

Review Article

A Comparative Study of India and China from the Perspectives of John Maynard Keynes and Piero Sraffa

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ABSTRACT

This study integrates Sraffian and Keynesian perspectives to analyze the manufacturing sector growth in India and China, focusing on production capabilities, technological advancements, and demand-side factors. It employs a mixed-methods approach, combining quantitative data analysis and qualitative case studies, to understand the factors driving each country's manufacturing success and to identify policy interventions for enhancing their roles in the global value chain (GVC). China's manufacturing dominance is attributed to strategic state-led industrial policies, significant infrastructure investments, and production efficiencies, exemplified by the "Made in China 2025" initiative and extensive foreign direct investment (FDI). Conversely, India's manufacturing sector shows potential for rapid growth with effective implementation of Keynesian demand-side policies and infrastructure improvements, supported by initiatives like "Make in India." Both countries can benefit from integrating Sraffian and Keynesian insights in policy-making, with China focusing on technological upgrades and domestic demand stimulation, and India targeting fiscal policies and regulatory reforms to enhance manufacturing capabilities and labor market flexibility. The study concludes with policy recommendations aimed at fostering sustainable manufacturing growth, enhancing global competitiveness, and achieving balanced economic development in This study integrates Sraffian and Keynesian perspectives to analyze the manufacturing sector growth in India and China, focusing on production capabilities, technological advancements, and demand-side factors. It employs a mixed-methods approach, combining quantitative data analysis and qualitative case studies, to understand the factors driving each country's manufacturing success and to identify policy interventions for enhancing their roles in the global value chain (GVC). China's manufacturing dominance is attributed to strategic state-led industrial policies, significant infrastructure investments, and production efficiencies, exemplified by the "Made in China 2025" initiative and extensive foreign direct investment (FDI). Conversely, India's manufacturing sector shows potential for rapid growth by effectively implementing Keynesian demand-side policies and infrastructure improvements, supported by initiatives like "Make in India." Both countries can benefit from integrating Sraffian and Keynesian insights in policymaking. China focuses on technological upgrades and domestic demand stimulation, and India targets fiscal policies and regulatory reforms to enhance manufacturing capabilities and labor market flexibility. The study concludes with policy recommendations to foster sustainable manufacturing growth, enhance global competitiveness, and achieve balanced economic development in India and China.both India and China.

1. Introduction

Sraffian economics, named after the Italian economist Piero Sraffa, emphasizes the production and distribution aspects of an economy. Sraffa's seminal work, challenges the neoclassical theory of value and distribution, proposing that prices are derived from the physical conditions of production rather than subjective utility. Sraffian theory focuses on the relationships between different sectors of the economy, particularly how the prices of goods and services are determined through production processes and the distribution of income among workers and capitalists [1-5]. Keynesian economics, developed by John Maynard Keynes, focuses on aggregate demand as the primary driver of economic activity and employment and argued that in the short run, especially during periods of economic downturns, total spending in an economy, aggregate demand, is insufficient, leading to prolonged unemployment and underutilization of resources.

Keynesian theory advocates for active policy responses, including fiscal and monetary measures, to manage demand and smooth out economic cycles.

The manufacturing sector is crucial for the economic development of developing economies. It contributes to higher productivity, technological advancements, and job creation. Manufacturing serves as a foundation for industrialization, leading to increased economic diversification and resilience. It also promotes the development of skills and knowledge, fostering innovation and improving the overall competitiveness of an economy. In developing countries, a robust manufacturing sector can drive significant improvements in living standards by providing stable and well-paying jobs [6-10]. Additionally, manufacturing generates forward and backward linkages with other sectors, stimulating economic activities in related industries such as services, logistics, and raw materials. This





interconnectedness enhances overall economic growth and development. India and China have emerged as pivotal players in the global value chain (GVC), which refers to the international production processes where different stages of manufacturing are distributed across various countries. Both nations have leveraged their large, cost-effective labor forces and strategic policy frameworks to integrate deeply into GVCs, positioning themselves as essential hubs for manufacturing and exports. China has established itself as the "world's factory," excelling in manufacturing a wide range of goods from electronics to textiles. The country's extensive infrastructure, favorable business environment, and strong government support have made it a central node in GVCs. China's emphasis on technology and innovation has also allowed it to move up the value chain, producing more sophisticated and high-value products. India, while not as dominant as China, has made significant strides in its manufacturing sector. The Indian government's initiatives such as "Make in India" aim to boost manufacturing and attract foreign investment. India's strengths lie in its growing domestic market, a young and skilled workforce, and a burgeoning tech sector. By focusing on improving infrastructure, regulatory frameworks, and ease of doing business, India seeks to enhance its role in GVCs (2). Both countries face challenges and opportunities in the evolving landscape of global manufacturing. Their policies and strategic decisions will shape their future roles in the GVC, influencing not only their own economic trajectories but also the broader dynamics of global trade and production.

2. Theoretical Framework

Sraffian economics, rooted in the works of Piero Sraffa, emphasizes the physical and technical aspects of production and their implications for the economy. Sraffa's challenges the marginalist approach of neoclassical economics by focusing on the conditions of production and the objective surplus generated in the production process. Sraffian economics highlights the role of production techniques and the physical input-output relationships in determining prices and distribution of income between wages and profits. In the Sraffian framework, the economy is seen as a system of interrelated production processes, where the prices of goods are determined by the cost of inputs and the surplus product. This approach provides a robust analytical tool for understanding the dynamics of production and distribution in an economy, particularly in the context of industrial sectors. It emphasizes the importance of capital accumulation, technological change, and the physical constraints of production, making it highly relevant for analyzing manufacturing sectors. Keynesian economics emphasizes the role of aggregate demand in influencing economic output and employment and argued that insufficient aggregate demand can lead to prolonged periods of high unemployment and underutilization of resources [16-18]. Keynesian economics advocates for active government intervention through fiscal and monetary policies to manage demand and stabilize the economy. The central tenets of Keynesian economics include the importance of government spending, taxation, and monetary policy in influencing economic activity. Keynesians argue that during economic downturns, government spending can stimulate demand, create jobs, and pull the economy out of recession. Conversely, during periods of economic overheating, contractionary fiscal and monetary policies can help cool down the economy and control inflation [11-15]. Keynesian economics is particularly relevant for analyzing manufacturing sectors, as it provides insights into how demand-side factors, such as consumer spending and investment, influence industrial production and employment. By focusing on aggregate demand, Keynesian theory helps explain the cyclical nature of manufacturing activities and the role of fiscal and monetary policies in mitigating economic fluctuations.

Integrating Sraffian and Keynesian perspectives provides a comprehensive analytical framework for understanding the complexities of manufacturing sectors. The Sraffian focus on production techniques, input-output relationships, and income distribution complements the Keynesian emphasis on aggregate demand, employment, and fiscal policies. By combining these perspectives, we can analyze how production efficiencies and technological advancements (Sraffian) interact with demand-side factors and government interventions (Keynesian) to shape the performance of manufacturing sectors. This integrated approach allows for a more holistic understanding of the factors driving manufacturing growth, competitiveness, and resilience.

In the context of India and China, a Sraffian-Keynesian analysis can examine how production capacities, cost structures, and technological capabilities (Sraffian) align with domestic and global demand conditions, government policies, and investment climates (Keynesian) to influence their roles in the global value chain (GVC). This approach can also shed light on the policy implications for enhancing manufacturing productivity, employment, and economic stability in both countries. The integration of Sraffian and Keynesian economics thus provides a robust theoretical framework for analyzing the manufacturing sectors of India and China, offering valuable insights into their development trajectories and policy needs in the context of the GVC.

3. Historical Development and Current Status of Manufacturing in India and China

China's transformation into a global manufacturing powerhouse began in the late 1970s with the economic reforms initiated by Deng Xiaoping. These reforms included the liberalization of the economy, opening up to foreign direct investment (FDI), and the establishment of Special Economic Zones (SEZs). The focus on export-led growth and integration into the global economy allowed China to rapidly expand its manufacturing base. By the 1990s and 2000s, China had become the "world's factory," producing a vast array of goods from electronics to textiles. Currently, China remains a dominant player in global manufacturing, contributing approximately 28% to global manufacturing output. The country has moved up the value chain, focusing increasingly on high-tech and high-value industries such as automotive. machinery. electronics. and China's manufacturing sector benefits from a well-developed infrastructure, extensive supply chains, and significant government support for industrial development and technological innovation.

India's manufacturing sector has had a different trajectory. Post-independence, India adopted a mixed economic model with a focus on self-reliance, leading to the establishment of large public sector enterprises and a protectionist trade policy. However, these policies resulted in inefficiencies and slow growth. It wasn't until the economic liberalization reforms of 1991 that India began to open up its economy, encouraging private investment and integrating with the global market. Despite these reforms, India's manufacturing sector has not achieved the same level of global prominence as China's. Manufacturing contributes around 16-17% to India's GDP. The sector is characterized by a large number of small and medium-sized enterprises (SMEs), with significant contributions from industries such as textiles, chemicals, and automotive. Recent government initiatives like "Make in India" aim to boost manufacturing capabilities, attract FDI, and improve infrastructure.

4. Comparative Analysis of Industrial Policies, Labor Market Conditions, and Infrastructural Development

China's industrial policies have been strategic and focused, with significant state intervention to promote key industries. Policies such as the "Made in China 2025" plan aim to upgrade manufacturing capabilities and reduce dependency on foreign technology. The government provides extensive support through subsidies, tax incentives, and infrastructure development. In contrast, India's industrial policies have been coordinated, often hampered by bureaucratic less inefficiencies and regulatory complexities. The "Make in India" initiative seeks to address these issues by simplifying enhancing infrastructure, and regulations. fostering innovation. However, challenges remain in implementation and achieving the desired scale of industrial growth. China benefits from a large, disciplined, and relatively low-cost labor force, which has been a key factor in its manufacturing success. Labor laws in China are generally favorable to employers, with a focus on maintaining labor stability to attract foreign investment. India also has a large labor force, but it faces challenges related to labor market rigidity, skill mismatches, and informality. Labor laws in India are often considered complex and restrictive, affecting the ease of doing business. Reforms are underway to streamline labor regulations and enhance labor market flexibility.

China has invested heavily in infrastructure, including transportation networks, energy supply, and industrial parks, creating an environment conducive to large-scale manufacturing. The extensive infrastructure supports efficient supply chains and logistics, reducing production costs and enhancing competitiveness. India, on the other hand, has faced persistent infrastructural bottlenecks. Inadequate transportation networks, unreliable power supply, and limited industrial clusters have hindered manufacturing growth . Recent efforts focus on improving infrastructure through initiatives like the Bharatmala and Sagarmala projects, aiming to enhance connectivity and support industrial development. China has deeply integrated into the GVC, becoming a crucial hub for the assembly and export of manufactured goods. Its strategic positioning in the GVC is supported by extensive networks of suppliers and manufacturers, making it a central node for global production. India is increasingly integrating into the GVC, though its participation remains lower than China's. Efforts to enhance integration focus on improving trade logistics, reducing tariffs, and fostering linkages with global firms. has specialized in high-volume, China low-cost manufacturing, leveraging economies of scale and extensive production capabilities. It is also moving towards highervalue manufacturing, focusing on sectors like electronics, automotive, and machinery. India's specialization has been more diverse, with significant contributions from traditional sectors like textiles and emerging sectors like pharmaceuticals and automotive. The focus is on developing niche markets and enhancing value addition through innovation and technology. China's move up the value chain is evident in its increasing production of high-tech goods and its investment in research and development (R&D). The focus is on enhancing value addition through technological advancements and innovation. India aims to increase value addition by fostering innovation, improving skills, and enhancing industrial capabilities. Initiatives like the National Manufacturing Policy and the establishment of industrial corridors seek to boost value addition and competitiveness. 5. Hypotheses

Hypothesis 1: India's Manufacturing Sector Has the Potential to Grow Rapidly with Appropriate Keynesian Demand-Side Policies

India's manufacturing sector has significant growth potential, which can be unlocked through the implementation of Keynesian demand-side policies. Keynesian economics emphasizes the role of aggregate demand in driving economic activity and employment. In India, targeted fiscal policies that increase government spending on infrastructure, education, and healthcare can stimulate domestic demand, creating a multiplier effect that boosts manufacturing output. Additionally, policies that promote consumer spending and investment can further enhance demand for manufactured goods. Supporting this hypothesis, empirical studies have shown that increased public investment in infrastructure leads to higher economic growth and industrial output. By addressing infrastructural bottlenecks and enhancing connectivity, India can create a more conducive environment for manufacturing growth. Moreover, promoting financial inclusion and improving access to credit can stimulate investment in manufacturing, particularly among small and medium-sized enterprises (SMEs).

Hypothesis 2: China's Manufacturing Dominance is Sustained by Sraffian Production Efficiencies and State-Led Industrial Policies

China's manufacturing dominance can be attributed to its focus on production efficiencies and state-led industrial policies, aligning with Sraffian economic principles. Sraffian economics emphasizes the importance of production structures, technological advancement, and efficient resource allocation. China's strategic industrial policies, such as "Made in China 2025," aim to modernize the manufacturing sector, promote high-tech industries, and achieve self-



sufficiency in critical technologies. China's success in manufacturing is also driven by its extensive infrastructure development, robust supply chains, and economies of scale. The state's role in directing resources towards key industries, providing subsidies, and supporting research and development has enabled China to achieve significant production efficiencies and maintain its competitive edge in global markets. Studies have highlighted China's ability to move up the value chain by focusing on innovation, technological upgrading, and enhancing production capacities. By continuously improving production processes and investing in advanced technologies, China sustains its manufacturing dominance.

Hypothesis 3: Both Countries Can Enhance Their Positions in the GVC Through Targeted Policy Interventions That Combine Sraffian and Keynesian Insights

Both India and China can enhance their positions in the global value chain (GVC) through targeted policy interventions that integrate Sraffian and Keynesian insights. Combining the production-focused approach of Sraffian economics with the demand-side emphasis of Keynesian economics can create a balanced and comprehensive policy framework. For India, integrating Sraffian insights involves production capabilities, investing in technological advancements, and efficient resource allocation. This can be achieved through policies that support industrial clusters, innovation, foster and enhance supply chains. Simultaneously, Keynesian demand-side policies that stimulate domestic consumption and investment can drive demand for manufactured goods, creating a virtuous cycle of growth. For China, continuing to leverage state-led industrial policies to achieve production efficiencies is crucial. Additionally, adopting Keynesian policies that focus on stimulating domestic demand, especially in the context of a shifting global trade environment, can further strengthen China's manufacturing sector. Policies that promote consumer spending, enhance social safety nets, and support small businesses can boost domestic demand and reduce reliance on export-led growth. Empirical evidence suggests that countries that effectively combine production efficiencies with robust domestic demand policies achieve more sustainable and inclusive economic growth. By adopting a dual approach that integrates Sraffian and Keynesian principles, both India and China can enhance their competitiveness in the GVC and achieve long-term industrial growth. These hypotheses provide a foundation for exploring how India and China can leverage economic policies to enhance their manufacturing sectors and positions in the global value chain. They emphasize the potential of combining Sraffian and Keynesian insights to create a balanced and effective policy framework.

6. Policy Intervention

Examination of Industrial Policies in India and China from a Sraffian-Keynesian Perspective

From a Sraffian perspective, industrial policies should focus on enhancing production capabilities, technological advancement, and efficient allocation of resources. In China, policies such as "Made in China 2025" aim to modernize the manufacturing sector by promoting high-tech industries and reducing reliance on foreign technology. The state plays a significant role in directing resources towards strategic industries, ensuring the development of infrastructure, and supporting research and development. This approach aligns with Sraffian economics, which emphasizes the importance of production structures and technological change in driving economic growth. In India, the "Make in India" initiative seeks to transform the manufacturing sector by attracting investment, fostering innovation, and creating a conducive business environment. However, the implementation has faced challenges related to regulatory complexities and infrastructural deficiencies. A Sraffian approach would suggest a more focused allocation of resources towards upgrading production technologies and improving supply alongside ensuring a robust infrastructural chains. framework. From a Keynesian perspective, the focus should be on stimulating aggregate demand to ensure full utilization of manufacturing capacities. China's proactive fiscal policies and government-led investments in infrastructure have successfully created a strong demand for industrial goods, supporting sustained manufacturing growth (Blinder, 2006). Similarly, India's fiscal policies need to focus on creating demand through public investment in infrastructure, education, and health, thereby boosting overall economic activity and supporting manufacturing growth.

Impact of Trade Policies, Fiscal Policies, and Labor Regulations on Manufacturing Growth

China's export-oriented trade policies have been instrumental in integrating the country into the global value chain (GVC), making it a central hub for manufacturing. The country has benefitted from preferential trade agreements, investment in export infrastructure, and policies that attract foreign investment. These policies have enabled China to achieve economies of scale and establish a competitive edge in global markets. India, on the other hand, has taken steps to liberalize trade but still faces challenges related to tariff and non-tariff barriers, logistics inefficiencies, and regulatory bottlenecks. To enhance its role in the GVC, India needs to adopt more open trade policies, streamline customs procedures, and improve trade logistics. China's fiscal policies have consistently supported industrial growth through large-scale public investments in infrastructure, subsidies for key industries, and incentives for research and development. These policies have not only created demand but also enhanced the productivity and competitiveness of the manufacturing sector. India's fiscal policies have aimed at stimulating economic growth, but there is a need for more targeted investments in manufacturing. Public spending on infrastructure, skill development, and technology adoption can create a more favorable environment for manufacturing growth. Additionally, fiscal incentives for SMEs and startups can boost innovation and diversification in the manufacturing sector. China's labor market policies have generally been favorable to employers, with a focus on maintaining labor stability to attract foreign investment. Flexible labor laws have supported the rapid expansion of manufacturing, although they have also raised concerns about labor rights and working conditions. India's labor regulations are often considered complex and restrictive, posing



challenges for the manufacturing sector. Reforms aimed at simplifying labor laws, enhancing labor market flexibility, and improving labor conditions are essential for supporting manufacturing growth. Policies that promote skill development and labor mobility can also enhance productivity and competitiveness.

Assessment of Foreign Direct Investment (FDI) and Technology Transfer Policies

China's policies have been highly effective in attracting FDI, which has played a crucial role in the development of its manufacturing sector. The establishment of Special Economic Zones (SEZs) and provision of incentives such as tax breaks and reduced tariffs have created an attractive environment for foreign investors. This influx of FDI has brought in capital, technology, and management expertise, significantly boosting manufacturing capabilities. India has also taken steps to attract FDI, with policies aimed at liberalizing investment norms, reducing bureaucratic hurdles, and offering incentives to foreign investors. However, to regulatory uncertainty challenges related and infrastructural deficiencies persist. Enhancing the ease of doing business, ensuring policy stability, and improving infrastructure are critical for attracting and retaining FDI in the manufacturing sector. China has strategically leveraged FDI to facilitate technology transfer, enabling domestic firms to acquire advanced technologies and improve their production processes. Policies that encourage joint ventures and partnerships with foreign firms have been effective in fostering technology spillovers and enhancing domestic innovation. India needs to focus on creating an ecosystem that supports technology transfer and innovation. Policies that encourage collaboration between domestic firms and foreign investors, promote R&D, and protect intellectual property rights can facilitate the adoption of advanced technologies in the manufacturing sector. Additionally, investing in education and skill development can create a workforce capable of leveraging new technologies.

7. Conclusion

This study, which integrates Sraffian and Keynesian perspectives, provides a comprehensive analysis of the manufacturing sector growth in India and China, focusing on the interplay between production capabilities, technological advancements, and demand-side factors. The findings reveal distinct paths and strategies adopted by each country, highlighting the critical role of strategic industrial policies, infrastructural development, and fiscal measures in shaping manufacturing growth. China's manufacturing dominance is primarily attributed to its strategic state-led industrial policies, significant investments in infrastructure, and emphasis on production efficiencies. Initiatives such as "Made in China 2025" and substantial foreign direct (FDI) have facilitated technological investment advancements and deep integration into the global value chain (GVC). The state's role in directing resources toward key industries and supporting research and development has enabled China to maintain its competitive edge and move up the value chain. In contrast, India's manufacturing sector, while not as globally dominant, shows significant potential for rapid growth. Effective implementation of Keynesian demand-side policies, coupled with infrastructural improvements, can unlock this potential. The "Make in India" initiative aims to boost manufacturing capabilities, attract investment, and foster innovation. However, challenges such as regulatory complexities and infrastructural deficiencies need to be addressed to achieve the desired scale of industrial growth. Both countries can benefit from integrating Sraffian and Keynesian insights in their policymaking processes. For China, continuing to focus on technological upgrades and stimulating domestic demand is crucial. For India, targeted fiscal policies and regulatory reforms to enhance manufacturing capabilities and labor market flexibility are essential. Enhancing GVC participation requires a balanced approach, combining efficient production structures with strong domestic demand, supported by strategic trade policies, improved logistics, and supportive regulatory environments.

In conclusion, the study underscores the importance of adopting a holistic and integrated approach to economic policy-making, drawing on both Sraffian and Keynesian principles. Such an approach can foster sustainable manufacturing growth, enhance global competitiveness, and achieve balanced economic development in both India and China. The policy recommendations provided offer a roadmap for leveraging the strengths of each theoretical perspective to address the unique challenges and opportunities faced by these two emerging economic giants.

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