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Revealed Comparative Advantage and the Tatak Pinoy Strategy

Profiling Philippine Export Competitiveness, 2020–24

Annette Pelkmans-Balaoing and Queenie Angel Celestino

Program on Escaping the Middle - Income Trap: Chains for Change

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Policy Brief
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PROGRAM ON ESCAPING THE MIDDLE - INCOME TRAP: CHAINS FOR CHANGE

INSTITUTIONAL DESIGN FOR INDUSTRIAL TRANSFORMATION

Lessons from Regional Peers and the Tatak Pinoy Act

Edylinda Annette O. Balaoing
University of the Philippines School of Economics

ABSTRACT

Despite longstanding aspirations to deepen domestic industry, the Philippines' industrial policy has historically lacked enforceable mandates, strong implementation capacity, and institutional alignment. Drawing on comparative experiences in Southeast Asia and recent frameworks emerging from the *Tatak Pinoy* Act (Republic Act No. 11981), this policy brief analyzes how effective industrial policies are structured and sustained. Regional examples such as Malaysia's binding targets and centralized oversight, Vietnam's procurement-led coordination, Thailand's spatial-industrial diagnostics, and Indonesia's more coercive content rules, offer concrete institutional designs. The policy brief highlights that while the passage of R.A. No. 11981 signals renewed commitment, implementation will depend on how the Philippines addresses persistent fragmentation, limited monitoring tools, and weak inter-agency coordination. Insights from the World Bank and the United Nations Conference on Trade and Development (UNCTAD) underscore the urgency of building institutional capacity and policy coherence, particularly amid global disruptions and tightening fiscal space.

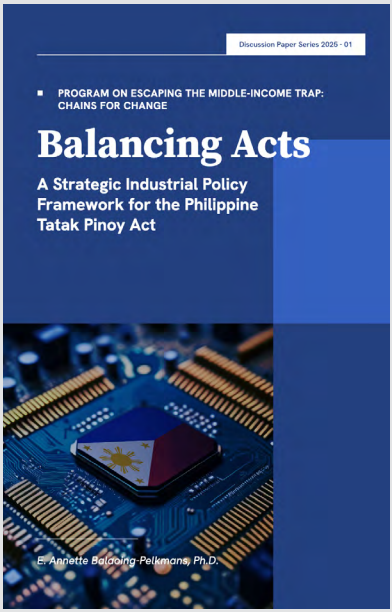
INTRODUCTION

For decades, the Philippine government has launched successive initiatives aimed at industrial upgrading, from the early postwar push for import-substitution, through liberalization and export promotion in the 1980s–1990s, to more recent attempts to revive manufacturing via sectoral roadmaps and innovation programs. However, these efforts have largely failed to produce deep structural change. Manufacturing value-added as a share of GDP has remained stagnant, research and development (R&D) investment remains among the lowest in ASEAN, and most industrial zones function as enclaves with weak domestic linkages (World Bank 2024, 15; UNCTAD 2024, 22). The challenge has not been the absence of policy ambition, but the persistent gap between strategy and execution.

Scholars and policymakers alike have pointed to institutional weaknesses as the core constraint. Philippine industrial policy frameworks, such as the Comprehensive National Industrial Strategy (CNIS), and the Inclusive Innovation Industrial Strategy (I3S), are well designed but have typically operated across fragmented agency silos, lacked enforceable performance targets, and failed to integrate procurement, training, and supplier development in a coordinated way (Balaoing 2025, 8; Malaluan 2023). Fiscal incentives dominate the

POLICY BRIEF

Institutional Design for Industrial Transformation: Lessons from Regional Peers and the Tatak Pinoy Act



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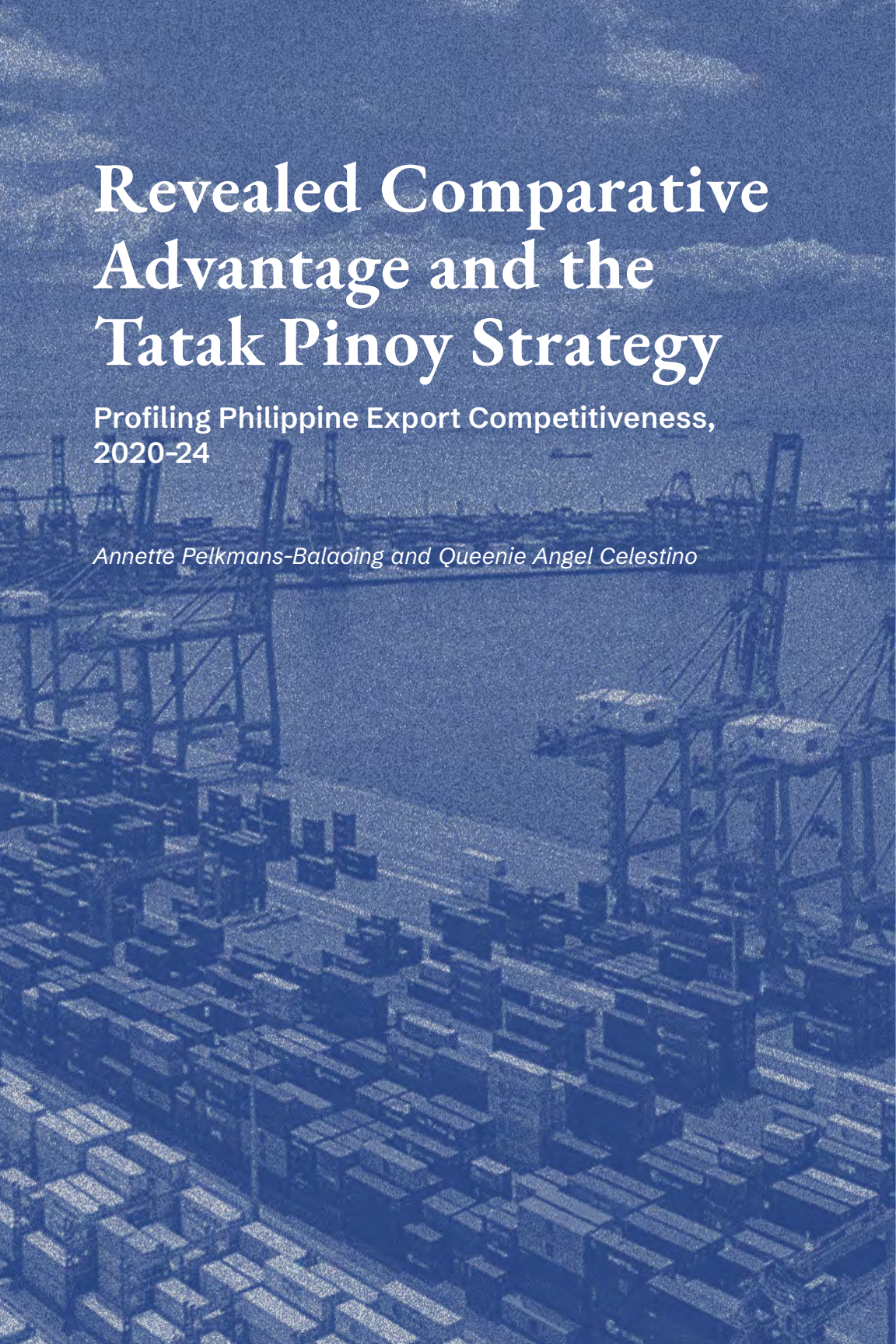

Revealed Comparative Advantage and the Tatak Pinoy Strategy

Profiling Philippine Export Competitiveness, 2020–24

Annette Pelkmans-Balaoing and Queenie Angel Celestino

Key Highlights

- Philippine merchandise exports remain highly concentrated in a small number of product lines, leaving the economy exposed to shifts in global demand and supply chain disruptions.

- The paper constructs a product-level profile of revealed comparative advantage (RCA) for 2020 to 2024 using UN Comtrade data, providing an outcome-based measure of export specialization.

- By mapping six-digit HS products to sectoral clusters, the analysis links export patterns directly to the Tatak Pinoy Strategy, the country's current industrial policy framework.

- Mean and median RCA values peaked in 2023 and moderated in 2024, indicating a temporary strengthening of specialization during the post-pandemic rebound rather than a sustained broadening of the export base.

- Comparative advantage remains anchored in a narrow set of agri-based and resource-based products, especially coconut oils and residues, pulp of fibrous cellulosic material, nickel ores and concentrates, and selected fruit and nut products.

- Small but notable industrial niches, including fixed electrical capacitors, sulfides and polysulfides, and musical instruments, register high RCA despite accounting for limited export shares.

- Food and agro-processing exhibit deep and broad-based specialization, while electronics remain central but show a slight decline in relative strength.

- Chemicals, pharmaceuticals, and medical devices display mixed trajectories, and construction-related manufactures, textiles, and garments show modest but improving specialization.

- The findings point to the need for industrial policy to deepen value addition in existing strongholds and to build capabilities in emerging sectors under the Tatak Pinoy Strategy.

Introduction

Merchandise exports play a central role in the Philippines' industrial development. Over the past two decades, the country's export structure has been highly concentrated in electronics, particularly semiconductors and a handful of agro-based products (Philippine Statistics Authority [PSA] 2024; World Bank 2025). While this specialization has supported growth, it also increases vulnerability to global demand shocks, commodity price fluctuations, and supply-chain disruptions (World Bank 2020; Asian Development Bank [ADB] 2022). The economic dislocation caused by the COVID-19 pandemic and the subsequent recovery underscored the importance of diversifying the export base to enhance resilience and sustain industrial upgrading.

This study responds to sustained policy interest in identifying areas where the Philippines exhibits export competitiveness. It provides a descriptive profile of export specialization using the revealed comparative advantage (RCA) index first proposed by Balassa (1965). By comparing a product's share in Philippine exports with its share in world exports, RCA offers an outcome-based snapshot of relative export strength that is comparable across products and time. Although RCA does not measure underlying productivity or causal competitiveness, it is widely used in trade diagnostics to map structural strengths, highlight emerging niches, and benchmark progress (Hidalgo et al. 2007; United Nations Conference on Trade and Development [UNCTAD] 2019). For the Philippines, such evidence is essential for informing industrial strategy and guiding resource allocation.

Regular monitoring of RCA is therefore more than an academic exercise. It provides policymakers with a timely view of how the export mix is evolving, whether industrial priorities are gaining traction, and which sectors may require targeted support. Although the RCA index is a relatively simple measure, tracking it through time offers a practical way to assess the direction and consistency of industrial change.

Beyond documenting export patterns, the paper links the RCA profile directly to the Tatak Pinoy Strategy (TPS), the industrial policy framework institutionalized through Republic Act (RA) No. 11981 in 2024. The TPS identifies priority sectors spanning food and agro-processing, electronics and electrical devices, chemicals, pharmaceuticals and health products, construction-related manufacturing, textiles and garments, and creative industries (Department of Trade and Industry [DTI] 2025). Effective

implementation of the strategy requires a clear understanding of existing competitive positions to avoid misaligned interventions. By organizing RCA results into sectoral groupings that mirror TPS priorities, the paper clarifies where comparative advantage is already strong, where it is emerging, and where capability building is most needed.

In this context, revealed comparative advantage is best understood not merely as a descriptive statistic. In the development literature, it is more fruitfully interpreted as a signal of accumulated capability. Balassa's index captures where a country has managed to assemble the inputs, skills, organizational routines, and institutional supports required to compete internationally in a given product. It therefore reflects the outcomes of past learning rather than intrinsic technological endowments.

Hidalgo et al. (2007) extend this insight by showing that products form a network of related activities, implying that structural transformation is path-dependent and proceeds through movements into proximate activities. Following this logic, the product space perspective clarifies why diversification tends to proceed through adjacent moves rather than abrupt jumps across unrelated activities.

Product space analysis emphasizes that products differ not only in their level of sophistication but in their "capability density." Some products require a narrow and widely available set of inputs and skills, while others depend on a dense bundle of specialized capabilities, technologies, and institutions. In the product space, these differences appear as clusters of related activities. Agro-based products such as coconut derivatives, food residues, and fruit preparations are embedded in relatively dense and accessible clusters, where knowledge, inputs, and routines are widely diffused. Entry into adjacent products in these areas often builds on existing farming systems, processing techniques, logistics networks, and regulatory frameworks.

By contrast, many manufacturing products, particularly in electronics, chemicals, and medical devices, are located in sparse and capability-intensive regions of the product space. Movement into these areas requires coordinated advances in engineering skills, standards infrastructure, supplier depth, and technological learning. The challenge is not simply capital accumulation but the assembly of complementary capabilities that rarely emerge in isolation. Economies therefore tend to move incrementally, diversifying into products that are proximate to what they already do well.

For the Philippines, diversification is not primarily a question of choosing "high-value" sectors in the abstract. It is a question of identifying feasible trajectories from existing strengths. The product space highlights where such trajectories exist and where they do not. Coconut processing can move toward refined oils, functional ingredients, and branded consumer goods because these activities are adjacent in capability space. Electronics assembly can evolve toward higher-value stages only if missing ecosystem elements are deliberately built. The policy question is therefore not whether to defy comparative advantage, but how to relax the constraints that prevent its evolution. In this sense, RCA and product space reasoning shift the debate from sectoral ambition to capability sequencing, providing a disciplined way of asking not only what the country exports, but what it can plausibly become.

The remainder of the paper proceeds as follows. The next section introduces the RCA indicator and its interpretation. The data and measurement section describes the sources and construction of the indices. Subsequent sections present the distribution of RCA values, highlight top and bottom products, explore sectoral patterns, and discuss connections to the Tatak Pinoy priorities. The paper concludes with a discussion of limitations and policy implications.

Revealed Comparative Advantage: Concepts and Indicator

Revealed comparative advantage (RCA) is a simple but powerful indicator of export specialization. For each product i in year t, Balassa's RCA is defined as:

$$RCA_{PH,i,t} = \frac{\frac{X_{\mathrm{PH},i,t}}{\sum_{j \in P} X_{\mathrm{PH},j,t}}}{\frac{X_{\mathrm{WORLD},i,t}}{\sum_{j \in P} X_{\mathrm{WORLD},j,t}}}$$

where:

$P =$ set of all products with $i \in P$;
$X_{\mathrm{PH},i,t} =$ Philippine exports of product i;
$X_{\mathrm{WORLD},i,t} =$ world exports of product i;

$\sum_{j \in P} X_{\mathrm{PH},j,t} =$ Philippines' total exports (of all products $j \in P$); and
$\sum_{j \in P} X_{\mathrm{WORLD},j,t} =$ World's total exports (of all products $j \in P$).

An RCA value greater than one implies that the Philippines' export share in that product exceeds its share in world exports, signaling "revealed" specialization relative to the global benchmark. Conversely, values below one indicate relatively low export specialization. Because the index is unitless and comparable across products and time, it is especially useful for diagnostic assessments.

RCA captures observed trade outcomes rather than underlying productivity or dynamic capability. It may therefore be influenced by trade policies, temporary price movements, and idiosyncratic shocks. Nonetheless, it remains a convenient tool for profiling export baskets, particularly in countries like the Philippines, where detailed firm-level data are limited.

Data and Measurement

The analysis draws on product-level export data from the UN Comtrade Database accessed through the World Integrated Trade Solution (WITS). The sample covers the five most recent years for which consistent data are available, 2020 to 2024, and uses the six-digit level of the Harmonized System under HS Revision 2017 (HS6). Observations with zero exports are excluded. Philippine exports (X_{it}) and world exports (W_{it}) are recorded in U.S. dollars. Total exports are computed by summing across all HS6 products in each year. RCA indices are then calculated for every product–year observation.

To link the product-level results to broader industrial priorities, HS6 lines are mapped into aggregated clusters at the two-digit HS level (HS2) that approximate goods-side categories within the Tatak Pinoy Strategy. For each HS2 cluster, export-weighted RCA is computed as:

$$\mathrm{RCA}_{gt} = \sum_{i \in g} s_{it} \times \mathrm{RCA}_{it}$$

where g denotes an HS2 group, and $s_{it} = X_{it}/\Sigma\{X_{jt}\}$ is the share of product i in Philippine exports of group g in year t. RCA_{it} denotes the product-level RCA.

This aggregation facilitates comparisons across sectors by giving greater weight to products that account for larger shares of export value.

Results

Distribution of RCA Across Products

These descriptives show that the post-pandemic rebound did not broaden the export base. The rise in mean and median RCA up to 2023 reflects the intensification of a small set of existing strengths rather than the emergence of many new competitive lines. The fact that the median remains close to zero even at the peak underscores that more than half of exported products remain far below world-average specialization. The export basket, therefore, behaves less like a diversified portfolio and more like a narrow set of concentrated bets, amplifying exposure to sector-specific shocks.

The distribution of RCA values is highly skewed. As summarized in Table 1, the number of exported products hovered around 3 000 each year. Mean RCA rose from 1.25 in 2020 to a peak of 2.16 in 2023 before falling to 1.37 in 2024. Median values follow a similar pattern, increasing from 0.037 to 0.052 and then dropping to 0.039. Minimum RCAs are near zero in all years, reflecting products with negligible export shares, while the maximum RCA climbed from 144.66 to 264.32 before moderating. These patterns suggest that export specialization intensified during the immediate post-pandemic recovery but eased thereafter.

Table 1. RCA Descriptives

Year	Number of Products	Mean	Median	Min	Max
2020	3,013	1.25	0.037	~0.0	144.66
2021	3,107	1.47	0.046	~0.0	182.08
2022	3,105	1.67	0.047	~0.0	218.71
2023	3,089	2.16	0.052	~0.0	264.32
2024	3,077	1.37	0.039	~0.0	182.30

Source: Author's calculations using the 2020 to 2024 Philippine and World trade data from UN Comtrade (through WITS).

Symmetric RCA and Export Concentration

The Balassa index used above is asymmetric; extremely large or small values are difficult to interpret. To address this, Laursen and Engedal introduced a symmetric revealed comparative advantage (SRCA) index that rescales RCA values to the interval ([-1,1]) (United States International Trade Commission, 2021).

It is defined as:

$$SRCA_{it} = (RCA_{it} - 1)/(RCA_{it} + 1)$$

Positive SRCA values indicate comparative advantage, negative values indicate comparative disadvantage and values near zero imply average performance. Table 2 reports the mean and median SRCA for each year. Average SRCA values are negative, reflecting that most products have low comparative advantage, but become less negative in 2022 and 2023 before declining in 2024. Maximum SRCA values in every year approach +1, while minimum values approach −1 (not shown).

Table 2. Symmetric RCA (SRCA) Distribution

Year	Mean SRCA	Median SRCA
2020	−0.65	−0.93
2021	−0.63	−0.91
2022	−0.61	−0.91
2023	−0.61	−0.90
2024	−0.63	−0.93

Note: SRCA is calculated as $(RCA_{it} - 1)/(RCA_{it} + 1)$.

Source: Author's calculations using the 2020 to 2024 Philippine and World trade data from UN Comtrade (through WITS).

Export concentration can be assessed using the Herfindahl–Hirschman Index (HHI), computed as the sum of squared export shares across products. Larger HHI values indicate greater concentration. Table 3 shows that the HHI declined from about 0.071 in 2020 to 0.041 in 2024, suggesting a modest widening of the export base despite continued specialization.

Read together, SRCA and concentration metrics highlight that the disadvantage is structural. Persistently negative mean SRCA indicates that

the "typical" Philippine product is systematically absent from world markets. The decline in the HHI over time should therefore not be interpreted as deep diversification. It reflects fluctuations within dominant lines rather than the sustained entry of new competitive products. In structural terms, diversification remains shallow.

Box 1. Negative SRCA as a Diagnostic Tool for Industrial Policy

A negative SRCA should not be read simply as the absence of comparative advantage, but as evidence of a revealed comparative disadvantage that is systematic rather than incidental. The statistical significance of negative SRCA values indicates that these sectors are persistently underrepresented in the country's export basket relative to global trade patterns. This persistence suggests that the observed disadvantages are not driven by short-term fluctuations, cyclical shocks, or temporary competitiveness gaps. Instead, they reflect deeper structural constraints that have limited export participation over time.

Such constraints may arise from missing or weak upstream inputs, underdeveloped supplier ecosystems, skills and technology gaps, logistics or energy bottlenecks, regulatory frictions, or coordination failures across firms and public agencies. In this sense, negative SRCA values identify sectors where market forces alone have not been sufficient to induce capability formation, resulting in path-dependent specialization away from these activities.

Importantly, the presence of significant negative SRCA values implies that existing trade patterns are not neutral outcomes. They embody the cumulative effects of historical policy choices, investment priorities, and institutional arrangements. Ignoring these negative signals risks treating current specialization as inevitable, rather than as the outcome of identifiable and potentially addressable constraints.

From a policy perspective, negative SRCA values serve a diagnostic rather than prescriptive function. They do not imply that all sectors with revealed comparative disadvantage should be promoted. Rather, they help identify areas where the economy has failed to develop export capabilities, despite potential relevance for diversification, upgrading, or resilience.

When evaluated alongside other considerations such as input-output linkages, employment intensity, or proximity to existing productive capabilities, sectors with negative SRCA may become candidates for selective and targeted intervention. In these cases, policy efforts would not aim to override comparative advantage mechanically, but to address the specific constraints that have prevented its emergence.

Possible interventions include supplier development and clustering initiatives, coordinated investments in shared infrastructure, skills upgrading and certification, standards and quality support, or demand-side instruments such as strategic public procurement. Conversely, sectors with negative SRCA that also lack strong domestic linkages or upgrading potential may reasonably remain low priority.

By explicitly incorporating both positive and negative SRCA outcomes, the analysis moves beyond identifying current export strengths and instead provides a more complete picture of the economy's structural configuration. This dual perspective is essential for an industrial and trade policy that seeks not only to deepen existing specializations but also to expand the country's future set of productive and export opportunities.

Table 3. Export concentration measured by the Herfindahl–Hirschman Index

Year	HHI (sum of squared export shares)
2020	0.0709
2021	0.0531
2022	0.0638
2023	0.0586
2024	0.0408

Source: Author's calculations using the 2020 to 2024 Philippine and World trade data from UN Comtrade (through WITS).

The largest gains occur along familiar capability corridors. Coconut derivatives and sulfides build on resource-based and process-oriented competencies already present in the economy. By contrast, the steep declines in certain electronics and chemical lines occur in segments where design, process control, and technological depth are decisive. These movements illustrate path dependence: comparative advantage tends to evolve where complementary capabilities already exist and erodes where the ecosystem is thin.

Changes in Comparative Advantage, 2020–24

A dynamic perspective helps to identify products that have gained or lost comparative advantage over the study period. Table 4 lists the five products with the largest increases and decreases in RCA between 2020 and 2024 among products present in both years. Sulfides and polysulfides (HS 283090)

and coconut-related oils (HS 151319 and HS 151311) experienced sharp gains, while musical instruments (HS 920190) and coconut oil residues (HS 230650) also rose markedly. In contrast, fresh or chilled fish fins (HS 030299) and television reception apparatus (HS 852873) saw large declines, along with certain base-metal alloys and miscellaneous equipment. These shifts suggest the emergence of new niches and the waning of older strengths.

Table 4. Top increases and decreases in RCA between 2020 and 2024

HS6	Product (short description)	Change in RCA (2024-2020)
283090	Sulfides and polysulfides	+74.58
151319	Other coconut oils	+62.56
151311	Crude coconut oil	+61.32
920190	Keyboard instruments	+57.38
230650	Coconut oil-cake and residues	+55.10
030299	Fresh/chilled fish fins	−64.30
852873	TV reception apparatus	−49.56
710900	Base metals/silver clad	−46.89
750120	Nickel oxide sinters	−33.11
962000	Monopods, bipods, etc.	−30.20

Note: Positive values indicate a stronger comparative advantage in 2024 relative to 2020, negative values indicate weakening.

Source: Author's calculations using the 2020 to 2024 Philippine and World trade data from UN Comtrade (through WITS).

Top and Bottom Products

The stability of the core across cycles suggests that what changes is not the identity of strengths but their intensity. The appearance of capacitors and musical instruments among the top RCAs in 2024 is therefore analytically important. These products represent departures from the historical core. Their small base, however, means that they remain vulnerable to firm exit, buyer relocation, or regulatory friction. Whether they become platforms for broader upgrading depends on the formation of domestic linkages and skills pipelines.

The top RCA products reveal a stable core of highly specialized export lines alongside a few emerging niches. Table 5 compares the leading HS6 products in 2020 and 2024. In both years, pulp of fibrous cellulosic material (HS 470693), coconut products (crude oil, oil-cake residues, other coconut oils, and desiccated coconuts), and nickel ores (HS 260400) dominate the list. RCAs for these products range from about 75 to over 182. Notably, the RCA for crude coconut oil climbed from 109.49 to 170.81, and coconut-based residues also increased sharply. In 2024, new industrial niches appear among the leaders, such as fixed electrical capacitors (HS 853229), sulfides and polysulfides (HS 283090), and keyboard and musical instruments (HS 920190), indicating nascent specialization outside traditional agro- and resource-based products.

Table 5. RCA Trends between 2020 and 2024

Year	HS6	Product description	RCA
2020	470693	Pulp of fibrous cellulosic material	144.66
	292112	Acyclic amine-function compounds	133.78
	852873	Television reception apparatus	112.98
	151311	Crude coconut (copra) oil	109.49
	230650	Coconut oil-cake and residues	90.78
	260400	Nickel ores and concentrates	77.02
	080111	Desiccated coconuts	74.03
2024	470693	Pulp of fibrous cellulosic material	182.30
	151311	Crude coconut (copra) oil	170.81
	230650	Coconut oil-cake and residues	145.88
	151319	Other coconut-related oils	107.74
	080111	Desiccated coconuts	99.28
	853229	Fixed electrical capacitors, n.e.c.	87.99
	260400	Nickel ores and concentrates	81.44
	283090	Sulfides and polysulfides	74.82
	852873	Television reception apparatus	63.41
	920190	Harpsichords and other keyboard instruments	57.40

Source: Author's calculations using the 2020 to 2024 Philippine and World trade data from UN Comtrade (through WITS).

At the opposite end of the distribution, numerous products exhibit RCAs close to zero. These include vaccines, malt, uranium, certain fabrics, dishwashers, and cooking appliances, reflecting negligible export shares relative to world markets. Such low RCA values underscore the narrowness of Philippine export specialization.

Sectoral Patterns and the Product Space

From a product-space perspective, these sectoral asymmetries mirror differences in institutional depth. Agro-based and resource-based sectors operate in dense domestic ecosystems with established inputs, routines, and logistics. Manufacturing chapters cluster around unity or below because they require coordinated investments in standards, tooling, skills, and supplier networks. The constraint is therefore not feasibility but coordination. Industrial policy operates precisely in this space between technical possibility and institutional absence.

Examining RCA at the two-digit HS level provides insights into broader product groups. Table 6 lists the HS2 categories with the highest average RCA over 2020–2024. Pulp (HS 47); animal and vegetable oils (HS 15, including coconut oil); food residues and animal feed (HS 23); edible fruits and nuts (HS 08); nickel and articles (HS 75); and ores, slag, and ash (HS 26) top the ranking, all with average RCAs well above 5. These sectors represent persistent structural strengths. In contrast, many manufacturing categories, such as machinery (HS 84–85) and chemicals (HS 28–38), have average RCAs close to or below one, consistent with the bottom product rankings.

Table 6. Top HS2 sectors by average RCA, 2020-24

HS2	Sector (approximate)	Average RCA (2020-24)
47	Pulp of wood and other fibrous materials	≈ 26.2
15	Animal and vegetable fats and oils	≈ 12.2
23	Food industry residues and animal feed	≈ 11.7
08	Edible fruits and nuts	≈ 6.6
75	Nickel and articles thereof	≈ 6.5
36	Explosives and pyrotechnics	≈ 6.2
13	Lac, gums and resins	≈ 6.1

HS2	Sector (approximate)	Average RCA (2020-24)
26	Ores, slag and ash	≈ 5.8
20	Preparations of vegetables, fruits and nuts	≈ 4.3
91	Clocks and watches	≈ 4.2

Source: Author's calculations using the 2020 to 2024 Philippine and World trade data from UN Comtrade (through WITS).

These results confirm that the Philippines' comparative advantage is firmly anchored in agri-based value chains and resource-based exports. A handful of industrial niches, including explosives; clocks and watches; and lac, gums, and resins, also register high RCAs but constitute tiny shares of total exports.

Tatak Pinoy Prioritized Sectors

Interpreted through the lens of negative SRCA, the Tatak Pinoy sectors fall into distinct policy regimes. Food and agro-processing are in an upgrading regime: capabilities exist, and the constraint lies in moving up the value chain. Electronics, chemicals, and pharmaceuticals are in a capability-retention regime: a few competitive lines coexist with broad structural absence, signaling ecosystem gaps. Construction materials and textiles are in a feasibility regime shaped by scale and coordination failures.[1] Creative goods are in a scaling regime, characterized by artisanal excellence without industrial depth. Treating these regimes uniformly risks misallocation.

To connect the RCA profile to the Tatak Pinoy Strategy, Table 7 reports export-weighted RCA values for broad sectoral groupings in 2020 and 2024, along with their changes. Food and agro-processing (HS 01–24) emerges as the country's clear export champion: the sector's export-weighted RCA roughly doubled from about 32 in 2020 to almost 69 in 2024, and roughly 90 percent of its export value comes from products with RCA above one. Electronics and electrical machinery (HS 84–85) remain central, with export-weighted RCAs around 8–10 and nearly 95 percent of export value concentrated in products where the Philippines has a comparative advantage. Although the average RCA

1 Garments and textiles are not among the nine priority sectors identified under the Tatak Pinoy Strategy. They are included here because procurement preferences for MSMEs give particular salience to labor-intensive sectors, making them important for evaluating the policy's feasibility constraints and its potential employment and inclusion effects.

in electronics declines slightly, the sector continues to underpin merchandise exports.

Electronics thus illustrates a form of fragile centrality. The Philippines remains deeply embedded in global electronics value chains, yet its role is concentrated in assembly, testing, and mid-level process stages. Backward linkages to domestic suppliers of components, materials, tooling, and specialized services remain thin. Much of the value creation occurs upstream in design, wafer fabrication, and advanced packaging, and downstream in system integration and branding, activities that are largely located elsewhere.

As regional competitors deepen their ecosystems and move into these higher-value segments, relative specialization in lower stages becomes harder to sustain. The modest decline in average RCA therefore reflects not a collapse of the sector, but a gradual erosion of relative position in a fast-moving industry where cumulative capability and ecosystem depth are decisive. Countries that succeed in electronics do so not through isolated firm performance, but through dense networks of engineers, suppliers, research institutions, standards bodies, and specialized logistics.

Without deliberate efforts to strengthen these foundations, electronics risks remaining locked into a narrow functional niche, vulnerable to relocation and margin compression. The policy challenge is not to "pick" electronics anew, but to determine whether and how the existing base can be leveraged into adjacent capabilities. This requires moving beyond enclave-style operations toward supplier development, technical skills formation, and coordinated upgrading. In product space terms, the task is to shorten the distance between assembly and more knowledge-intensive stages, rather than to leap into unrelated segments.

By contrast, chemicals (HS 28–38), pharmaceuticals (HS 30), and medical devices (HS 90) display mixed dynamics. While a large portion of export value still originates from products with an RCA above 1, average RCAs in chemicals and pharmaceuticals decline over the period, suggesting intensifying global competition and shifts in product composition. Medical devices, however, show a rising average RCA, pointing to emerging strengths. Construction-related manufactures (including cement, steel, and housing-related products) and textiles and garments register modest but steadily improving RCAs, indicating gradual gains from relatively low bases. Creative goods, another sector of interest for DTI, proxied by printed media,

recorded music, and other cultural products, record high RCAs in very small niches but account for minimal export volumes, highlighting potential rather than an established pillar.

Table 7. Export-weighted RCA by Tatak Pinoy prioritized sector

Sector (HS coverage)	Export-weighted RCA 2020	Export-weighted RCA 2024	Change (Δ)
Food and agro-processing (HS 01–24)	31.5	68.9	+37.4
Chemicals (HS 28–38)	19.2	13.4	–5.8
Pharmaceuticals (HS 30)	39.9	10.6	–29.3
Medical devices and instruments (HS 90)	5.8	16.2	+10.4
Electronics and electrical machinery (HS 84–85)	9.5	8.2	–1.3
Cement, steel and construction-related manufactures (HS 25, 68, 69, 72, 73, 94)	3.6	4.2	+0.6
Textiles and garments (HS 50–63)	1.8	2.6	+0.8
Creative goods proxy (HS 49, 92, 97)	0.1	11.2	+11.1

Source: Author's calculations using UN Comtrade data. Export-weighted RCAs are computed as described in the methodology section.

Discussion

The preceding results portray a Philippine export basket characterized by sharp specialization and limited diversification. RCAs are highly skewed, with a handful of products achieving very high values while most linger close to zero. The persistence of pulp, coconut oils, fruit and nut products, and nickel ore among the top products underscores the enduring importance of agri-based and resource-based value chains. These sectors benefit from natural endowments and long-established industries, but they also face fluctuating global prices and limited opportunities for domestic value addition.

The emergence of small industrial niches, fixed electrical capacitors, sulfides and polysulfides, and musical instruments points to pockets of industrial capability building. These products often serve global supply chains and may provide pathways for upgrading if backward linkages and domestic supplier networks can be strengthened. Conversely, the decline of certain chemical and pharmaceutical lines suggests that these sectors face persistent capability and scale constraints that have yet to be resolved.

Comparisons across sectoral clusters reveal notable heterogeneity. Food and agro-processing not only exhibits the highest average RCA but also accounts for a large share of exports with an RCA above one. Electronics and electrical machinery remain the most significant export sector in absolute terms, yet average RCA values slightly decline over the period. Chemicals and pharmaceuticals display high RCA in a few product lines but declining averages overall, indicating that specialization is both narrow and vulnerable. Construction-related manufactures and textiles show gradual improvements from low bases, while creative goods reveal high specialization in tiny niches. Services exports, such as the information technology–business process management (IT-BPM) sector, where the Philippines excels, are not captured in this merchandise-focused analysis and warrant separate examination.

From Diagnostics to Sequencing: Using RCA for Industrial Policy Design

The analysis above demonstrates how RCA and SRCA can be operationalized for policy sequencing in the implementation of industrial strategy. Three broad categories emerge from the Philippine profile.

First are sectors with deep and broad-based comparative advantage, most notably food and agro-processing and selected resource-based industries. These sectors combine a high average RCA with wide product coverage above unity. Here, the binding constraint is not feasibility but value capture. Policy should therefore focus on upgrading within existing corridors: downstream processing, quality certification, logistics, branding, and integration into higher-value market segments. In these sectors, even modest interventions can yield high returns because capabilities are already dense.

Second are sectors characterized by narrow but significant footholds, such as electronics, chemicals, and medical devices. These sectors exhibit pockets

of strength coexisting with wide negative SRCA. The challenge is capability retention and extension. Market forces alone tend to lock these activities into enclaves, especially when upstream inputs, engineering skills, and specialized services are imported. In these cases, the role of policy is to thicken ecosystems: supplier development, shared testing facilities, engineering training, standards infrastructure, and coordination among anchor firms, universities, and government agencies. The objective is not to force diversification, but to prevent erosion and to shorten the distance to adjacent activities in the product space.

Third are sectors with persistent negative SRCA and limited export presence, such as parts of construction manufacturing, textiles, and certain creative industries. Here, the diagnostic question is whether constraints are primarily structural or strategic. Some activities may be distant in capability space and yield low spillovers. Others may be proximate but blocked by scale, coordination, or regulatory barriers. RCA alone cannot decide this, but it helps identify where deeper investigation is warranted. Combined with input-output analysis, employment potential, and domestic market size, negative SRCA can guide selective experimentation rather than blanket promotion.

This differentiated logic is central to the Tatak Pinoy Strategy. RA No. 11981 establishes a framework for coordination across agencies, but coordination without diagnosis risks dispersion. RCA and SRCA provide a low-cost, continuously updated map of where coordination is most likely to be productive. They allow policy to be both ambitious and disciplined: ambitious in seeking structural change, disciplined in respecting capability constraints.

In practical terms, this suggests treating RCA not as a one-off study, but as a monitoring instrument. Annual RCA profiles can be integrated into the Tatak Pinoy governance process, informing sector roadmaps, budget prioritization, and mid-course correction. Rising RCA in targeted niches can signal successful learning. Stagnant or declining RCA can trigger a diagnostic review. Persistent negative SRCA can flag where structural bottlenecks remain unresolved.

Used in this way, trade diagnostics become part of industrial policy itself. They shift the focus from static sector lists to dynamic capability trajectories. The question is no longer simply which sectors to support, but where the economy is learning, where it is stuck, and what form of coordination is required at each stage.

Limitations

Several caveats must be noted. First, RCA measures reveal rather than reflect inherent comparative advantage; they depend on observed trade flows and may be influenced by temporary price shocks, trade policies, or industrial incentives. Second, the analysis focuses on merchandise exports and excludes services, notably the IT-BPM sector, where the Philippines has significant strengths. Third, although a consistent HS revision is used, HS6 classifications sometimes change over time, especially in electronics and chemicals, which can affect comparability. Finally, RCA indices can be sensitive to external shocks such as commodity price spikes or pandemic-induced disruptions, particularly for resource-based products.

Conclusion and Policy Implications

This study provides an updated profile of the Philippines' revealed comparative advantage in merchandise exports from 2020 to 2024. The findings highlight a highly concentrated export structure anchored in agri- and resource-based products, with only limited diversification into industrial niches. The temporary surge in average RCA in 2023 suggests a short-lived post-pandemic boost rather than a sustained broadening of comparative advantage. Food and agro-processing emerge as the most competitive sectors, while electronics remains central but exhibits a modest decline in average RCA. Chemicals, pharmaceuticals, and medical devices display mixed patterns, and construction-related manufactures, textiles, and creative goods show incremental improvements from low bases.

Beyond profiling current specialization, the analysis suggests a way of operationalizing industrial policy under the Tatak Pinoy Strategy. RCA provides a continuous, outcome-based signal of where capabilities are taking root and where they are receding. When combined with SRCA, it reveals not only strengths but systematic absences. This dual perspective allows policy to distinguish between sectors that require deepening, those that require protection of fragile gains, and those where constraints are so binding that entry remains unlikely without coordinated intervention.

The distinction between deepening and expanding comparative advantage is crucial. Deepening refers to upgrading within existing capability corridors, for example, moving from crude coconut oil to refined, functional, and branded products, or from raw nickel exports to intermediate materials. These pathways

build on established ecosystems and therefore offer relatively high returns to coordinated support. Expanding comparative advantage, by contrast, involves entry into more distant activities such as advanced electronics, chemicals, or medical technologies. Here, the binding constraints lie in skills, standards, supplier depth, and institutional coordination rather than in factor endowments.

RCA and SRCA can therefore function as a living diagnostic system for Tatak Pinoy implementation. Regular monitoring allows policymakers to observe whether targeted sectors are gaining ground, stagnating, or losing relative position. Shifts in RCA provide early signals of whether interventions are working, while persistent negative SRCA flags areas where structural barriers remain unaddressed. Used in this way, trade diagnostics become part of policy governance rather than a one-off analytical exercise.

An industrial strategy that is both ambitious and disciplined must respect this sequencing. It must deepen existing strengths to generate scale and learning, while selectively relaxing the constraints that prevent movement into adjacent activities. The objective is not to override comparative advantage, but to enable its evolution. By embedding RCA within a capability-based and product space framework, the Tatak Pinoy Strategy can move from aspiration to navigation, using evidence to guide the country's path toward a more diversified, resilient, and higher-value export structure.

From a policy perspective, these patterns have two broad implications. First, sectors with entrenched comparative advantage, particularly agro-based and resource-based products, should be supported with policies that promote higher value addition, stronger domestic linkages, and resilience to price volatility. Upgrading activities may include downstream processing of coconut and nickel products, development of packaging and logistics infrastructure, and quality certification to command premium prices. Second, emerging industrial niches and declining sectors call for capability building rather than immediate expansion. Supportive measures could include targeted research and development, skills development programs, infrastructure investments, and regulatory reforms to foster competitiveness in electronics, chemicals, pharmaceuticals, and creative industries. Aligning industrial policy interventions with empirical evidence on comparative advantage will be essential for the successful implementation of the Tatak Pinoy Strategy and for achieving a more diversified, resilient, and inclusive export sector.

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