



Towards Industrial Policy 2.0 (Part-1)

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Recent developments in the Western countries have reopened the discourse on the need for an Industrial Policy. Pakistan which has gone through Deindustrialization in the last few decades has to examine carefully whether it can benefit from evolving an Industrial Policy of a kind different from the earlier policy which we would characterize Industrial Policy 1.0 . For this purpose, the discussion has to take place in its historical context.

At the time of independence, Pakistan had no large scale manufacturing units, except for a Cement, few Sugar refining, tea processing factories, two to three textile mills, and railway workshops. Pakistan was a substantial net importer of manufactured goods mainly from India. Large Scale manufacturing accounted for 1.4 percent of GDP while the same ratio for India was 6 percent.

As a dominant agrarian Society, Pakistan did not have a strong entrepreneurial class that could have steered private sector participation. Neither did the indigenous class have the capital available so vital for setting up industries.

Industrial policy has had a highly checkered record for over the last 75 to 80 years. The reconstructions and rehabilitation of the

European economy after World War II led to active policy interventions, public investment and creation of new international financial organizations for providing financial aid. The Marshall Plan executed through a \$ 13.3 billion (equivalent to about \$ 130 billion today) assistance package from the United States was a successful manifestation of this policy as it helped in resurgence of industrialization, investment in infrastructure and recovery of the European economies. Japan went through a series of reforms under occupation forces, headed by Douglas McArthur, which resulted in rapid and sustained economic growth from 1945 to 1991. Unprecedented expansion of industrial production, development of domestic market and an aggressive export policy were the pillars of the Japanese success.

As colonial structures began to unravel and new independent nations began to emerge in Asia and Africa, which were poor and underdeveloped, there was a quest for strategies to turn these economies around. Drawing upon the experience of developed countries, economists argued that growth can only be achieved through industrialization. A declining share of agriculture in GDP and employment and an increasing share of output and employment in industry was required to achieve growth. Industry grows at

a faster pace than agriculture because of economies of scale, a higher capital intensity, Complementarities and backward and forward linkages, and externalities that are not found in Agriculture. Industry enjoys higher productivity, which is crucial for growth and development.

The newly independent developing countries striving to achieve rapid growth adopted industrialization as the corner stone of their development policy. They found intellectual support through the work of leading development economists who argued that protecting local infant industries from international competition by supplying capital, foreign exchange at subsidized prices, tariffs on imports, administrative and centralized control on allocation of key raw materials imported inputs and foreign exchange could spearhead the drive to industrialization and thus accelerate the growth rate. This was the beginning of the era of Import Substitution Industrialization (ISI) strategy. Pakistan also fell in line and decided to implement these ideas through policy actions.

An undervalued exchange rate, administrative controls on imports particularly consumer goods, high tariffs and non-tariff barriers increased the domestic prices of these goods and set the terms of trade heavily in favor of industry. These state policies cumulated in form of large profitability for the industrial sector even in comparison to the trading sector. The rate of return on industrial investment was so high that industrialists were able to recover their initial investment in one or two years. Thus traders who had earlier made high profits and amassed surplus during the Korean war boom converted merchant capital into industrial capital by importing industrial machinery and manufacturing consumer goods.

Manufactures slowly began to displace primary commodities and the first industries

to develop were jute and cotton textiles.

The second-stage import substitutions strategy (ISI) aimed at replacing the imports of intermediate goods and producer and consumer durables by domestic products. To facilitate this transition, the government set up Pakistan Industrial Development Corporation (PIDC) whose objectives were to initiate pioneering ventures in many new areas of industry and to supplement private enterprises where the existing number of private units was not sufficient in relation to demand.

The main areas where PIDC was to intervene were heavy engineering (including iron and steel), shipbuilding and jute products. The units that were successful were handed over to the private sector after completion. In a large number of projects, the private sector worked closely with PIDC in the form of joint ventures. PIDC also located its industrial units in the underdeveloped parts of Pakistan and roads, infrastructure and power projects had to be built in these areas thus giving a boost to overall development of these areas.

Workers and management trainees were recruited and trained to operate these units. Government with the help of the World Bank set up two financial institutions –Pakistan Industrial Credit and Investment Corporation (PICIC) and Industrial Development Bank (IDBP) for project financing by the private sector.

Thus, the industrial policy in Pakistan during the 1950 and 1960s was spearheaded by PIDC that provided initial investment, which the private sector could not undertake on their own. These were long gestation period projects, and the private entrepreneurs did not have the risk appetite to undertake such ventures, develop skilled manpower and wait several years before realizing the dividends. The results of industrial policy were spectacular and gave credence to the views of

proponents of Big Push and ISI strategy.

Large Scale manufacturing had a phenomenal growth rate of more than 9 percent per year in the decades of 1950s and 1960s. There was significant improvement in labor productivity as the sector demonstrated a high capacity for technological adaptation and innovation. By 1969, a World Bank study found that Pakistan's manufactured exports were higher than those of Malaysia, Indonesia, Thailand, and the Philippines. The export sector responded positively to the introduction of an export bonus scheme, which gave a premium on exchange rate conversion to exporter, preferential access to credit and a series of fiscal incentives.

The share of manufacturing sector in GDP had risen from 7.8 percent in 1949/50 to 26 percent in 1969/70. Large-Scale Manufacturing's share had multiplied six times from 2.2 to 12.5 percent in the same period.

The major underpinnings of Ayub Khan's mixed economy model of which industrial policy was an essential ingredient, also involved developing strong state institutions that guided and directed the private sector. The Planning Commission of the 1960s was a powerful, technocratic institution that guided the private and public sectors in determining the priorities, the allocation of resources and bringing consistency and coherence in sectoral policy formulation and execution and overall Macroeconomic objectives. Policy consistency and continuity provided a strong signal of credibility to private investors and businesses.

However, the success of industrial policy and export performance revealed several shortcomings that had serious political consequences. Mahbub ul Haq, the chief economist of Planning Commission, voiced the concern that the benefits of these policies were accruing predominantly to 22 industrial

families. Such concentration of wealth and economic power in few hands had accentuated income and regional disparities. East Pakistan--- the province with the majority of the population ---was completely neglected as none of the 22 families belonged to that province. Manufacturing footprint and expansion remained highly limited in the province where the majority of the population lived.

The foreign exchange earnings from jute exports, which originated from East Pakistan, were pre-empted for allocation to the industrialists in West Pakistan. A number of observers have commented that this growing regional economic disparity where per capita income of West Pakistan overtook that of the Eastern province by 1970 was one of the main reasons that culminated in the separation of two wings in 1971. The slogan of 22 families controlling 66 percent of industrial and 87 percent of the banking and insurance of the country strengthened the movement against the then President Ayub Khan. His authoritarian regime was without popular representation from the majority province. The military and civil officers mainly from West Pakistan controlled most of the levers of decision making adding further to resentment against Ayub regime.

The separation of East Pakistan on grounds of deprivation of their economic rights validated the main plank of the charismatic Z.A. Bhutto's political party--- Pakistan People Party (PPP) ---which won the 1970 elections on the platform of Islamic Socialism. It was also the time when the Soviet Union under a socialist economic system started to draw a lot of attention from the policy makers as well as academics. They believed that control of the commanding heights of the economy with state-led industrialization would lead to a fair and just economic system. The PPP got an ideological boost from the Soviet model and its assumption of power gave an abrupt death knell to industrialization strategy of the 1960s.

All major industries, banks, insurance companies and educational institutions were nationalized without adequate thinking, preparation, or planning. The private sector was not allowed to invest in these industries and sectors and the bureaucrats were appointed to head the nationalized christened as State owned enterprises. With no prior training, lack of professional experience in running Business enterprises, risk-aversion, penchant for control rather than delegating powers for decision making at the appropriate level the bureaucrats committed resources to ventures and activities that were neither economically feasible nor commercially viable.

In the name of redistribution to the poor, Economic growth and Industrial development were sacrificed making the poor worse-off. The Large-Scale manufacturing sector recorded a growth rate of 3 percent per annum compared to 9 percent in the previous two decades. The balance of payments difficulties was exacerbated as imports increased fourfold and the wide gap between imports and exports was filled by external loans. The external debt problem grew rapidly in magnitude during the decade of the 1970s.

After this episodic stock of large nationalization of assets – both economic as well as human – and the experience of several other developing countries following the same route, a number of international studies empirically evaluated the ISI industrialization strategy and found it to be responsible for stifling growth impulses and worsening the balance of payments, with the increase in machinery and raw material imports outweighing export performance. The ISI regime, by turning the terms of trade in favor of domestic industry, had in-built long-term bias against manufactured exports.

In 1990s, several important developments brought about changes in thinking about development policy. The winds of

globalization that liberalized international trade, opened up financial flows, eased up transfer of technology and gradually removed barriers to international migration began to positively affect growth prospects and poverty reduction in developing countries. The World Bank carried out a seminal study The East Asian Miracle documenting the factors responsible for the spectacular economic success of the countries in East Asia region.

China which was a closed economy following the conventional socialist model made a drastic departure and began integrating itself into international economy and opening up the domestic markets to competitive forces. By liberalizing trade flows, attracting foreign direct investment, reducing the relative weight of state-owned enterprises (SOEs) and promoting private sector, adopting the latest technology in production and processing, incentivizing rural households to grow agriculture commodities without government direction and empowering local governments China was able to make unprecedented progress by raising standards of living of their population and lifting 700 million people out of poverty.

The Washington consensus adopted by the World Bank and IMF had interpreted the East Asian and the Chinese experiences as validation of market friendly economic policies. Other independent economists were of the view that the state's direction and guidance to the private sector in form of an industrial policy were responsible for the desirable outcomes. While this debate remained unsettled, the impulses of globalization over the next two decades gave impetus to the proponents of Washington Consensus putting the advocates of Industrial policy on the back foot. The global economic conditions proved to be extremely favorable for developing and emerging economies who were able to make great economic strides fortifying the views of those advocating

liberalization, privatization and deregulation and shunning protection to domestic industries-- a key element of industrial policy.

During 1990-2010, the number of persons living below the poverty line fell dramatically from 2 billion to 897 million bringing down the share of poor people from 37 to 13 percent. Real GDP of Emerging and developing economies (EDEs) grew by 4.7 percent annually on average and per capita income increased by over 70 percent. On a population weighted basis excluding China, the increase has been about 90 percent. China's per capita income multiplied 54 times since 1980 and its GDP stands next to the US today. Consequently, the relative share of EDEs in the global GDP (measured at purchasing power parity) increased to 57 percent by 2014.

India, which was a closed economy with excessive controls of bureaucracy in form of license, permits, prices, etc. faced a serious balance of payment crisis in 1991. As part of comprehensive and deep rooted reforms the Government decided to open up the economy, dismantled the controls and license raj, incentivized Private sector and attracted foreign direct investment and technology. The results have been spectacular --India has achieved growth rate of 6 to 7% per annum over last 15 years, foreign exchange reserves have accumulated to \$600 billion with a smooth transition of people from poor to middle class.

However the Global Financial crisis of 2008 to 2009 and the financial instability widening wealth and income inequalities even in fast growing countries, such as China and India, the geopolitical tension arising from the ascendancy of China and its challenge to the United States, the pandemics of 2019 and the resulting supply chain disruption, the impending climate change risks, commodity price-escalation, Ukraine-Russian war, transition to renewable energy, emergence

of global value chains instead of vertical integration where dependence on other countries supplies is heavy, Control on key technologies by competing countries against the established ones and anti-immigration sentiment have sparked a debate over the need to resuscitate Industrial policy.

The evidence for the post 2010 period is overwhelming. World trade fell by 5 percentage points in 2016-19 relative to GDP. Global flows of long-term investment fell by half and FDI from a peak of 5.3 percent of Global GDP in 2007 to 2.3 percent in 2021. In 2018-19, net addition of immigrants was 200,000--- a decline of 70 percent from the previous year. In 2016, the incomes of the highest 1 percent of US earners were 225 percent higher in real terms than they had been in 1979, while for the middle class the growth was only 41 percent.

Instead of choosing the winners and losers, which was the case with the Industrial policy 1.0, the thrust of the new policy that is still evolving is 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.

Academic literature and experience of successful countries in East Asia, China and Viet Nam no longer considers state and market as a binary but self-reinforcing and complementing each other. A capable and effective government with competitive and well-functioning markets will produce optimum results. Governments should invest in research and development and a skilled and trained labor force, and develop symbiotic public private collaboration, digital infrastructure, and core data capabilities. Private Sector should be engaged in

production, distribution and exchange of goods and services, pay their due taxes and curb anti-competitive practices such as collusion, cartelization, and contrivance. The 2019 Pandemic has shown that business and government can't be really disentangled--they rely on each other more than the partisans care to acknowledge. Pfizer vaccine is based on insights into chemistry and molecular biology developed in government and university labs over a long period of time. The state funded basic research, enforced patents and safety regulations and the industries turned raw ideas into a Marketable product.

In recent years, a perceptible change in attitudes is observed. The forceful advocates of globalization-- the US and other Western Powers --who used to preach quite forcefully to developing countries to open up their economies have gone into retreat. The main champion of globalization at the World Economic Forum a few years ago was none other than President Xi Jinping whose country has tasted the elixir of globalization. President Trump was conspicuous by his absence at the forum that year.

The US has assumed the leadership role in steering the new type of Industrial Policy. President Trump's campaign was based on the premise that as a result of globalization, American people had got sharply divided into two distinct groups--- the well-off highly educated people living in thriving places and the less educated who lived in places that were left behind. He concluded that liberal trade and free flow of capital and technology, outsourcing of manufacturing facilities and tradable services to other countries, absorption of large number of migrants has made the lives of this latter group miserable. They lost their jobs but were not trained to take up alternate occupations. He therefore introduced tariff and non-tariff barriers to thwart the inroads of Chinese goods and services in the US. His migration policy was

quite tough and technology transfer from and to the United States was firmly controlled.

President Biden has gone even farther and given a further impetus to Industrial policy for the US. CHIPS and Science Act 2022 gives the Government a primary role in deciding which chip makers will benefit from the funding of \$ 52 billion worth of subsidies and tax credits for manufacturing firms setting up new or expanding existing operations in the US. The Act has also allocated \$ 200 billion toward scientific research in AI, Robotics, and Quantum computing.

Infrastructure bill has tougher BUY AMERICAN rules, provision for reindustrialization and big innovations in technologies competing with China. Foreign Direct Product Rule has also tightened export controls on technology transfer to China. Russia was cut off from the US technology supply chain globally.

Under Inflation Reduction Act, an amount of \$ 400 billion would be allocated as subsidies to adopt green technologies, to boost clean energy and reduce dependence on China for batteries for Electric Vehicles.

Sixty three percent of investment flows in the US are subject to screening regime— up from 52 percent in 2020. Sixty percent of the value of Stock markets falls under the potential review of the Committee on Foreign Investment in the US (CFIUS). The US capital is not allowed to enhance the technological capabilities of the competitors.

The European Union (EU) is far ahead of other countries in pursuing an active Industrial policy. Germany plans to subsidize power to industries up to 80%. EU Farm subsidies amount to \$ 65 billion annually, in addition to the hefty budgetary grants to backward regions in the member countries. Governments help companies invest in green technologies and cut reliance on dominant

suppliers and boost industry. They have also entered into long term contracts with the firms within the Union for supply of crucial raw materials such as Lithium, Rare earths and also fixed targets for domestic industries for domestic production of Strategic technologies.

According to the policy makers, Climate change, disruptions during the COVID Pandemic and Russia's invasion of Ukraine underline the need for a more interventionist state. Subsidies among the G7 countries have risen sharply from 0.6 percent of GDP in 2016 to 2 percent in 2020. Some proponents of the new Industrial Policy have justified the competition between the US and the EU as a valid tool for combating the risks of climate change which is an existential threat. These subsidies and interventions are, unlike the past, not aimed at accelerating economic growth but protecting the future generations from calamities, disasters, and disappearance. However, export controls, screening of foreign investment, ban on transfer of technology to competing nations and relocating some industries within national jurisdictions in name of avoiding supply disruptions do smack of old protectionist tendencies.

According to the UN, more than 100 countries accounting for over 90 percent of the world's GDP have adopted formal industrial strategies. Seven countries have earmarked \$ 371 billion for the Semiconductor industry. Clean energy and batteries would cost 3.2 to 4.8 percent of Global GDP. India is offering \$ 26 billion of Production linked incentives for promoting Electronics, Semiconductors, Electric Vehicles, Mobile phone manufacturing over next five years.

An IMF paper in 2022 justified the Industrial Policy by the presence of sector specific externalities where the benefits of addressing them outweigh the costs and the risks of the proposed intervention. Coordination failures

and learning externalities imply that firms do not fully internalize the gain from potential activities. The emergence of new modern sectors hinges on the presence of effective government institutions, a favorable business environment and investment climate and credible macroeconomic policies. Policy failures may include a burdensome regulatory framework, high tariffs on critical inputs, an overvalued exchange rate, inadequate infrastructure, or an insufficiently skilled work force.

To be continued...

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