



INDUSTRIALIZATION I. THE REZA SHAH PERIOD AND ITS AFTERMATH, 1925-53

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Prior to the 1920s, traditional crafts (q.v.) dominated the industrial scene in Iran; and, despite a growing interest in industrial modernization after the 1870s, the role of industry remained very limited in the economy at the turn of the 20th century (Issawi, 1980, pp. 471-72; Bharier, 1971, p. 170). Factories and industrial establishments utilizing modern machinery were a rarity, with employment in modern industry at this time accounting for no more than an estimated figure of 850 jobs (Floor, 1984, p. 5). The slow development of large-scale industry in Iran is ascribed in part to lack of integration in the economy and very low levels of customs duties (about 4-5 percent) on manufactured imports (Bharier, 1971, p. 171; see also COMMERCE vii.; ECONOMY ix.). On the other hand, archaic and underdeveloped infrastructure as well as a low level of human resources (lack of skilled and technical manpower) were also limiting factors. The situation was, however, to undergo important changes after the 1920s, paving the way for the emergence of Iran's nascent industrial sector from the 1930s onwards.



INDUSTRY AND THE RISE OF A NATIONAL ECONOMY

Systematic efforts at industrialization got under way during the reign of Reza Shah (1925-41). The growth of the industrial sector in this period was, indeed, intertwined with the general trend of modernization and attempts at the creation of a national economy after the 1920s. This drive consisted mainly of strengthening the basic politico-legal and infrastructural requirements of a modern economy (see *COMMERCE* vii.; *ECONOMY* ix.). The state's economic as well as industrial policies evolved through two different phases. During the 1920s, the state adopted mainly a caretaker role in the economy, which included reforming the political and legal institutions, improving the means of transportation, and following a free trade regime until 1928. By the end of the decade, however, it was evident that the much hoped-for engagement of both domestic and foreign capital in the productive activities, especially in the industrial sector, was not taking place. An important aspect of the Iranian economy at this time was its dependence on imports for the basic manufactured mass consumption goods (e.g., cotton textiles, kerosene, sugar, and tea). These items formed more than 80 percent of Iran's merchandise imports at the time, and Iran suffered from a chronic current account deficit in her balance of payments accounts which added up to at least 30 million dollars by the end of the decade (Karshenas, 1990, p. 70; Moghaddam, 1956, p. 60).

The Great Depression of the early 1930s magnified these problems, bringing to the fore the urgent need for a radical restructuring of the economy. By the mid-1930s, the government had changed course to commit itself to a state-centered policy of economic development and a centrally controlled process of accumulation. The industrial sector was at the heart of this change of direction.

As with all primary exporters, the main impact of the Great Depression was a worsening of Iran's terms of trade. The situation was, however, exacerbated by the implementation of the first five-year plan in the USSR, which restricted the free access of Iranian merchants to Russian markets (Karshenas, 1990, p. 71). This development worked as a catalyst for the reorientation of the government's economic policy. As a result, Iran experienced a significant decline in her import capacity (Moghaddam, 1956, p. 64). A more severe and immediately felt impact of the world crisis, however, was the sharp decline in the rate of exchange of silver qerān due to the slump in the price of silver in world commodity markets. The sharp decline in the purchasing power of



silver qerān and the instability of the exchange rate in the latter half of the year 1929-30 brought the import trade to a virtual standstill (UK, DOT, March 1930, p. 13). Exchange controls were introduced in February 1930, followed by the foreign trade monopoly law of February 1931, which gave the government exclusive right of all foreign trade.

During the 1930s, the newly formed centralized state machinery was turned into a very effective means of mobilization and central control over economic resources (Karshenas, 1990, p. 71). Strict quantitative import controls together with a system of high tariffs and multiple exchange rates were imposed throughout the 1930s (see COMMERCE vii.). Through the control of foreign trade, the government pursued an energetic policy of capital accumulation, and thus was put into place an active policy of import-substituting industrialization in Iran for the first time in these years. In this, protectionist, phase in Iran's modern economic and industrial development, the state moved to the center stage of economic policymaking. Government expenditure in real terms rose from 392 to 977 million riāls in the period 1928-37 (an average annual growth rate of 11 percent). In particular, the state trading monopolies played an important part in financing the rising government expenditure (UK, DOT, 1935, pp. 24-27) and are reported in some cases to have made a rate of profit as high as 40 to 50 percent of their turnover (Wilber, 1976, p. 130).

The concentration of funds through the state budget and monopoly trade companies played an important part in financing fixed investment during the 1930s (Karshenas, 1990, p. 75). This was particularly important given the absence of any modern credit organization and the absence of large-scale accumulation of money capital in the hands of Iranian merchants. The pace of capital formation particularly accelerated in the latter half of the decade. The major part of investment during this period was concentrated within the state sector. Transportation and industrial sector apportioned more than 40 percent of the total government expenditure during the decade (Moghaddam, 1956, pp. 158-69). About 60 percent of government investment was in roads and railways, which greatly contributed to the integration of the national market. Charles Issawi estimates that the average duration of a journey had fallen to about one-tenth of what it had been before the First World War, and the cost of transport was cut by some three-quarters by the end of the 1930s (Issawi, 1971, p. 375). This was important for the development of the 'national economy' and the enlargement of the domestic market—both of which were critical to the emergence of the nascent industrial sector under Reza Shah.



THE INDUSTRIAL SECTOR

The industrialization efforts of the 1920s and 1930s were concentrated mostly on establishing factories for consumer goods such as matches, glass, textiles, and sugar. There was a mass market for these in Iran; and, given their prominence in Iran's imports, they were also a natural choice for promotion under a policy of import substitution (mentioned above). Besides, these same industries had featured in earlier, but abortive, attempts at economic diversification in the closing years of the 19th century (Bharier, 1971, pp. 171-72).

As with the state's economic policy, industrial development too evolved over two ostensibly different phases. In the first phase, spanning the second half of the 1920s, progress was continuous but slow, whilst the state relied on the promotion of the private sector. In the second—especially during 1934-38—industrial growth accelerated markedly under the state's active direction. It is estimated that only 230 large- and small-scale modern industrial factories existed in 1931, of which 34 were cotton-ginning factories. At this time, only a handful of Iranian towns had electricity (Tehran, Bušehr, Tabriz, Anzali, and Rašt; see Floor, 1984, p. 19). Industrial development was even more limited, judged by the number of large establishments (employing ten or more workers). [Table 1](#) shows that only a handful of large manufacturing firms were established before 1930, and the total number of workers engaged in them amounted to fewer than 500 persons.

The situation changed in the 1930s, especially after 1934, leading some observers to refer to this period as the “big leap forward” (Floor, 1984, p. 20; Āgāh, 1958, p. 209). This is clearly evident from [Table 1](#), which shows that industrial “take off” was concentrated during the short period between 1934 and 1938.

By the late 1920s, it was evident that the Iranian capitalists' reaction to various economic stimuli provided by the state to promote industrialization (such as tax holidays and subsidies) was inadequate and had failed to produce the desired result. The late 1920s, therefore, saw a flurry of government initiatives, sometimes in cooperation with foreign investors, to stimulate the industrial sector. Chief among these were the go-ahead for the construction of the Trans-Iranian Railway, a feasibility study for a steel mill near Semnān, a sugar mill near Karaj, etc. (Floor, 1984, pp. 19-20).



By the early 1930s, the role of state in reviving or initiating industrial projects was well established. For instance, in 1931, the sugar factory in Kahrizak was rebuilt with 60 percent of its reconstruction and capital costs funded by the state. In early 1932, the Šāhi spinning mill was opened with two-fifths of its \$120,000 capital provided by Reza Shah and another two-fifths from the National Bank (Wilber, 1975, p. 145).

By the end of the 1930s, industry was the second largest recipient of government investment. By contrast, private investment in industry was slow initially and only got under way in the latter half of the 1930s. By 1941, industrial investment had reached a value of approximately 58 million pounds sterling, of which 28 million were contributed by the government (Karshenas, 1990, p. 75). The relatively high rate of capital accumulation during the 1930s was financed by domestic resources, as foreign contribution was solely confined to technical assistance. The expanding government administrative expenditure and investment during this period were financed mainly through indirect taxation, such as tariffs and road taxes, profits of monopoly companies, and deficit financing.

The highly protected home market, together with government encouragement in the form of tariff exemption, preferential exchange premium, and exemption of transport fees for imported machinery, had made private manufacturing a highly profitable line of investment in the 1930s (Moghaddam, 1956, pp. 170-79). For the whole period of 1932-41, Āgāh reports that “the assured net rate of profits was about 20%, the average rate 20-25%, and in exceptional cases profits of up to 150% were recorded. Believing the profit-rates to be too high, the Government attempted to impose a 12% limit in 1938/39” (1958, p. 209).

As [Table 2](#) shows, by the end of this decade, industrial establishments had proliferated: more than 260 plants were established in both public and private manufacturing sectors with about 63,000 installed horsepower and employing approximately 48,000 workers. The main lines of manufacturing investment were in light consumer goods industries such as textiles, sugar, matches, etc., as well as newer industries such as cement and chemicals, which found their market as a result of the investments in the 1930s. In the words of Āgāh, “Starting from virtually nothing, in a relatively short period a wide range of industries had been established, e.g., textiles of all sorts, sugar, tea, food and fruit-canning, tobacco, matches, leather, cement, glass, soap, chemicals, metallurgical and munitions factories” (1958, p. 209).



The industrial drive of the 1920s and 1930s was strongly supported by the young, Western-educated, and reformist people who backed Reza Shah. For these, industrialization was seen as the key to modernization as well as to independence from Britain and Russia (Floor, 1984, p. 17). However, little explicit consideration was given to profitability and employment creation (Bharier, 1971, p. 176). Many such industries survived thanks to direct and indirect state support, including cash injections, direct subsidies, and other forms of support. The shaky foundations of many new industries was exemplified by the modern Waṭan factory in Isfahan, which produced coarse cloth and blankets. Its survival was critically dependent on generous government monetary support as well as contracts and even decrees encouraging officials to wear home-manufactured cloth (Floor, 1984, p. 17).

Table 3 shows the number of workers in each major branch of industry and sheds light on the overall growth and structure of industrial employment in Iran in the 1920s and 1930s. It can be seen that the textile industry grew fastest in this period. The oil industry and construction sector were the other major employers within the industrial sector. Given the importance of the oil industry to Iran's economy as well as its modern industrial drive after the 1920s, this sector is discussed briefly below.

THE OIL INDUSTRY

Despite the continuous rise of the manufacturing sector in Iran after the 1920s, the oil industry was still by far Iran's most important industry throughout this period (for a detailed survey of oil industry and its role in Iranian economy, see OIL INDUSTRY at iranica.com). It was also Iran's most concentrated form of industry both geographically and in terms of ownership. Created under a 1901 concessionary agreement with the British engineer William Knox D'Arcy (q.v.), the so-called Anglo Persian Oil Company (q.v APOC) employed around 2,460 workers by 1910, of whom approximately one-quarter were foreign. By 1939, the number of oil workers had risen to 31,500 (Floor, 1984, p. 5 and pp. 28-29).

The steady rise of this industry came against a background of constant and mounting conflict over the distribution of oil income between the Iranian government and the company, which was by then named the Anglo-Iranian Oil Company (AIOC), during the late 1920s and early 1930s. By 1933, the original 1901 concession had been canceled by the Iranian government and was replaced with a new one. Although the new agreement led to an increase



in the oil revenues of the government per unit of production, it still did not bring about any significant changes in the extremely unequal shares of the oil proceeds (Karshenas, 1990, p. 81; see [Table 4](#) below). For instance, it is estimated that the profits of the AIOC during the 1919-30 period added up to approximately 200 million pounds, whereas the royalties paid to the Iranian government were no more than 10 million pounds (Hershlag, 1964, p. 205). To put things into perspective, it should be noted that the former sum was more than the entire value of capital formation in the Iranian economy, and equivalent to four times the total fixed investment in the Iranian industrial sector during the entire 1930-41 period (Karshenas, 1990, p. 81). It is thus no wonder that the issue of oil became the central theme of mass politics and economic nationalism during the postwar period.

Steadily rising revenues or employment in the oil sector should not, however, mask the limited integration of this sector into the rest of the economy and, especially, the rest of the industrial sector. Neither forward nor backward linkages were significant in this period. This was partly because of the limited size of the domestic market, which constrained demand for oil as a cheap source of energy. On the other hand, the 'enclave' nature of the oil industry itself constrained the extent to which its demand for the products of the domestic industry could promote industrial development and employment generation in Iran.

THE POST-WAR PERIOD

In sharp contrast to the 1930s, the 1940s were a period of contraction leading to full industrial recession by the end of the decade (1948-50). The slowdown started with the occupation period during 1941-46 and continued well after war was over. This decade saw government instability and frequent changes of policy. Moreover, difficulties over importation of machinery halted the expansion of industry and left many factories unfinished. These problems were compounded by lack of spare parts and the withdrawal of the mainly German technicians, factors which affected adversely those factories that were still operating (Āgāh, 1958, p. 210).

This was, however, followed by a period of industrial recovery in the early 1950s. Two factors helped with such recovery during 1950-53. The first was an improvement in world prices and rising demand for Persian exports led by the Korean War (Āgāh, 1958, p. 212). Secondly, the nationalization crisis and the ensuing embargo of Iranian oil severely constrained her ability to import



industrial goods, leading to the depreciation of the riāl. Restrictive measures adopted to cope with the crisis, in fact, offered a welcome measure of protection to the domestic industry. “With the return of profits to normal, many factories reopened, new plants were installed, and Iran actually became an exporter of manufactured articles such as mill textiles and matches. In textiles alone, in these three years eleven new factories, with 110,080 spindles and 1,600 weaving looms, were installed” (Āgāh, 1958, p. 212).

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