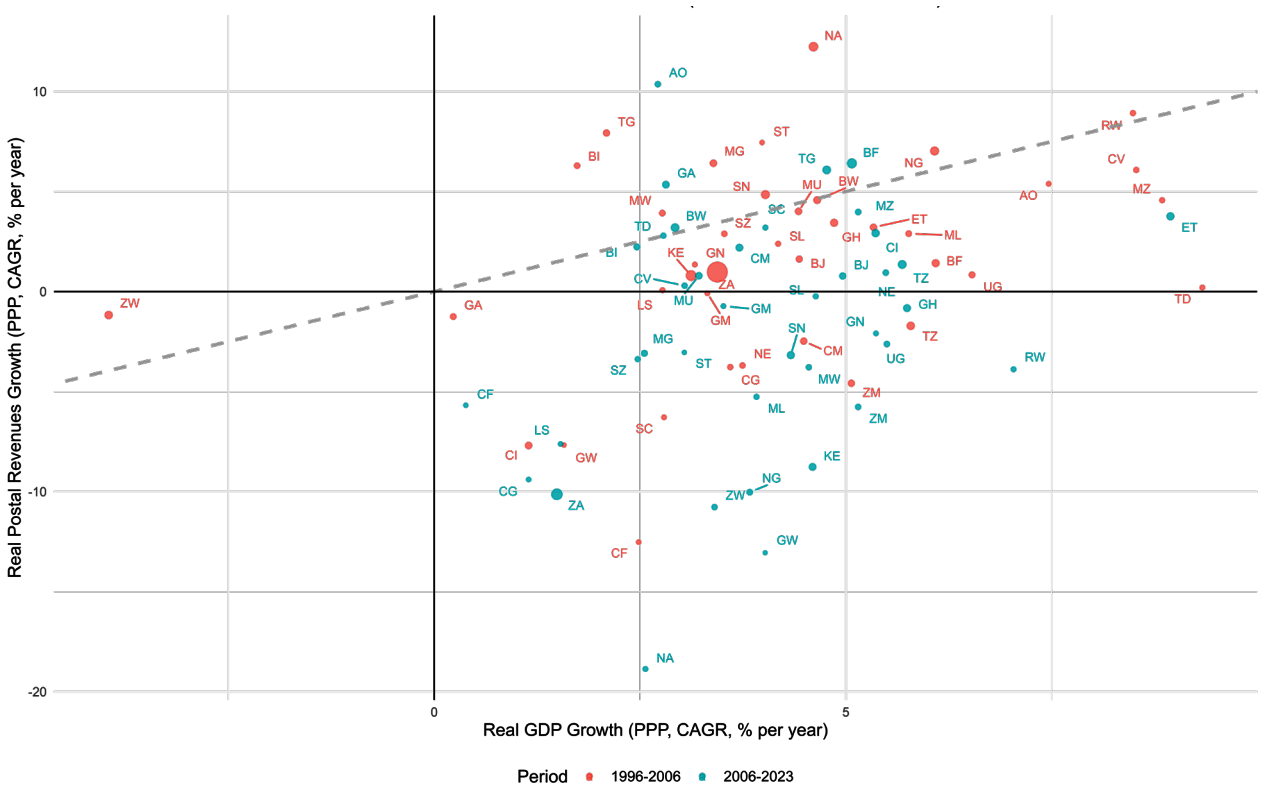
Data source: UPU, World Bank, International Monetary Fund (1996–2023)

Figure 14: **Postal versus economic growth, Asia-Pacific region (1996–2023)**



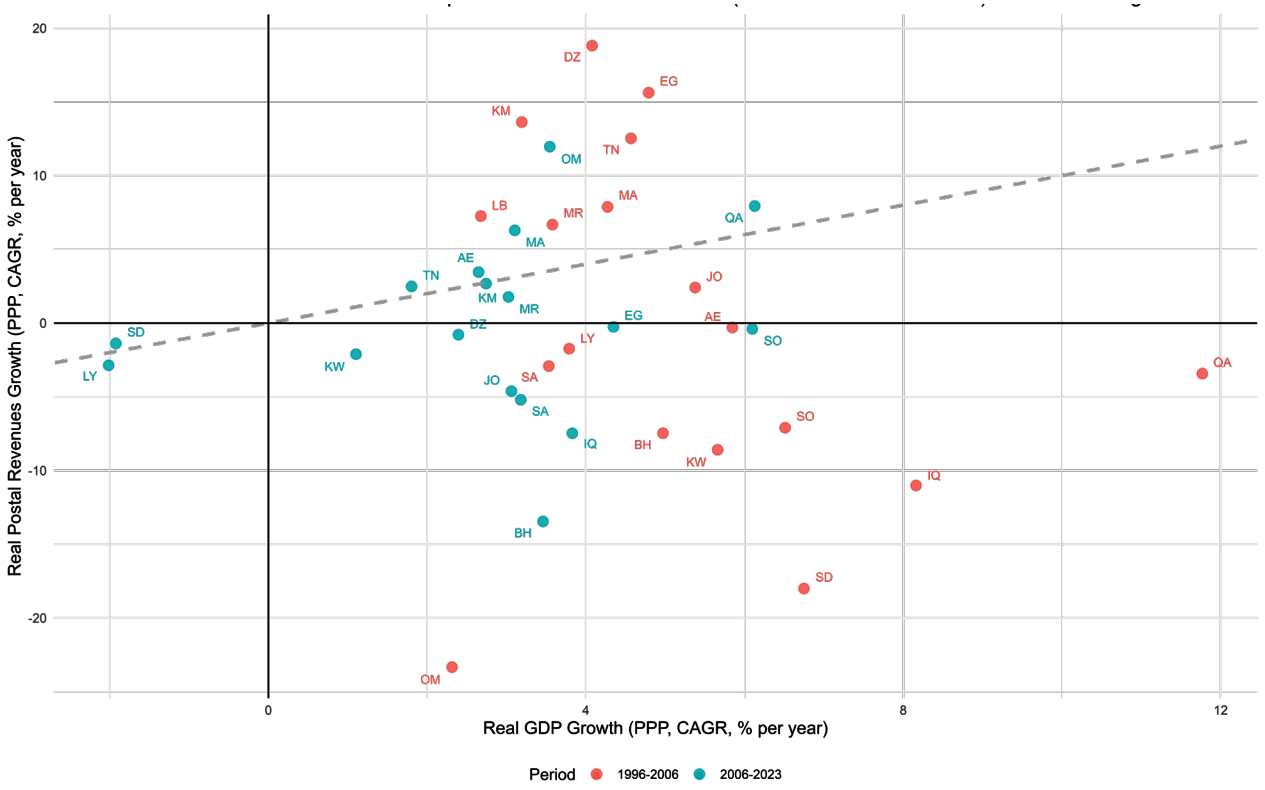
Data source: UPU, World Bank, International Monetary Fund (1996–2023)

Figure 15: **Postal versus economic growth, Sub-Saharan Africa region (1996–2023)**



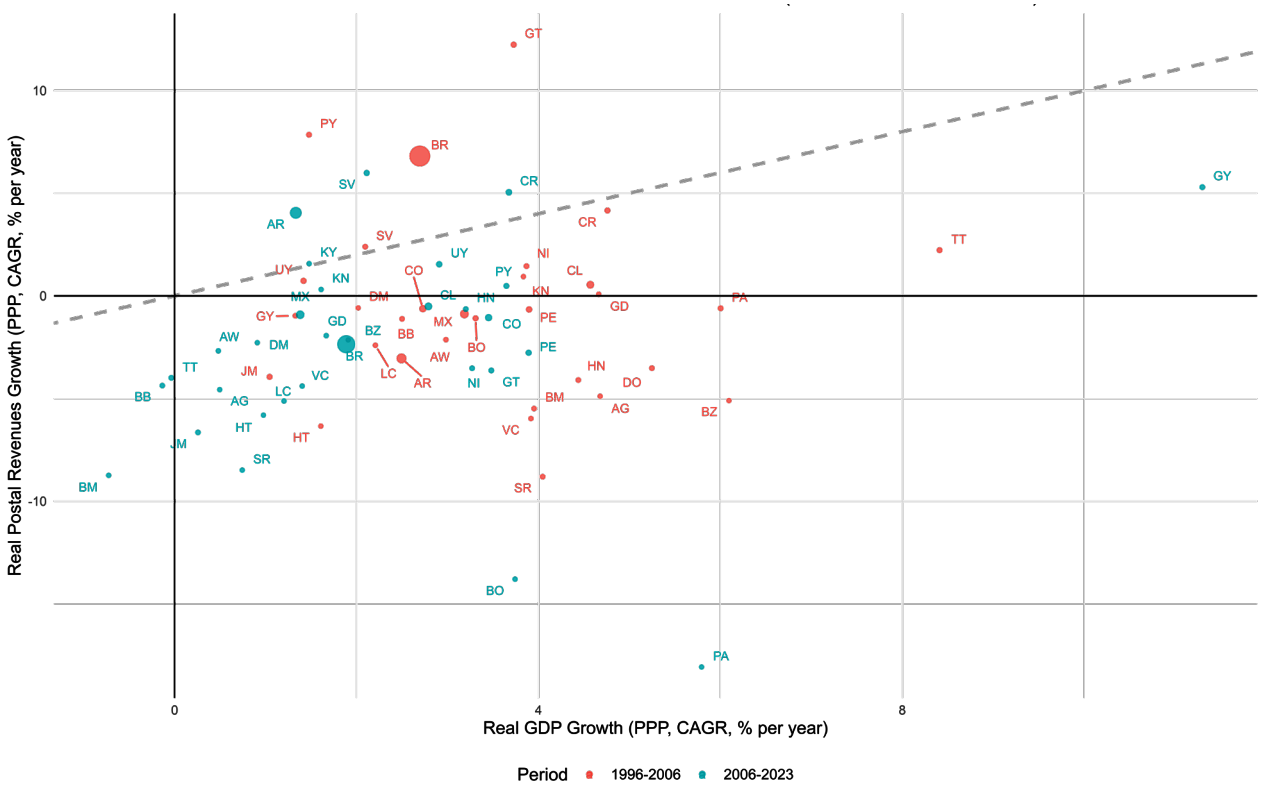
Data source: UPU, World Bank, International Monetary Fund (1996–2023)

Figure 16: **Postal versus economic growth, Arab region (1996–2023)**



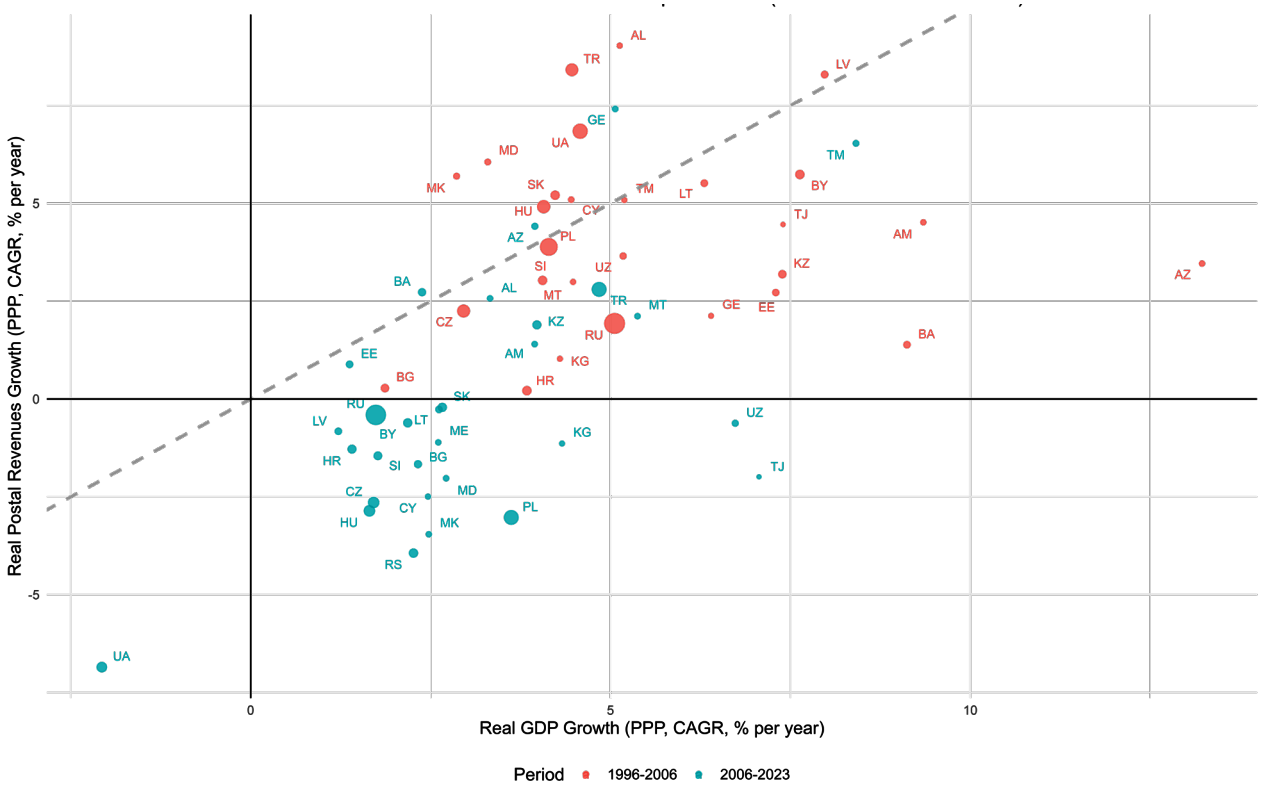
Data source: UPU, World Bank, International Monetary Fund (1996–2023)

Figure 17: **Postal versus economic growth, Latin America and Caribbean region (1996–2023)**



Data source: UPU, World Bank, International Monetary Fund (1996–2023)

Figure 18: **Postal versus economic growth Eastern Europe and CIS region (1996–2023)**



UPU, World Bank, International Monetary Fund (1996–2023)

Eastern Europe and CIS (Figure 18). Higher-growth economies such as Georgia or Azerbaijan also exhibit the strongest postal expansion. Nevertheless, on average the Post lags the economy, albeit less so than in industrialized countries.

Two cross-cutting patterns emerge. First, in all regions the blue-period regression intercept is negative, confirming that the typical Post under-performed its domestic economy between 2006 and 2023.

Second, the elasticity of postal to GDP growth varies systematically with observed strategic choices.

Regions with a critical mass of operators that both diversified revenues and maintained dense outlet networks – Asia-Pacific and, to a lesser extent, Eastern Europe – display steeper slopes and several positive-decoupling outliers. Where such adjustments were limited or delayed – industrialized countries facing rapid digitalization, or low-income African economies with under-developed logistics – the cloud remains firmly below the 45-degree benchmark.

These facts sharpen the empirical question: can the heterogeneity in decoupling be explained by measurable changes in product mix and network density once common macro shocks are controlled for?

WHAT STRATEGIES HELPED POSTAL OPERATORS?

We ran five different versions of the regression analysis presented in Table 1 to ensure our findings are robust – the main analysis includes all factors, while the other four each leave out one revenue category to verify that no single business line skews the results.

Reducing letter-post dependence

The most important finding is clear: **postal operators that reduced their reliance on traditional letter mail performed significantly better.**

Specifically, for every 10% that an operator reduced letters as a share of total revenue, it improved its growth performance by about 0.51% per year compared to its national economy.

To put this in perspective: the average operator reduced letter dependence from 50.6% to 32.3% between 2006 and 2023 – a drop of 18.3%. This shift alone should have improved its annual performance by 0.9%, or about 15% over the entire period. That is enough to eliminate more than one-fifth of the typical performance gap.

Interestingly, it did not matter greatly what services replaced letters. Whether operators shifted to parcels, financial services, or other activities, the key benefit came from reducing letter dependence, rather than what specific service grew in its place.

Our analysis explains 46% of the differences in performance across postal operators. This remains fairly stable (34–42%), even when we leave out individual revenue categories, confirming that the overall shift away from letters matters more than any specific alternative service.

Not closing/consolidating postal outlets and offices

Network consolidation – closing post offices – significantly hurt postal performance.

When postal operators increased the number of people served by each post office (meaning fewer offices overall), their performance suffered.

A typical consolidation that closed enough offices to add about 34,000 more people per remaining office would worsen the performance gap by 1.7% annually – a substantial impact representing over 40% of the average operator's total shortfall.

However, reducing staff numbers had no significant impact once we account for office closures. This tells us that customers care about having convenient access to post offices; not how many employees work there.

Other important findings

Internet growth: rising Internet use did not independently affect postal performance once we account for the decline in letter volumes. This suggests that the Internet's main impact was reducing demand for traditional mail rather than creating new challenges.

Starting advantages: operators that already had substantial financial services (like banking or payments) in 2006 performed better throughout the period, even after accounting for subsequent changes. Being diversified before the digital revolution provided lasting benefits.

Regional differences: most regional variations disappeared once we accounted for different strategies, except for Arab region Posts, which performed somewhat better. China's exceptional performance (6.6 to 8.4% better annually) reflects its e-commerce-driven parcel boom.

PRACTICAL IMPLICATIONS FOR POSTAL OPERATORS

Our analysis confirms three critical lessons:

1. **Reducing letter dependence without developing alternative revenue sources severely hurts postal performance.**

2. **Closing physical post offices makes performance problems worse.**

3. **The most successful postal operators both diversify their services and maintain their local presence.**

These findings have important implications for postal regulation, particularly regarding universal service requirements and what additional services Posts should be allowed to offer – topics we address in the next section.

Our findings also reveal a crucial strategic trade-off:

An advanced economy Post that reduced letter dependence by 15% while closing enough offices to add 5,000 people per office would gain 0.77% annually from diversification but lose 0.05% from consolidation – a net gain of 0.72% annually.

A developing country operator with limited diversification options could still improve performance by maintaining or even expanding its network. Adding enough offices to reduce coverage by 100,000 people per office would improve performance by 17% over the full period.

POLICY IMPLICATIONS AND RECOMMENDATIONS

The empirical evidence amassed by the UPU Think Tank team leaves little doubt that postal–GDP decoupling is neither pre-ordained nor evenly distributed.

Postal operators that diversified decisively away from letters while preserving a dense bricks-and-mortar presence recorded growth trajectories close to – and occasionally above – the macro-economic benchmark; those that pursued aggressive outlet retrenchment or clung to a shrinking letter franchise fell ever further behind.

From a regulatory perspective, these findings call for a re-calibration of the three pillars that frame postal business models:

- the universal service obligation (USO);
- the rules governing network downsizing or expansion; and
- the scope of activities a designated operator is permitted (or encouraged) to pursue.

We distil the econometric results into five actionable pieces of guidance for policymakers, recognizing that the optimal mix will differ across income levels and institutional settings:

I. Universal service obligations must evolve from static access targets to dynamic capability mandates.

Traditional USOs specify minimum outlet densities, delivery frequencies and uniform tariffs that were designed for a letter-centric era. Our coefficient on outlet consolidation – -0.00005 per additional inhabitant per office – shows that network thinning carries a measurable growth penalty even after parcel and financial diversification are controlled for.

Yet the fitted-value analysis reveals that expanding physical reach, as Morocco did, yields above-model returns when paired with new revenue streams. Regulators should therefore shift from merely preventing closures to actively rewarding operators that repurpose their footprint for e-commerce fulfilment, payment services, and community logistics.

A "capability-based" USO – under which Posts earn credit for parcel lockers, digital identity enrolment points, or last-mile collection of recyclables – would align incentives with the hybrid service bundle that now defines consumer demand.

II. Network regulation should internalize the positive externalities of local presence.

Our research shows evidence that dense postal networks generate social spill-overs – from financial inclusion to elderly care visits – that far exceed their private revenues.

The cross-sectional regressions put a quantitative price tag on the alternative: a one-standard-deviation rise in inhabitants per outlet widens negative decoupling by 1.7%, roughly two-fifths of the global mean shortfall.

Rather than imposing blunt moratoria on closures, governments could tender outcome-based subsidies indexed to objectively measured social contributions (e.g., number of unbanked individuals enrolled, parcels delivered to remote areas, municipal forms processed). Such contracts would allow efficient consolidation where demand truly dissipates, while sustaining outlets whose broader welfare benefits justify the cost.

III. Expanding the permissible scope of ancillary activities is critical to finance both USO and network-related goals.

The econometric estimates show that the composition of non-letter revenue matters less than its breadth: parcels, financial services, and "other" lines all carry similar marginal coefficients once letters are displaced.

This symmetry suggests that regulators should adopt a technology-neutral, activity-neutral stance – granting Posts maximum latitude to experiment with insurance intermediation, e-commerce warehousing, identity verification, public-sector data collection, or even drone-assisted delivery, provided core consumer-protection and competition safeguards are met. The European Union's experience is instructive.

Member-country incumbents that leveraged their network for retail banking and insurance (France, Italy) out-performed model predictions, whereas those that curtailed diversification were most likely to under-perform, despite sharing the same single-market rules.

A permissive regulatory perimeter therefore appears to be a necessary – though not sufficient – condition for mitigating decoupling.

IV. Policy design must be sensitive to heterogeneity in market size and fiscal capacity.

In high-income, low-density economies, the marginal benefit of one additional outlet is smaller, yet the fiscal space to subsidize social externalities is larger.

In Sub-Saharan Africa, in contrast, where the econometric residuals point to macro-volatility as a latent drag, public funds are scarce but the social value of basic payment and identity services is high. Here, blending modest per-outlet subsidies with donor-funded digital infrastructure grants – or partnering with mobile money operators – may yield the highest return.

V. Oversight frameworks should incorporate adaptive performance metrics rather than fixed input rules.

The econometric model explains 46% of the variance in decoupling with a few strategic variables, yet the residual scatter reminds us that idiosyncratic innovations – in operational terms, how an outlet is used – matter at least as much as how many outlets exist.

Regulators could therefore require designated operators to benchmark themselves annually against a weighted peer frontier (similar to the approach in energy network regulation) that internalizes both diversification breadth and service-access outcomes. Operators surpassing the frontier would earn regulatory "carry-overs" in the form of lighter price-caps or accelerated approval for new ventures; laggards would face stiffer disclosure and service-quality audits.

CONCLUSION

In sum, the policy agenda that flows from our analysis is evolutionary, not revolutionary: it retains the universal service ethos, but re-tools it for a diversified, digitally-mediated marketplace.

By coupling capability-based USOs with outcome-oriented subsidies and broad commercial freedoms, governments can create the conditions under which postal operators once again track – or even lead – the pulse of their economies. The concluding section turns to the outstanding research questions that must be addressed to refine this blueprint and gauge its fiscal and competitive ramifications in practice.

The last two decades have witnessed a decisive break between the fortunes of national postal operators and those of the economies they serve.

While real world GDP expanded by more than two-thirds between 2006 and 2023, aggregate postal revenue advanced barely one-quarter as fast. By reframing this divergence as a growth-rate differential – postal revenue minus GDP – we have shown that decoupling is large on average but highly uneven across countries.

The empirical analysis of postal–GDP decoupling reveals that success in the digital age depends on strategic choices – particularly the balance between revenue diversification and network preservation.

Yet understanding what drives performance at the operator level tells only part of the story. To translate these insights into actionable policy guidance, we need a comprehensive framework for assessing where each country's postal system currently stands and identifying the specific gaps that constrain its development.

The Integrated Index for Postal Development (2IPD), now in its ninth edition, provides precisely such a diagnostic tool. By evaluating 180 countries across four critical dimensions – reliability, reach, relevance, and resilience – the 2IPD not only benchmarks current performance, but also reveals the natural potential of each postal system given its geographic and economic constraints.

This granular assessment enables policymakers to move beyond one-size-fits-all solutions and design targeted interventions that address their specific bottlenecks, whether in service quality, international connectivity, market adaptation, or organizational resilience.

The following section presents the 2025 2IPD results, showcasing both the persistent disparities in global postal development and the remarkable progress achieved by operators that have successfully aligned their strategies with the lessons emerging from our decoupling analysis.

SECTION 3

2025 INTEGRATED INDEX FOR POSTAL DEVELOPMENT

KEY TAKEAWAYS

Global postal development remains deeply uneven: the 2025 2IPD assessment of 180 countries reveals a 60+ point gap between the highest-performing region (industrialized countries at 94.4) and the lowest (Latin America and Caribbean at 32.3), with most developing regions scoring well below the global median of 50.8.

Success depends on four interconnected pillars: postal development requires balanced performance across reliability (service quality), reach (international connectivity), relevance (market adaptation), and resilience (shock absorption). Countries excelling in all four dimensions achieve postal development levels (PDL) 8 to 10, while those weak in any pillar remain stuck in lower tiers.

Strategic investments can overcome structural constraints: countries like Estonia, Thailand and Mauritius prove that targeted modernization – automated sorting, digital services, expanded networks – can propel middle-income operators to world-class performance levels, challenging the dominance of traditional postal powers.

Many operators vastly underperform their natural potential: the natural postal development analysis reveals that numerous countries deliver results 75%+ below what their geography and income would predict, indicating massive untapped potential that better policies and management could unlock.

Network preservation remains economically vital: the most successful operators combine service diversification with maintained or expanded physical presence. Countries that aggressively consolidated post offices typically underperformed expectations, while those investing in multi-service hubs exceeded them.

Rapid transformation is possible even in crisis conditions: rising stars like Ukraine (maintaining 90%+ reliability during armed conflict), Sri Lanka (rebuilding post-crisis) and Uruguay demonstrate that focused reforms in reliability, digital capabilities and network resilience can deliver dramatic improvements within one to two years.

DEFINING POSTAL DEVELOPMENT LEVELS

Since 2017, the Integrated Index for Postal Development has been the Universal Postal Union's flagship instrument for monitoring global postal progress. After eight annual editions covering performance from 2016 to 2023, the ninth release adopts the enhanced methodology unveiled in 2024 and further revised in 2025 (see UPU, 2025 methodology paper[3]) to provide an even more accurate gauge of postal development.

Introduced in 2022, the postal development level converts each country's overall 2IPD score into one multidimensional indicator of postal performance, turning the index into a practical benchmark for policy formulation and for shaping designated operators' strategic plans.

The 2025 edition evaluates 180 countries, analyzing 2023 postal statistics alongside 2024 big-data monitoring results. This dual-year lens delivers a detailed snapshot of diverse development contexts and underscores the UPU's commitment to evidence-based improvement of the global postal network.

Table 3 illustrates how the UPU combines its extensive big-data resources with official statistics to classify countries into 10 PDL tiers, each linked to the postal sector's contribution to national economic resilience and development (Anson et al., 2023).

These tiers – levels 1 to 10 – are derived from rigorous statistical clustering of 2IPD scores rather than arbitrary assignment. The resulting framework clarifies each country's stage of postal maturity, enabling tailored capacity-building initiatives and fostering deeper international cooperation among UPU member countries.

The 2IPD scoring model – and, by extension, every country's postal development level – rests on four inter-locking dimensions: reliability, reach, relevance and resilience.

Briefly, the four main 2IPD scoring components are:

RELIABILITY gauges how quickly and predictably mail of each class moves across a country's territory, thereby capturing the quality of the delivery experience.

The score is derived from an extensive analysis of track-and-trace data points related to international postal shipments, this score evaluates the speed and consistency of inbound postal deliveries, serving as a reliable proxy for the quality of domestic delivery service and the customer experience. Geographical conditions of a country are carefully accounted for through adaptable and flexible evaluation methods embedded within the 2IPD postal reliability algorithm.

A relatively high score in this category (above 70) signifies excellent service reliability and also fosters consumer trust. By reducing transaction costs, it aids in the expansion of e-commerce and facilitates the broader digital economy.

REACH measures the breadth and depth of international postal connectivity by examining inbound and outbound mail flows and the volumes exchanged with the rest of the world.

The score is derived using electronic messages about outbound and inbound international postal dispatches and tracked items, this metric assesses the extent and effectiveness of a country's international postal network in connecting to the rest of the world. The diverse structures of international postal exchanges are accounted for through adaptable and flexible evaluation methods integrated into the 2IPD postal reach algorithm.

A relatively high score (above 50) indicates robust global postal connectivity that is vital for cross-border e-commerce and to support international trade development for micro, small and medium-sized enterprises.

3 A detailed methodology guide for the State of the Postal Sector 2025 report is available at www.upu.int/en/universal-postal-union/activities/research-publications/integrated-index-for-postal-development

Relevance looks at demand intensity for postal services in each country, assessing how effectively different business and network models meet customer needs across market segments.

This component amalgamates customer demand data across various postal services – from domestic to international deliveries, and financial services – as well as the density of post offices and access points to postal services in a country. It identifies strong and weak points in a country's postal business and network model, assigning scores accordingly. The 2IPD postal relevance algorithm addresses the diversity of business models using adaptable and flexible comparison mechanisms, ensuring a fair evaluation of business performance that accurately reflects different strategic choices.

Strong demand for postal services, including counter services, can facilitate economic transactions in a very wide range of sectors and industries, as typically reflected by relevance scores above 20.

Resilience estimates a postal operator's capacity to absorb economic, social and technological shocks while continuing to deliver dependable services and high-quality tracking data to customers and network partners.

This dimension evaluates the postal system's capacity to sustainably adapt its economic and operational models in response to technological, social, and economic shocks. It underscores the system's role in advancing inclusive development, particularly through its contributions to financial inclusion initiatives.

Furthermore, it assesses the level of customer engagement, more specifically through the availability and quality of cross-border tracking data that enable seamless digital trade between countries. The 2IPD postal resilience algorithm is crafted to accommodate the differing priorities in development policies across nations, ensuring fair and meaningful comparisons.

For scores exceeding 60, the algorithm highlights the broader societal benefits of a resilient postal network, emphasizing its critical role in fostering long-term economic stability, inclusivity, and social cohesion.

Table 2: **Calculating 2025 2IPD scores**

CALCULATION OF 2025 2IPD SCORES

RELIABILITY (R1)	+ REACH (R2)	+ RELEVANCE (R3)	+ RESILIENCE (R4)
Assesses the development of the delivery experience from a service speed and predictability perspective by mail class on the national territory of a member country	Evaluates the level of postal connectivity and volumes exchanges of the country with the rest of the world from an inbound as well as from an outbound perspective	Measures the relative success of different business and network models and segments of activities from a demand-intensity perspective in the country	Estimates the postal capacity to overcome economic, social and technology shocks in a sustainable way and provide relevant data to customers and partners

+ BONUS (B)	Rewards for the availability and quality of postal official statistics, participation in carbon emissions reporting systems and progressive decarbonization achievements

Table 3: **Postal development levels (PDL)**

INCREASING POSTAL MATURITY AND POSTAL DEVELOPMENT IMPACT ON ECONOMIC RESILIENCE

PDL AND ECONOMIC RESILIENCE IMPACT	COHORT CHARACTERISTICS FROM A POSTAL AND ECONOMIC DEVELOPMENT PERSPECTIVE
10	PDL 10 represents the pinnacle of postal development excellence, comprising top-performing designated operators (DOs) that are exceptionally well-positioned to drive sustainable economic growth. These operators leverage cutting-edge technological innovation and robust infrastructure to maximize their positive impact on long-term national economic resilience. By fostering inclusive development and leading the internationalization of exchanges, they set the standard for global postal services.
9	DOs in this group are nearing their full potential, with significant contributions to national economic development. These operators effectively capitalize on their strengths while addressing any remaining weaknesses, positioning themselves as key drivers of their country's greater economic resilience and internationalization.
8	Taking a further step toward excellence, DOs in countries at this level offer a robust value proposition through their postal services portfolio. Their contributions play a crucial role in enhancing national economic resilience, supporting both businesses and citizens with reliable and efficient postal solutions.
7	DOs of countries at this level have likely reached important milestones in their postal development journey. They play a significant role in their domestic markets and are increasingly contributing to broader economic development, though their impact is not as pronounced as that of DOs at more advanced stages.
6	DOs at PDL 6 are actively accelerating their postal development by focusing on key performance areas to ensure consistent, reliable services. These efforts are poised to yield significant economic benefits, fostering higher growth and contributing to the reduction of inequalities within their countries.
5	The essential building blocks for postal success are in place, providing a foundation for future growth. If current development efforts are sustained, these DOs could unlock significant positive impacts on their country's economic growth and poverty reduction in the coming years, positioning themselves for a brighter postal future.
4	DOs at PDLs 4 and 3 are gradually moving toward meeting the necessary conditions to better serve both their current and potential customers, albeit at different speeds. While operators at PDL 4 are making steady progress, those at PDL 3 are facing more significant challenges, particularly in terms of digital transformation. With targeted investments, their contributions to national economic development could grow.
3	
2	DOs in this group primarily focus on basic operations, are increasingly disconnected at the international level and must significantly improve services and business mod¬els in order to be better positioned to seize future opportunities. Only then can they begin to contribute to more inclusive economic growth and development in their country.
1	DOs at PDL 1 are either in the early stages of development or significantly underperforming in terms of postal services. To ensure their survival, they must urgently address fundamental structural challenges, modernize their basic postal infrastructure, and enhance their role in national development. Reconnecting to the international postal network is also crucial for unlocking future opportunities and integrating into the global postal ecosystem.

Each of the four dimensions is scored on a scale from 0 to 100, situating a country in relation to its peers and allowing the 2IPD to capture both operational performance and strategic adaptability. Because postal markets evolve rapidly, the index supplements these core metrics with a bonus mechanism that rewards tangible progress in areas the UPU regards as critical for long-term success.

Bonuses are conferred only when achievements are documented by rigorous, quantifiable evidence, keeping the process objective and data-driven, and the list of eligible elements is reviewed regularly so that the index can respond to emerging sector priorities.

For the 2025 cycle the **bonus system concentrates on three domains that together advance transparency, digital transformation and environmental responsibility.**

First, it recognizes the production of high-quality, internationally comparable postal statistics and their submission in a timely manner, which enables the production of the annual UPU Postal Statistics.

Second, it values a DO's participation in the UPU's digital panorama survey, signalling a commitment to modern service offerings.

Third, it rewards comprehensive carbon-footprint reporting and demonstrable progress toward decarbonization, aligning postal development with global sustainability goals.

By weaving this adaptive bonus structure into its methodology, the 2IPD not only measures where postal operators stand today, but actively encourages them to innovate, to disclose reliable data and to reduce their environmental impact.

It is important to note that the **bonus score is additive, not punitive.** The bonus is added on top of the normalized 100 point score for countries that meet the criteria described.

No deductions from the core 100 points are made for countries that do not meet these criteria.

After extensive consistency checks on the UPU's big-data streams, each country's 2IPD result emerges from a two-stage calculation.

First, the algorithm assigns separate scores for reliability, reach, relevance and resilience, weighting the four dimensions equally and aggregating them into a single composite value.

Second, the composite is linearly normalized so that the top-performing country in a given year anchors the scale at 100 and the lowest performer anchors it at 0.

Any bonus points earned for exemplary data provision or demonstrable progress on decarbonization are then added on top, ensuring that the final figure rewards both operational and business excellence, as well as forward-looking commitments.

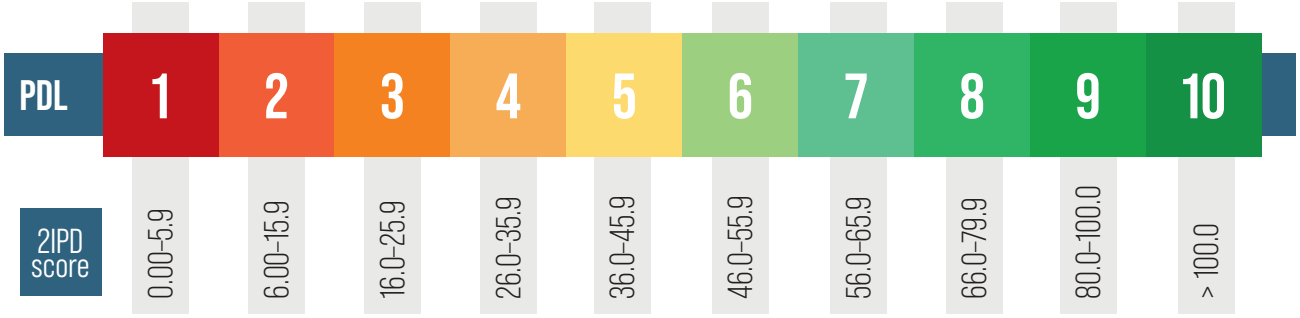
To translate these results into postal development levels, the distribution of final scores is examined with a clustering technique which pinpoints the natural break-points in the data. The critical thresholds identified through this statistical analysis define the 10 PDL tiers presented in Table 3, giving policymakers and operators a clear, objective yardstick for benchmarking progress year after year.

The conversion table between PDLs and 2IPD scores is shown in Table 4.

A final 2IPD score of 36.0 or above places a country in postal development levels 5 to 10, the upper-middle to high tiers of the scale.

As Table 3 shows, operators in these bands already possess, to varying degrees, the infrastructure, operational efficiency and strategic agility needed to underpin sustained economic growth and national resilience. Their

Table 4: **Postal development levels (PDL) and their corresponding 2IPD scores in 2024**



postal networks are – or can quickly become – deeply integrated with regional and global supply chains, providing reliable delivery, broad geographic coverage and the flexibility to respond to shifting market demands.

Scores below 36.0 fall into levels 1 to 4, signalling low to lower-middle postal development. In these tiers, the data points to outdated assets, patchy service reach and limited innovation capacity, all of which prevent operators from reaping the benefits of greater regional integration. Such shortcomings restrict the sector's contribution to commerce and can slow a country's broader development agenda, underscoring the urgency of targeted investment and reform.

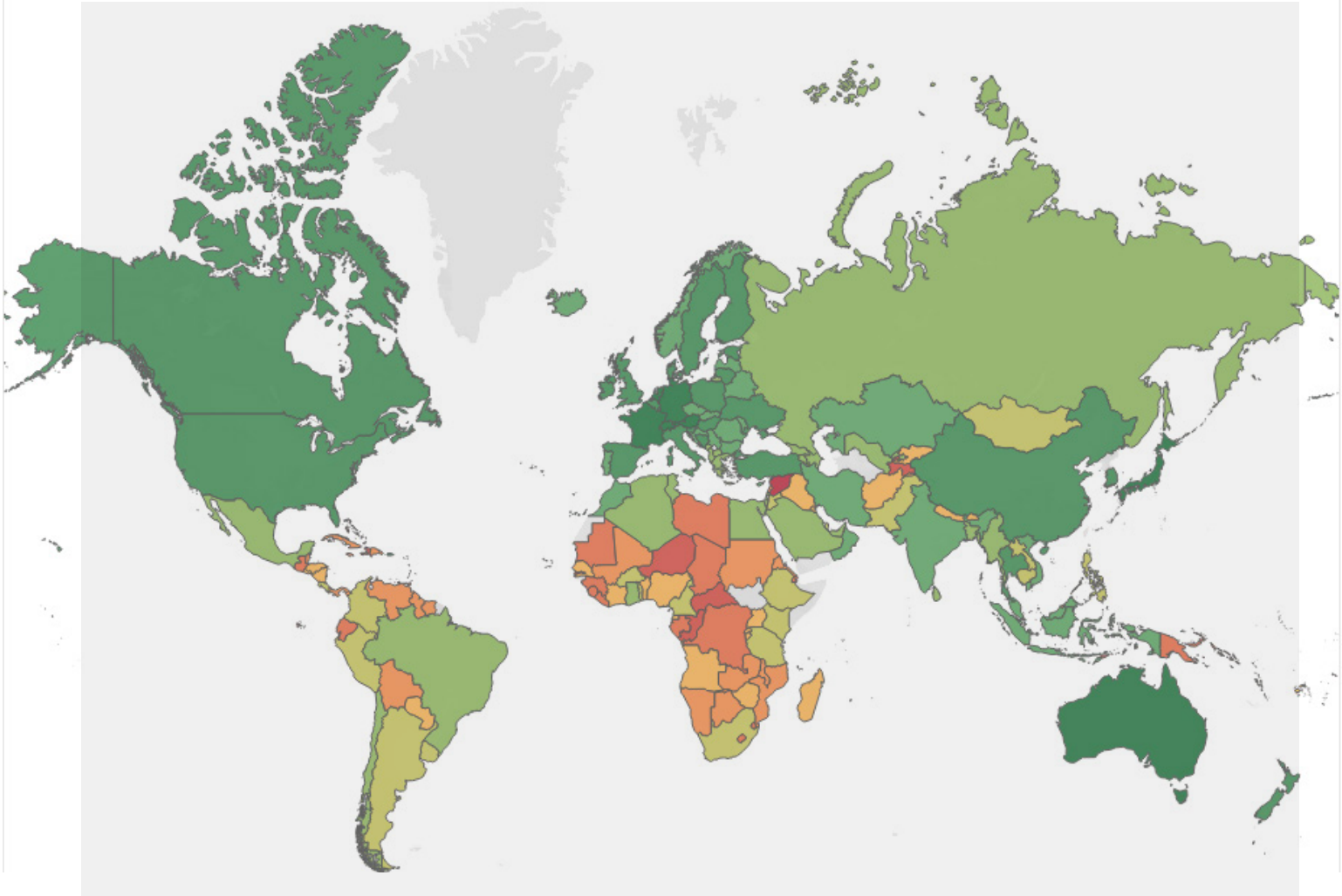
Because every 2IPD result is accompanied by detailed component scores for reliability, reach, relevance and resilience, governments and operators can perform a precise gap analysis to identify where improvements will deliver the greatest return.

Guided by these diagnostics – and supported by focused capital spending, technical cooperation and policy reform – countries can move steadily up the PDL ladder, enhance their integration into the global postal network and amplify the sector's impact on economic and social progress.

POSTAL DEVELOPMENT LEVEL AND 2IPD SCORE RESULTS

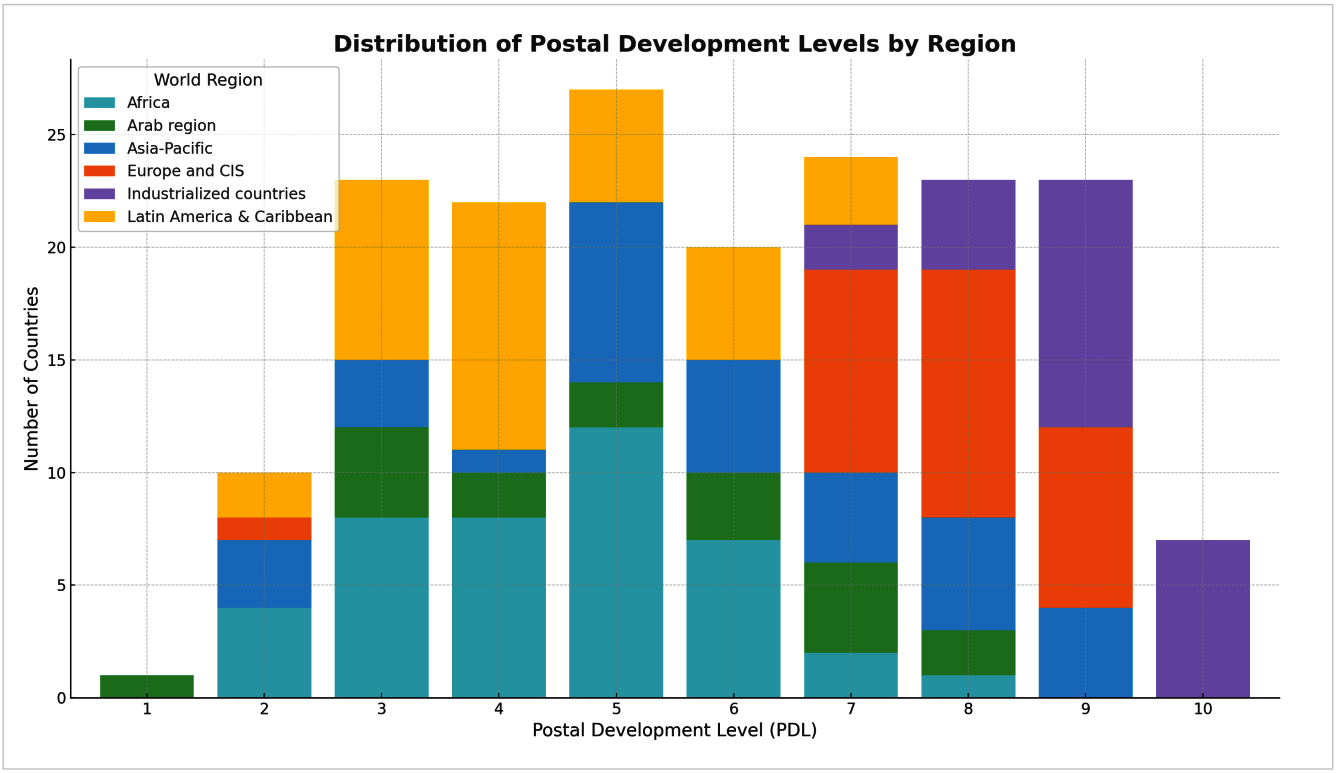
As mapped in Figure 19, 2024 PDLs continue to reveal significant disparities in postal development, not only between advanced and developing nations, but also within regions, particularly in Africa, Latin America and the Caribbean, and Asia-Pacific.

Figure 19: **2024 postal development level by country**



Source: UPU

Figure 20: 2024 PDL distribution across UPU regions



Source: UPU

Figure 20 charts PDL distribution by country and region, revealing pronounced inter-regional disparities among designated operators worldwide. Intra-regional gaps are especially wide in developing areas compared with those in advanced economies.

Under the UPU's classification scheme, developed economies are designated as **industrialized countries (ICs)**. Thanks to their mature infrastructure and consistently high service standards, most of these postal operators cluster in **PDL 9 and 10,** with only a handful appearing in PDL 7 or 8.

The **Europe and CIS region** comprises developing economies in Eastern Europe and the Commonwealth of Independent States. Here, postal performance spans **PDL 7 to 9,** indicating generally advanced – but still varied – levels of development; one notable outlier falls as low as PDL 2.

In the **Arab region** (North Africa and the Middle East), geopolitical conditions and diverse cooperation frameworks create a far less uniform picture. Postal operators range widely – from **PDL 1 all the way to PDL 8** – showing no clear concentration around particular tiers and underscoring the heterogeneity of postal development across these countries.

The **Africa region,** encompassing Sub-Saharan economies, grapples with acute infrastructure gaps and broader socio-economic constraints that slow postal modernization. Consequently, most operators cluster in **PDL 3 to 5,** signifying early- to lower-middle stages of development. A handful have surged ahead to **PDL 6–8,** proving that targeted investment can yield rapid gains, while a few still lag in **PDL 2,** highlighting the depth of the challenge that remains.

The **Asia-Pacific region** stretches from the Pacific Islands to the major economies of continental Asia, embracing a wide array of emerging and developing markets. Rapid urbanization and uneven rates of technological uptake produce markedly different postal outcomes: designated operators span the full spectrum from **PDL 2 to PDL 9,** though most cluster in the **PDL 5–7** band.

Lastly, the **Latin America and Caribbean region** – stretching from Mexico through Central and South America to the island nations of the Caribbean – displays postal sectors that are steadily modernizing despite widely varied economic conditions. Most designated operators fall in **PDL 3 to 5,** signalling early- to lower-middle stages of development, while a few regional front-runners have advanced into **PDL 6 and 7.**

The median 2IPD scores by regions are as follows:

Table 5: **Median 2IPD scores by UPU region**

UPU Region	Median score
INDUSTRIALIZED COUNTRIES	94.4
EUROPE AND CIS	72.5
WORLD	50.8
ASIA-PACIFIC	46.4
ARAB COUNTRIES	42.4
AFRICA	36.3
LATIN AMERICA AND THE CARIBBEAN	32.3

Source: UPU

The median 2IPD scores reveal a steep development gradient. Industrialized economies sit at 94.4 – nearly twice the global median of 50.8 – while Europe and CIS follow at 72.5, still comfortably above the midpoint. In contrast, Asia-Pacific (46.4), the Arab region (42.4), Africa (36.3) and Latin America and the Caribbean (32.3) cluster well below the world average, with a gap of more than 60 points separating the highest- and lowest-performing regions.

Such disparities confirm that **postal modernization is advancing unevenly and that the benefits of digital trade, e-commerce and financial inclusion risk being concentrated in a few parts of the globe.**

Addressing this imbalance will require tailored investment, capacity-building and technical cooperation that target the specific bottlenecks in lower-scoring regions – whether infrastructure gaps, limited international connectivity or weak data capabilities – so that all designated operators can participate fully in the international postal ecosystem.

Figure 21 sharpens the regional picture.

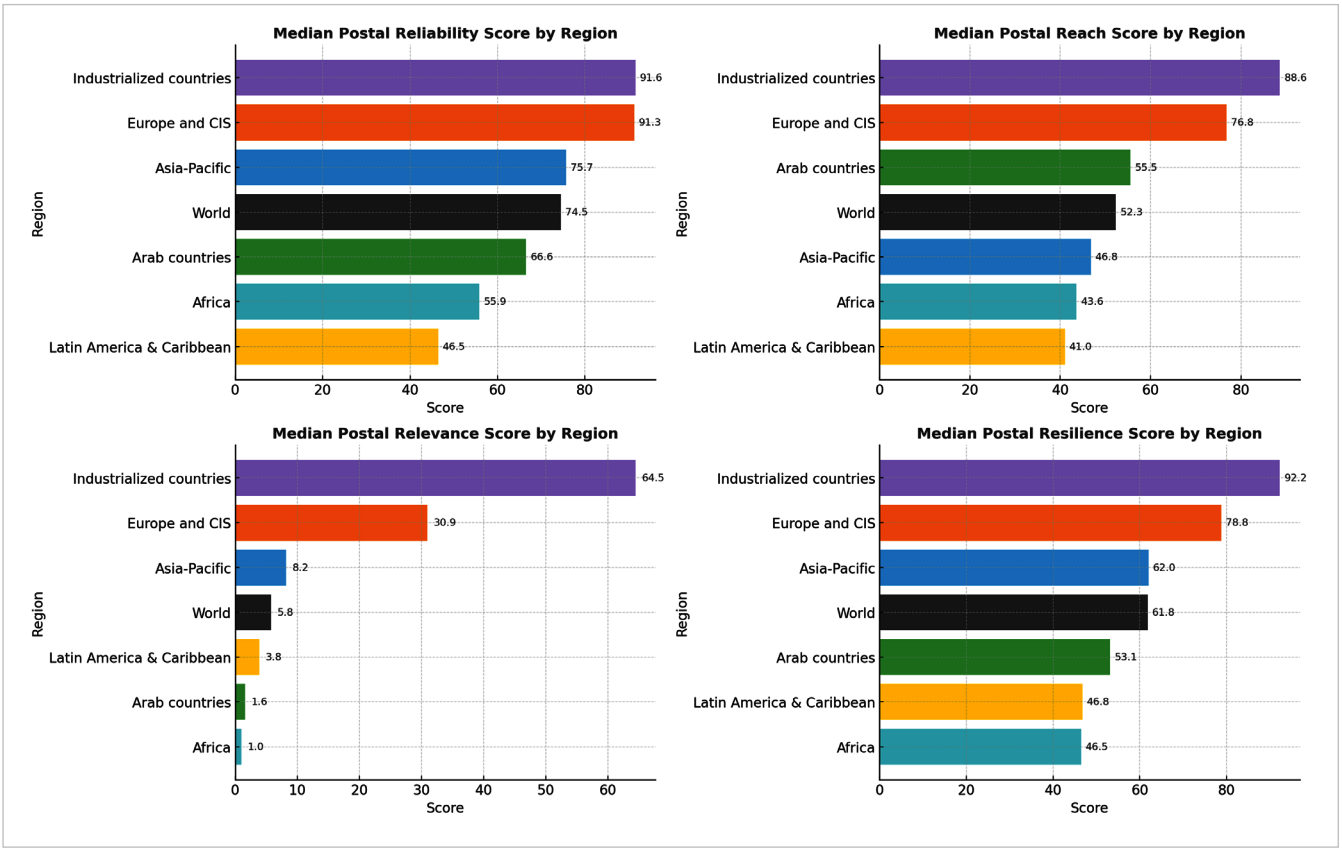
Industrialized economies dominate every pillar: their median scores approach 92 for reliability and resilience, 89 for reach, and a still-impressive 65 for relevance, explaining their concentration in PDL 9–10. **Europe and CIS** operators virtually match their industrialized peers on reliability (91.3 vs 91.6) but lag by 10–15 points in reach and resilience and achieve only about half the relevance score (31).

At the opposite end, **Latin America and the Caribbean** and **Africa** mostly post medians below 50 in reliability, reach and resilience and do not even break the 4-point mark for relevance, mirroring their prevalence in PDL 2–4.

Asia-Pacific and the **Arab region** occupy the middle ground: reliability and resilience medians sit in the 50-76 range and their international reach hovers around the world median, yet relevance remains strikingly low – about 8 in Asia-Pacific and below 2 in Arab countries – highlighting under-tapped demand and sparse service networks.

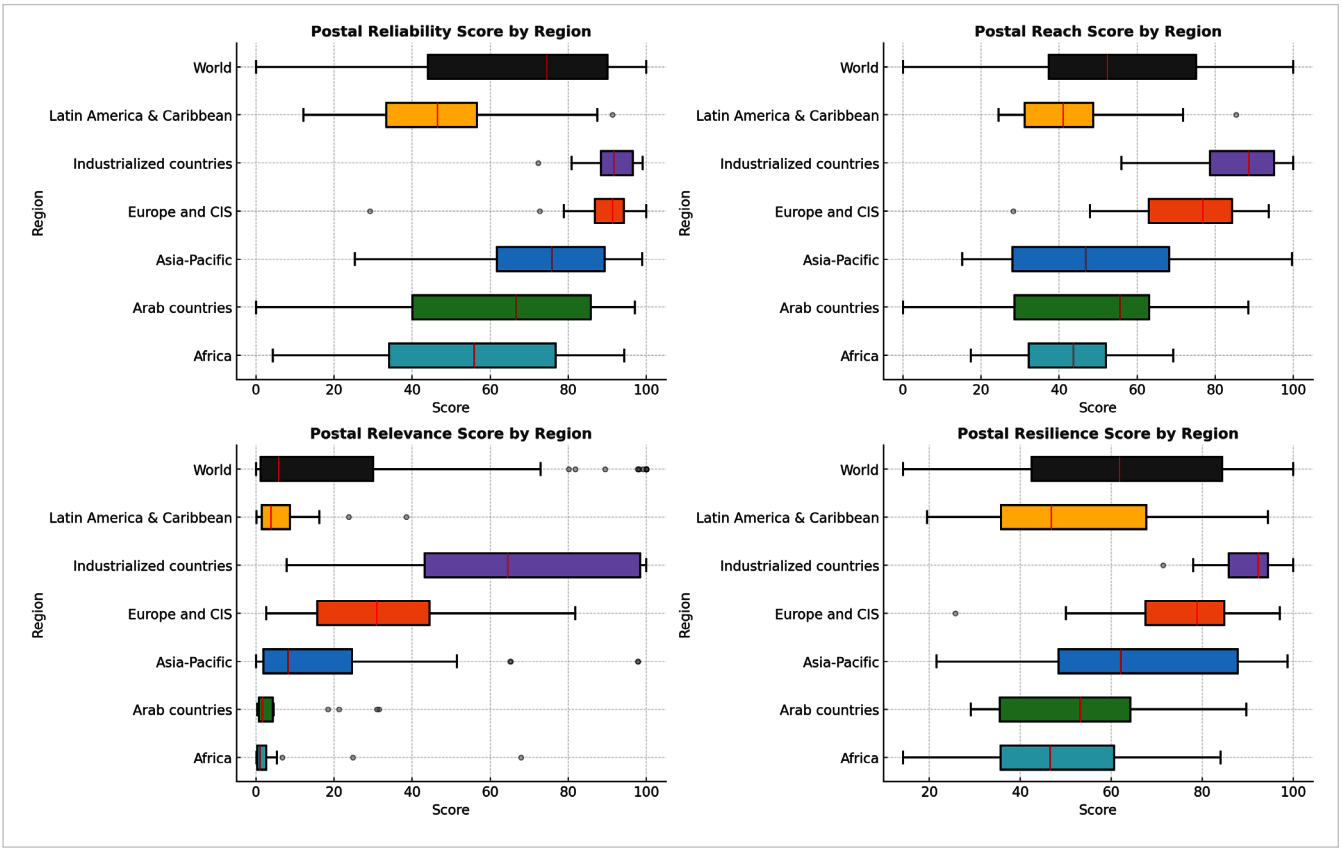
These stark gaps underscore how unevenly postal modernization is progressing and why tailored investment and technical cooperation are essential to close both inter-regional divides.

Figure 21: **Median 2IPD sub-scores by UPU region**



Source: UPU

Figure 22: **Boxplot of 2IPD sub-scores across UPU regions**



Source: UPU

Figure 22 deepens the regional diagnosis by displaying the full distribution – not only the medians – of reliability, reach, relevance and resilience scores.

Connectivity (reach)

Industrialized countries continue to set the pace, with an inter-quartile range (IQR) that sits entirely above 70 and a median near 90, signalling uniformly strong cross-border links. Europe and CIS follow, but their wider IQR (roughly 55–85) flags pockets of weaker connectivity inside the group.

At the other extreme, Africa and Latin America and the Caribbean cluster in the low-40s and show little dispersion, implying that limited reach is a region-wide constraint rather than a problem confined to a few laggards.

Asia-Pacific and the Arab region occupy the middle ground, yet both display long upper whiskers: a handful of out-performers – most visibly China and the United Arab Emirates – manage reach scores that rival the best in the world, while their neighbours struggle to keep pace.

Service performance (reliability)

The reliability plot tells a similar story. Industrialized and Europe and CIS operators record medians above 90, the former with an especially tight band that speaks to consistently high quality of service standards.

Asia-Pacific, the Arab region and Africa all span 30–90, underscoring wide divergence in operational quality; Latin America and the Caribbean remain concentrated in the mid-40s. Such low and uneven scores translate into longer, less predictable delivery times, directly constraining the international expansion of e-commerce.

Market orientation (relevance)

Relevance is the dimension with the starkest gaps. Industrialized economies reach a median of roughly 65 but also show the broadest dispersion in terms of IQR – evidence of varied strategies for diversifying postal revenue into parcels, financial services and digital products beyond traditional letter-post services.

Europe and CIS and Asia-Pacific sit at about half that IQR dispersion level, signalling diversification efforts. Africa, the Arab countries and Latin America and the Caribbean post single-digit medians and much lower score variations, in turn revealing that, with a few exceptions, demand for postal products beyond basic letter and parcel delivery services remains largely untapped in those regions.

Adaptive capacity (resilience)

The resilience chart again puts industrialized countries on top (median ≈92, very tight spread), with Europe and CIS next (≈79). Asia-Pacific and the Arab countries are mid-table but heterogeneous, reflecting different responses to economic, social and technological shocks.

Latin America and the Caribbean and Africa cluster around 47, suggesting limited ability or political will to invest, digitalize or scale operations in a crisis.

Overall, the boxplots confirm that postal modernization is advancing unevenly – both across and within regions. Only the industrialized and most of the Europe and CIS operators currently combine high reliability, broad reach and strong resilience, whereas low-scoring regions face a dual challenge: raising the floor for lagging countries and narrowing yawning intra-regional gaps.

The detailed score ranges provided in the annexed tables offer granular starting points for the targeted investment, technical assistance and policy reforms needed to close these divides and integrate every country more fully into the global postal network.

2024 2IPD SCORES BY COUNTRY

The annex to this report presents a country-by-country table of the 2IPD results: the four pillar scores (reliability, reach, relevance and resilience); any bonus points; and the final composite score.

Entries are grouped by PDL, making peer comparisons straightforward. The dataset is also supplied as a spreadsheet for users who wish to run their own benchmarking or regional gap analyses[4].

Figure 23 plots the 53 designated operators that have attained postal development levels 10, 9 or 8.

The chart shows that **PDL 10 is the exclusive preserve of industrialized economies:** Switzerland tops the ranking with a composite score just under 110, closely followed by Germany, Japan, the Kingdom of the Netherlands, Australia, France and Austria. These seven operators combine near-perfect reliability and reach with high relevance and resilience, confirming the pivotal role well-resourced postal systems play in advanced, digitized economies.

However, below this summit, the picture diversifies.

While industrialized countries still account for the largest share of the elite group – 22 of the 53 – **Europe and the CIS contribute almost as many high performers (19)**. Estonia leads that regional cohort, and other operators in this region, such as Bosnia and Herzegovina and Ukraine, have also advanced into PDL 9. Their progress underlines how targeted investment and regulatory reform can compress long-standing development gaps within a single region.

Asia-Pacific supplies nine members of the top tier, headed by Thailand and China in PDL 9 and rounded out by Singapore, Malaysia, India, Viet Nam, Indonesia and the Republic of Korea in PDL 8 or 9. The region's score range is wide – stretching from nearly 100 for Thailand to just under 68 for Iran (Islamic Rep.) – which reflects the differing pace at which operators are expanding cross-border e-commerce logistics and digital services.

Representation from other regions, although limited, is significant. **Mauritius is the lone African entrant,** with a score of 73.3 which propels it into PDL 8 and demonstrates that strategic modernization can overcome scale constraints.

The Arab countries have two operators – Oman and Morocco – in PDL 8, underscoring the strides some Middle-Eastern and North-African Posts are making in reliability and reach. No country from Latin America and the Caribbean appears in this bracket, echoing the development gap highlighted in earlier sections of the report.

Taken together, the data confirms that, while high postal development remains concentrated in advanced economies, it is no longer their exclusive domain.

> A growing cadre of middle-income countries – particularly in Eastern Europe, the CIS and Asia-Pacific – are closing in on the leaders, suggesting that concerted investment, supportive regulation and digital innovation can rapidly elevate postal performance to world-class levels.

Figure 24 shows the 44 designated operators that occupy the "upper-middle" band of the index – postal development levels 7 and 6 – where final 2IPD scores range from about 66 down to 46.

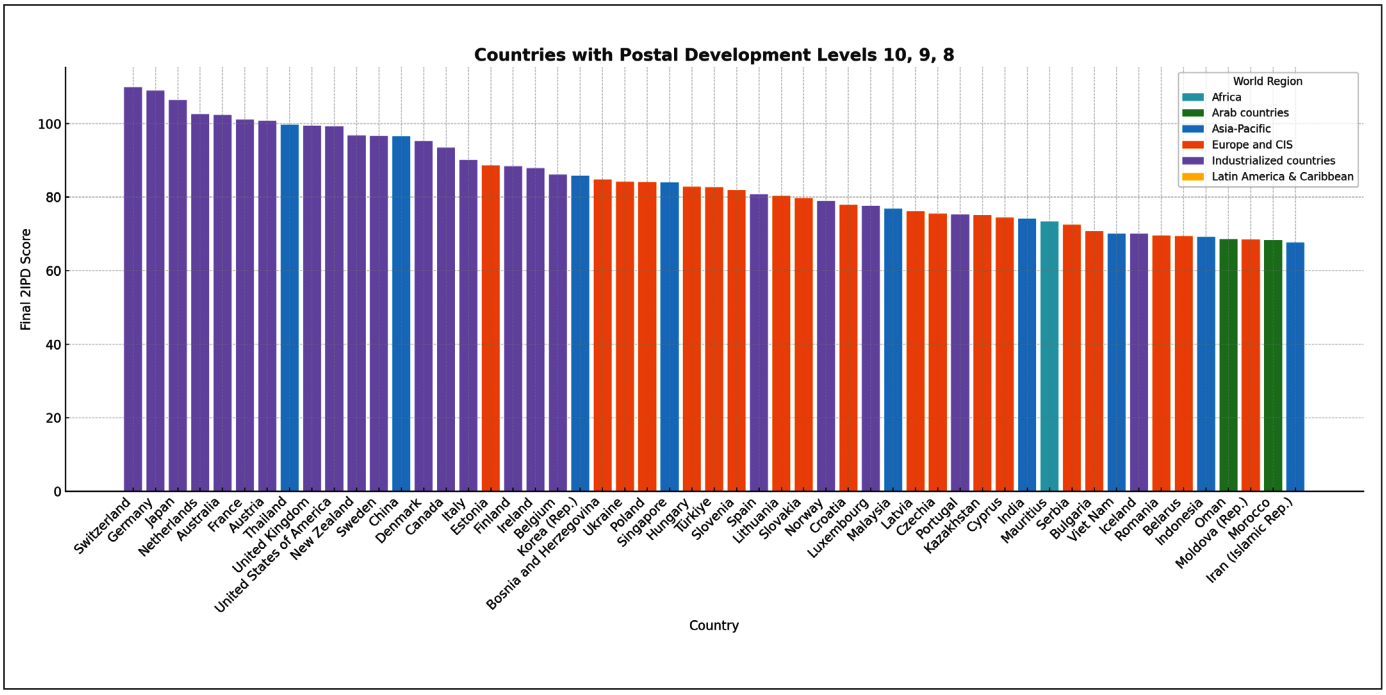
Although these Posts have not yet broken into the global elite, they already deliver broadly reliable services and maintain functional international links.

The composition of this tier is strikingly diverse. **Europe and the CIS** supplies the single largest contingent, with nine operators. Azerbaijan tops the entire group at 65.9, closely followed by the Russian Federation and Montenegro; every Post from this region scores above 57, giving it both the highest mean (≈61) and the tightest distribution.

The Arab region is next, contributing seven countries – among them Saudi Arabia (65.5) and Tunisia (62.8) – and posting the second-highest regional average.

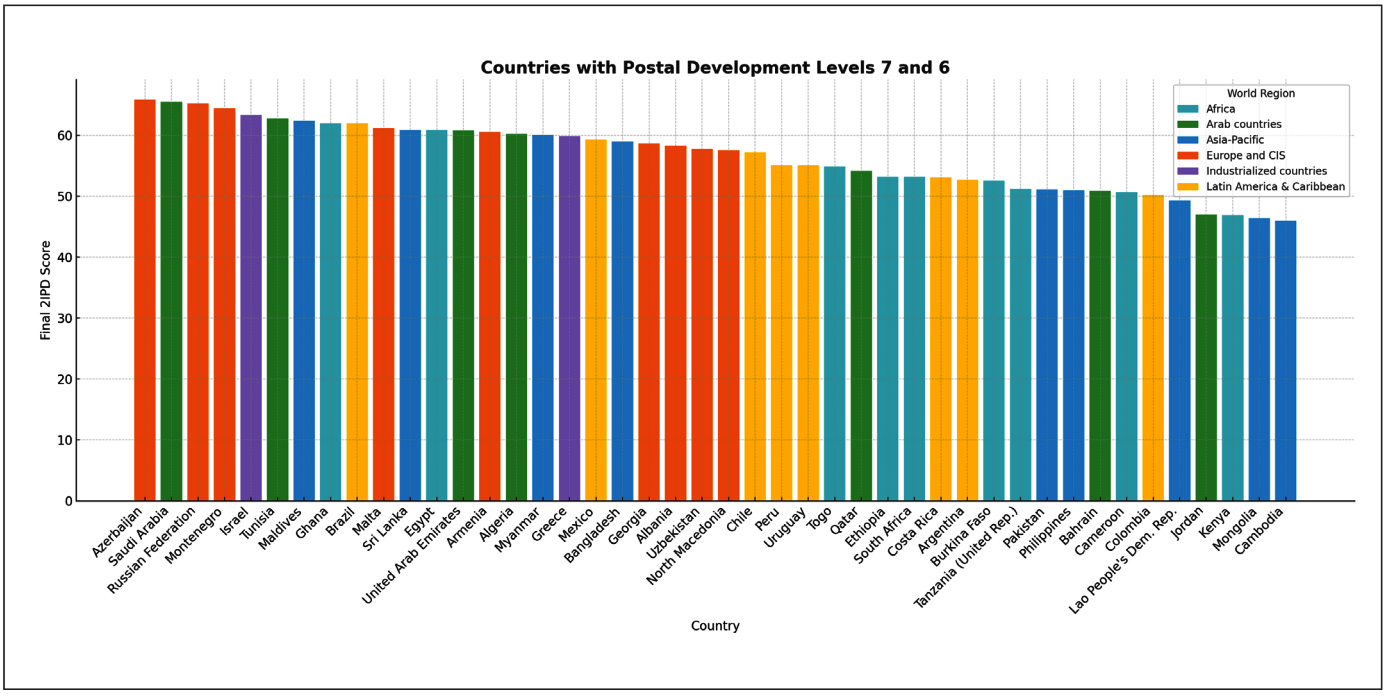
4 The data file can be accessed from the relevant annual report page at www.upu.int/en/universal-posal-union/activities/research-publications/integrated-index-for-postal-development.

Figure 23: **2024 countries at PDLs 8–10**



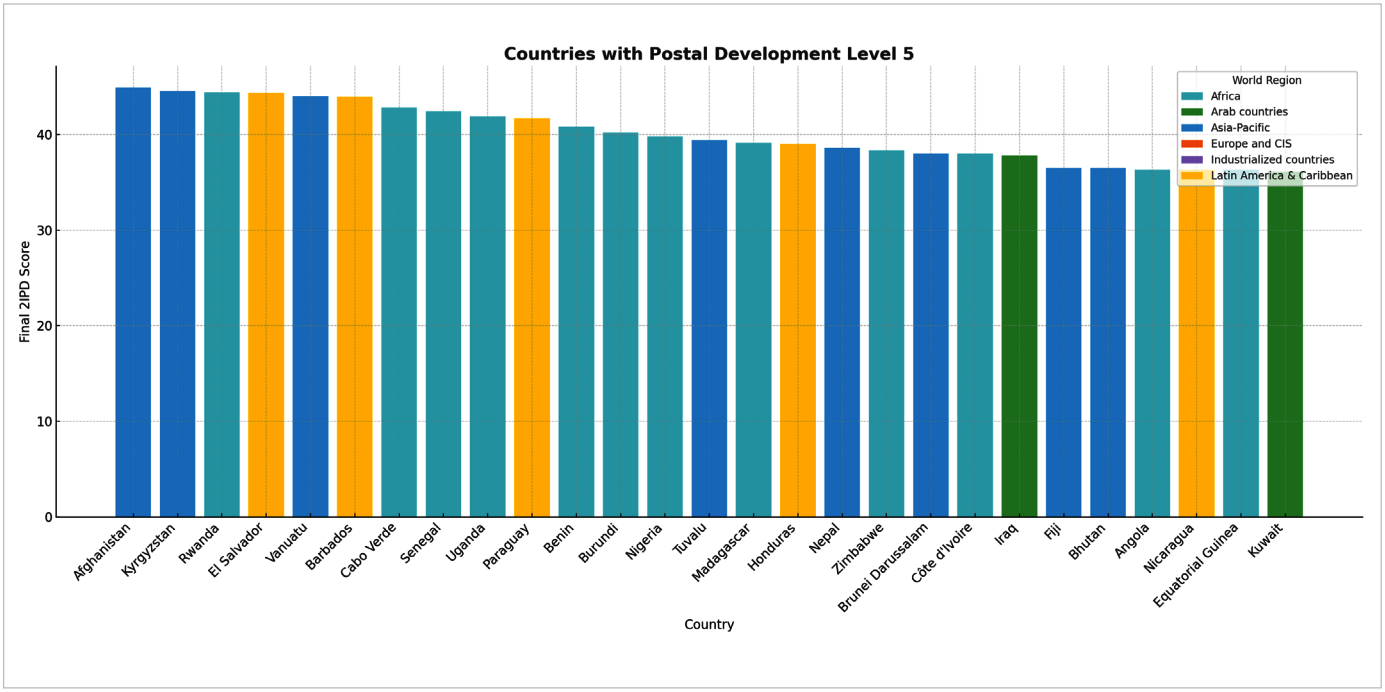
Source: UPU

Figure 24: **2024 countries at PDLs 6–7**



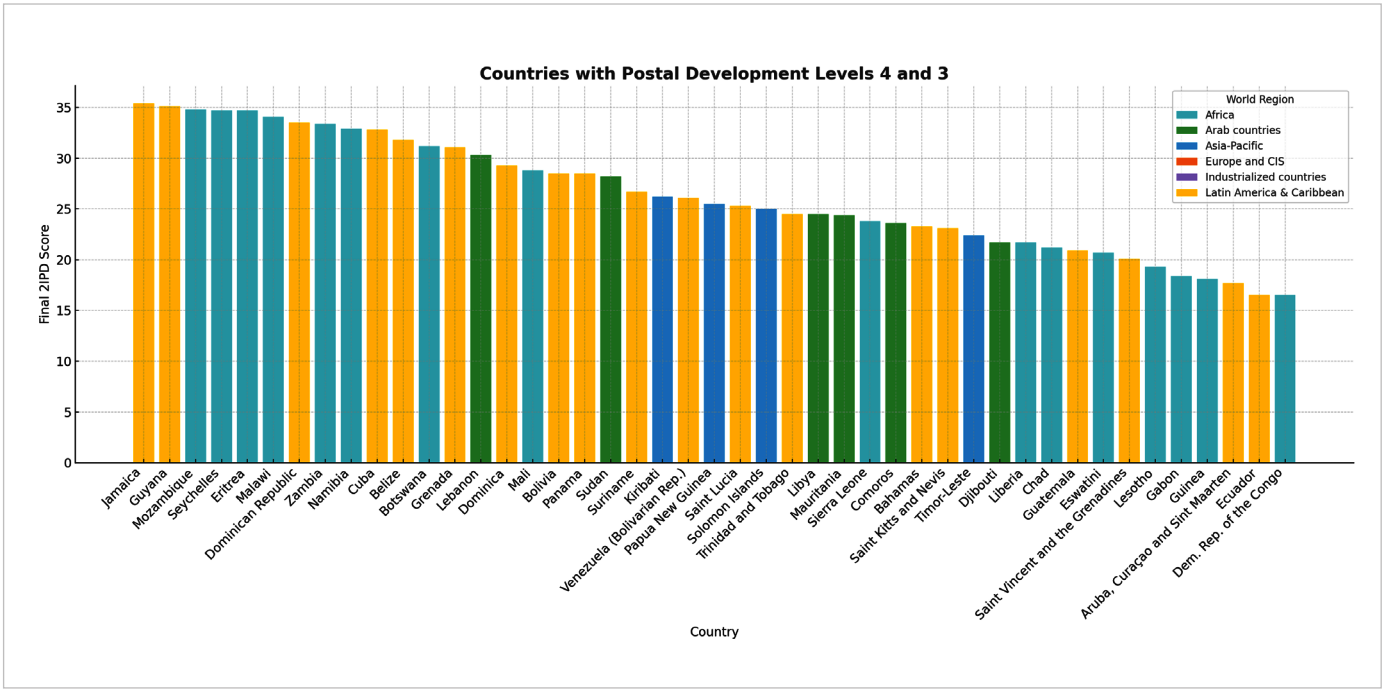
Source: UPU

Figure 25: **2024 countries at PDL 5**



Source: UPU

Figure 26: **2024 countries at PDLs 3 and 4**



Source: UPU

Three other regions each place nine entries: **Africa, Asia-Pacific and Latin America and the Caribbean.** Ghana (62.0) leads the African cohort, while the Maldives (62.4) heads Asia-Pacific, and Brazil (62.0) anchors Latin America. Scores within these regions fan out over a wider band – roughly 15–20 points – signalling uneven progress in network modernization and market diversification.

Only **two industrialized country** Posts appear – Israel (63.4) and Greece (59.9) – a reminder that high national income alone does not guarantee top-tier postal performance; sustained investment and strategic renewal remain essential.

Operators in PDL 7 and 6 therefore form a launchpad segment: they have mastered the basics of reliability and reach, but still lag in relevance and resilience.

Targeted upgrades – expanding parcel logistics, broadening digital services and strengthening sustainability practices – could lift many of them into PDL 8 or higher in the next assessment cycle, further narrowing the global postal development gap.

Figure 25 groups the 27 designated operators that fall into **postal development level 5**. Their final 2IPD scores run from **44.9** for Afghanistan at the top of the band to **36.1** for Kuwait at the bottom, a spread of barely nine points – far narrower than in higher tiers and well below the global median of 50.8. The compact range highlights a shared set of capability gaps among these Posts.

The regional profile is dominated by **Africa**, which contributes 12 operators, headed by Rwanda (44.4) and Cabo Verde (42.8).

Asia-Pacific follows with eight – including three Posts in small island developing states – while **Latin America and the Caribbean** accounts for five, led by El Salvador (44.3) and Paraguay (41.7).

Only two Posts – Kuwait (36.1) and Iraq (37.8) – represent the **Arab region**, and none from the industrialized country group appear in this band.

Across regions, PDL 5 operators generally manage basic reliability and maintain limited international reach, but they lag on relevance and resilience.

Average scores cluster around 40 for Africa and Asia-Pacific, 41 for Latin America and the Caribbean, and just under 37 for the Arab region, underscoring the uniform need to deepen market diversification, improve digital capabilities and build shock-absorbing capacity.

Targeted upgrades in parcel logistics, data quality and sustainability could help many of these Posts clear the 46-point threshold required to enter PDL 6, enhancing their role in cross-border e-commerce and regional integration.

Figure 26 charts the 45 designated operators that are clustered in the lower-middle tier of the index – postal development levels 4 and 3 – where final 2IPD scores fall well below the world median of 50.8 and range from **35.4 to 26.1** in PDL 4 and **25.5 to 16.5** in PDL 3.

Although their basic postal functions are intact, operators at these levels still struggle to provide reliable, internationally connected services, and have yet to diversify meaningfully beyond traditional mail.

Postal development level 4 comprises 22 countries. Half of these (11) come from Latin America and the Caribbean, with Jamaica (35.4) and Guyana (35.1) topping the band. Africa follows with eight entries – Mozambique (34.8) and the Seychelles (34.7) lead that group – while the Arab region contributes Sudan and Lebanon, and Asia-Pacific is represented solely by Kiribati. Scores are tightly bunched into a nine-point corridor, signalling broadly similar operating constraints across regions: modest reliability, patchy cross-border reach, and very low relevance scores.

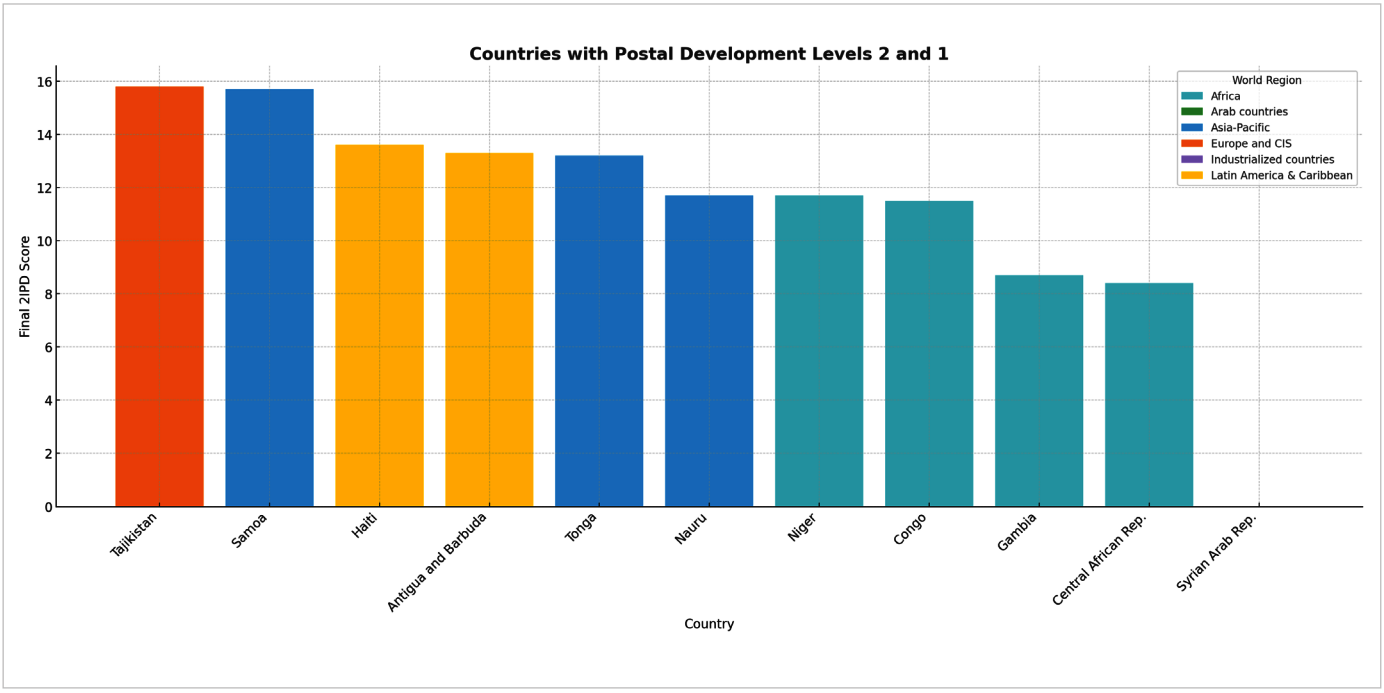
Postal development level 3 includes 23 countries. Africa and the Latin America and Caribbean region each supply eight operators; Papua New Guinea (25.5) sets the ceiling for the tier, while the Democratic Republic of the Congo and Ecuador anchor the floor at 16.5. The Arab region places four Posts, with Libya at 24.5 the strongest among them, and Asia-Pacific contributes three. The narrow nine-point spread again suggests shared structural challenges – limited infrastructure, thin digital capabilities and minimal market diversification.

Regional averages accentuate these gaps. In PDL 4, Africa records a mean score of about 33, Latin America and the Caribbean 31, the Arab region 29, and Asia-Pacific 26. In PDL 3 the ranking shifts: Asia-Pacific (≈24) and the Arab region (≈23.5) nudge ahead of Latin America and the Caribbean (≈21.4) and Africa (≈20), reflecting slightly better reach and resilience among a handful of island and Gulf Posts.

Collectively, PDL 4 and 3 operators deliver the bare essentials of postal service but remain vulnerable to disruption and poorly positioned for e-commerce.

Targeted investment in last-mile reliability, international transport links and basic digital services – combined with structured technical assistance – will be critical if these Posts are to climb into PDL 5 and above, thereby unlocking the socioeconomic benefits that accompany deeper participation in the global postal network.

Figure 27: **2024 countries at PDLs 1 and 2**



Source: UPU

Figure 27 profiles a very short tail of the PDL distribution table: 11 designated operators are assigned to **postal development levels 2 and 1.**

Their final 2IPD scores span a razor-thin band, from **15.8** for Tajikistan – the sole representative of the Europe and CIS region – to **8.4** for the Central African Republic, with the Syrian Arab Republic alone in PDL 1 at **0.0**. All other countries in the group cluster between 16 and 9 points, far below the world median of 50.8 and beneath the PDL 3 floor of 16.5.

Regional representation is highly fragmented. **Africa** accounts for four of the 11 Posts (Niger, Congo, the Gambia and the Central African Republic); **Asia-Pacific** contributes three small island states (Samoa, Tonga and Nauru); **Latin America and the Caribbean** adds two (Haiti and Antigua and Barbuda); and the **Arab region** appears only through the Syrian Arab Republic.

Across the board, operators at PDLs 2 and 1 share the same structural weaknesses: rudimentary reliability, virtually no international reach, negligible service diversification and extremely thin resilience scores.

Their limited data visibility further hampers targeted policy support. Moving these Posts up even a single level will demand foundational investment in core logistics infrastructure, reliable transport links and basic digital tracking, coupled with intensive technical assistance to build managerial and data-reporting capacity.

Without such efforts, these countries risk remaining excluded from the economic benefits that accompany deeper participation in the global postal network.

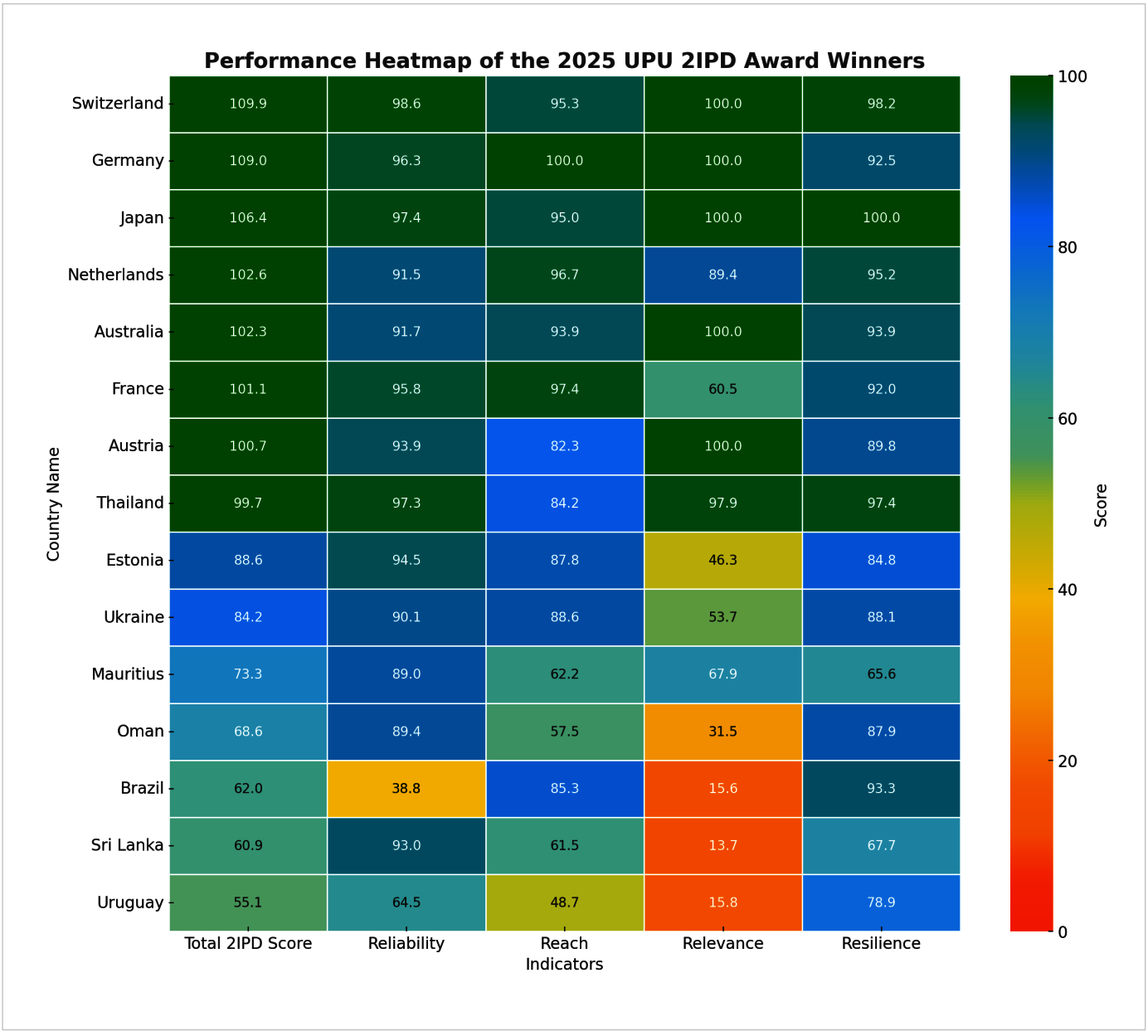
LEADERS IN POSTAL EXCELLENCE, REGIONAL CHAMPIONS, RISING STARS AND TOP 2IPD IMPROVERS

Drawing on the 2024 2IPD dataset and its corresponding PDL classifications, the 2025 UPU 2IPD awards single out operators that have achieved statistically significant levels or gains in service efficiency, network reach, market development and institutional resilience.

By highlighting jurisdictions where targeted investment, sound regulation and organizational reform have translated into measurable improvements, the awards provide an evidence-based reference point for policymakers seeking to leverage the postal sector as an instrument of trade facilitation, financial inclusion and broader sustainable economic development.

Figure 28 visualizes the award recipients' performance through a heatmap which captures both the scope and intensity of their achievements across the core postal development indicators.

Figure 28: **Sub-score performance heatmap of 2025 2IPD awardees**



Source: UPU

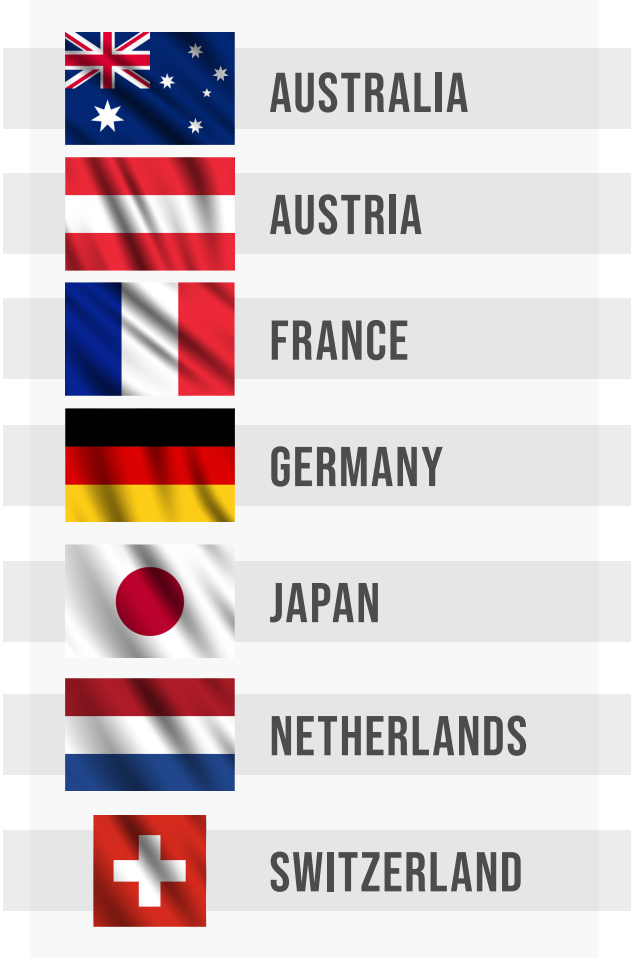
Leaders in postal excellence

In the **leaders in postal excellence** category, the PDL-10 economies distinguish themselves with uniformly high marks across every metric – evidence of mature, resilient postal infrastructures.

Switzerland tops the table yet again: its 2024 2IPD score of 109.9 marks a ninth straight year at the summit and reaffirms its status as the world's best-performing postal service.

Only seven countries' postal services attained **postal development level 10** – the highest "top level of postal excellence". These include the world's best-performing postal systems.

Table 6: **2025 leaders in postal excellence**



Each excels across the four core pillars of postal development – **reliability, international reach, market relevance, and organizational resilience** – though with distinct areas of comparative strength. Drawing on institutional reports and recent initiatives, we group these leading Posts by their shared pillars of excellence, highlighting exemplar countries in each domain and the strategies underpinning their success.

Several of these top postal operators distinguish themselves through exceptional reliability, ensuring near-flawless service performance. Swiss Post and Japan Post, in particular, exemplify this commitment to quality.

Swiss Post consistently meets or exceeds strict delivery targets: in 2023 it delivered 97.3% of priority letters and 95.7% of priority parcels on time, with economy mail on-time rates even hitting 99–100%. Such results reflect heavy investment in modern logistics and rigorous service monitoring.

Japan Post, likewise renowned for reliability, leverages a vast network and a culture of meticulous service. It has embraced new technologies – from automated sorting systems to trailing drone deliveries – to uphold fast, dependable delivery standards in an increasingly digital market. This sustained operational excellence has made the postal service a cornerstone of Japanese society. Germany and France also score in the mid-90s on reliability, indicating that across level-10 countries, high quality of service is a shared norm founded on continuous process improvements and adherence to service guarantees.

Global network connectivity is another defining strength of leading postal systems, with Germany, France and the Netherlands standing out as international reach champions.

Deutsche Post DHL in Germany leverages its integration with the DHL logistics group to serve over **220 countries and territories worldwide.** This unparalleled global presence (nearly every country on the map) gives Germany a perfect reach score (100), reflecting its ability to move mail and parcels swiftly across borders and support global e-commerce flows.

La Poste France, through its GeoPost/DPD parcel network, also achieves a high international reach – operating in over 50 countries across all continents – which bolsters France's cross-border e-commerce and delivery capabilities.

Similarly, **PostNL** in the Kingdom of the Netherlands has capitalized on the country's role as a trade and transit hub; its cross-border solutions unit reported surging parcel volumes from Asia in 2023 as it built out optimized international hubs and partnerships. These examples illustrate how top postal operators pair domestic excellence with extensive international logistics integration.

By investing in worldwide delivery networks, partnerships, and tracking systems, they ensure that businesses and consumers can reliably exchange goods and messages across the globe – a vital attribute in today's interconnected commerce.

A hallmark of level-10 Posts is their strong **market relevance,** achieved by diversifying services and continuously aligning with evolving customer needs. Many have transformed from traditional mail carriers into multifaceted service providers at the centre of everyday economic life.

Japan Post is a prime example: through its Post Bank and insurance arms, it has become a financial giant – at one point the world's largest savings bank with hundreds of trillions of yen in deposits. This breadth of offerings (from banking and insurance to logistics) keeps Japan Post deeply embedded in citizens' lives, especially in communities where post offices serve as financial hubs.

Swiss Post has likewise expanded beyond mail, leveraging public trust to offer digital-age services. It operates a national e-health platform and secure digital identity services (e.g. SwissID), and even develops e-voting systems for Swiss cantons. These innovations ensure Swiss Post remains an essential infrastructure for communication, e-government and commerce.

Other leaders have pursued similar relevance strategies: **Australia Post,** for instance, acts as an agent for government and banking services in rural areas and has aggressively grown its parcel and e-commerce solutions in response to online shopping demand.

Even medium-sized Posts like **Austria's** have 100% relevance scores, often due to diversified portfolios (postal banking partnerships, digital services) and strong e-commerce logistics roles. Across all these countries, the postal operator is not a relic – it is a modern, adaptable enterprise that continues to meet contemporary consumer and business needs (from financial inclusion to parcel delivery) in ways that reinforce its societal importance.

Finally, the top-tier Posts demonstrate **organizational resilience** – the capacity to adapt, innovate, and sustain performance amid changing markets. This resilience is underpinned by strategic reforms and forward-looking investments.

France's La Poste Group provides a clear example: facing structural declines in letter mail, it launched a comprehensive 10-year plan, "La Poste 2030, committed to you" focused on profitable growth and a digital-ecological transformation of the business. The strategy pledges to accelerate digital services (e.g. trusted digital identity, e-government solutions) and lead in green logistics, while overhauling the organization for agility and reinforcing its public service mission.

In **Australia,** resilience has been bolstered through government-mandated modernization: in April 2024, Australia Post was allowed to reduce its regular letter delivery to every other day (in metro areas) in the light of falling mail volumes. This reform frees up resources to improve parcel services and financial sustainability, ensuring the postal network remains viable and customer-focused in the digital era.

Top Posts are also investing heavily in **innovation for sustainability and efficiency,** strengthening their long-term robustness.

The **Austrian Post,** for instance, has committed to fully **fossil-free deliveries by 2030,** already operating the nation's largest electric vehicle fleet (over 5,000 EVs) and piloting green technologies like e-trucks and even using EVs as mobile air filters. **Deutsche Post DHL** has similarly implemented ambitious decarbonization measures (electrifying delivery vans, installing solar facilities) and earned extra index points for its carbon-saving initiatives. These efforts illustrate how organizational resilience among leading Posts goes hand-in-hand with innovation – whether through digital transformation, service re-engineering, or environmental sustainability – to future-proof postal services against 21st-century challenges.

In summary, while all seven level-10 countries boast well-rounded postal excellence, each has forged particular strengths along one or more of the four pillars.

Reliability remains the bedrock – from Switzerland and Japan's near-perfect delivery timeliness to Germany and France's high service standards. **International reach** differentiates those like Germany, France and the Netherlands that have built globally integrated networks supporting trade and e-commerce.

Market relevance is sustained by diversification, exemplified by Japan's financial services and Switzerland's digital ventures keeping the Post indispensable in modern life. And **this** is evident in the bold reforms and innovations undertaken by Australia, France, Austria and others to adapt to a changing landscape.

Together, these strengths explain why the group of Switzerland, Germany, Japan, the Netherlands, Australia, France and Austria continues to lead the postal world – each postal operator leveraging its strategic initiatives and reforms to set international benchmarks in performance. The result is a peer group of public service organizations excelling through reliability, connectivity, customer-oriented relevance, and organizational agility, to the benefit of their national economies and the global postal network.

Regional champions

A clear pattern emerges when one looks across the 2025 regional champions:

Table 7: **2025 regional champions**

Although the five countries differ markedly in size, income level and geography, each has turned its postal operator into an engine of economic inclusion by advancing simultaneously on the four pillars captured by the 2IPD.

Reliability is the starting point. Estonia's **Omniva** and **Thailand Post** now achieve on-time scores above 95 out of 100 after investing in automated sorting hubs, route-optimization software and dense networks of parcel lockers.

The concrete impact shows up in business surveys: Thai SMEs report that delivery-related complaints fell sharply just as domestic e-commerce sales climbed by double digits; in Estonia, the average rural household now receives online purchases in under 48 hours, narrowing the logistics gap with urban centres.

By raising service certainty and speed, both Posts have lowered transaction costs and expanded firms' effective market radius – a textbook channel through which logistics quality lifts productivity and consumer welfare.

International reach – the degree to which inbound and outbound flows connect seamlessly to the global network – is the **second differentiator**. **Estonia** and **Thailand** handle cross-border traffic with more than 80 partner Posts, while **Brazil's Correios** potentially links Latin American exporters to over 220 destinations under simplified procedures.

For a small island economy such as **Mauritius**, strategic integration matters even more: the operator has leveraged Port Louis' air-cargo agreements to position itself as a mini-hub for parcel flows between Asia and southern Africa, giving local textile and artisan producers cost-effective access to international buyers.

Oman follows a similar playbook at the mouth of the Strait of Hormuz. By joining the new Postal Prosperity Zone scheme and co-locating a 100,000-parcel-per-day facility inside Muscat International Airport, Oman Post is collapsing customs and transhipment lead times, thereby supporting national ambitions to diversify beyond hydrocarbons.

Postal relevance – how well the service mix matches evolving customer needs – has been secured through diversification. Thailand now earns nearly half of its group revenue from parcel logistics and value-added e-commerce services; its **"Prompt Post" digital platform**, which stores electronic documents with legal timestamps, has become the default channel for many local banks and government agencies.

Mauritius turns suburban post offices into **digital service centres** where citizens pay utility bills, register businesses or collect biometric ID cards. **Oman** is extending agency banking and bill-payment services to villages overlooked by commercial banks, pushing formal financial access further down the income ladder.

Each initiative demonstrates that a nimble postal network can plug institutional gaps – whether in payments, identity or market access – more cheaply than building standalone channels from scratch.

Resilience underwrites these gains. Estonia's parcel locker density, at more than four units per 10,000 residents, reduces labour intensity and keeps deliveries running during workforce disruptions.

Oman's postal sector policy for 2025–2029 aligns tariffs, investment incentives and green fleet targets with the country's broader logistics strategy, ensuring predictable funding and coherent regulation. **Thailand Post has tied its turnaround plan to explicit carbon-reduction milestones and real-time performance dashboards,** giving management early warning of shocks.

Even **Brazil's Correios** – despite fiscal stress – has ringfenced universal service routes while negotiating a loan to finance fleet renewal and AI-enabled tracking, signalling **political commitment to keep the network intact.** Resilient governance and technology adoption thus fortify the sector against macroeconomic swings and supply chain disruptions.

The development dividend is already visible. Where reliability and reach converge, exporters ship faster and at lower cost; where relevant, diversified post offices thrive, unbanked households gain transactional accounts; and where resilience is institutionalized, public services continue uninterrupted during crises.

Taken together, the experience of the 2025 champions confirms that **postal modernization is a high-return public investment:** it shortens economic distances, unlocks regional trade and embeds digital inclusion deep into national infrastructure – all prerequisites for sustained, broad-based growth.

Rising stars

Each year, the UPU highlights the operators making the most rapid progress in its Integrated Index for Postal Development. From this wider pool of top 2IPD Improvers, it then selects three **rising stars** – the highest-scoring movers drawn from three different regions – to showcase the global breadth of postal transformation.

The 2025 rising stars are:

Table 8: **2025 rising stars**

The 2025 cohort illustrates how determined reform can translate into rapid postal development gains even in difficult settings. All three Posts have moved up sharply in the 2IPD league tables by strengthening the same four pillars that underpin long-run sector performance and, in turn, broader economic inclusion.

Reliability has been the immediate focus. Ukrposhta kept on-time delivery above 90% while operating under armed conflict conditions by automating **regional hubs**, deploying mobile post offices and introducing real-time parcel tracking which now covers some 35,000 online sellers.

Sri Lanka Post, rebuilding after an economic crisis, pushed its reliability score past 93/100 by **decentralizing management** and installing new sorting equipment, sharply reducing customer complaints.

Uruguay's Correos, though starting from a lower base, lifted reliability by 15 points through a **unified IT backbone and streamlined back-office workflows;** fewer lost items and faster processing have already boosted domestic parcel demand. These **improvements lower transaction costs for SMEs and restore consumer confidence** – critical pre-conditions for e-commerce expansion.

International reach – the ability to exchange mail and parcels efficiently with foreign partners – shows a more **varied picture but an equally clear economic payoff.**

Ukraine now scores close to 89/100, thanks to new cargo corridors and data-exchange agreements that keep export pipelines open for thousands of microenterprises despite the ongoing conflict. **Sri Lanka re-opened key airmail routes and simplified customs interfaces,** nudging its reach above 60 and enabling tourism-driven craft exporters to re-enter global marketplaces.

Uruguay sits just below 50 but is closing the gap through the **Exporta Fácil** programme and a forthcoming SME e-commerce platform that will offer **one-click customs and logistics**, giving rural producers a practical route to international buyers.

On market relevance, progress is uneven but the direction is positive. Ukraine's relevance score has more than doubled – to 54 – because the Post now handles pension delivery in conflict zones, acts as a currency exchange point in rural areas, and channels **a growing share of domestic e-commerce parcels.**

Sri Lanka and Uruguay still post low relevance scores (14 and 16) but have laid the groundwork for catch-up: Sri Lankan post offices now serve as digital **"one-stop shops"** where citizens can book medical appointments or pay utility bills, while **Correo Uruguayo is piloting health sector logistics** and, like **Ukrposhta**, is partnering with universities to **train SMEs in postal export tools**.

By **turning post offices into multi-service hubs**, these rising stars in postal services aim to anchor financial and digital inclusion in communities that banks and broadband have yet to reach.

Resilience underwrites every other gain. Ukrposhta's experience during an armed conflict – in keeping 4,000 outlets open despite blackouts and bombings – has demonstrated how mobile infrastructure, satellite connectivity and fleet diversification can hard-wire continuity into the network.

Sri Lanka's postal reform embeds early warning dashboards for service disruptions and links electricity backup planning to the national digital economy strategy, ensuring the network can ride out future macro-shocks.

Uruguay has boosted organizational resilience by diversifying revenue into government service delivery, securing a predictable cashflow that shields the operator from swings in traditional mail volumes.

Taken together, **the rising stars show that even moderate-income and crisis-affected countries can use postal modernization as a fast, cost-effective lever for development.**

Improvements in reliability and reach cut export frictions; diversification of services extends finance and e-government to underserved citizens; and a resilience mindset keeps those gains intact during crises.

For policymakers elsewhere, the lesson is clear: targeted, data-driven investment in the four postal pillars yields outsized returns in trade integration, social inclusion and economic stability – especially when other infrastructure is under strain.

TOP 2IPD IMPROVERS

The list of top 2IPD improvers showcases countries that have markedly accelerated postal sector development. Their reform playbooks – ranging from logistics modernization to digital financial services – offer practical lessons for other UPU members designing strategies and policies to turn postal networks into drivers of trade, inclusion and wider national growth.

Year-on-year 2IPD progress is calculated by re-running both the 2023 and 2024 country scores with the **same methodology (version 2.1)** and the **same gap-filling rules**. Missing observations are replaced with the latest model-based estimates or big-data proxies used in the current edition, so any change in a country's composite score reflects genuine operational or policy advances – not revisions to the framework.

Only after this like-for-like recalculation are the deltas used to identify the top improvers.

To be a top improver in 2024 a country had to post a higher composite score than in 2023; increase its year-on-year 2IPD score by 3 points; exceed 40 points in reliability, international reach and resilience and 10 points in relevance; sit at postal development level 6 or above; belong to the developing country cohort; earn a statistical bonus flag for high-quality data; and not already be a regional champion.

Eighteen Posts met those criteria, as shown in Figure 29.

Excluding the three rising stars (Ukraine, Sri Lanka, Uruguay), the sharpest gains came from:

- Montenegro (+12 points);
- Kazakhstan (+10.5);
- Bosnia and Herzegovina, Latvia, and Tunisia, each with seven- to nine-point increases.

Their progress illustrates **four common reform tracks:**

1. Reliability upgrades through hard infrastructure.

Montenegro overhauled its last-mile fleet, adding electric vans and 40 mopeds funded in part by the UPU Quality of Service Fund and equipping carriers with GPS units for real-time route control – a package credited with slashing delivery times and restoring profitability.

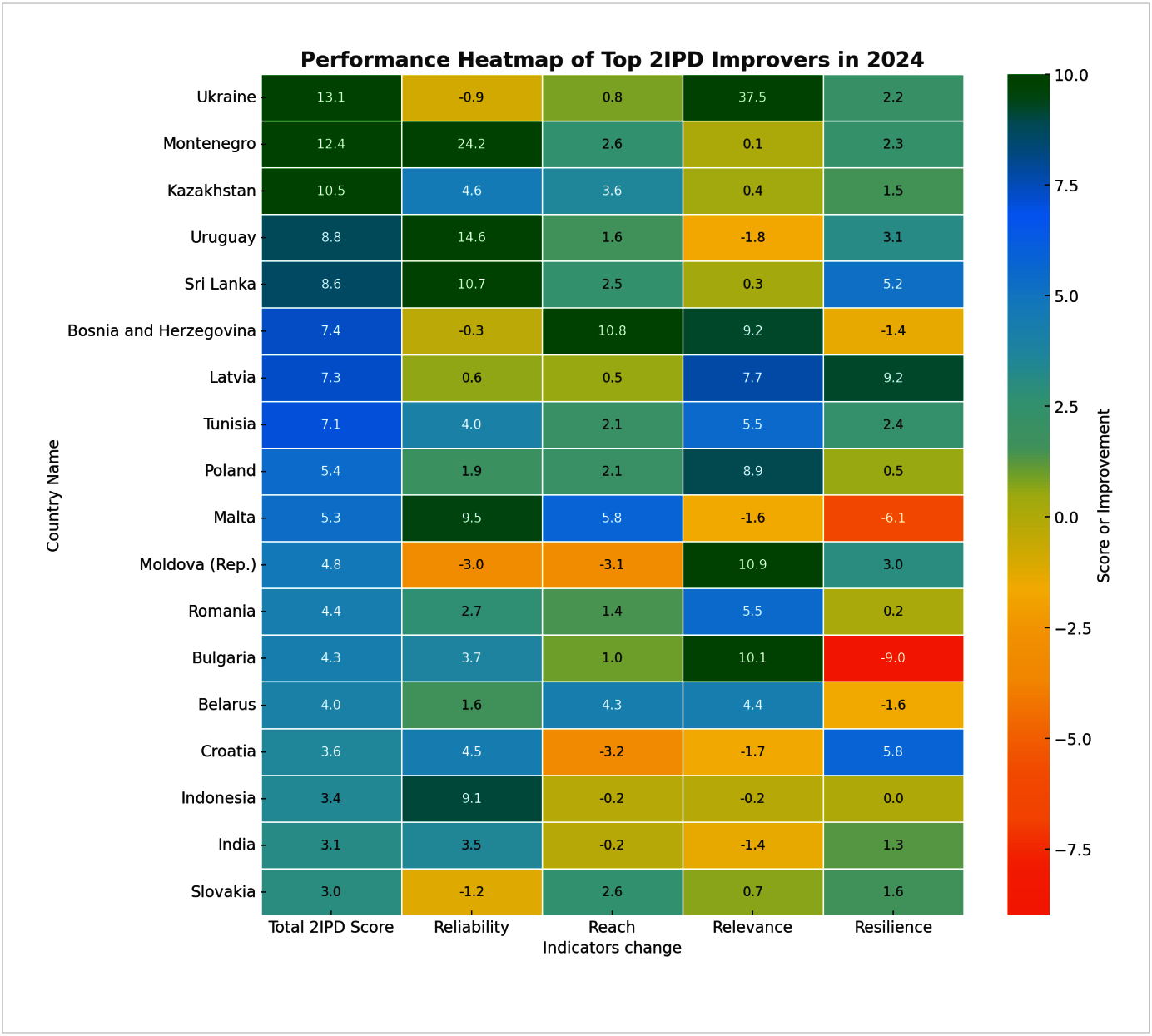
QazPost opened regional hubs in Astana and elsewhere, pushing transit times down and helping the operator post a 44% revenue jump and its first net profit in five years. Latvia doubled its public parcel locker estate to 200 units by the end of 2023 (target: 400 in 2024) and automated its main sorting centre, lifting on-time performance despite e-commerce surges.

2. International reach via data and customs reform.

Montenegro adopted UPU IPS and CDS data systems to pre-clear items electronically and speed up handovers at Podgorica Airport. Bosnia and Herzegovina's Pošte Srpske approved a new logistics centre at Glamočani and secured EU funds for extra air capacity and scanners, adding 11 direct exchange partners and raising its reach score by double digits.

Moldova and Belarus followed a similar template, digitalizing customs declarations to cut ground-handling dwell times.

Figure 29: **2IPD performance improvement heatmap in 2024**



Source: UPU

3. Service diversification to boost relevance.

Tunisia deepened its longstanding fintech edge: the e-Dinar mobile money platform migrated to blockchain rails, while "Fatourah" e-bill-pay and a mobile ID pilot expanded the customer base and lifted relevance by six points.

Kazakhstan converted rural post offices into one-stop service points where citizens can lodge government forms, make digital payments and pick up parcels – an upgrade that raised relevance by eight points and broadened financial inclusion.

Latvia's leap in relevance came from bundling parcel lockers with a new digital ID issuance service, positioning the Post as a secure access node for e-government.

4. Resilience through financial and organizational reform.

Montenegro paired its fleet modernization with tight cost control, moving from deficit to profit and channelling savings into staff wage increases – steps that stabilize service quality and morale.

Latvia electrified a quarter of its urban fleet, trimmed fuel risk and installed disaster recovery dashboards across three sorting facilities. Croatia, though a smaller improver, posted one of the largest resilience jumps after merging two parcel subsidiaries and ringfencing capital expenditure for renewable power at depots.

All 18 improvers also shared one institutional constant: **each secured the UPU statistical bonus**, signalling stronger data discipline and enabling evidence-based investment.

Most also leveraged multilateral or EU grants for scanners, sorters or vehicles, underscoring how modest capital injections – when paired with credible reform plans – can quickly translate into better scores.

Looking ahead, the bulk of the cohort now straddles PDL 6–7. If they lock in reliability gains, deepen cross-border links and keep diversifying revenue, several could follow Mauritius and Oman into the regional champion bracket within the next two assessment cycles, turning single-year leaps into durable growth trajectories.

NATURAL POSTAL DEVELOPMENT – IDENTIFYING REAL POSTAL PROGRESS ACHIEVERS

To gauge whether a postal operator is merely living up to the hand it was dealt or genuinely outperforming expectations, the 2024 assessment pairs every country's observed 2IPD results with a "natural" postal development score, a counterfactual benchmark that predicts how well a system **should** perform once structural constraints are taken into account.

The benchmark is derived from a set of regression and machine-learning models that relate each of the four 2IPD pillars – reliability, international reach, relevance and resilience – to exogenous variables such as geography (island or landlocked status, terrain ruggedness, remoteness), market size, GDP per capita, digital connectivity indices and logistics cost proxies.

By holding these factors constant, the model produces a pillar-by-pillar estimate of what performance would look like if the operator were an average performer facing the same conditions. Aggregating the four predicted pillars yields a **natural postal development score** for every economy.

Comparing actual scores with this benchmark – displayed in the heat maps that follow – reveals where an operator is over- or under-achieving: a positive differential signal that managerial practice, investment or policy reform is propelling the network beyond what geography and income alone would predict. A negative gap, by contrast, flags untapped potential and often points directly to the binding constraint, whether it is constrained international links in a landlocked country, or fragile resilience in a small island state.

Because the differential is calculated separately for each pillar, it offers granular guidance for reform. Policymakers can see, for example, whether a country's drag on performance stems from weak cross-border connectivity or from limited service diversification, and can tailor interventions – and UPU technical cooperation resources – accordingly. The benchmark thus turns the 2IPD from a descriptive scoreboard into a diagnostic tool that locates the root causes of under-performance rather than merely identifying the symptoms.

Natural scores are recalculated every year using the same methodology (version 2.1) and identical data-gap-filling rules, ensuring that subsequent shifts in the differential reflect genuine operational progress rather than methodological drift. Countries that narrow negative gaps – or convert them to positives – have strong evidence that reforms are taking hold; those that see gaps widen receive an early warning that strategies need recalibration.

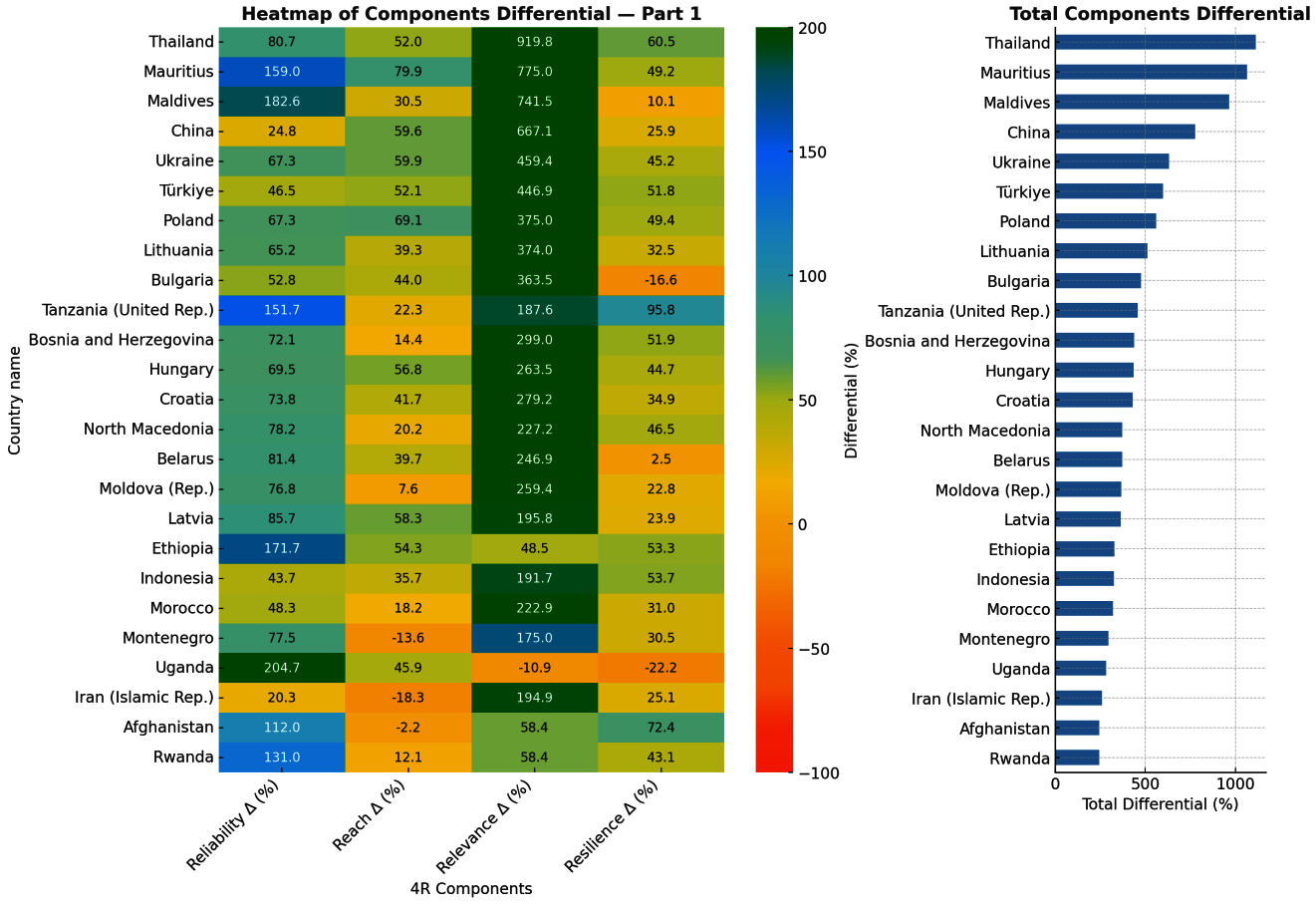
In short, the natural PDL framework sets a context-sensitive yardstick for postal development. It shows not only how good a system is today, but how good it could be, thereby providing governments and development partners with a practical roadmap for turning postal networks into engines of trade, broader economic growth and prosperity.

Results: global top outperformers

Figures 30 and 31 identify the postal systems that outperform expectations on a broad front.

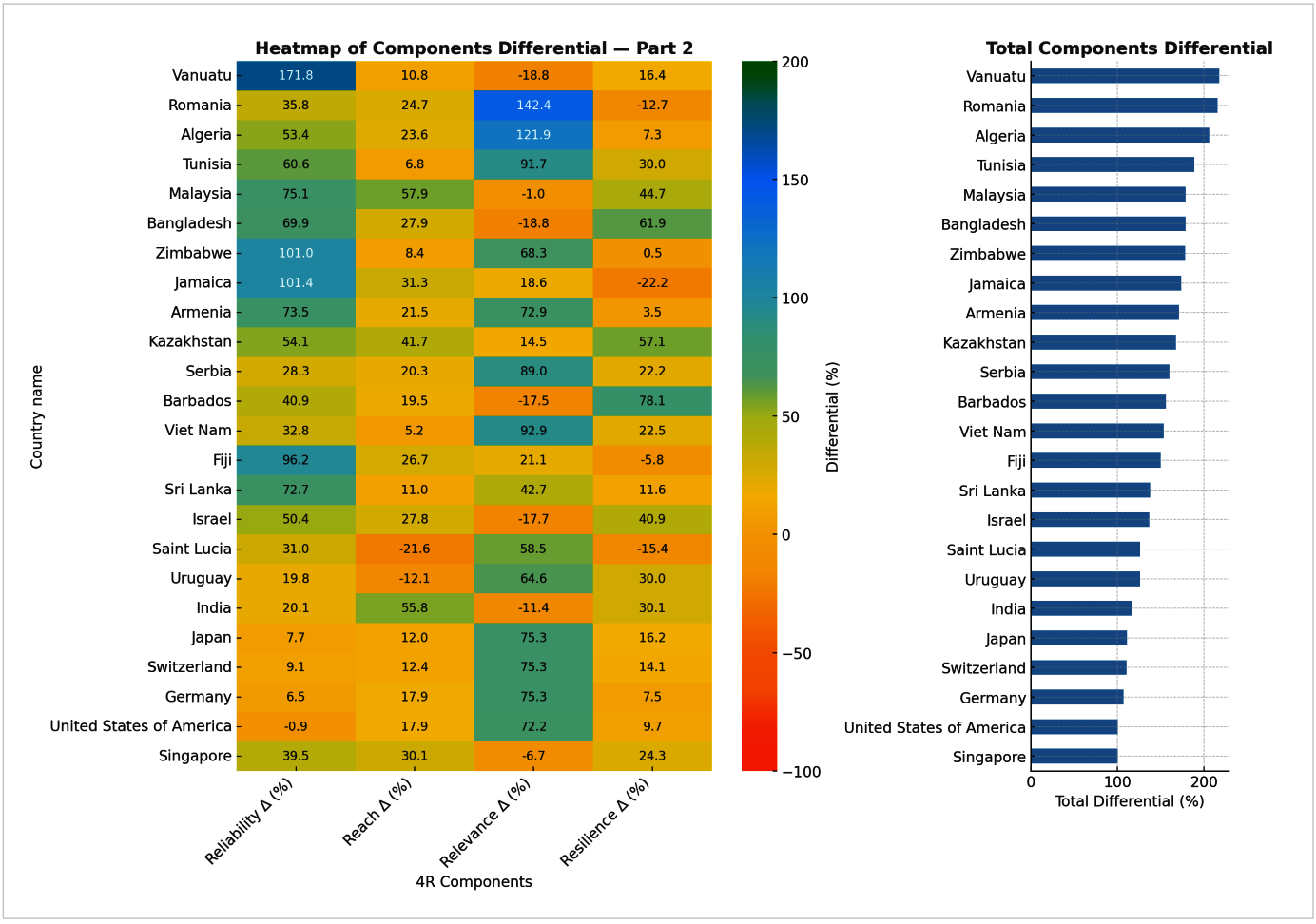
Each of these countries posts a cumulative positive differential exceeding 100% across the four 2IPD pillars while **none** of the pillars falls more than 25% below its natural benchmark. The absence of any marked shortfall indicates that progress is robust across the entire postal value chain, not offset by serious weaknesses in one or two dimensions.

Figure 30: **2IPD 4R component differential heatmap – top outperforming countries (part I)**



Source: UPU

Figure 31: 2IPD 4R component differential heatmap – top outperforming countries (part II)



Source: UPU

The two heatmaps match each country's actual 2IPD pillar scores with the "natural" scores predicted by its geography and income, then express the gap as a percentage.

A positive value therefore signals performance above structural expectations, while a negative value indicates latent potential. The accompanying bar charts aggregate the four gaps, giving an overall measure of how far each operator sits above – or below – its benchmark.

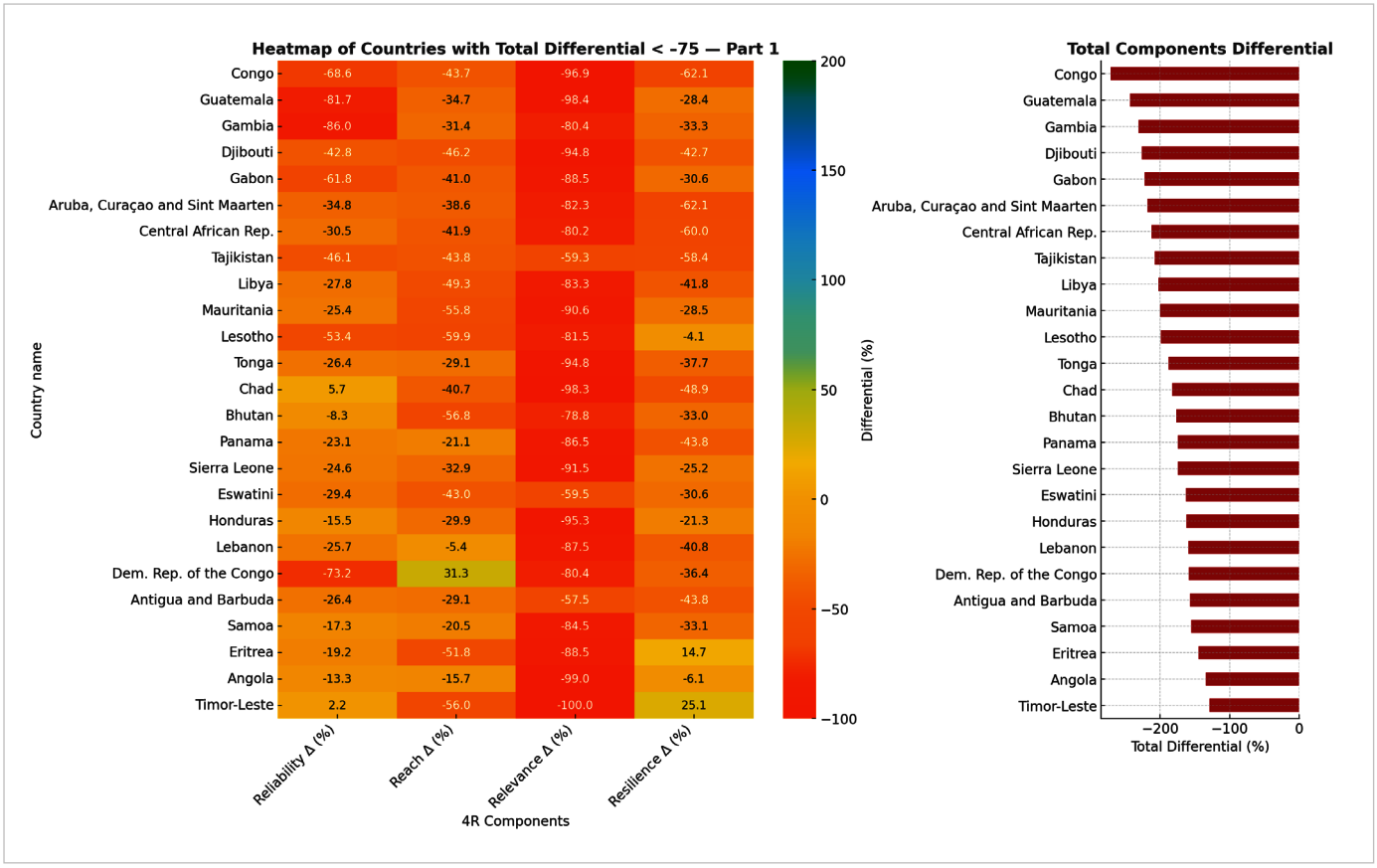
A striking feature of the first panel is the exceptionally large positive differentials in relevance posted by a handful of emerging economies. For several of them, the **relevance** surplus alone exceeds 700% of the benchmark, and because none of their other pillars falls more than 25% below expectation, their cumulative differentials approach – or even surpass – the 1000% mark. Such results suggest a postal sector that has become deeply embedded in domestic commerce, with potential spill-overs for financial inclusion, retail productivity and household welfare.

A second pattern is the cluster of lower-income countries that vastly out-perform on **reliability** yet register modest or negative gaps in reach and resilience. Here the data points to a delivery network that functions well inside national borders but still confronts external or institutional bottlenecks. Without corrective action, firms in these economies may enjoy swift domestic fulfilment while facing higher costs or longer lead times when trading abroad, limiting the gains from regional integration.

Eastern Europe and parts of Central Asia display more **balanced over-performance** across three or four pillars. Moderate but consistent surpluses in reliability, reach and resilience translate into aggregate differentials of 300 to 400%. Because these countries already operate near middle-income levels, incremental postal gains can yield disproportionate benefits for export diversification, labour market mobility and the digitalization of public services.

The second panel confirms that middle-income and advanced economies are not yet at the ceiling implied by their structural variables. A group led by small island and upper-middle-income states posts relevance surpluses above 90%, coupled with solid – though less spectacular – reach and resilience gaps. Even highly developed postal systems in Europe, North America and East Asia record

Figure 32: **2IPD 4R component differential heatmap – top underperforming countries (part I)**



Source: UPU

aggregate differentials in the 100–120% range – an outcome that is itself noteworthy, as many other advanced peers remain below the 100% threshold – underscoring both the achievements already made and the remaining scope for service innovation and productivity growth.

Results: global top underperformers

Figures 32 and 33 turn the lens to the opposite end of the spectrum, highlighting postal systems whose results fall well below what geography and income would predict.

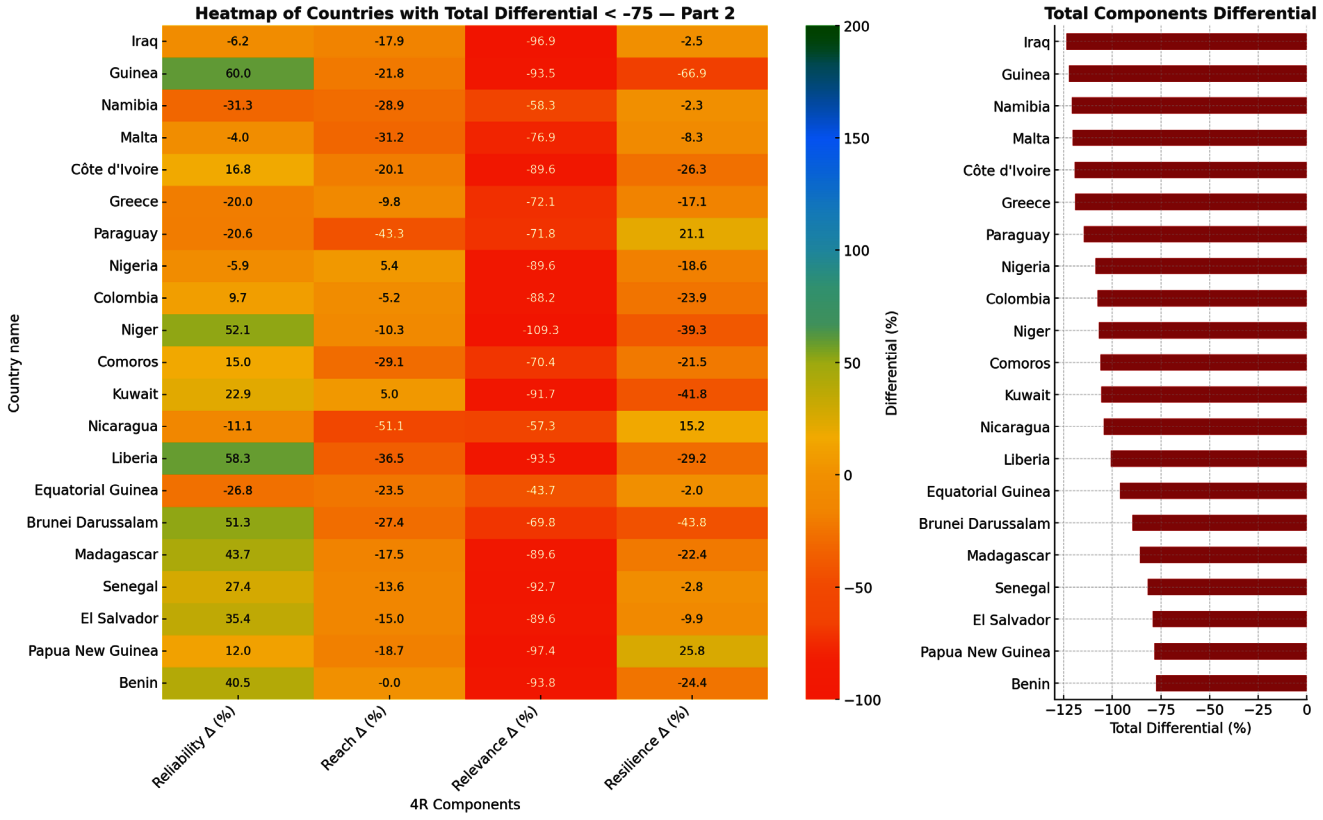
Each country shown registers an aggregate negative differential of at least -75% across the four 2IPD pillars, and at least one dimension underperforms its natural benchmark by more than 25%. These sizeable shortfalls signal systemic weaknesses – not isolated glitches – that limit the sector's ability to support commerce, inclusion and shock-response. The paragraphs that follow examine the pattern of gaps, and outline why closing them requires coordinated action by operators, regulators and governments rather than company-level fixes alone.

The two heatmaps highlight economies whose postal systems lag well behind their structural potential, posting aggregate differentials more than 75% below the "natural" benchmark derived from geography and income.

Across the sample, under-performance is most acute in **relevance** and **resilience**: many operators deliver letters and parcels with reasonable punctuality, yet fall short in diversifying services, protecting business continuity or tapping digital channels. International reach deficits are also common, signalling thin cross-border networks and high trade-logistics costs that mute the contribution of smaller firms to regional and global markets.

Such gaps matter for development. Where relevance is 90% below expectation, citizens have limited access to basic financial or e-government services, and local micro-enterprises face higher barriers to selling online. Large international reach shortfalls translate into higher export costs, constraining participation in value chains and curbing the growth benefits typically associated with trade. Low resilience – evident in steep negative score gaps for system continuity – implies that public transfers, medicines or harvest-time inputs may stall when shocks occur, amplifying the welfare impact of natural disasters or conflict.

Figure 33: 2IPD 4R component differential heatmap – top underperforming countries (part II)



Source: UPU

Addressing these deficits is rarely a question of postal management alone.

In many of the countries shown, operators work within thin markets characterized by low purchasing power, patchy digital infrastructure and modern postal legislation, predictable licensing rules, fair last-mile competition fighting predatory pricing, and sometimes weak customs and competition regimes.

Reform therefore requires a package of measures – digital addressing schemes and targeted public investment – to create the demand and network externalities that public and private capital can build upon. Broader macro-stability and trade-facilitation agendas are equally important: without reliable power, seamless border procedures and affordable ICT, even a well-run postal firm cannot bridge the relevance or reach gaps documented here.

International evidence suggests that progress is feasible. Where governments have paired regulatory clarity with capital injections – often channelled through concessional loans or quality of service funds – delivery networks have upgraded sorting capacity, digital tracking and payment platforms in a matter of years. Once customers trust the network, parcel volumes rise sharply and unit costs fall, enabling a virtuous cycle of reinvestment. Improvements in cross-border data exchange and customs pre-clearance typically yield immediate gains in reach, cutting delivery times for SMEs and boosting export survival rates. Similarly, rolling out mobile money, bill-payment or social-transfer services through post offices can close relevance gaps, bring unbanked households into the formal economy, and strengthen social safety nets.

For policymakers, the takeaway is clear: closing the postal under-performance gap is **less about transplanting a generic best practice, and more about tailoring interventions to specific bottlenecks** – be they unreliable power, under-capitalized fleets, or outdated market rules.

If the right enabling conditions are put in place, the payoff extends well beyond the postal sector, lowering transaction costs economy-wide and improving households' access to finance, markets and public services.

CONCLUSION

The evidence presented in this report converges on a central insight: the global postal sector's future hinges on its ability to manage three interdependent transitions – from fragmented to integrated networks, from uneven to inclusive development, and from letter-centric to diversified services. Success in any one dimension reinforces progress in the others; failure in any threatens to unravel the entire postal ecosystem that has underpinned global commerce for over a century and a half.

THE FRAGMENTATION CHALLENGE AND ITS SOLUTION

Our analysis of international postal flows reveals a network increasingly divided between mega-corridors that have been weakened in the value chain of cross-border e-commerce logistics, and micro-routes that cannot achieve minimum efficient scale. This fragmentation is not merely an operational inefficiency – it represents a fundamental breakdown in the network externalities that once made postal services universally accessible.

The 270 lanes still bearing pandemic-era "surcharges", the widening delivery-time disparities, and the proliferation of incompatible data formats across supply chain players all testify to a 21st century cross-border logistics system without a coordinating mechanism.

The polycentric hub-and-corridor distributed postal grid proposed offers a concrete path forward. By establishing multiple gateways per region, mandating open access, and recycling scale economies through solidarity levies, this architecture would restore density without recreating dependency.

THE DIVERSIFICATION IMPERATIVE

Perhaps the most striking finding of this report is the quantitative confirmation that postal decline is not technologically predetermined. The econometric evidence definitively shows that operators can maintain – and even exceed – GDP growth rates through strategic adaptation. The key lies not in choosing the "right" substitute for declining letter volumes, but in pursuing broad diversification while maintaining network density.

This insight fundamentally reframes the policy debate. Rather than viewing universal service as costly constraints, regulators should recognize physical networks as platforms for service innovation. Rather than restricting postal operators to narrow service definitions, governments should enable experimentation across the full spectrum of logistics, financial and digital services. And, rather than equating efficiency with consolidation, policymakers should value the positive externalities – from e-commerce enablement to social inclusion – that dense postal networks generate.

The successful examples profiled throughout this report – from China's parcel boom to Tunisia's blockchain-based financial services – illustrate the extraordinary diversity of viable postal futures. There is no single model to emulate, but rather a set of principles to apply: maintain reach, diversify revenue, invest in digital capabilities, and align postal strategy with national development priorities.

THE DEVELOPMENT IMPERATIVE

The 2025 2IPD results starkly illustrate how postal capabilities shape economic opportunity.

When Madagascar's businesses face delivery times three times longer than those in Estonia, or when Chad's post offices serve populations twenty times larger than Switzerland's, the consequences extend far beyond the postal sector. These disparities translate directly into barriers to trade, constraints on financial inclusion, and reduced resilience to economic shocks.

Yet the same data also documents the transformative potential of targeted investment. Ukraine's maintenance of postal services under extremely difficult conflict conditions, Sri Lanka's post-crisis modernization, and Montenegro's leap in reliability scores all demonstrate that rapid progress is possible even in challenging circumstances.

The critical enablers – digital infrastructure, customs integration, service diversification, and institutional resilience – are well understood. What has been lacking is the financing and technical support to implement them at scale.

The support fund proposed could provide exactly such a mechanism, channelling funds to operators that need it most.

By tying funding to measurable improvements in the four 2IPD pillars, this approach would create powerful incentives for performance while respecting local implementation choices.

THE ROAD TO 2029

As the UPU community debates its future during the 28th Universal Postal Congress in Dubai, the sector stands at an inflection point. The choices that will be made in the next cycle will determine whether postal services remain relevant to the digital economy or fade into historical curiosity.

This report's findings suggest a clear agenda:

First, ratify and implement proposals aligned with the goal of a distributed postal grid to reverse infrastructure fragmentation. The technical design is mature and the welfare gains are substantial. Delay only entrenches existing inefficiencies and widens the gap between postal capabilities and market needs.

Second, fully fund and operationalize the 2IPD as a driver of convergence. The index has evolved from a measurement tool to a potential catalyst for investment and reform. By linking technical assistance, concessional financing and regulatory reforms to 2IPD improvements, the international community can accelerate postal development where it is needed most.

Third, modernize universal service frameworks to reflect digital-age realities. Capability-based obligations that reward service innovation, outcome-oriented subsidies that internalize social benefits, and flexible scope rules that enable diversification – these reforms would align regulatory incentives with economic sustainability.

Fourth, strengthen the evidence base for postal policy. This report has highlighted numerous data gaps, from the cost dynamics of diversification to the welfare impacts of network density. Investing in postal economics research, improving statistical systems, and sharing best practices across operators would create a learning ecosystem commensurate with the sector's complexity.

BEYOND 2029: THE POSTAL SECTOR'S DEVELOPMENT DIVIDEND

Looking beyond the immediate reform agenda, this report's findings speak to broader questions about infrastructure, inclusion and economic development in the digital age. The postal sector's unique combination of physical presence and digital connectivity positions it as a critical enabler of inclusive growth – but only if it successfully navigates the transitions outlined above.

In a world where e-commerce is projected to reach 8 trillion USD by 2030, where 1.7 billion adults remain unbanked, and where future pandemics or climate shocks will test supply chain resilience, postal networks offer irreplaceable capabilities.

Their 679,000 post offices constitute the world's largest retail network; their 4.6 million employees possess unmatched last-mile expertise; their daily interaction with citizens creates trust that purely digital platforms struggle to replicate.

Realizing this potential requires moving beyond defensive strategies focused on managing decline. The evidence in this report points instead toward an affirmative vision: postal services as multi-functional platforms that lower transaction costs, expand market access, and strengthen social cohesion.

Achieving this vision demands coordinated action by operators, regulators, and international organizations – but the payoff, measured in jobs created, businesses enabled, and communities connected, would extend far beyond the postal sector itself.

A CALL TO ACTION

The fragmentation documented in this report is reversible.

The revenue decoupling can be overcome through strategic adaptation.

The development gaps measured are closing in some countries, albeit too slowly.

None of these transitions will happen automatically; all require deliberate policy choices and sustained implementation effort.

As this report has demonstrated, the postal sector's challenges are neither unprecedented nor insurmountable.

The Treaty of Berne resolved a 19th-century fragmentation crisis remarkably similar to today's; the introduction of airmail and express services shows how Posts have repeatedly reinvented themselves; the rapid progress of rising stars like Ukraine, Sri Lanka and Uruguay proves that transformation remains possible even in difficult circumstances.

The State of the Postal Sector 2025 therefore concludes with a call to action.

To postal operators: embrace diversification, maintain your networks, and invest in the capabilities that digital commerce demands.

To regulators: modernize your frameworks, reward innovation, and recognize the social value of postal infrastructure.

To the international community: support the multilateral solutions that network industries require, fund the investments that close development gaps, and champion the inclusive growth that postal services enable.

What distinguishes the current moment is the urgency of choice.

Digital substitution is accelerating, e-commerce is reshaping trade patterns, and infrastructure investment decisions made today will lock in development trajectories for decades. The window for coordinated reform is narrowing, but not yet closed.

The postal sector has adapted to technological disruption before – from telegraph to telephone, from rail to air. The digital transformation presents challenges of comparable magnitude, but also opportunities of unprecedented scope.

This report has provided the empirical foundation for navigating both.

The task now is to translate analysis into action, ensuring that postal services continue to connect communities, enable commerce, and contribute to human development for generations to come.

2IPD SCORES BY POSTAL DEVELOPMENT LEVEL

You can download this data table and a detailed explanation of how the 2IPD scores are calculated from the State of the Postal Sector 2025 page at: www.upu.int/en/universal-postal-union/activities/research-publications/integrated-index-for-postal-development

Country	PDL	2IPD sub-score				2IPD score before bonus	Bonus	2IPD score after bonus
		Reliability	Reach	Relevance	Resilience			
Australia	10	91.7	93.9	100.0	93.9	96.4	5.9	102.3
Austria	10	93.9	82.3	100.0	89.8	92.7	8.0	100.7
France	10	95.8	97.4	60.5	92.0	87.1	14.0	101.1
Germany	10	96.3	100.0	100.0	92.5	99.0	10.0	109.0
Japan	10	97.4	95.0	100.0	100.0	100.0	6.4	106.4
Netherlands (Kingdom of the)	10	91.5	96.7	89.4	95.2	94.6	8.0	102.6
Switzerland	10	98.6	95.3	100.0	98.2	99.9	10.0	109.9

Country	PDL	2IPD sub-score				2IPD score before bonus	Bonus	2IPD score after bonus
		Reliability	Reach	Relevance	Resilience			
Belgium	9	90.1	88.5	59.8	78.0	79.1	7.0	86.1
Bosnia and Herzegovina	9	92.7	63.4	38.3	92.2	70.8	14.0	84.8
Canada	9	91.9	93.2	72.9	92.8	88.5	5.0	93.5
China	9	83.9	99.7	97.8	91.8	94.7	1.9	96.6
Denmark	9	91.3	76.2	99.1	90.9	90.4	4.8	95.2
Estonia	9	94.5	87.8	46.3	84.8	78.2	10.4	88.6
Finland	9	88.0	79.2	62.4	92.0	80.5	7.9	88.4
Hungary	9	91.3	86.9	34.9	87.8	74.8	8.0	82.8
Ireland	9	97.2	80.1	58.5	94.4	82.9	5.0	87.9
Italy	9	92.9	91.1	54.2	96.6	84.1	6.0	90.1
Lithuania	9	89.0	77.2	45.5	80.4	72.3	8.0	80.3
New Zealand	9	99.0	83.4	71.4	98.1	88.8	8.0	96.8
Poland	9	90.1	93.7	45.6	90.7	80.1	4.0	84.1
Rep. of Korea	9	96.1	86.7	50.6	98.7	83.4	2.4	85.8
Singapore	9	98.9	83.2	51.5	86.2	80.0	4.0	84.0
Slovenia	9	96.3	67.3	59.4	82.1	75.9	6.0	81.9
Spain	9	87.3	91.6	29.7	85.1	72.8	8.0	80.8
Sweden	9	89.0	88.7	66.5	93.1	84.8	11.9	96.7
Thailand	9	97.3	84.2	97.9	97.4	95.7	4.0	99.7
Türkiye	9	78.9	84.3	52.5	92.1	76.7	6.0	82.7
Ukraine	9	90.1	88.6	53.7	88.1	80.2	4.0	84.2
United Kingdom of Great Britain and Northern Ireland	9	98.5	99.0	80.1	93.0	94.0	5.5	99.5
United States of America	9	89.6	100.0	98.2	94.4	97.2	2.0	99.2

Country	PDL	2IPD sub-score				2IPD score before bonus	Bonus	2IPD score after bonus
		Reliability	Reach	Relevance	Resilience			
Belarus	8	97.7	77.4	33.3	62.2	66.4	3.0	69.4
Bulgaria	8	82.3	79.8	44.5	50.6	62.7	8.0	70.7
Croatia	8	93.6	78.5	36.4	81.9	71.9	6.0	77.9
Cyprus	8	91.3	76.8	81.8	50.0	74.5	0.0	74.5
Czechia	8	92.8	89.5	28.9	77.8	71.5	4.0	75.5
Iceland	8	88.5	56.0	25.3	88.3	63.0	7.0	70.0
India	8	80.8	97.3	11.3	94.8	70.2	4.0	74.2
Indonesia	8	77.4	75.2	28.0	93.3	67.3	1.9	69.2
Iran (Islamic Rep.)	8	80.9	51.0	37.6	91.2	63.7	4.0	67.7
Kazakhstan	8	83.5	71.4	10.4	97.0	64.1	11.0	75.1
Latvia	8	100.0	87.7	28.4	75.2	72.1	4.0	76.1
Luxembourg	8	98.7	67.5	47.3	83.5	73.7	4.0	77.7
Malaysia	8	94.3	87.5	9.5	87.8	68.8	8.0	76.8
Mauritius	8	89.0	62.2	67.9	65.6	70.3	3.0	73.3
Morocco	8	79.9	65.5	31.0	79.5	62.3	6.0	68.3
Norway	8	88.0	77.1	31.0	85.6	69.5	9.4	78.9
Oman	8	89.4	57.5	31.5	87.9	65.2	3.4	68.6
Portugal	8	80.8	84.5	24.7	85.9	67.9	7.4	75.3
Rep. of Moldova	8	95.2	59.6	34.5	74.5	64.5	4.0	68.5
Romania	8	91.3	77.9	30.9	63.6	64.5	5.0	69.5
Serbia	8	86.3	75.1	24.1	89.1	67.5	5.0	72.5
Slovakia	8	95.5	85.6	36.9	78.8	73.7	6.0	79.7
Viet Nam	8	89.3	65.7	24.6	89.3	66.0	4.0	70.0

Country	PDL	2IPD sub-score				2IPD score before bonus	Bonus	2IPD score after bonus
		Reliability	Reach	Relevance	Resilience			
Albania	7	94.2	52.8	13.6	62.5	53.3	5.0	58.3
Algeria	7	82.6	68.5	21.3	65.1	57.3	3.0	60.3
Armenia	7	94.0	61.2	15.7	63.9	56.6	4.0	60.6
Azerbaijan	7	91.8	71.8	6.5	84.2	61.9	4.0	65.9
Bangladesh	7	74.8	61.2	3.8	89.2	55.0	4.0	59.0
Brazil	7	38.8	85.3	15.6	93.3	56.0	6.0	62.0
Chile	7	87.4	63.8	7.4	78.4	57.2	0.0	57.2
Egypt	7	90.2	63.3	3.0	79.8	56.9	4.0	60.9
Georgia	7	89.4	65.7	2.7	70.1	54.7	4.0	58.7
Ghana	7	93.5	65.5	1.7	79.3	58.0	4.0	62.0
Greece	7	72.3	76.5	15.9	71.4	56.9	3.0	59.9
Israel	7	81.0	70.8	7.9	85.5	59.4	4.0	63.4
Maldives	7	97.1	45.1	65.3	48.4	62.4	0.0	62.4
Malta	7	86.8	58.3	13.2	78.9	57.2	4.0	61.2
Mexico	7	73.1	71.8	4.2	73.8	53.3	6.0	59.3
Montenegro	7	95.6	47.9	26.4	79.2	60.5	4.0	64.5

Country	PDL	2IPD sub-score				2IPD score before bonus	Bonus	2IPD score after bonus
		Reliability	Reach	Relevance	Resilience			
Myanmar	7	94.3	37.9	4.9	70.7	49.1	11.0	60.1
North Macedonia	7	72.7	52.1	19.4	72.6	51.6	6.0	57.6
Russian Federation	7	79.7	79.8	18.6	76.2	61.9	3.4	65.3
Saudi Arabia	7	89.2	69.3	4.5	89.7	61.5	4.0	65.5
Sri Lanka	7	93.0	61.5	13.7	67.7	56.9	4.0	60.9
Tunisia	7	86.5	59.2	18.4	78.9	58.8	4.0	62.8
United Arab Emirates	7	97.1	88.5	3.9	46.0	56.8	4.0	60.8
Uzbekistan	7	90.1	63.0	4.0	67.5	53.8	4.0	57.8

Country	PDL	2IPD sub-score				2IPD score before bonus	Bonus	2IPD score after bonus
		Reliability	Reach	Relevance	Resilience			
Argentina	6	30.2	64.4	16.2	88.2	46.7	6.0	52.7
Bahrain	6	83.7	55.5	0.7	59.7	46.9	4.0	50.9
Burkina Faso	6	83.6	51.4	1.2	64.5	47.2	5.4	52.6
Cambodia	6	69.3	46.8	0.6	67.7	42.6	3.4	46.0
Cameroon	6	84.2	58.3	0.7	57.8	47.3	3.4	50.7
Colombia	6	73.8	59.2	1.5	55.5	44.2	6.0	50.2
Costa Rica	6	44.2	52.2	9.8	94.4	47.1	6.0	53.1
Ethiopia	6	84.1	55.2	1.5	67.4	49.2	4.0	53.2
Jordan	6	66.9	55.6	1.6	61.6	43.0	4.0	47.0
Kenya	6	81.6	60.0	3.2	43.5	43.8	3.1	46.9
Lao People's Dem. Rep.	6	70.9	44.1	1.9	77.1	45.3	4.0	49.3
Mongolia	6	78.3	51.1	11.0	57.5	46.4	0.0	46.4
Pakistan	6	79.4	68.2	6.7	60.7	51.1	0.0	51.1
Peru	6	91.3	69.2	0.7	55.9	51.7	3.4	55.1
Philippines	6	61.8	71.1	0.9	72.2	48.6	2.4	51.0
Qatar	6	89.5	64.4	0.5	52.3	48.8	5.4	54.2
South Africa	6	31.8	69.2	24.8	77.4	47.8	5.4	53.2
Togo	6	92.9	45.8	6.7	61.5	48.9	6.0	54.9
United Rep. of Tanzania	6	77.1	49.9	4.4	84.0	51.2	0.0	51.2
Uruguay	6	64.5	48.7	15.8	78.9	49.1	6.0	55.1

Country	PDL	2IPD sub-score				2IPD score before bonus	Bonus	2IPD score after bonus
		Reliability	Reach	Relevance	Resilience			
Afghanistan	5	65.6	35.0	1.6	75.8	40.9	4.0	44.9
Angola	5	46.7	46.7	0.1	57.0	33.3	3.0	36.3
Barbados	5	48.4	41.3	6.4	78.3	39.9	4.0	43.9
Benin	5	75.7	55.4	0.6	45.9	40.8	0.0	40.8
Bhutan	5	61.7	27.0	2.7	48.8	30.5	6.0	36.5
Brunei Darussalam	5	81.5	40.2	2.9	34.1	35.6	2.4	38.0
Burundi	5	65.1	39.9	0.7	61.0	37.8	2.4	40.2
Cabo Verde	5	74.2	45.6	3.9	50.5	39.8	3.0	42.8
Côte d'Ivoire	5	62.9	44.3	1.0	44.7	34.0	4.0	38.0
El Salvador	5	72.9	47.1	1.0	54.7	40.3	4.0	44.3
Equatorial Guinea	5	39.4	42.4	5.4	59.5	32.3	4.0	36.3
Fiji	5	67.4	43.8	9.4	41.4	36.5	0.0	36.5
Honduras	5	56.8	43.8	0.6	57.4	35.6	3.4	39.0
Iraq	5	50.5	45.5	0.3	59.2	34.7	3.1	37.8
Kuwait	5	66.2	58.2	0.8	35.3	36.1	0.0	36.1
Kyrgyzstan	5	75.7	58.4	9.5	36.5	41.5	3.0	44.5
Madagascar	5	77.4	45.7	1.0	47.1	39.1	0.0	39.1
Nepal	5	67.4	47.9	6.6	47.6	38.6	0.0	38.6
Nicaragua	5	47.9	27.1	4.1	69.9	32.9	3.4	36.3
Nigeria	5	50.7	58.4	1.0	49.4	35.8	4.0	39.8
Paraguay	5	53.4	35.4	3.6	88.3	41.7	0.0	41.7
Rwanda	5	71.5	40.1	1.6	62.9	40.4	4.0	44.4
Senegal	5	68.6	47.9	0.7	59.0	40.4	2.0	42.4
Tuvalu	5	25.3	24.5	65.1	57.5	39.4	0.0	39.4
Uganda	5	94.3	52.2	0.9	34.2	41.9	0.0	41.9
Vanuatu	5	93.4	38.3	6.3	51.2	44.0	0.0	44.0
Zimbabwe	5	62.2	38.8	1.7	44.2	32.3	6.0	38.3

Country	PDL	2IPD sub-score				2IPD score before bonus	Bonus	2IPD score after bonus
		Reliability	Reach	Relevance	Resilience			
Belize	4	62.1	37.9	2.2	43.0	31.8	0.0	31.8
Bolivia	4	55.9	39.3	2.5	35.3	28.5	0.0	28.5
Botswana	4	30.1	35.8	5.2	49.7	25.2	6.0	31.2
Cuba	4	31.1	49.3	5.8	40.7	26.8	6.0	32.8
Dominica	4	35.1	24.5	38.5	37.8	29.3	0.0	29.3
Dominican Republic	4	32.9	48.8	0.8	61.2	31.5	2.0	33.5
Eritrea	4	43.5	26.7	1.1	69.6	30.7	4.0	34.7
Grenada	4	51.0	30.3	23.8	37.3	31.1	0.0	31.1
Guyana	4	53.4	33.5	5.0	50.5	31.1	4.0	35.1
Jamaica	4	69.2	45.4	9.2	34.2	35.4	0.0	35.4
Kiribati	4	26.1	25.3	11.3	62.0	26.2	0.0	26.2
Lebanon	4	40.0	52.4	1.2	35.9	27.5	2.8	30.3
Malawi	4	69.8	34.7	0.5	26.7	28.1	6.0	34.1

Country	PDL	2IPD sub-score				2IPD score before bonus	Bonus	2IPD score after bonus
		Reliability	Reach	Relevance	Resilience			
Mali	4	46.8	33.2	0.1	39.6	24.8	4.0	28.8
Mozambique	4	61.0	42.9	0.2	42.6	32.3	2.5	34.8
Namibia	4	37.0	39.4	4.0	59.3	30.4	2.5	32.9
Panama	4	41.4	43.7	1.3	34.1	25.1	3.4	28.5
Seychelles	4	63.2	44.6	2.7	45.1	34.7	0.0	34.7
Sudan	4	42.4	24.9	3.1	54.0	26.1	2.1	28.2
Suriname	4	37.8	33.4	1.5	39.3	22.7	4.0	26.7
Venezuela (Bolivarian Rep.)	4	23.7	40.5	3.2	57.0	26.1	0.0	26.1
Zambia	4	47.7	46.2	0.4	41.8	29.4	4.0	33.4

Country	PDL	2IPD sub-score				2IPD score before bonus	Bonus	2IPD score after bonus
		Reliability	Reach	Relevance	Resilience			
Aruba, Curaçao and Sint Maarten	3	35.1	34.0	1.7	23.0	17.7	0.0	17.7
Bahamas	3	48.9	30.4	5.7	29.1	23.3	0.0	23.3
Chad	3	43.1	25.7	0.1	25.3	17.8	3.4	21.2
Comoros	3	39.5	24.5	2.3	34.5	19.6	4.0	23.6
Dem. Rep. of the Congo	3	8.2	53.6	0.3	27.3	16.5	0.0	16.5
Djibouti	3	30.8	29.8	0.5	34.8	18.3	3.4	21.7
Ecuador	3	12.2	42.6	0.5	34.5	16.5	0.0	16.5
Eswatini	3	28.8	24.7	2.4	34.4	16.7	4.0	20.7
Gabon	3	20.6	32.7	1.1	42.1	18.4	0.0	18.4
Guatemala	3	12.3	40.8	0.2	52.2	20.9	0.0	20.9
Guinea	3	49.0	31.9	0.1	14.2	18.1	0.0	18.1
Lesotho	3	19.0	17.4	1.1	47.5	15.3	4.0	19.3
Liberia	3	48.5	25.9	0.1	30.4	20.8	0.9	21.7
Libya	3	38.9	28.1	1.6	35.3	20.5	4.0	24.5
Mauritania	3	40.2	24.5	0.9	43.4	21.9	2.5	24.4
Papua New Guinea	3	38.5	28.1	0.2	55.3	25.5	0.0	25.5
Saint Kitts and Nevis	3	55.7	24.5	3.0	30.2	23.1	0.0	23.1
Saint Lucia	3	45.0	27.1	12.3	37.2	25.3	0.0	25.3
Saint Vincent and the Grenadines	3	25.8	24.9	14.4	37.2	20.1	0.0	20.1
Sierra Leone	3	33.2	32.1	0.4	41.2	21.3	2.5	23.8
Solomon Islands	3	48.8	25.4	8.2	38.0	25.0	0.0	25.0
Timor-Leste	3	35.1	15.2	0.0	55.0	20.9	1.5	22.4
Trinidad and Tobago	3	32.4	41.4	6.1	38.6	24.5	0.0	24.5

Country	PDL	2IPD sub-score				2IPD score before bonus	Bonus	2IPD score after bonus
		Reliability	Reach	Relevance	Resilience			
Antigua and Barbuda	2	25.3	24.5	3.3	24.7	13.3	0.0	13.3
Central African Rep.	2	21.5	20.8	0.2	17.6	8.4	0.0	8.4
Congo	2	16.9	31.2	0.3	23.0	11.5	0.0	11.5
Gambia	2	4.3	28.0	0.3	28.6	8.7	0.0	8.7
Haiti	2	35.0	24.5	0.1	19.5	13.6	0.0	13.6
Nauru	2	25.3	24.5	0.6	21.6	11.7	0.0	11.7
Niger	2	26.7	25.8	0.2	19.3	11.7	0.0	11.7
Samoa	2	28.4	27.5	1.2	29.4	15.7	0.0	15.7
Tajikistan	2	29.2	28.3	3.7	25.7	15.8	0.0	15.8
Tonga	2	25.3	24.5	0.4	27.4	13.2	0.0	13.2

Country	PDL	2IPD sub-score				2IPD score before bonus	Bonus	2IPD score after bonus
		Reliability	Reach	Relevance	Resilience			
Syrian Arab Rep.	1	0.0	0.0	0.5	29.1	0.0	0.0	0.0

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ACKNOWLEDGEMENTS

The State of the Postal Sector 2025 and Integrated Index for Postal Development are the result of cross-cutting teamwork across various expert units at the UPU International Bureau.

The 2025 report was prepared by Dr José Ansón, UPU Lead Economist, under the guidance and supervision of Saleh Khan, Coordinator of the UPU Think Tank, and Siva Somasundram, Director of Policy, Markets and Regulation.

This report is made possible by the work of the UPU Think Tank. We particularly acknowledge the contributions made to this report by Lukasz Piotrowski, Sirine Chodan and Jessika Brena.

The UPU Communications team also played a critical role, and we thank the English translation and document processing services for their work to ensure that this report is accessible to all.

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