

Facing the AI Trend: How Can Taiwan Narrow the Industrial Divide Behind Its Economic Boom?

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With a population accounting for less than 0.3% of the world's total, Taiwan assembles nearly 90% of the world's AI servers and holds more than 70% of the global market for advanced AI chip packaging. The Central Bank of the Republic of China (Taiwan) has raised its forecast for Taiwan's economic growth in 2026 to 11.48%, well above the global average. In the first half of the year, exports, export orders, and manufacturing production all reached record highs. Yet a fundamental question has emerged: To what extent is the AI-driven economic boom spreading across Taiwan's broader industrial base?

The evidence points to an increasingly pronounced “K-shaped divergence.” First, the share of technology products in Taiwan's exports rose from 47.6% in 2019 to 74.2% in 2025, while the share of non-technology products declined from 52.4% to 25.8%. Even within the semiconductor industry, although Taiwan continues to lead in advanced process nodes, China is rapidly narrowing the gap in its share of mature-node production capacity. Mature-node technologies are widely used in automobiles, industrial applications, and consumer electronics, and the growing competitive pressure could intensify price competition and lead to a global reallocation of production capacity.

Second, although AI adoption across Taiwan's industries has continued to increase, only the information and communications technology sector has an adoption rate above the overall average. Traditional industries remain significantly behind, and fewer than one in ten SMEs have adopted or plan to adopt AI. This disparity could increasingly translate into widening gaps in productivity and competitiveness.

Third, the divergence is also evident in income and wealth distribution. The share of employee compensation in GDP declined from 51.06% in 1992 to 43.10% in 2024, while the share of corporate operating surplus increased. The wealth gap between the richest and poorest 20% of households widened from 16.8 times in 1992 to 67 times in 2021.

Importantly, traditional industries are not merely bystanders to the AI boom. Semiconductor manufacturing relies heavily on specialty chemicals and materials,



while AI servers require metal enclosures, thermal-management components, and other products closely linked to traditional manufacturing. Input-output and industrial linkage analyses further indicate that the metal products industry has consistently maintained relatively strong overall inter-industry linkages, underscoring its critical position within Taiwan's industrial network.

If policy resources continue to be concentrated primarily on industries directly associated with AI, Taiwan could face a “strong core, weak foundation” risk. This article therefore proposes two policy directions.

First, policy resources should be aligned with firms' stages of development through an integrated one-stop service mechanism. Rather than simply broadening subsidy coverage, the priority should be to establish a demand-oriented system that integrates needs assessment, resource matching, application assistance, advisory services, and follow-up support. For micro, small, and medium-sized enterprises facing financing constraints and high information-search costs, stronger inter-ministerial coordination can provide continuous support throughout the transformation process.

Second, differentiated AI adoption mechanisms should be developed according to industry characteristics. In manufacturing, key barriers include insufficient equipment connectivity and a lack of standardized production data. In services, customer and transaction data are often fragmented across physical stores, e-commerce platforms, and social media. Policy should therefore avoid a one-size-fits-all approach. Performance evaluation should move beyond simply counting the number of firms adopting AI and instead assess measurable gains in efficiency, cost savings, and market expansion. Resource allocation should also consider firms' upstream and downstream linkages and their strategic importance within industrial and supply-chain networks.

Overall, Taiwan's challenge is not simply whether economic conditions are favorable, but how to address structural divergence in growth momentum, industrial competitiveness, and income distribution. Policy should therefore go beyond maintaining Taiwan's advantages in high technology and semiconductors and focus on diffusing productivity gains to traditional industries and SMEs. This requires a shift from merely “providing subsidies” to “helping firms complete their transformation.” By doing so, Taiwan can strengthen its high-tech competitiveness, sustain the foundations of traditional industries, and enhance supply-chain resilience, ensuring that the benefits of economic growth are more broadly shared across society.