

Industrial Development and Efficiency in Pakistan: A Revisionist Overview

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INTRODUCTION

Pakistan was widely hailed as a "model" of economic, especially industrial, development during the 1960s—see, for example, Papanek (1967). At the same time, the experience of Pakistan has been an important part of the basis of the seminal critiques of import-substituting industrialization by Little, Scitovsky and Scott (LSS) in (1970) and by Balassa *et al.* (1971). Pakistan was one of each of the sample of seven countries examined by LSS (1970) and by Balassa *et al.* (1971), respectively. Indeed, within those samples, Pakistan was represented as an extreme case of the sins of import-substituting or "inward-looking" industrialization. This "outlier" in the small samples, hence bore a large part of the burden of the "proofs" of LSS (1970) and Balassa *et al.* (1971)

This paper first attempts an assessment of these contrasting views pertaining to the 1950s and 1960s. There has been considerably less research on Pakistan's industrialization since 1970. Thus, the discussion pertaining to this period is more speculative, and some of the propositions tend to be more in the nature of hypotheses than results of research.

INDUSTRIALIZATION: TRENDS AND PHASES

Over the forty years, 1949-50-89-90, the annual growth rate of GDP was 5.2 percent, excluding the first decade, it was 6 percent. Large-scale manufacturing was the fastest growing sector: an annual rate of 10.3 percent over the four decades. Trends in the different phases distinguished here are sketched below.

(a) The 1950s

The end of the Korean boom found Pakistan with a class of merchants who had accumulated sizeable fortunes during a period of an overvalued exchange rate, rising imports and scarcities created by the disruption of trade with India. As imports were cut, reduced profit opportunities in trade were accompanied by

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increased opportunities for huge profits in manufacturing for the domestic market. In addition to heavy protection, the manufacturing sector was provided a host of other incentives. In a context of macroeconomic stability, investment rose sharply. As LSS note "within our seven countries, only Pakistan. . . had to discover an entrepreneurial class". Within a decade Pakistan had done so. East Pakistan, however, did not and its annual growth rate was just above 2 percent during the 1950s. The transfer of resources from agriculture to industry also implied a transfer from East to West Pakistan to finance the "primitive capital accumulation" of industry.

(b) The 1960s

The period 1950–60–1964–65 witnessed a number of important departures in the economy, notably: (i) The introduction of the export bonus scheme and a host of other new and strengthened incentives for exporting; (ii) a substantial increase in foreign aid; (iii) significant liberalization of imports and other direct controls; and (iv) the beginning of the "green revolution" in agriculture and relatedly a major liberalization of agriculture (notably with respect to fertilizer distribution and private tubewells).

L-S manufacturing growth accelerated to nearly 17 percent a year from a much more substantial base. Manufactured exports responded powerfully led by textiles, but a variety of new exports also appeared. The 1960s also saw a fall in the relative price of manufactures and an improvement in the domestic terms of trade of agriculture. In the Spring of 1965, foreign aid to Pakistan was cutback and this was followed by the war with India. Defense expenditures and imports squeezed public investment and developmental imports. Some of the import liberalization of the preceding 5 years was reversed. The growth of industry, though not its exports, slowed to under 10 percent, but as the green revolution gained momentum, during 1964–65–1969–70, aggregate output maintained its annual growth of close to 7 percent. The rise in agricultural productivity and incomes occurred at a time when the limits to the expansion in the domestic market for manufacturing led by import-substitution were being increasingly felt [cf. Ahmed (1980)]. In a context of civil strife and war, between 1969–70 and 1971–72, the growth of Pakistan's GDP and industry fell to below 2 percent a year.

(c) 1972–77

The break up of Pakistan was followed in rapid succession by a major break in industrialization policies and the first oil shock. The reversal in policies

was the shift from private to public ownership. This was also a period of a liberalization episode [cf. Guisinger and Scully (1988)] with devaluation and unification of the exchange rate. There was a burst of rapid export growth early on, partly reflecting the diversion of exports from the former East Pakistan to the international market. But the effects of this liberalization are impossible to distinguish from those of the "shocks" noted above. L-S manufacturing growth was meager and agricultural growth also slowed in a period of drought, floods and a major pest attack on cotton. GDP growth averaged 4.8 percent a year.

(d) 1977-88

Industrial growth was led by a rapid expansion of domestic demand, and by the coming on stream of the heavy, long-gestation investment by the public sector made in the previous period. Workers' remittances rose sharply after 1977: from some \$ 0.5 billion in 1976-77 to \$ 2.9 billion by 1982-83. Industrial growth returned to the rates of the 1960s as did GDP growth at 6.8 percent a year. Another important factor contributing to the expansion of domestic demand was the rise in foreign resource inflows and illicit exports related to the war in Afghanistan. By its very nature this illicit trade remains shrouded in mystery but it probably continued to grow for sometime after remittances began to decline. From their peak of \$ 2.9 billion, remittances fell to \$ 2.6 billion in 1985-86 and, then more rapidly to \$ 2.0 billion over the next three years. Industrial and GDP growth slowed but not as much as they would have had there not been a rapid increase in the fiscal deficit.

(e) 1988-90

By 1988, all these trends, which had fuelled a rapid expansion in domestic demand for industrial products, had been reversed. Overseas remittances declined and in 1988-89, the Government embarked upon a stabilization programme with a reduction in the fiscal deficit as its centre piece. Afghan war-related foreign resource inflows also began to decline and there was a substantial terms of trade deterioration in 1988-89. Also, there were civil disturbances in Sindh, particularly in Karachi.

Increased growth of agriculture, aided by good weather and a rise in non-traditional manufactured exports, were unable to prevent a decline in the growth of GDP and L-S manufacturing, both to 5 percent a year.

It has been widely noted that during the 1950s and 1960s, the extensive

system of controls was administered reasonably competently and with relatively modest corruption. There has probably been a deterioration on both these counts. There has also been a gradual liberalization since the late 1970s and macroeconomic stability throughout the period. Inflation as measured by the CPI averaged 2.12 percent a year during 1949-50-1959-60 and 3.2 percent between 1959-60 and 1969-70. The annual increase in the CPI has ranged between 4 percent and 12 percent in the last 15 years: after 1976-77 exceeding 10 percent in only 3 out of the 13 years. Wild fluctuations in the real exchange rate have been avoided and there have been long periods of relative stability in the rate.

While overall Pakistan's economic performance has been quite impressive, reductions in population growth and improvements in other social indicators have lagged behind dismally. Possibly, Pakistan exhibits the greatest discrepancy in the two-way relationship between human resource development and economic growth

EFFICIENCY AND PRODUCTIVITY : WHAT PRICE INDUSTRIALIZATION?

The efficiency of Pakistan's industrialization, particularly in the first two decades, has received a great deal of attention. Indeed, Little, Scitovsky and Scott argued that Pakistan's industries were so inefficient that even by the end of the 1960s, industrial value added at world prices was negligible. Pakistan was found to be an extreme case.¹

LSS derives there estimates of value-added from the calculations of effective protection rates (EPRs) made for Pakistan. These suffer from the familiar problems of data and interpretation, including the quality of the data and the high level of aggregation of many input-output tables; for a detailed exposition see Noman (1975). Kemal (1974) using much more disaggregated data found that the ratio of the share of manufacturing at world prices to that at domestic prices which was estimated as 0.057 by LSS rises to 0.292.

A more neglected bias arises from the under-estimation of output and overstatement of inputs in the data reported by firms. This reduced reported profits and the excise and sales taxes. Nobody familiar with Pakistan doubts the existence of such practices on a substantial scale. At any rate, we have unearthed data for seven items produced by four firms showing actual and reported production of 1967-68. These four firms were subsequently nationalized (in the early

¹This has been widely cited in the literature and even used to resurrect Quesnay; see Eltis (1988).

1970s) and the new management was able to obtain both sets of records. All the firms understated output exceeding reported output for six out of the seven items by varying but considerable margins: as much as 47 percent. Thus, it would seem that LSS had substantially underestimated value added at world prices in manufacturing.

Two of the familiar problems of interpretation of EPRs are that it is not possible to distinguish between (a) the allocation of high protection between rents to primary factors and inefficiency; and (b) the effects of the protective structure from other influences on the allocation of resources. But the evidence of the EPR studies has also been used to suggest considerable inefficiencies since some industries exhibited negative value-added at world prices and protection was extremely high and variable. These results, though need to be qualified in the light of the above evidence.

There is considerable other evidence to suggest that there were substantial inefficiencies in manufacturing. But, at least, in the early phases these did not take the form of much by way of allocative inefficiency. First, the industrialization in its initial stages was dominated by textiles and other simple consumer goods of the type in which a low-income country could hardly be said not to have a comparative advantage. Also, there were systems of industrial and import licensing through which the Government sought to influence the allocation of resources within industry. See, e.g. Hamid (1990). Thus, high protection in the early years seems to have affected mainly the rate rather than the pattern of industrialization [cf. Lewis (1970).] There is considerable evidence of non-allocative or X-inefficiencies. First, there is the strong presumption of inefficiencies created by the complex, and often irrational system of direct controls. For example, rationing imported inputs on the basis of capacity and the effort involved in obtaining various licenses created a strong incentive to build excess capacity. That investors responded to such incentives on a large-scale is well documented [cf. Winston (1971); Islam (1981)].

There is also the evidence on the waste of capital through the choice of excessively capital-intensive techniques [cf. A. R. Khan (1970)]. Nonetheless, there were enough and probably growing incentives in a number of industries, for substantial improvements in efficiency. Thus, Ahmed (1980) finds that over the period of 1958–70, there was a substantial improvement in labour productivity and that it was not due mainly to capital deepening. Ahmed concluded that “there is little support for the arguments—that the rise in the productivity of labour in Pakistan is to be explained mainly in terms of strong factor substitution

effect. . . the present analysis shows that manufacturing industry in Pakistan has, in general, demonstrated a high capacity for technological adaptation and innovative assimilation. . .” Kemal (1978), reports results that are broadly consistent with Ahmed’s findings.

Pakistani industrialization in the period up to 1969-70 has received much more research attention than the industrial development of the last two decades. The public sector embarked upon fairly “heavy” industrialization in the 1970s. There was substantial public sector investment in such industries as steel, chemicals, fertilizers, engineering and cement. Zaman (1986) finds negative value-added at world prices in public sector steel, automobiles and engineering. The public sector investment in chemicals also seemed of dubious merit. Tractor assembly, on the other hand, along with fertilizer and cement seemed to be quite efficient. As for the operational efficiency of public enterprises, they have often been saddled with non-economic objectives and excessive labour force and, on balance, their performance has not been impressive.

There was hardly any investment and growth at the large end of the private L-S manufacturing sector in the 1970s. In the 1980s, the private manufacturing sector has continued the shift towards more sophisticated intermediate and capital goods. Nonetheless, industrial diversification has been stunted. Industry has been found wanting in developing forward and backward linkages. For example, the textile industry has concentrated on spinning low quality yarn; engineering industries are dominated by either assembly operation or simple, basic components; chemical industries have neglected intermediate inputs.

These are amongst the findings of IMG Consultants (1989). This study focused on the textiles, chemical and engineering sub-sectors which account for nearly half the value-added and 60 percent of employment in manufacturing. They find some success stories but on balance, the picture that emerges is one of too many cases of technological backwardness, low productivity and lack of international competitiveness. Underutilization of capital was found to be quite pervasive. What has been happening over time to total factor productivity growth (TFPG) and the acquisition of technological competence in the 1970s and 1980s remains largely unexplored. These lacunae partly reflect inadequacy of data. Thus, the Censuses of Manufacturing Industries (CMIs) are thought to have become increasingly inadequate. This vitiates any attempt to measure factor productivity growth using the CMIs such as that by Wizarat (1987).

There have been a couple of studies of effective protection in the 1980s [Naqvi *et al.* (1983); Zaman (1986)]. On the face of it, they show a significant

reduction in protection compared with the mid-1960s, but there are serious problems of comparability.² They do though show high and highly variable EPRs. On the other hand, the rapid rise in illicit imports (as well as the imports under baggage allowances) have, in effect, forced many industries to face free trade. Exemptions from trade taxes further exacerbate the dispersion of effective rates. Such exemptions have often been granted in an *ad hoc* manner and, unlike most countries where exemptions tend to focus on a few activities, particularly exports, they are widespread in Pakistan.

The system of protection remains in great need of rationalization. The more so in the light of the reversal of the trends that facilitated rapid growth through most of the 1980. Particularly pressing is the need to expand and diversify exports.

The comparison of the performance of Pakistan's manufactured exports with those of 12 other countries points to the foregone potential of industrialization in Pakistan after the 1960s. In 1965, Pakistan's manufactured exports at \$ 190 million exceeded the combined total of such exports from Indonesia, Philippines, Thailand, Turkey and Malaysia. Also, Pakistan's manufactured exports exceeded those of Brazil and Korea in 1965, but at \$ 1.7 billion in 1985 compared with figures of \$ 27.7 billion for Korea and \$ 8.9 billion for Brazil.

CONCLUDING REMARKS

1. Extremely high levels of protection and intervention succeeded in quickly creating a class of industrial entrepreneurs and initiating rapid industrialization in Pakistan. A large domestic market and the presence of raw materials which could easily be processed and marketed, made the easy, early stage of import-substitution easier and longer. Nonetheless, the most extreme period of protection lasted only 7 years: 1952-59.

2. The Pakistani liberalization experience of the first half of the 1960s was highly successful. It emphasized export growth, and with the help of the "green revolution" perhaps carried Pakistan to the verge of almost East Asian type success.

3. That the potential was not realized attests to the importance of continuity in the reform of economic policies, of political stability and continuity and, possibly,

²One of these is that of the exchange rate at which protection is measured. In the Lewis and Guisinger study, the average EPR was estimated to be 271 percent on the Corden method at the official exchange rate. Adjusting for exchange rate over evaluation reduces this average to 147 percent, which is more comparable to 1980s studies when the exchange rate was not seriously overvalued.

of assured and sustained donor support for making the transition to the league of top economic performers. It also possibly attests to the limits of growth and industrialization imposed by low levels of human resource development: Pakistan perhaps provides the greatest discrepancy in modern times between economic performance and human resource development as reflected in the standard social indicators.

4. Economic policies, with the extreme concentration of income and wealth and neglect of the social sectors, undoubtedly contributed to the socio-political tensions which resulted in the shocks of the 1970s: break-up of the country and nationalization.

5. The inefficiencies of Pakistan's industrialization during the 1950s and 1960s have been much exaggerated. An important reason for this has been the neglect of the understatement of output by firms in official statistics. The inefficiencies were still considerable, but not so great as to rule out any justification of them as the price of rapid growth at that stage of Pakistan's industrial development.

6. The complex system of controls of the first two decades was administered by a reasonably competent and honest bureaucracy. This is not very easily replicated. Indeed, it may be doubted whether Pakistan can do quite as well a job today.

7. Good economic management and sustained macroeconomic stability point to the "identification problem" in assessing the effects of trade and industrialization policies.

8. Favourable exogenous shocks in the context of macroeconomic stability (albeit borrowed) in the decade of 1977-87 allowed the resumption of rapid industrialization without much policy reform. Protection remains exceptionally high with a number of anomalies.

9. While there is considerable evidence of TFP growth, learning and technological innovations in the 1960s, what has happened since is less clear but apparently more disturbing. A recent study finds evidence of much technological backwardness and industrial inefficiency. The performance of Pakistan's manufactured exports during the 70s and 80s has been disappointing.

10. With the end of the positive shocks of the 1980s, the need for reform, particularly to boost exports, has increased. With appropriate trade and non-trade liberalization, Pakistan has the potential for rapid industrial growth, but realizing this potential will also require the reform of a financial sector in a mess (reflecting the state of the nationalized banks). Another requirement is of adroit economic

management to avert the threat of macroeconomic instability posed by large fiscal deficits and exacerbated by the recent oil price shock.

11. Both tariff and financial sector reforms are in some conflict with the need to reduce the fiscal deficit. How to phase and sequence such reforms and reconcile them with macroeconomic stability is a major challenge for economic policy today.

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Comments on
“Industrial Development and Efficiency in Pakistan:
A Revisionist Overview”

I would like to commend the author for having written a very readable paper which although concise yet presents a detailed picture of the industrialization process in the country as it has taken shape over the last forty years. The author has divided this period into two broad segments—the first segment from 1950 to 1970 and the second from 1970 to 1990. The paper is focused round six major issues which can be briefly stated as the following.

- Whether the infant industry argument can be used to justify industrialization;
- Liberalization and its role;
- Whether economic reform programmes elicit the appropriate responses from private investment;
- How do exogenous shocks affect the economy—in particular how to differentiate the impact of economic policies from those favourable and unfavourable external shocks;
- How important are macroeconomic stability and sound economic management a condition for successful industrialization; and
- Lastly is the issue concerning the trade-offs and complementarities between that long standing debate in the literature about growth and efficiency.

The first period, upto the end of the Sixties saw remarkable industrial progress, largely as a result substituting in many consumer goods industry as a result of various pro-industrial policies followed by the government. Thus, Pakistan was poised at the threshold of rapid industrialization. However, this did not materialize as the results of the last 20 years are before us. For a major part of the latter period, remittances from the labour “exported” to the Middle East kept the country afloat—and in the process helped it to weather the oil price shocks. This part of the period also witnessed sharp changes in policy—from nationalization and emphasis on the public sector to more reliance on the private sector. It is possible, therefore, that as a result of these policy shifts the pace of industrialization suffered. However, what is important is that the potential for

industrialization which existed at the end of the Sixties did not materialize and Pakistan failed to join the ranks of the Asian Tigers.

The current picture of industrialization requires careful analysis. One fact that emerges is that much of the industrialization that has taken pace is capital-intensive and largely import substituting based on the consumer goods industries. We all know that creating employment is the need of the hour. Two decades ago about 14 percent of the total workforce was employed in industry. This figure came down to 12.9 percent in 1987-88. By contrast, employment increased in the trade sector from 7.6 percent to 12 percent. To look at it from another perspective, large-scale industry requires massive investment to create a single job. A study undertaken by Karachi University of investment and employment in the Hub area revealed that several industries had more than a crore of rupees invested per worker. Again, if one looks at the 55 projects approved by the Board of Investment (BOI) under the previous government (Benazir Bhutto) for a total of Rs 77 billion they were capable of generating jobs for only 6,500 people. In other words, a capital investment of about Rs 12 million/worker. Thus, it appears, that large-scale industry may not be able to meet the requirement for creating employment for substantial numbers of the workforce.¹

Also, the development of the capital goods industry has lagged. What is being produced is of low quality which has to face stiff competition from the imported goods in the market. Perhaps the paper could have dilated to some extent on the employment generating aspects of industrialization.

Also for future industrialization to succeed it is necessary that the country be self-sufficient in its energy requirements. Power and load management in the past five years leaves much to be desired and may be acting as a brake on future expansion of industry. This may have also contributed to the low rate of industrialization in the past five years. Finally, if one wants industrialization then there should be consistency in policy regarding various fiscal and other incentives, backed by a well-thought out regional policy for industrial dispersion/concentration, a subject which could have been examined in the paper looking from past experience and research in this area. Lastly, the issue of the transfer of technology needs to be further looked at in depth. Related to this issue is the problem of literacy. For successful industrialization it is important that, among other things, we should have a technology literate workforce capable of meeting the challenges of the 21st Century.

¹Sultan Ahmed 'Negative Industrial Employment' *Dawn*, January 5, 1991.

In the end I agree with the author that the future of industrialization depends on appropriate reforms being carried out in the financial as well as industrial fields. Linked with this is the issue of sound economic management in other words keeping the fiscal deficit under control.

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