Q.1. Should countries be looking to adopt an 'industrial policy'? If yes then why, if not then why not?

A.1 Yes.

Historically, manufacturing industries have exhibited social and economic growth, guided by industrial strategies from the private and public sectors. Productivity levels in manufacturing industry are much higher than in either agriculture or services. Manufacturing is an engine of economic growth as it offers economies of scale, symbolizes technological progress and generates forward and backward linkages that create positive spillover effects in the economy.[1]

However, by the turn of the 20th century, the predominant discourse minimized the role of industrial policies[2]. **Shapiro and Taylor (1990) claimed that state intervention does not necessarily lead to efficient outcomes.** These authors showed industrial policies were inefficient and tried to correlate 'distorted' policy regimes with poor economic performance by using new analytical tools such as effective rates of protection and domestic resource costs. The success of export-oriented countries such as South Korea and Taiwan which at that time were thought to have non-interventionist states bolstered their theory. Their rapid growth in comparison to economies which followed inward-oriented strategies seemed to provide validation that dynamic gains could be had from free trade.[3]

A recent shift, influenced by the newly-emerging Brussels-Beijing-Washington Consensus, is steering back towards prioritizing industrial policies as integral to economic development, after decades of marginalizing it.[4]

Recognizing the potential of industrial strategies and the crucial role of production to address contemporary challenges, such as geopolitical tensions, climate change and technological

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[1] Mehrotra, S. (2019). Why an industrial policy is crucial. *The Hindu*. [online] 17 May. Available at: https://www.thehindu.com/opinion/lead/why-an-industrial-policy-is-crucial/article27153226.ece.

[2] Kalish, I. and Wolf, M., The Return of Industrial Policy, Deloitte Insights, 12 June 2023, https://www2.deloitte.com/us/en/ insights/economy/industrial-policy-us.html

[3] Shapiro, H. (2007). Industrial Policy and Growth. [online] Available at: https://www.un.org/esa/desa/papers/2007/wp53_2007.pdf.

[4] Irwin, D., The Return of Industrial Policy, The International Monetary Fund, June 2023, https://www.imf.org/en/ Publications/fandd/issues/2023/06/the-return-of-industrial-policy-douglas-irwin

disruptions, global adoption of industrial strategies doubled within a decade, comprising 50% of policies in the Global Trade Atlas by 2019.[5]; further underpinning a range of SDGs.

Today, new production ecosystems are being intentionally crafted to transcend focus on efficiency and profitability in service of broader societal, national and global goals.
SDG 9 plays a pivotal role in driving progress in other SDGs because of its multiplier effects and its interlinkages.[6]

Now, new production ecosystems are being intentionally crafted to transcend a traditional focus on efficiency and profitability in service of broader societal, national and global goals.

However, the revival of industrial strategies is predominantly led by the most industrialized nations. Between 2009 and 2019, for instance, high-income countries implemented an average of 95 industrial policies, compared to just 18 in low- to middle-income countries.[7] [8]

This disparity highlights a significant challenge: low-income countries, with fewer productive and competitive manufacturing sectors, are at a disadvantage. The intensification of industrial strategies in advanced economies could exacerbate global divides, posing additional challenges for developing countries in their industrialization journeys.

There are no one-size-fits-all solutions.

The answer to this question hence, does not lie so much in the importance of Policies and Strategies, but in creating adaptive industrial policies that achieve parity between societal and economic success and are born out of coordinated and inclusive approaches.

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[5] United Nations Industrial Development Organization, Industrial Development Report (IDR) 2024. Turning Challenges into Sustainable Solutions. The New Era of Industrial Policy, 2023, https://www.unido.org/publications/industrial-developmentreport-series.
[6] Ibid
[7] Juhász, R., Lane, N., Oehlsen, E., & Pérez, V. C., Global Industrial Policy: Measurement and Results, UNIDO Insights on Industrial Development (IID) Policy Brief No. 1, 2023.
[8] . Juhász, Réka and Lane, Nathaniel and Oehlsen, Emily and Pérez, Verónica C., "The Who, What, When, and How of Industrial Policy: A Text-Based Approach" 15 August 2022, http://dx.doi.org/10.2139/ssrn.4198209.

Trends driving the resurgence of Industrial Policies:

1. Production and security intersection: Global events, including the COVID-19 pandemic and geopolitical uncertainties, exposed susceptibilities in production systems, prompting re-evaluation of importance of strategic planning in governments and companies. Focus now is to enhance production capacity, meticulous supply chain mapping, discussions on reshoring and nearshoring for economic and national security.
2. Green imperative: Growing environmental disruptions and a sense of industry responsibility are reshaping business practices and government policy focus towards greater sustainability. Climate change issues drive a collective effort to adopt imperative eco-friendly approaches.
3. Social demands: Industrial strategy is essential for creating fairer societies. Citizens now demand inherent sustainable business practices to address environmental issues and inequality, both within and across nations.
4. Future technologies: The green and digital revolutions necessitate quick adaptation. Staying competitive requires businesses and governments to embrace new technologies and cultivate a future ready workforce.
5. Global rebalancing: The last 20 years witnessed the rise of East Asia, in particular China, as the new industrial center of gravity. The share of Asia-Pacific developing economies in global GDP increased threefold in the last 20 years.[9] Inspired by China's success, other nations are adopting industrial strategies that emphasize increased state guidance, bolstering of manufacturing value added and integration into higher value-added segments of global value chains.[10]

Let us try to look at the matrix of stakeholders with respect to the current global challenges and divides we explained above, for deeper understanding of next steps required on the part of the global community. (Table 1)[11]

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[9] Ibid.
[10] The Economist (2022). Many countries are seeing a revival of industrial policy. [online] The Economist. Available at: https://www.economist.com/special-report/2022/01/10/many-countries-are-seeing-a-revival-of-industrial-policy.
[11] The insights documented in the next sections emerge from a series of consultations with academic experts and representatives from the public and private sectors. As such, they may carry inherent selection biases or limitations, which underline the importance of interpreting them within the specific economic, political and technological context of each country, along with consultation with UNIDO by Tanya Singh, Director @Eurasia Group.

	Key Issues	*Public Sector Priorities*	*Private Sector Priorities*
Achieving environmental sustainability of manufacturing operations and supply chains	– Decarbonizing within and across supply chains –Reconceptualise business models, product design and industrial processes towards circularity and resource efficiency – Energy efficiency	– Data standardization – Regulations – Informing consumers – Risk offsetting – Bolstering affordability in developing countries	– Increasing resource efficiency and material substitution – Supply chain partner selection – In-house innovation hubs – Sharing solutions and data across the sector
Supply chain transparency and resilience	– Further Improving the understanding and end-to-end visibility of supply chains – Widespread adoption of resilience-enhancing technology	– Strengthening international coordination and collaboration – Restructuring essential supply chains – Long-term visibility of demand – Regulatory frameworks on business transparency – Supporting technology adoption – Stockpiling	– Information sharing – Adopting resilience-enhancing technology – New profit models – Long-term perspective – Grounded risk assessment

		emergency resources	
Adoption and scaling up of Industrial Technologies	– Fostering numerous robust collaborative linkages – Integrating industry perspectives – Interlinking workforce skills development and technology	– Consultative bodies – Data gathering and benchmarking – Experimental spaces – International collaboration – Mission-setting – Funding the risky parts of innovation	– Liaising with academia – Integrated approach to technology and skill development – Defining technology priorities – Technology adoption advocacy – Developing learning networks
Securing the future of the Manufacturing Workforce	– Ensuring a just transition – Developing workforce which is fit for the future – Making training more affordable, accessible, and realistic	– Early-stage skills development – Integrated approach to technology and skills – Balancing stability and reactivity – Safety nets – Establishing training requirements for large firms	– Proactively partnering on training curricula – Lifelong learning – On-the-job training and re-training
Linking Business value with social and	– Increased transparency of	–Bolstering transparency	– Employee dialogue mechanisms

environmental values	business practices – Centering workers' safety, rights, and development –Promoting diversity in the manufacturing sector and decreasing gender disparities	–Regulations –Protecting workers	– Using technology for safety improvements – Promoting corporate social responsibility across supply chains

To conclude, we understand the specific context of each country, it is clear that private sector efforts alone are insufficient. For prosperous, fair and sustainable future, a collaborative approach needs to be in place where state works in tandem with companies. Achieving visionary goals require long-term commitments which involving training, infrastructure development, technology deployment and trade negotiations.

It strongly supports that well-designed economic incentives for firms and good framework conditions shaping the business environment are effective. Below are four key findings that industrial policy making needs to take into account when formulating interventions.

1. Well-designed R&D tax credits and subsidies are effective in stimulating R&D and innovation, while skill and knowledge transfer policies are key complementary instruments.
2. There is limited evidence on the effectiveness of targeted supply-side interventions, even as they become increasingly topical.
3. Framework conditions shaping the business environment, notably competition and trade policies, are key in enabling the most productive firms to grow and an important channel for structural change.
4. Demand-side instruments can effectively complement supply-side instruments to foster innovation.

The other blind spots regarding effects of industrial policies are the impact of industrial policy instruments on innovation, productivity and growth. Other objectives, such as resilience,

inclusiveness, environmental and social performance of firms seem to be neglected while formulating policies.[12]

1205 words

[12] Criscuolo, C., Gonne, N., Kitazawa, K. and Lalanne, G. (2022). Are industrial policy instruments effective?: A review of the evidence in OECD countries. [online] OECD iLibrary. Available at: https://www.oecd-ilibrary.org/docserver/57b3dae2-en.pdf?expires=1706257714&id=id&accname=guest&checksum=A16E3377B39D4063BFCAE14E285A6DE4 [Accessed 26 Jan. 2024].

Q.2. What is ‘Money’ as a concept in Economic Thinking?

A good way to think about the role and evolution of money in an “ECONOMY” is to consider what would change if we did not have it.[13]

Money is a system of “value” that facilitates the exchange of goods and services in an economy, and maintains a record of the transaction/exchange. Today, money and currencies are synonymous with each other, but notes and coins are a token, a sign, a symbol for information. There have been a range of different mediums of exchange, including commodities.

The characteristics of money which give it value are legal standing, accepted value and scarcity. The accepted types of money used by economists today:

- Fiat money is a currency that is not backed by a commodity but rather the strength of the issuing body. Its value comes from market supply and demand of money. It allows governments to create economic policies that- alongside central banks- influence the money supply
- Commodity money stands as a physical asset that has an intrinsic value. A common example of commodity money is the gold standard, which pegged the value of a country’s currency to a specific amount of gold.
- Fiduciary money is a money substitute that is a written statement of debt or intent of payment, later, which is backed by trust or promise.
- Commercial bank money refers to credit and loans used in the banking system by financial institutions. It is a vital part of any financial system, as it creates liquidity for the buying and selling of other forms of asset.[14]

According to monetarist theory, if a nation’s money supply increases, economic activity will increase and vice versa. It is governed by the MV=PQ formula,where M=supply of money, V= velocity of money, P=price of goods and Q=quantity of goods and services. In the United States,

[13] International Monetary Fund - Finance and development September 2012 Vol 49, No.3, Irena Asmundon and Ceyda Oner
[14] https://www.forex.com/en/news-and-analysis/types-of-money/

The Federal Reserve controls money and uses three main levers—the reserve ratio, discount rate, and open market operations—to increase or decrease money supply in the economy. [15]

The task of economics is to explain how much money an economy needs, what factors influence the fluctuation of money supply and demand amongst citizens and future requirements, material exchanges with other economies which may carry goods and services required for the citizens. The integral picture can be explained with the duality of money as a means of universal exchange and as a measure of value.[16]

The philosophy of money's value stems not from its material form, but rather the content of the social process, which it mediates due to its circulation.[17]

The challenge of Balance for modern economies is in understanding the continuous alternation of appropriation and alienation of Money as a concept, and that it is rooted in People's behaviors and not guided by Laws like Physics.[18]

Money expresses the Quantitative limits of possibilities of exchange in a market and establishes equal rights for all participants and regulates socio-normative regulation (Regulation of monetary policy by RBI, as an example)[19].

While at the same time, it expresses the Qualitative Infinity of its nature as an unconditional stimulus and can convert social interactions into private, interest based transactions and bring chaos and temptation on the social order.

527 words

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[15] Kenton, W. (2019). Monetarist Theory. [online] Investopedia. Available at: https://www.investopedia.com/terms/m/monetaristtheory.asp.
[16] G.Simmel, The Philosophy of Money, Ed. By D.Frisby-L…..N.Y: Routledge, 1995
[17] Bu.edu. (2019). 20th WCP: Philosophy of Money. [online] Available at: https://www.bu.edu/wcp/Papers/Econ/EconShep.htm.
[18] The Psychology of Money : Morgan Housel
[19] Karl Marx. Capital. Volume 1, trans. Ben Fowkes. Pelican Marx Library. New York : Random House, 1977

Q.3. Why and how does time matter in economics?

In Economics, “time” is treated external to demand, supply and price and is a “ceteris paribus.” From the marginalist revolution in the 19th century onwards, and its confrontation with the German historical school, there has been a opposition between economists advocating making historical time central to the understanding of the development of capitalism and those who have favored the use of logical time in the modeling of economic development (with the Mitchell/Vining-Koopmans debate constituting one key climax of debate).[20]

Keynes’ stressed on the historical time framework by making a clear distinction between present, past and future conditions. He emphasizes to show how he came to focus on the analytical point of intersection of current short-period equilibrium situations and phenomena in historical times. The most striking change in economics thinking which comes with J.M. Keynes is his explicit focus on time. The Keynes' concept of time is understood both by studying his philosophical background, his understanding of society and his development of economic theory.[21]

In expounding economic theory, it is said that such and such will happen 'in the long run'. MARSHALL states, the ‘long run’ is a period of future time after some occurrence of an event.[22] Imagine a world where time stands still – a static canvas where money never grows, innovations never blossoms, and decisions never age.This imaginary world underscores a fundamental reality: in the dynamic arena of economics, time is not just a dimension, it's a driving force. Time dictates the rhythm of markets, molds consumer desires, and orchestrates the symphony of policy impacts.

The concept of the time value of money is foundational in economics. It underscores the importance of immediate availability of funds, factoring in risks like inflation and uncertainty about future returns.[23]

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[20] Œconomia. (2015). Time in Economics. [online] Available at: https://journals.openedition.org/oeconomia/1891.
[21] Madsen, M. (n.d.). An anatomy of the concept of time in Maynard Keynes. [online] Available at: https://prod-aaudxp-cms-001-app.azurewebsites.net/media/0b1f3nnq/148405_4.pdf [Accessed 26 Jan. 2024].
[22] Robinson, J. (1980). TIME IN ECONOMIC THEORY. Kyklos, 33(2), pp.219–229. doi:https://doi.org/10.1111/j.1467-6435.1980.tb02632.x.
[23] Brealey, R.A., Myers, S.C., & Allen, F. (2020). *Principles of Corporate Finance*. McGraw-Hill Education.

Kahneman and Tversky's (1979) prospect theory illustrates how people value immediate gains more favorably than future ones, influencing everything from daily purchasing decisions to long-term financial planning. Furthermore, temporal factors such as seasonal trends and life stages play a crucial role in shaping consumer markets.[24]

Time is central to many subfields of applied economics which are linked with cost-benefit analysis and thus make assumptions about time rates of discount. Consider the valuation of years of life saved in health economics or the valuation of time saved in transportation economics. In health economics, Health Adjusted Life Years indicators have been adopted as a criterion for allocating resources in hospitals. In transportation economics, time is a tough issue when it comes to calculating social discount rates to determine the price of saved transportation time (distinguishing between leisure time and labor time).[25]

Schumpeter (1942) highlighted the role of entrepreneurial innovation in economic development, emphasizing the time-intensive nature of creating breakthrough technologies and products.[26]

Friedman (1961) discussed how these could complicate monetary policy, necessitating careful timing and forecasting.[27]

Time in economics is a conductor orchestrating the complex interplay of market forces, consumer behaviors, and policy impacts. Its influence pervades every aspect of economic theory and practice, from individual decision-making to global market dynamics. As economic landscapes evolve, the integration of time into economic analysis becomes increasingly crucial for informed decision-making and sustainable development.

512 words

[24] Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2), 263-291.
[25] Œconomia. (2015). Time in Economics. [online] Available at: https://journals.openedition.org/oeconomia/1891.
[26] Schumpeter, J.A. (1942). *Capitalism, Socialism and Democracy*. Harper & Brothers.
[27] Friedman, M. (1961). *The Lag in Effect of Monetary Policy*. Journal of Political Economy, 69(5), 447-466.