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SENTIMENT VS. REALITY: EXPLAINING THE DISCONNECT BETWEEN MANUFACTURING PMI, OUTPUT AND EXPORTS

- The manufacturing sector is Malaysia's second-largest economic contributor after services sector, contributing approximately 23% to the country's overall GDP. Common indicators used to gauge or predict manufacturing performance include the Purchasing Managers' Index (PMI), industrial production index (IPI), and exports. Nevertheless, it is not unusual to observe a divergence between actual manufacturing output or export growth and the movement of the manufacturing PMI. So, why does the manufacturing PMI performance sometimes divert from official manufacturing production and export data performance?

Methodology behind the manufacturing PMI and DOSM official data

- The manufacturing PMI is the survey conducted through questionnaires distributed to purchasing managers from approximately 400 manufacturing firms. The panel is designed to reflect the structure of the economy, with representation based on detailed industry categories and workforce size, based on contributions to GDP.

- Responses are gathered during the latter half of each month and reflect whether conditions have improved, deteriorated, or remained unchanged compared to the previous month. For each survey indicator, a diffusion index is produced by combining the share of respondents reporting an improvement with half of those reporting no change. Index values range from 0 to 100, where readings above 50 signal expansion while those below 50 indicate contraction. All indices are subsequently adjusted for seasonal effects.

- The primary indicator produced is the Purchasing Managers' Index (PMI), which is derived from a weighted average of 5 key sub-indices using fixed weights:
  - New Orders (30%)
  - Output (25%)
  - Employment (20%)
  - Suppliers' Delivery Times (15%)
  - Inventory Levels (10%)

- For comparability with other components, the Supplier' Delivery Times index is reversed so that shorter delivery times signal improvement. While the raw data remain unchanged after release, the seasonal adjustments may be updated periodically, which can result in revisions to the seasonally adjusted series.

- Meanwhile, the manufacturing IPI data released by the Department of Statistics Malaysia (DOSM) is based on hard production data, not sentiment. DOSM compiles it using actual monthly output figures collected from around 245 manufacturing industries through the Monthly Manufacturing Survey, where establishments with significant sales value are covered. Each industry and product is assigned a fixed weight based on its contribution to value added and sales in the base year of 2015. The index is calculated using a Laspeyres formula, combining product-level output changes into industry, group, and sector indices. The data are then seasonally adjusted to remove seasonal effects. Unlike the PMI, which reflects managers' expectations, the IPI measures real changes in production volume across the manufacturing sector.

- Likewise, manufacturing exports data is also hard data, compiled using the general trade system, which records all goods leaving the country based on Custom declarations, postal/courier shipments and industry-specific reports. Exports are valued on a f.o.b (free on board) basis (the value of the goods in the market at the statistical / customs frontier of the exporting country), including all costs of transport, export duties, and loading cost at the exporting country's frontier, unless borne by the carrier. All goods crossing the national boundary are included except transit cargo, transshipment cargo, gold bullion (monetary), goods for temporary admission, etc. (refer to exclusions in technical notes of monthly external trade statistics).

Table 1: Methodology Comparison Table

Feature	Manufacturing PMI	Manufacturing Production	Manufacturing Exports
Type	Soft data (survey/sentiment)	Hard data (actual production)	Hard data (actual shipments)
Coverage	Panel of ~400 firms	All manufacturing establishments	All manufacturing exports by industry
Focus	Business expectations	Production output	Export value & volume
Method	Questionnaires & diffusion index	Monthly Manufacturing Survey	Customs declarations, HS codes
Valuation / Weighting	Weighted average of 5 components	Weighted by GDP contribution & industry sales	f.o.b., commodity-based
Nature	Forward-looking/perception	Historical/performance	Historical/performance

Sources: S&P Global, DOSM, Bank Islam

Factors explaining the gap between manufacturing PMI and hard data

- Drawing on the methodological explanation above, several structural and cyclical factors help explain the persistent gap between the manufacturing PMI and the "hard" indicators—namely manufacturing output and exports. These factors include:

  - **Different Nature and Coverage of Indicators**. The primary source of the gap lies in the differing coverage, methodology, and sensitivity of the indicators. Manufacturing output

(IPI) and exports are hard data that capture actual production volumes and shipment flows. In contrast, the PMI is a survey-based indicator that reflects firms' perceptions and expectations regarding output, new orders, employment, and inventory conditions. Because it measures sentiment rather than realised activity, the PMI can remain below the 50-point threshold, even during periods when official data shows improvement. In times of heightened uncertainty, businesses often adopt a more cautious or pessimistic outlook, resulting in softer PMI readings despite underlying strength in real economic activity.

- **Uneven Export Performance and Sectoral Weightage.** Another factor is the uneven performance across manufacturing subsectors. Malaysia's manufacturing export are heavily driven by electrical and electronics (E&E) products, which account for more than 40% of total exports. When the E&E segment performs strongly while other subsectors remain sluggish, the overall manufacturing export data may still register robust growth. Similarly, within the IPI, the E&E segment carries a significant weight of 26.7% in the overall manufacturing sector, amplifying its influence on headline performance. However, the PMI surveys a broader cross-section of manufacturers, many of whom may not benefit equally from E&E-led growth. If most respondents outside the high-performing sectors face weak demand, high input costs, or margin pressures, the overall manufacturing PMI may stay below 50, even when headline exports and production appear healthy.

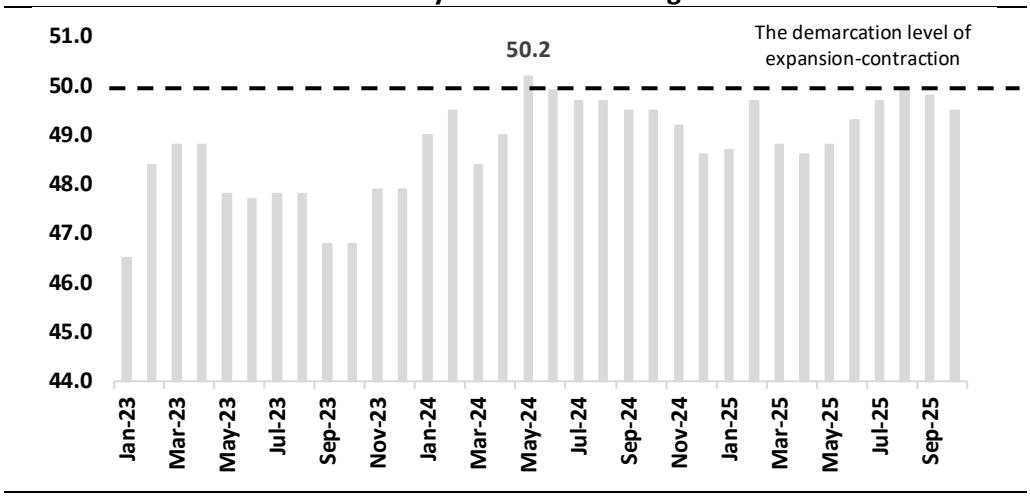
- **Cost Pressures and Margin Squeeze.** Additionally, the manufacturing PMI also reflects cost conditions and profitability. Even if production and exports are rising, manufacturers may still report contractionary PMI readings should input costs, wages, or energy prices remain high. When profit margins are squeezed or when global demand appears uncertain, firms often scale back new orders or hiring, which in turn pulls the PMI lower.

- **Forward-looking Expectations.** Unlike IPI and export figures—which reflect actual, realised activity—the PMI is inherently forward-looking. It captures firms' expectations about future business conditions rather than current production levels. When manufacturers anticipate softer global demand—whether from U.S. tariff uncertainty, China's economic slowdown, or ongoing supply-chain realignments—they often adopt a more cautious outlook. This can result in sub-50 PMI readings even during periods when actual output and exports remain resilient. Sentiment also tends to adjust more slowly than hard data. Firms may regard early improvements in demand as temporary, waiting for several months of sustained recovery before turning sufficiently confident for the PMI to move back into expansion territory.

- Overall, the divergence between Malaysia's improving IPI and export performance and its still subdued PMI largely reflects lingering caution among manufacturers, uneven recovery across subsectors, and ongoing uncertainties around costs and external demand. A more durable move in the PMI above the 50-point threshold is likely to materialise only when firms gain stronger confidence that the external demand recovery is broad-based, profit margins are stabilising or improving, and both global and domestic policy conditions have become more predictable.

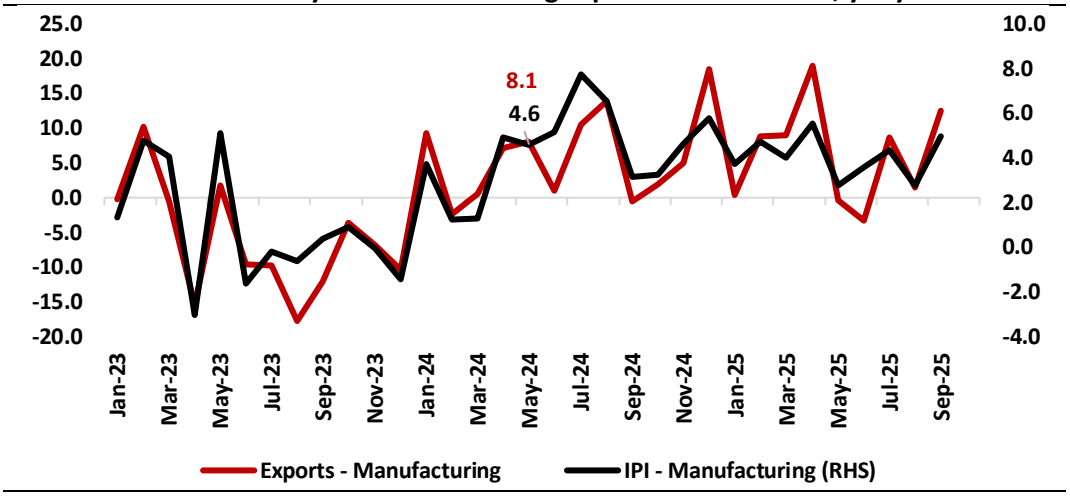
When was Malaysia's manufacturing PMI in expansion?

Chart 1: Malaysia's Manufacturing PMI



Sources: S&P Global, CEIC Data, Bloomberg, Bank Islam

Chart 2: Malaysia's Manufacturing Export and Production, y-o-y %



Sources: DOSM, CEIC Data, Bank Islam

- Using January 2023 as a reference point, Malaysia's manufacturing PMI has only briefly entered expansion territory—most recently in May 2024, when it inched up to 50.2. During that period, manufacturing exports and production posted solid gains of 8.1% and 4.6%, respectively. In contrast to the PMI, both manufacturing production and exports tend to move closely together, as illustrated in Chart 2. These indicators have also proven to be reliable predictors of broader economic performance, given the manufacturing sector's substantial contribution to Malaysia's overall GDP.

- However, if we extend the timeline back to 2016, a notable shift can be observed in the post-pandemic era. It is also worth examining the relationship with the global technology cycle, given Malaysia's heavy reliance on the semiconductor industry, using global semiconductor sales as a key indicator to reflect this cycle.

- Over the 117-month period from January 2016 to September 2025, Malaysia's manufacturing PMI surpassed the 50-point expansion threshold only 20 times, with most of these instances occurring in 2021 and 2022 as the economy reopened following the stringent lockdowns of 2020. Even then, half of the expansion months reflected only modest improvements, with readings remaining below the 51-point mark. This timeframe provides a consistent basis for assessing Malaysia's manufacturing PMI performance both before and after the pandemic.

Table 2: Malaysia's Manufacturing PMI: Expansion Periods (January 2016 – September 2025)

Month	Manufacturing PMI
Apr-21	53.9
Dec-21	52.8
Nov-21	52.3
Oct-21	52.2
Nov-17	52.0
Apr-22	51.6
Sep-18	51.5
May-21	51.3
Aug-18	51.2
Jun-20	51.0
Feb-22	50.9
Apr-17	50.7
Jul-22	50.6
Jan-18	50.5
Jan-22	50.5
Aug-17	50.4
Jun-22	50.4
Aug-22	50.3
May-24	50.2
May-22	50.1

Sources: S&P Global, Bank Islam

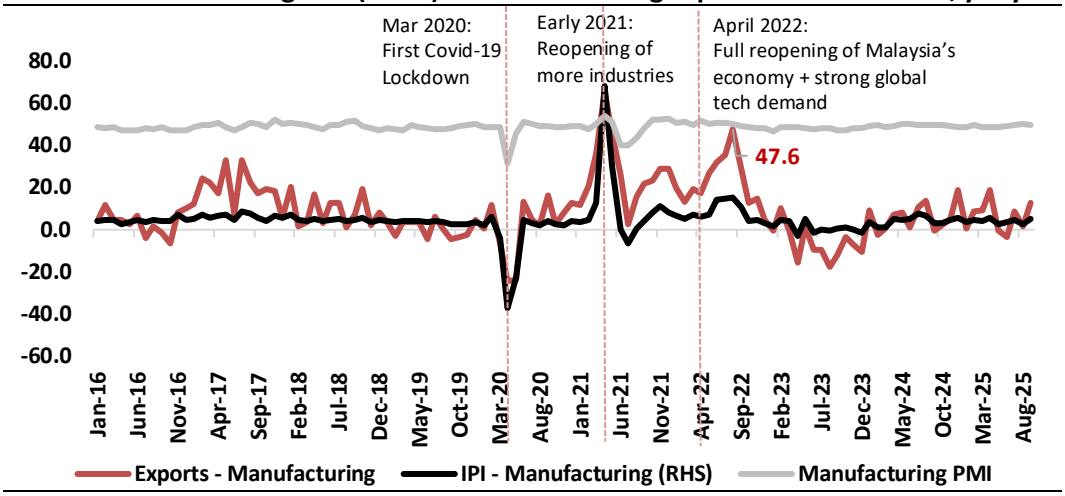
- Chart 3 shows that all three indicators moved in parallel prior to the COVID-19 pandemic, which triggered the first phase of the Movement Control Order (MCO) on 18 March 2020. During this pre-pandemic period, the manufacturing PMI and production displayed a stable and closely aligned pattern, while manufacturing exports were more volatile, reflecting their focus on export-oriented products. Notably, even when the manufacturing PMI occasionally dipped below the 50-point threshold, signaling contraction, its overall trend remained broadly consistent with the performance of manufacturing output and exports before the pandemic.

- All three indicators plunged sharply in April 2020, reflecting the sudden halt in activity during the first COVID-19 lockdown (refer to Chart 3). As more industries resumed operations in early 2021, coupled with low base effects, the sentiment, production and exports began to recover, supported by policy easing and improving demand. In April 2021, Malaysia's manufacturing PMI posted a strong expansion at 53.9, the highest level recorded from January 2016 to September

2025, while manufacturing output and exports shot up by 68.0% and 65.3% respectively.

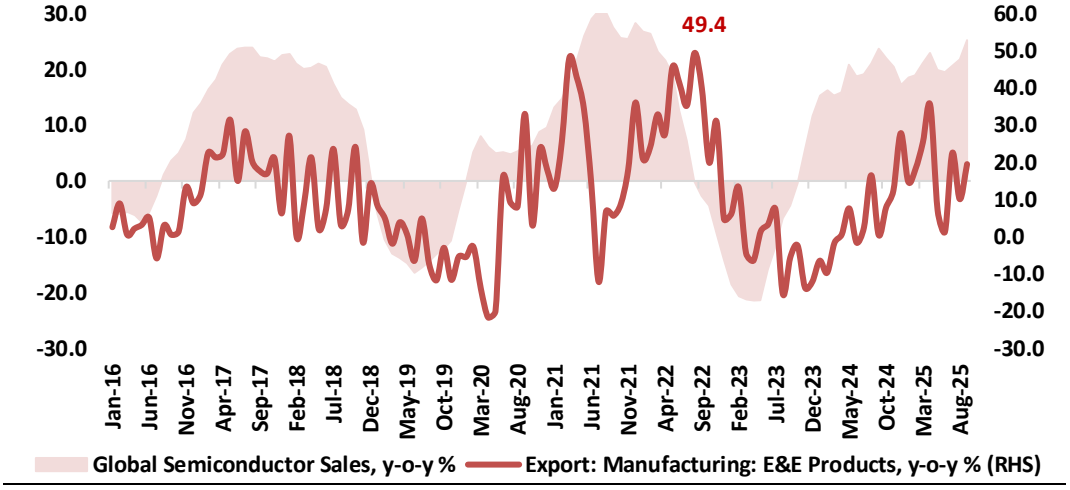
- The movement of these indicators generally remained aligned after the pandemic, but the manufacturing PMI lagged behind manufacturing output and exports following the full reopening of the economy on 1 April 2022. The strong performance of output and exports was supported in part by robust global technology demand during the tech upcycles, as evidenced by the close co-movement between global semiconductor sales and Malaysia's electrical and electronics (E&E) exports, which account for over half of total manufacturing exports. Manufacturing exports surged 47.6% y-o-y in August 2022, driven primarily by a 49.4% y-o-y increase in E&E exports. This strength highlights Malaysia's deep integration into the global semiconductor supply chain.

Chart 3: Manufacturing PMI (Index) vs. Manufacturing Exports and Production, y-o-y%



Sources: DOSM, S&P Global, CEIC Data, Bank Islam

Chart 4: Global Semiconductor Sales vs. E&E Manufactured Exports, y-o-y %



Sources: Semiconductor Industry Association (SIA), DOSM, CEIC Data, Bank Islam

- Chart 4 above shows that there is a slight lag effect or short delay between global semiconductor sales growth (reflecting the global technology cycle) and Malaysia's E&E exports. This lag can be explained by:

- **Production Lead Time**. An increase in semiconductor orders globally may take time to translate into higher output and shipment from Malaysian manufacturers.

- **Inventory Adjustment**. Local exporters might initially fulfill demand from existing stock before ramping up production.

- **Supply Chain Frictions**. Logistics, material sourcing, and capacity constraints can cause delays between global demand and actual export realization.

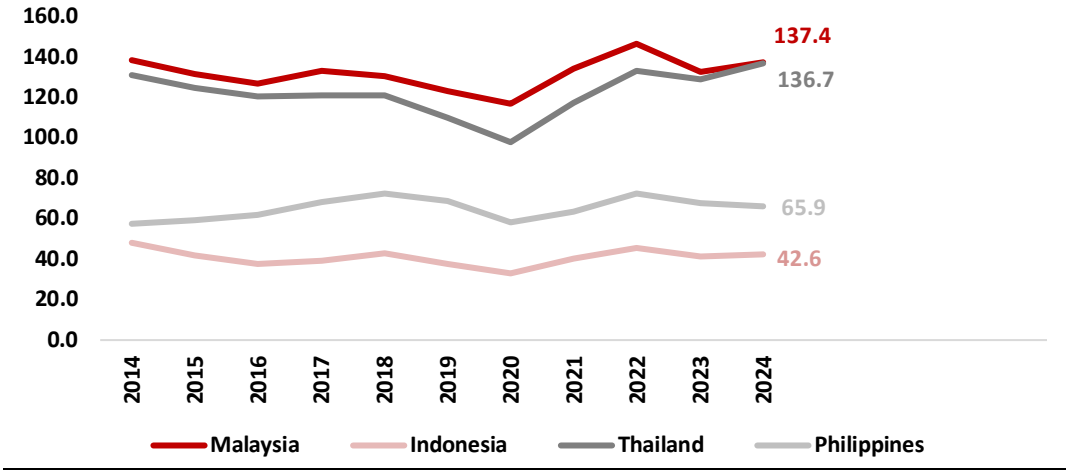
Thus, while the overall trends move in the same direction, Malaysia's E&E exports typically respond with a slight lag to shifts in global semiconductor demand.

- After reaching a strong reading of 51.6 in April 2022, the manufacturing PMI slipped back into sub-50 territory in the post-pandemic period, even as output and exports continued to grow robustly. From August 2022 onwards, the PMI largely remained in contractionary territory, with only a modest expansion recorded in May 2024. This pattern reflects the survey- and sentiment-based nature of the PMI, capturing ongoing caution among manufacturers about a full recovery in the sector following COVID-19. Manufacturers are also grappling with rising raw material costs and softer demand, which have weighed on overall sentiment.

- Furthermore, the 19% tariff hike imposed by the Trump administration added to already weak business sentiment, reinforcing a cautious outlook among managers. In October 2025, Malaysia's manufacturing PMI fell to 49.5, the lowest in four months, signaling challenging operating conditions at the start of 4Q2025. Manufacturers reported renewed declines in new orders and production, along with slower growth in employment and inventories. Overall demand was further dampened by a significant fall in new export orders, particularly from the Asia-Pacific and Africa regions. In contrast, Malaysia's manufacturing exports continued to expand, posting double-digit growth of 15.7% in October, largely supported by a robust 26.5% y-o-y increase in E&E shipments.

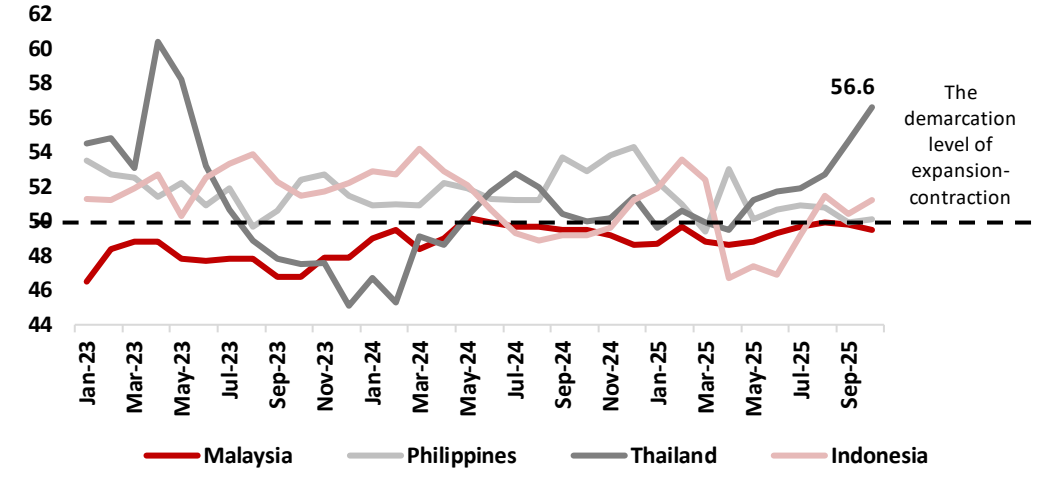
Are Malaysian manufacturers more pessimistic compared to regional peers?

Chart 5: ASEAN-5 (excluding Singapore) Trade-to-GDP Ratio (%)



Sources: CEIC Data, Bank Islam

Chart 6: ASEAN-5 (excluding Singapore) Manufacturing PMI



Sources: S&P Global, CEIC Data, Bank Islam

- As an open, export-oriented economy, Malaysia is highly sensitive to external conditions such as global demand cycles and trade tensions. Fluctuations in E&E exports, which constitute a large portion of total manufactured exports, can significantly influence the overall manufacturing index. Ongoing geopolitical risks and U.S. tariff actions continue to weigh on forward orders, prompting manufacturers to adopt a cautious rather than overtly pessimistic stance. Looking ahead, a potential downside risk would be any unexpected U.S. tariff on semiconductors, which could significantly impact Malaysia's export-driven sectors.

- Malaysia's sustained sub-50 manufacturing PMI readings reflect ongoing caution amid external headwinds, even as domestic-oriented demand remains relatively resilient. Looking into 2026, domestic-focused manufacturing sectors may benefit from the tourism boost associated with Visit Malaysia Year 2026 (VMY 2026). This suggests that manufacturers' sentiment is shaped by a careful assessment of both global and domestic uncertainties, rather than by outright pessimism.

- Among ASEAN-5 economies (excluding Singapore), Malaysia has the highest trade-to-GDP ratio at 137.4% in 2024, followed by Thailand, the Philippines and Indonesia. This highlights Malaysia's deep reliance on international trade and helps explain its prolonged contractionary manufacturing PMI relative to regional peers, as the sectors is more exposed to external headwinds. On the contrary, Thailand's recent jump in manufacturing PMI to 56.6 in October 2025, its strongest expansion since May 2023 was driven predominantly by domestic-oriented demand, even as external orders continued to deteriorate. Thailand's manufacturing sector was lifted by a surge in domestic demand that boosted production and pushed backlogs to a record high.

Conclusion

- Overall, the occasional divergence between Malaysia's manufacturing PMI, IPI, and export data primarily reflects differences in methodology and focus. Manufacturing exports and the IPI are hard data measures, capturing actual shipments and production output with exports based on Customs declarations and the IPI weighted by industry contributions to GDP. Both are seasonally adjusted to reflect underlying historical performance. In contrast, the manufacturing PMI is a survey-based, forward-looking indicator that captures business sentiment and expectations across output, new orders, employment, and inventories from a panel of roughly 400 firms. Because it reflects perceptions rather than realized activity, the PMI can remain subdued even when IPI and export data show strong growth, particularly amid uneven demand, rising input costs, or global uncertainty. This distinction explains why improvements in production or exports do not always translate immediately into PMI readings above the 50-point expansion threshold.