

THE CONTRACTION IN LARGE-SCALE MANUFACTURING¹

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ABSTRACT

The contraction of Large scale manufacturing has to be examined in the broader context of global economic trends, domestic policy environment and institutional capacity affecting competitiveness , factor endowments and historical evolution.

Given the track record of past thirty years characterized by absence of a vision, poor policy planning and execution by weak institutions Pakistan has to adopt Industrial Policy 2.0 to guide the investors and businesses with a clear road map about the objectives, policy instruments , performance criteria and end points. Instead of choosing the winners and losers, which was the case with the Industrial policy 1.0, the thrust of the new policy ought to be to align the pattern of production to meet the future requirement of the economy, integrate in the Global Value chains, invest in research and development of technologies that give an edge and spurt to the economy, and invest in human capital formation throughout the life cycle right from early childhood development to social protection.

Government, the private sector and academia must work together as industrial policy has to be consistent and linked with agriculture, labour, education, trade, the exchange rate and fiscal and monetary policies. The government's role should shift from interventionist to enabling. It must foster competition, ensure a level playing field and resolve systemic bottlenecks. Protectionism must cede to productivity.

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TEXT

The contraction in large-scale manufacturing must be understood within a broader framework that encompasses global economic shifts, domestic policy choices, institutional capacity, factor endowments, and historical evolution.

Global trends highlight the overwhelming dominance of China as the world's manufacturing hub, accounting for nearly 30 percent of global manufacturing output—exceeding the combined production of the United States, Japan, and Germany. China's success did not stem from catering solely to its domestic market; rather, it strategically oriented its production toward the global economy, which is many times larger. By integrating deeply into global trade, investment, and technology flows, China has emerged as the world's leading exporter. The lesson is clear: no country can sustainably raise living standards or reduce poverty without embracing open trade, investment, and technology policies.

However, the global environment has become less hospitable for emerging economies, particularly in the post-Trump era. Rising protectionism, economic nationalism, and fragmentation have made it more difficult for late entrants to secure a foothold in global markets. Countries like Pakistan must therefore recalibrate their strategies to adapt to this evolving landscape. Despite these challenges, participation in global trade, attraction of foreign direct investment, labor mobility, and technology transfer remain indispensable pillars of economic transformation.

Another important global shift is the declining primacy of manufacturing as the sole driver of economic prosperity. Digitization has enabled services to play an increasingly critical role in global value chains—spanning research and development, design, engineering, marketing, finance, logistics, and human resource management. Unlike goods, services trade thrives on efficiency, innovation, and responsiveness rather than subsidies. It is also less carbon-intensive, making it more aligned with climate objectives. Pakistan's services exports, at around \$6 billion annually, pale in comparison to India's \$250 billion, despite India's economy being only about ten times larger. Evidence suggests that each job created in the services sector generates multiple additional jobs through income and consumption linkages, underscoring its transformative potential.

Turning to domestic factors, Pakistan's experience presents a stark contrast to its early promise. In the late 1960s, Pakistan's manufactured exports exceeded those of countries such as Indonesia, Malaysia, Thailand, and the Philippines. Today, while these economies have surged ahead, Pakistan struggles with low per capita income, persistent poverty, and modest export volumes. The absence of a coherent long-term vision, coupled with inconsistent and unpredictable policies, weak implementation, and institutional decay since the 1990s, has led to a process of de-industrialization.

Pakistan's share in global exports has declined, while countries like India and Bangladesh have significantly expanded theirs. More troubling is the stagnation in the composition of exports and industrial structure. Engineering goods constitute roughly half of global exports, yet they account for only about 5 percent of Pakistan's exports. This represents a significant regression, given that Pakistan once possessed capabilities in sectors such as machine tools, transport equipment, and industrial plant construction. Meanwhile, textiles—despite losing global market share—continue to dominate Pakistan's export basket, accounting for about 60 percent.

A critical missing link has been the neglect of basic and intermediate industries that supply inputs to downstream manufacturing. Pakistan failed to develop sectors such as petrochemicals, deep-conversion refineries, Hot rolled coils, aluminum, advanced metallurgy, and pharmaceutical raw materials. These industries have strong forward linkages and multiplier effects. For instance, petrochemical products are essential for plastics, automotive, packaging, construction, textile man made fibres, detergents and pharmaceutical industries. SBP has estimated that Petrochemicals alone has robust demand from automotive, Pharma, Packaging and Construction industries with extensive forward linkages. According to the World Bank, Government push for heavy and chemical industry caused the economy's GDP to be 3 percent larger each year in the long run.

Estimates show that 1 dollar of Petrochemical output can generate 4 dollars of GDP in Pakistan – a strong multiplier factor. Pakistan exported 1 million tons of Naphtha in FY 25 . If it was converted into high value olefins we would have earned double the amount of exports. Investment in such a complex can save import bill by US dollars 2.7 billion. Developing domestic capacity in these areas could have reduced import dependence, lowered production costs through economies of scale, facilitated technology transfer, and enhanced export competitiveness. Instead, policy support was largely directed toward low-technology, agriculture-based consumer goods for the domestic market, locking the economy into a low-value equilibrium. Higher value added and processed agriculture based products such as Meat, Poultry, horticulture, Marine products have been neglected .A country with irrigation covering 80 percent of cultivated area imports foodstuffs to the tune of 10 billion dollars annually.

An additional paradox is that while Pakistan's defense industry has achieved notable technological progress, these capabilities have not translated into civilian industrial development. Countries such as Türkiye have successfully leveraged defense-sector innovation through private sector participation to upgrade broader industrial capabilities—an area where Pakistan has fallen short in transferring dual-use technologies from the defence sector to civilian industries. Pakistan's defence institutions and research organizations have accumulated significant technical expertise that can be productively applied in manufacturing, electronics, precision engineering, and materials science.

Private sector participation should be encouraged in such collaborations. Many transformative innovations have originated from research funded by the Defence R&D budgets before spreading to the civilian economy. Pakistan can emulate this model by establishing structured channels for knowledge transfer between its defence and civilian research ecosystems. On the civilian side, Export and investment promotion agencies , ExIM Bank, Export Development Fund, PIDC, Development Financial institutions such as Joint investment companies and National Tariff Commission have to work together with the large conglomerates in the private sector to develop a long term framework . Setting up Testing labs for quality assurance and compliance with international standards are equally important .

Recent advances in economic theory emphasize the importance of “creative destruction,” where inefficient firms exit and are replaced by more dynamic and productive enterprises. In Pakistan, however, this process has been stifled. Loss-making enterprises have often been sustained through government support, leading to resource misallocation and persistently low productivity. Entry barriers for new firms and exit barriers for uncompetitive ones have hindered structural transformation. Moreover, preferential access to export financing for established sectors has limited the emergence of new export industries.

Distortions in incentives have further exacerbated the problem. Guaranteed returns in the energy sector, often denominated in foreign currency and backed by “take-or-pay” contracts, have diverted investment away from manufacturing. Similarly, speculative gains in real estate—frequently outside the tax net—have offered higher, low-risk returns compared to the uncertainties of industrial investment. Informality also plays a role: undocumented firms evade taxes and regulations, undercutting compliant businesses with lower prices. Practices such as smuggling, under-invoicing, and misdeclaration further distort competition in favor of trading activities over manufacturing.

Government intervention in price-setting has also undermined market efficiency. Administered prices for commodities such as wheat, sugar, energy, and pharmaceuticals distort incentives and resource allocation. In contrast, relatively deregulated sectors such as maize and rice have demonstrated strong productivity growth and export performance, illustrating the benefits of market-driven outcomes.

Given this track record, Pakistan must move decisively toward a new generation of industrial policy—Industrial Policy 2.0. Unlike earlier approaches that attempted to “pick winners,” the new framework should focus on creating an enabling environment that aligns production with future economic needs. This includes integration into global value chains, investment in research and innovation, and sustained human capital development across the lifecycle.

Industrial policy cannot operate in isolation. It must be coherent and coordinated with policies in agriculture, trade, education, labor, energy, and macroeconomic

management. The government's role should shift from direct intervention to facilitation—ensuring competition, maintaining a level playing field, and removing systemic bottlenecks. Key reforms include deregulation, rationalization of tariffs, reduction of the tax burden on the formal sector, improved access to finance, realistic energy pricing, and streamlined entry and exit mechanisms for firms. Above all, policy consistency, coherence, and predictability will be critical to restoring investor confidence.

The private sector, for its part, must undergo a fundamental shift in mindset. Workers should be viewed as partners in productivity, with sustained investment in skill development. Professional management practices, compliance with international standards, and engagement with global best practices are essential for competitiveness. Strategic partnerships with multinational firms can also facilitate technology transfer and market access. At the same time, greater attention must be paid to expanding services exports beyond information technology into higher value-added domains.

Finally, the education system must be reoriented to support a modern, innovation-driven economy. This requires a focus on critical thinking, adaptability, and problem-solving skills, alongside greater emphasis on science, technology, engineering, arts, and mathematics (STEAM). Investments in research and development, collaboration with global academic networks, and incentives for commercialization of innovation are vital. Equally important is the expansion of technical and vocational training to equip the workforce with industry-relevant skills.

What is the test of success of Industrial Policy? According to the World Bank, "if local firms can compete successfully in global markets, it usually means the industrial policy is working." If implemented effectively, such a redefined policy framework can catalyze a transition toward a more dynamic and competitive industrial structure—one that promotes exports, conserves foreign exchange, attracts investment, generates employment, and builds resilient supply chains. Moving toward medium- and high-technology manufacturing is not merely an economic necessity; it is a national imperative.