CHAPTER SIX

THE ECONOMY

General Conditions

BECAUSE of its extensive commercial and banking interests Shansi enjoyed considerable prosperity during the eighteenth and nineteenth centuries. Many of the banks in the Chinese Empire belonged to natives of Shansi, while at the same time merchants from that province carried on most of China's trade with Russia and Mongolia.[1] Each year these merchants and bankers remitted to Shansi more than CH$40 million, with the result that their families became some of the wealthiest in China. In fact, until 1900 bullion was so plentiful that instead of developing the resources of their own province the inhabitants of Shansi imported much of their food and most of the manufactured goods they required.[2] Beginning in the last decades of the nineteenth century, however, this prosperity vanished so completely that by 1920 Shansi was one of the poorest provinces in China. In addition to being weakened by losses resulting from the disorders that accompanied the Taiping Rebellion and the Boxer Uprising, most of Shansi's bankers operated on too small a scale and were too ignorant of modern banking to compete with more liberally capitalized banks organized along Western lines.[3] Their ruin was completed by the Revolution of 1911, which destroyed the wealth and power of the ruling bureaucrats, to whom they had loaned great sums.[4] Whereas in 1911 there still were twenty-six old style banks (*p'iao-hao*) in Shansi, by 1930 all but three had gone out of business. Meanwhile in Russia and in much of Mongolia foreign competition and economic nationalism, in

[1] Ch'ü Chih-sheng, "Shan-hsi te ching-chi hsien-chuang yü ching-chi t'ung-chih" ("Economic Controls and Present Economic Conditions in Shansi"), *KWCP*, March 12, 1934, p. 2.

[2] Ch'üan-kuo ching-chi wei-yüan-hui (National Economic Committee), pub., *Shan-hsi k'ao-ch'a pao-kao shu* (*Report of an Investigation of Shansi*) (Shanghai, 1936), hereafter referred to as *Shansi Report*, p. 3.

[3] Ch'en Ch'i-t'ien, *Shan-hsi p'iao-chuang k'ao-lüeh* (*An Examination of the Shansi Banks*) (Shanghai, 1936), pp. 36-41.

[4] *NCH*, Feb. 27, 1915.

the form of extortionate taxes and official restrictions, gradually reduced the volume of trade handled by merchants from Shansi until most of them went bankrupt and were compelled to return home. Since they had accumulated large holdings of Russian currency, they also suffered catastrophic losses when the First World War and the Bolshevik Revolution in Russia destroyed the value of the ruble.[5] As a result of all this, by 1921 in one formerly prosperous district of Shansi there were between 4,000 and 5,000 unemployed merchants,[6] while in the once flourishing towns of Taiku and Yü-tz'u businessmen were reduced to selling their wives and children in an effort to satisfy their creditors.[7] Their misery was shared by much of the farming population, whose income had declined substantially, owing largely to the deterioration of Shansi's handicraft industries under the impact of foreign competition but likewise because other provinces in North China stopped buying grain from Shansi as soon as the construction of the Peking-Suiyuan Railroad made it possible to procure less expensive foodstuffs from Suiyuan.[8]

Inasmuch as the population of Shansi was increasing rapidly, these conditions produced growing unemployment and distress. In 1918 Yen complained about the presence in Shansi of more than a million jobless persons, whom he euphemistically referred to as "vagrants."[9] "It is not poverty to be without money, but it is true poverty to be without a trade," he told his people.[10] An economist writing in the *Chinese Economic Journal* says that during the 1920's one sixth of the labor force in Shansi was unemployed.[11] The collapse of Shansi's banking and mercantile empire, moreover, caused remittances from outside Shansi to fall off so drastically that Yen's subjects were compelled to liquidate their reserves of bullion in

[5] *Chung-wai ching-chi chou-k'an* (*Sino-foreign Economic Weekly*), No. 124, as quoted in *Archives*, Aug. 1925, pp. 106-110.

[6] See *ibid.*, p. 108. [7] *Lectures*, III-C, pp. 91-96 (July 1922).

[8] *Lectures*, III-A, p. 369 (July 1934).

[9] Yen Hsi-shan, *Yen tu-chün cheng-shu* (*The Political Handbook of Military Governor Yen*) (Shanghai, 1930), p. 1b. According to a foreign writer, "vagrants" was the term commonly used by the provincial authorities to designate the unemployed. See *NCH*, July 14, 1923, 89:1.

[10] F. C. H. Dreyer, *op.cit.*, p. 480.

[11] C. F. Ma, "Notes on Chinese Labor Population," *The Chinese Economic Journal*, hereafter referred to as *CEJ*, Nov. 1930, p. 1285.

order to pay for the goods they imported from other provinces. Although after 1920 Yen succeeded in cutting down appreciably Shansi's annual trade deficit of more than CH$75 million,[12] in 1922 specie still was leaving the province at the rate of well over CH$20 million a year.[13] The deflation that resulted from this continual loss of specie had a profoundly depressive impact on Shansi's economy. According to Yen, by 1935 nine out of every ten families in Shansi were poverty-stricken.[14] He perceived that unless he could modernize the economy of his underdeveloped domain and increase its productivity, popular unrest would grow and he might be unable to avert a popular uprising against his regime, much less mobilize enough strength to prevent Shansi from being overrun by the powerful armies of neighboring warlords. Consequently, he adopted the slogan, "strengthen the nation by enriching the country" (*fu-kuo ch'iang-kuo*) and endeavored to reorganize Shansi's economy along more productive lines.[15]

Commerce and Industry

Yen aimed to export as much as possible while reducing substantially the volume of goods being brought into Shansi, which explains his close supervision of the activities of merchants and other businessmen. Although he tried to enlist their support for his regime, and perhaps against the gentry, he frequently denounced them for being old-fashioned and unimaginative. Because they went into business only with members of their own clan and insisted that investors assume unlimited liability for debts, the businessmen of Shansi were unable to amass enough capital to compete with enterprises organized along Western lines.[16] Furthermore, they rejected the impersonal relationships characteristic of economic activity in the West and continued to subordinate everything to the interests of their own families, with the result that in most business concerns nepotism flourished and with it corruption and mismanagement. Dishonesty and obsolete methods, for example, were responsible for the failure of the privately operated

[12] Wang Chen-i, *op.cit.*, p. 7. [13] *Lectures*, IV, p. 23 (1922).
[14] *Lectures*, III-A, p. 370 (July 1935).
[15] *Lectures*, III-B, p. 67 (1922).
[16] *Lectures*, III-C, p. 27 (Nov. 1918), and IV, pp. 12, 15, 24 (Dec. 1919, Jan. 1920, and 1922), and Hsia Ching-feng, "Shan-hsi lü-hsing chi." *Ti-hsüeh tsa-chih*, Jan. 1, 1916, p. 6a.

Taiyuan Electric Light Company in 1923, as well as the decline of Shansi's once thriving salt and brewing industries.[17] Perhaps the extraordinary preeminence and prosperity formerly enjoyed by the merchants and bankers of Shansi left them convinced of the correctness of their own methods and made them even less inclined than businessmen elsewhere in China to embrace practices introduced from the West. At any rate, their lack of organization, haphazard methods, and ignorance of business conditions outside Shansi placed them at an enormous disadvantage with respect to more alert and modern-minded competitors from other provinces.[18]

In an effort to remedy this situation, Yen set up in each district a chamber of commerce, introduced a uniform system of weights and measures, and published a weekly newspaper containing information of value to merchants and businessmen, only to find that in Shansi the business community was less interested in productive investments than in reaping exorbitant profits from speculation and short-term loans to individuals. "The most prosperous businessmen in the province . . . are speculators and usurers," he charged.[19] The rapid rise in the price of land in Shansi during the 1920's indicates that many merchants and bankers also were using their profits to buy their way into the ranks of the landed gentry. Their behavior raises the question of whether much of China not only was bypassed by the Industrial Revolution but likewise failed to experience the "commercial revolution" that preceded and made possible the growth of industry in the West. In many instances, moreover, merchants responsible for collecting taxes on behalf of the provincial government induced momentary fluctuations in the value of the currency which enabled them to exact from the peasants sums considerably larger than those demanded by the provincial authorities. "They rob the public and blame the government," complained Yen.[20]

Yen's disdain for local merchants and businessmen explains in part why, after events in the Soviet Union seemed to demonstrate the feasibility of socialism, he denounced capitalism

[17] *CEB*, Jan. 24, 1925, p. 52, Feb. 21, 1925, p. 99, and March 28, 1925, p. 173.
[18] *NCH*, Feb. 2, 1924, 165:5.
[19] Yen Hsi-shan, *Chin Shan hui-i lu*, p. 28.
[20] *Lectures*, III-A, pp. 182-183 (Nov. 1919).

as usury and called its proponents simply parasites living off the labor of others.[21] He professed to be horrified by the power exercised by financiers and manufacturers in the countries of the West and probably feared that the growth of large privately owned enterprises in Shansi would be followed by the rise of a class of wealthy and independent entrepreneurs which ultimately would contest his authority. In spite of his antipathy to the gentry and his efforts to win support among businessmen, his antagonism toward private enterprise also may have sprung from a perhaps unconscious desire to disassociate himself from the commercial background of his own family by embracing the prejudices of the landed gentry, membership in which was the traditional objective of parvenus like the Model Governor. Throughout the 1920's Yen's attitude with respect to the gentry was ambivalent, and his opinions frequently reflected the agrarian viewpoint of the landowning class, which conceded the necessity of setting up industries and improving communications in order to strengthen China's defenses but at the same time wished to keep the commercial classes powerless lest they challenge its own privileged position. Then too, socialism appeared not in the least radical to one accustomed to the official monopolies of the Ch'ing dynasty. For these reasons, and because he perceived the enormous profits to be harvested, Yen declared himself in favor of "state capitalism" (*kung-tzu chu-i*) and tried to establish a government monopoly over manufacturing.[22]

In 1920 fear of an invasion by the better equipped forces of the neighboring warlord Han Fu-chü caused Yen to adopt a policy of what he called "salvation through productivity" (*tsao-ch'an chiu-kuo*).[23] In addition to building the Taiyuan Arsenal, whose operations already have been described, he constructed a sulphates factory, a small but modern iron works, a CH$600,000 machine tool factory, and refineries that conducted experiments looking toward the extraction of petroleum from coal and shale rock. Attached to the machine tool plant was a steel works having a meager capacity but nevertheless enough to

[21] Yen Hsi-shan, *op.cit.*, pp. 10-13. [22] See *ibid.*, p. 34.

[23] Naikaku sōri daijin kambō chosashitsu (Cabinet Research Office), comp., *Chūkyō tekkōgyō chōsa hōkokusho* (*Survey Report on the Steel Industry of Communist China*) (Tokyo, 1956), hereafter referred to as *Japanese Steel Survey*, pp. 405-408.

produce steel in greater quantities than most of the other mills in China and likewise at much lower cost, owing to Shansi's abundant supply of cheap coal.[24] Yen used these enterprises for the purpose of training an industrial working force and talked about expanding them into a complex of heavy industries capable of manufacturing not only a wide range of weapons but also the machinery he needed in order to modernize Shansi's economy.[25] His preoccupation with other matters prevented him from carrying out his plans, however, and as late as 1930 Shansi still had, in the words of one writer, "no heavy industry worthy of the name."[26]

Yen's efforts to compensate for the decline of Shansi's handicraft industries by promoting the growth of light industry were equally ineffectual. Besides subsidizing various kinds of cottage industries, he built two flour mills, a cigarette factory, a paper mill, and a large and comparatively modern cotton textile mill, which, together with a number of smaller, privately operated mills, turned out each year more than CH$3.5 million worth of cloth and yarn.[27] His aim was to revive the manufacture of consumer goods in Shansi by introducing methods of production borrowed from the West. As part of this campaign he erected more than a score of small factories and workshops where soldiers and the unemployed were taught how to make candles, soap, clothing, and a host of other commodities.[28] Nevertheless, only the textile mills flourished; Shansi's other industries were undercapitalized, badly managed, and so primitive and unproductive that well-informed observers dismissed them as "not worth mentioning."[29] Consequently, Yen's subjects remained dependent on foreign countries and other prov-

[24] *Shansi Report*, pp. 12, 61-84, 169, *CEB*, Aug. 23, 1924, p. 10, Feb. 7, 1925, p. 79, Feb. 21, 1925, p. 107, July 11, 1925, p. 25, and Anonymous, "Hsi-pei yü-ts'ai lien-kang chi-ch'i ch'ang" ("The Northwestern Yü Ts'ai Steel and Machine Plant"), *Chung-hua shih-yeh yüeh-k'an* (*The Chinese Industrial Monthly*), hereafter referred to as *Industrial Monthly*, Sept. 1, 1935, p. 119.

[25] *CEB*, April 11, 1925, pp. 203-204.

[26] *Shansi Report*, p. 144.

[27] See *ibid.*, pp. 7-8, 118-121, 126-127, and *Industrial Gazetteer*, pp. 7-szu, 104-106-chi.

[28] *Industrial Gazetteer*, pp. 695-699-chi, and *CEB*, Sept. 1, 1924, p. 9, Dec. 27, 1924, p. 13, May 16, 1925, p. 285, May 30, 1925, p. 317.

[29] *Shansi Report*, p. 131, and Ch'ü Chih-sheng, *op.cit.*, p. 1. The opinion of these writers is shared by Wang Chen-i, *op.cit.*, p. 5.

inces for manufactured goods and continued to export great quantities of specie in order to pay for these commodities.[30]

Yen failed to achieve a significant degree of industrialization in Shansi in part because the atmosphere of the province discouraged enterprise and impeded specialization. The abundance and cheapness of labor dissuaded entrepreneurs from introducing technological innovations that might have increased output. The low status of women, who were constrained to stay in the household and make it as self-sufficient as possible, likewise hindered economic development by removing the incentive for specialization. Many of the values held by the people of Shansi, moreover, were incompatible with industrial growth. Because they had grown up in an isolated and stagnant society, most of them were unfamiliar with the Western concept of an expanding economy and rejected the concomitant belief that men can augment their wealth most rapidly by investing in productive enterprises. Instead, they chose to spend their savings on elaborate weddings and other forms of conspicuous consumption or sought to enlarge their share of already existing wealth by purchasing land. Thrift and initiative were stifled too by the extended family system, which imposed on enterprising and successful individuals the responsibility of providing for their indigent and often less venturesome relatives.

These obstacles to economic growth might have been overcome by an ambitious but realistic program of industrial development sustained by bold and imaginative leadership; Yen's projects on the contrary were mismanaged and suffered from a lack of planning and coordination, as he subsequently acknowledged.[31] Furthermore, he readily sacrificed his economic objectives whenever they threatened to interfere with his military and political ambitions. He repeatedly complained about a shortage of investment capital, for example, but spent on the army at least half of his government's annual income.[32] By his own admission, extortionate taxes frustrated efforts to promote economic growth in Shansi;[33] however, he must bear much of the responsibility for this situation because he levied

[30] Ch'ü Chih-sheng, *op.cit.*, p. 1.
[31] *Lectures*, III-A, p. 314 (Dec. 1932).
[32] *Lectures*, V, p. 51 (July 1918).
[33] *Lectures*, III-A, p. 314 (Dec. 1932).

many of these taxes himself.[34] Then too, although he appreciated the military and economic value of modern industry, he was uneasy about its social and political implications. Many of the speeches he delivered in the 1920's betray a distaste for individualism, urbanization, large-scale enterprise, and other phenomena associated with economic growth in the countries of the West.[35] Perhaps he feared that by subverting traditional values and disrupting the existing order modernization would produce social instability and bring about the collapse of his authority. He virtually outlawed labor unions[36] and in 1926 used troops against the striking workers of a cotton mill in which he had invested.[37] Like the mandarins of the Ch'ing dynasty, he considered farming to be by far the most productive and socially desirable occupation. This is why he replied in response to a query about the apparent prosperity of Japan and other industrial countries that in all these nations the development of industry had resulted in a critical shortage of food.[38]

Yen's preoccupation with agriculture led him to conclude that reforestation would yield greater profits than coal mining,[39] in spite of the fact that buried in the earth beneath Shansi is more than half of the coal in China.[40] In addition to being unusually accessible, these beds contain most of China's high-grade anthracite.[41] For this reason, in 1907 a British syndicate purchased from the Imperial government in Peking the right to mine Shansi's coal, only to encounter a storm of opposition on the part of antiforeign elements among the gentry in Shansi, who formed their own syndicate, the Pao Chin Mining Company, which persuaded the British to relinquish their newly acquired concessions in exchange for a cash pay-

[34] *CEB*, Feb. 21, 1925, pp. 97-98, March 14, 1925, pp. 148-149, May 30, 1925, p. 318, June 13, 1925, p. 346, Nov. 21, 1925, p. 300, Dec. 26, 1925, p. 361.

[35] For example, see pp. 91-100 in *Lectures*, III-C (July 1922).

[36] Anonymous, "Labor Conditions in Shansi," *The Chinese Economic Monthly*, hereafter referred to as *CEM*, June 1925, pp. 23-24.

[37] *NCH*, Oct. 23, 1926, 156:2.

[38] Yen Hsi-shan, *op.cit.*, p. 27.

[39] Wang Ch'ien, *op.cit.*, p. 10b, and *Lectures*, III-C, p. 62 (May 1921).

[40] Kojima Seiichi, *Hoku Shi keizai tokuhon* (*An Economic Primer of North China*) (Tokyo, 1937), I, p. 40.

[41] Takagi Rikurō, *Hoku Shi keizai annai* (*An Economic Guide to North China*) (Tokyo, 1937), p. 164.

ment of 20 million taels. This enormous ransom consumed so much of the Pao Chin Company's assets, however, that it lacked enough capital to buy modern machinery and operate on a large scale.[42] Most of its collieries were merely shallow pits, having a circumference of less than 14 feet and worked by a handful of ill-trained coolies who used shovels to hack coal from the walls of these holes, hauled it to the surface chunk by chunk with the aid of a windlass and an iron hook, and then trundled it away on their backs or in tiny pushcarts. The largest of these so-called mines yielded no more than 400 tons of coal a day and the smallest only 3 tons. In many instances their production costs were so high, owing to inefficient and dishonest management as well as low output, that keeping them in operation cost more than they brought in, and they continued to function solely at the behest of the provincial government.[43]

Notwithstanding his keener interest in reforestation, Yen professed to attach great importance to Shansi's immense deposits of coal. "Our future prosperity lies beneath our feet!" he exclaimed.[44] Upon becoming civil governor of Shansi in 1917, he declared that all of the province's mineral wealth was the property of the state, and in order to encourage and supervise its exploitation he created the Shansi Bureau of Public Mines (*Chin min-kung k'uang chü*). Although he left to private entrepreneurs the task of actually carrying out mining operations, he supplied much of the CH$1.5 million invested in the Share-the-Wealth (*T'ung-pao*) Mining Company, which undertook to exploit large deposits of coal lying in and around the city of Tatung to the north, and he probably was a major stockholder in other privately run concerns organized for the purpose of working the even richer coal fields at Yangch'üan near P'ingting in eastern Shansi.[45] Some of these companies procured foreign machinery and tried to employ more up-to-date methods of mining, with the result that between 1920 and 1926 coal production nearly doubled, only to drop off rapidly after 1926 because of dislocations created by Yen's involvement in a series of wars with other militarists.[46] Even during

[42] Letter to myself from Wynn C. Fairfield, dated Sept. 23, 1958.
[43] Hsia Ching-feng, *op.cit.*, pp. 4a-4b, and "Lü," "Shan-hsi shu-cheng t'an," *HTPL*, Oct. 9, 1926, p. 11.
[44] *Lectures*, III-B, p. 61 (March 1919).
[45] "Lü," *op.cit.*, p. 12, and *Fairfield*, p. 18.
[46] *Industrial Gazetteer*, p. 17-wu, and *CYB, 1929-1930*, p. 51.

their most productive years, however, Shansi's collieries failed to keep pace with mines in Hopei and Shantung,[47] both provinces having considerably less coal than Shansi but where mining operations were largely in the hands of foreign concerns. Consequently, coal continued to make up less than a third of Shansi's exports, and in much of the province remained so scarce and expensive that millions of Yen's subjects were compelled to shiver through the winters without sufficient fuel to keep warm.[48]

In the absence of a substantial investment of additional capital, mining remained largely a primitive, costly, and unproductive enterprise. Working conditions in most of Shansi's mines were so intolerable, for example, that there existed a chronic shortage of miners, inasmuch as only criminals hiding from the police and other desperate persons were ready to risk their lives in the ill-ventilated and perennially flooded pits.[49] In the case of Yen's T'ung Pao Mining Company, much of the firm's capital, which otherwise might have been used to modernize its operations, was frittered away in the form of exorbitant salaries and bonuses to Yen's own friends and relatives, who served as the concern's "directors" and "assistant managers."[50] Then too, the rich declined to invest their money in mining unless first guaranteed extravagant profits. In an effort to raise extra capital, Yen proposed to lease certain coal and iron-rich lands in southern Shansi to a wealthy Anglo-Chinese syndicate from outside the province, but was compelled to abandon his plan when students boycotted their classes and staged massive demonstrations aimed at convincing the public that he was preparing to sell Shansi's interests out to the foreigners. "Under no circumstances will foreigners be allowed to mine coal in Shansi," promised Yen.[51] Although this pledge did not deter him from subsequently granting concessions to an English mining company, he demanded in return virtually full control over any operations that resulted, as well as most of the profits, which may explain why nothing

[47] *CYB, 1929-1930*, pp. 50-51.
[48] Wang Chen-i, *op.cit.*, p. 5, and *NCH*, Dec. 22, 1923, 816:2, and May 31, 1924, 331:3.
[49] *CEB*, Feb. 2, 1924, p. 10, and "Lü," *op.cit.*, p. 11.
[50] "Lü," *op.cit.*, p. 12.
[51] *Lectures*, III-C, pp. 65-66 (April 1921).

seems to have come of this venture.[52] The most productive mines in Shansi, conversely, were operated at Tatung by the T'ung Chi Mining Company, a privately owned firm having its headquarters in Tientsin and having a large number of Japanese stockholders. Nevertheless, because of the intense xenophobia of his subjects Yen was unable to explore seriously the possibility of using foreign capital to finance the exploitation of Shansi's mineral resources.

Lack of an adequate rail system prevented Yen from developing a substantial market for coal mined in Shansi and is another important reason why his efforts to promote mining were not successful.[53] Tatung, in the north, enjoyed access to the Peking-Suiyuan Railroad which belonged to the central government in Peking; but there were no railroads in the western and southern parts of Shansi, and in the east only a strip of narrow gauge track winding through the mountains that separate Taiyuan from the border of Hopei. This so-called Cheng Tai Railroad was under the management of a French syndicate which had built the line before the Revolution of 1911 and thereafter reaped an annual return on its investment of almost 25 percent by charging the highest freight rates in China.[54] These rates were so high, in fact, that in spite of its comparatively low price at the pithead, by the time coal mined in Shansi and transported over the Cheng Tai line reached industrial centers elsewhere in China it was too expensive to compete with coal from mines serviced by other railroads.[55]

Nevertheless, Yen was unwilling to shoulder the cost of laying down additional track and expected the central government in Peking to build for him the railroads he needed in order to utilize the mineral resources of his domain. Peking agreed but insisted on using track of standard width instead of the narrow gauge variety Yen had specified, with the result that he withdrew his request and abandoned his plans to open new

[52] *Hsin-wen pao* (*The News*), Oct. 1926, as quoted in *Archives*, Oct. 1926, pp. 372-375.

[53] "Lü," *op.cit.*, p. 12, and interview with Ch'üan Han-sheng, Professor of the Economic History of Modern China in the National Taiwan University, Taipei, Taiwan, Oct. 3, 1956.

[54] *Shansi Report*, pp. 246-247.

[55] Anonymous, "Coal Mining in Shansi," *CEM*, Nov. 1925, p. 28, *NCH*, Jan. 10, 1934, 44:1, and *Chung-wai ching-chi chou-k'an*, No. 120, as quoted in *Archives*, Aug. 1925, p. 212.

mines, fearing that the central government would employ the new railroads to extend its authority into Shansi, and he preferred to have no railroads rather than ones that could be used by the rolling stock of an invading army.[56] Furthermore, in his eagerness to secure money in order to meet military expenses, Yen levied heavy taxes against coal and other commodities hauled by the Cheng Tai Railroad.[57] Together with overregulation and other forms of government harassment, such taxes were enough to discourage the exploitation of Shansi's unusually rich deposits of sulphur.[58] Nothing could underline more forcefully the extent to which political disunity and militarism impeded the economic modernization of China during the 1920's.

Yen's policy with respect to road building illustrates vividly how his desire for military power and political control interfered with his efforts to promote economic growth in Shansi. Under the Ch'ing, most of the roads in Shansi were narrow ruts worn so deeply into the soft loess that traffic passing over them could not be seen from the surrounding fields. Such thoroughfares filled with water and were unusable whenever it rained. In much of the province there were no roads but simply trails suitable for use by mules, camels, and human beings. Freight was often hauled to the top of a mountain by mules and then slid down the other side in carts outfitted with skids. Small wonder that by the time goods reached their destination they were too expensive for all but the very rich to buy. Nor was economic specialization feasible in a land where the virtual absence of railroads and the inadequacy of other forms of transportation isolated one region from another and made local self-sufficiency essential.

Considerations other than a wish to encourage trade, however, caused Yen to become aware that Shansi needed more and better roads. During the drought that afflicted Shansi for three years beginning in 1919, he was obliged to transport from the comparatively unaffected north enough grain to feed

[56] Interview with *Ch'üan Han-sheng*, "Lü," *op.cit.*, p. 12, *Fairfield*, p. 19, and *K'ung*, p. 34.

[57] "Coal Mining in Shansi," pp. 28, 30, and *Chung-wai ching-chi chou-k'an*, No. 124, as quoted in *Archives*, Aug. 1925, p. 243.

[58] *Chung-wai ching-chi chou-k'an*, No. 104, as quoted in *Archives*, June 1926, pp. 15-19.

the starving inhabitants of the famine-stricken south, but found that owing to the poor quality and small number of roads in his domain this task would require the use of 30,000 mules and even then could not be accomplished in less than six months. He complained that he might just as easily use a glass of water to extinguish a fire in a wood pile as try to prevent famine without an adequate system of roads.[59] Consequently, Yen put his soldiers to work building roads and with the assistance of the American Red Cross and the China International Famine Relief Commission succeeded in laying down well over a thousand miles of roadway.[60] By 1929 motor roads linked Taiyuan with almost every district in the province, while at the same time a newly erected network of telephone and telegraph lines enabled Yen to communicate instantaneously with all of the district capitals and military headquarters in his domain.[61] Whereas in the past it had taken five or six days to travel the distance between Taiyuan and Tatung, now the trip could be made by motor car in only twelve hours. According to one writer, during the famine that ravaged northwestern China in 1929 the people of Shansi suffered much less than the population of neighboring provinces because Yen's motor roads gave relief authorities in the Model Province easy and inexpensive access to most of the stricken areas.[62] Yen's road-building program altered to some extent the notoriously parochial outlook of most of his subjects,[63] for in many instances the new roads extended into areas so remote and isolated that their inhabitants had never seen a cart, much less a bicycle or bus.[64]

Notwithstanding their value as instruments of political control and social change, as well as their usefulness in time of famine, the roads that Yen built during the 1920's did not contribute significantly to the economic development of Shansi. Because he tried to save money by leaving many of them un-

[59] *Lectures*, VIII, p. 37 (Aug. 1920).
[60] *CEJ*, May 1930, p. 547, and *Shansi Report*, pp. 276-277.
[61] Anonymous, "Plight of the Shansi Peasantry," *PT*, Jan. 16, 1932, p. 132, and *Industrial Gazetteer*, pp. 63-75-jen.
[62] John Philip Emerson, *Yen Hsi-shan, A Warlord and his Province 1911-1948* (An unpublished manuscript), p. 32.
[63] Even Yen's most uncompromising critics acknowledged the success of his road-building program. For example, see Chen Han-seng, *op.cit.*, p. 378.
[64] *NCH*, Aug. 20, 1921, 537:1.

surfaced they often were eaten away by washouts or blocked by landslides, since his engineers economized by removing as little earth as possible whenever it was necessary to cut through a hill or mountain.[65] Instead of allocating money for the upkeep of the roads, Yen ordered local officials to maintain them out of their own revenues. Large stretches of roadway were allowed to become overgrown with weeds and bushes, while bridges frequently deteriorated to the point of being useless;[66] and travel by motor vehicle became so hazardous that generally merchants preferred to employ traditional forms of transportation like camels and rickshaws.[67] Then too, in return for the enormous payments which he demanded from companies operating trucks or buses on the public highways, Yen permitted these carriers to charge for their services at exorbitant rates that discouraged his subjects from using the roads for commercial purposes.[68] His indifference to economic considerations caused many of the roads he built to come to an end at the provincial border and not to juncture with roads outside Shansi.[69] A well-informed writer says that not only Yen's motor roads but also his new system of telecommunications were used exclusively for military and administrative purposes and made almost no impact on Shansi's economy.[70]

Agriculture

Yen Hsi-shan was emotionally disposed to favor agriculture and perceived that the bulk of his revenue must come from the agricultural sector of the economy; unless he succeeded in increasing appreciably the output of Shansi's farms he would be unable to redress his province's adverse balance of trade.[71] His efforts to step up agricultural productivity took the form of trying to bring more land under cultivation through an ambitious program of water control and afforestation. Although Shansi normally enjoys an annual rainfall of more than sixteen inches, this precipitation is extremely uneven and occurs for the

[65] Lady Hosie, *op.cit.*, p. 470, and *NCH*, Sept. 23, 1922, 868:1 and Aug. 4, 1923, 309:1.
[66] *NCH*, Sept. 26, 1925, 428:1, and Dec. 14, 1932, 412:3.
[67] *NCH*, Dec. 1, 1923, 397:2-3, and Lady Hosie, *op.cit.*, p. 470.
[68] *NCH*, Dec. 9, 1922, 648:3, and *Shansi Report*, pp. 279-280.
[69] *Shansi Report*, p. 276.
[70] Wang Chen-i, *op.cit.*, p. 6. In the case of the telephone and telegraph system, this observation is confirmed by *K'ung*, p. 35.
[71] *Lectures*, IV, pp. 2-3 (Oct. 1916).

most part during the summer. Peasants living outside the river valleys were obliged to store up enough water during the wet months to irrigate their crops after the rains ceased. Since most of them did not have sufficient capital or skill to do this effectively, Yen employed for their benefit a large staff of technical advisors and created the Bureau of Water Control (*shui-li chü*), which built new irrigation canals and offered to rent peasants the latest kind of machinery for use in sinking wells and constructing reservoirs. He also undertook to plant trees on the barren slopes of Shansi's hills and mountains in the hope that the presence of vegetation would reduce the number of flash floods and slow the process of soil erosion. Whereas in the remote past Shansi had been heavily forested, by 1920 indiscriminate cutting had resulted in the destruction of all but an infinitesimal number of trees. Yen's aim was to reforest more than 27 million acres or approximately one quarter of the province.[72] Working through local branches of the semiofficial Society for the Promotion of Forestation (*Lin-yeh ts'u-chin hui*), he distributed millions of seedlings to his subjects and exhorted each of them to plant and care for at least one tree a year. His enthusiasm for reforestation even caused him to judge the vitality of a community by the number of trees he found in it. "The United States has many trees because the Americans are a vigorous people," he remarked.[73]

Yen was equally determined to coerce and cajole the farmers of Shansi into practicing a more diversified kind of agriculture. Much of the irrigation work undertaken by the Bureau of Water Control, for example, was aimed at encouraging peasants in northern Shansi to grow cotton instead of cereals. Cotton fetched a higher price and Yen predicted that it would flourish in the north if enough water was available. Besides rewarding farmers who planted cotton, he maintained at least five cotton experimentation stations (*mien-yeh shih-yen ch'ang*) where specialists showed peasants how to cultivate cotton and carried out experiments looking toward the development of improved strains.[74] Similarly, in an effort to promote animal husbandry in Shansi, he imported from Australia a thousand head of Merino sheep, which he intended to mate with the

[72] *CEB*, June 13, 1925, p. 387.
[73] *Lectures*, III-C, p. 73 (April 1921).
[74] *Industrial Gazetteer*, pp. 89-90-ting.

hardier but less attractive indigenous breeds to produce a breed hardy enough to withstand the rigors of Shansi's climate but having wool comparable to the Merino.[75] The manufacture of silk was another occupation that Yen encouraged his subjects to take up, not only through the distribution of mulberry seedlings and silkworm eggs but also by setting up a modern silk-weaving factory as well as a number of schools for the purpose of teaching the peasants the fundamentals of sericulture.[76] The creation of these schools was only a part of a broad program designed to circulate knowledge of the latest agricultural techniques. In each district there was an agricultural experimentation station, run by graduates of the Provincial College of Agriculture (*Shan-hsi nung-chuan hsüeh-hsiao*) who conducted experiments, maintained an information service for the benefit of local farmers, and otherwise promoted the modernization of agriculture.[77] In addition to supporting the Provincial College of Agriculture, Yen likewise operated a middle school that prepared students for a career in agriculture, and every year he had a hundred especially able peasants, including many women, brought to Taiyuan for a prolonged period of study under the guidance of agricultural specialists. It was expected that after returning home these peasants would communicate their new knowledge and skills to their fellow villagers. All of these attempts to improve agriculture in Shansi benefited additionally from the advice and research of European agronomists in the employ of the provincial government and American missionaries belonging to the faculty of the Department of Agriculture in the Oberlin-in-Shansi Memorial School at Taiku.

Although Yen's efforts resulted in a threefold increase in the amount of land planted with cotton in Shansi,[78] the rest of his agricultural program was a failure. A foreigner having wide experience in the field of water control found Yen's accomplishments in this area unimpressive and blamed the drought that ravaged Shansi in 1928 and again in 1929 and 1930 on

[75] *CEB*, June 9, 1924, p. 4, and Oct. 17, 1925, pp. 221-222.
[76] Wang Ch'ien, *op.cit.*, p. 7b, and Anonymous, "Sericulture in Shansi," *CEM*, Dec. 1925, pp. 8-16.
[77] *CEB*, May 2, 1925, pp. 253-254.
[78] *Industrial Gazetteer*, pp. 90-91-ting.

inadequate irrigation.[79] Less than a fifth of the trees Yen planted survived, and this was not enough to yield the returns he had anticipated.[80] As for the Merino sheep, all but a handful of them died,[81] while his attempts to develop a viable silk industry met with such little success that his silk-weaving factory went bankrupt.[82] Overall agricultural productivity remained so low that in 1927 Shansi still was exporting CH$7 million worth of specie a year, in part to pay for food imported from other areas.[83] Yen's lack of success explains why the peasants, who comprised the overwhelming majority of the population of Shansi, continued to live in the utmost poverty. One writer charges that in 1930 a farmer in Shansi usually received an annual income considerably smaller than that enjoyed by most of the peasants in impoverished lands like India and the Philippine Islands.[84] According to articles in the *Chinese Economic Bulletin*, in 1925 80 percent of the peasants in Shansi were living from hand to mouth and subsisting for the most part on a diet of potatoes and cereals.[85] Since to survive the average poor peasant found it necessary to spend considerably more than he earned,[86] much of the rural population was hopelessly in debt. Although conditions were better in the cities and towns of Shansi,[87] the countryside remained impoverished and observers generally agree that Yen

[79] Oliver J. Todd, *Two Decades in China* (Peiping, 1938), pp. 84-85, 156-159, 539-550. Todd's adverse opinion with respect to the effectiveness of Yen's water control program was shared by other well-informed observers, such as Wang Chen-i, *op.cit.*, p. 2, and *Williamson*, p. 16.

[80] Leon Wieger, *op.cit.*, p. 356, *CEB*, Jan. 3, 1925, p. 10, and *Lectures*, IV, p. 38 (Dec. 1921).

[81] *Lectures*, III-A, p. 473 (Aug. 1936).

[82] Wang Chen-i, *op.cit.*, p. 2, and *CEB*, March 28, 1925, p. 183.

[83] Ch'ü Chih-sheng, *op.cit.*, p. 1. An article in the *CEB*, Sept. 26, 1925, p. 183, more or less confirms Ch'ü's observation.

[84] Chen Han-seng, *op.cit.*, p. 379. Another writer says that as late as the summer of 1924 millions of peasants in Shansi were living on the margin of starvation. See *NCH*, July 12, 1924, 48:5.

[85] *CEB*, July 11, 1925, p. 23, and Nov. 14, 1925, p. 277.

[86] According to the *CEB*, Sept. 6, 1924, pp. 5-7, and July 11, 1925, p. 23, the average yearly income of a poor peasant living in Shansi was CH$34 and his annual expenses almost CH$50.

[87] *NCH*, Feb. 23, 1924, 279:3, June 28, 1924, 487:5, and July 12, 1924, 46:5, and *CEB*, March 14, 1925, p. 5, July 25, 1925, p. 54, and Oct. 10, 1925, p. 212.

failed to develop the resources of his domain enough to raise appreciably the living standards of most of his subjects.[88]

Yen must bear much of the blame for the failure of his own policies with respect to agriculture. Too often his projects existed largely on paper or were formulated without taking into consideration the planning and technique necessary to implement them. For example, most farmers could not afford to rent well-digging machinery from the Bureau of Water Control and were compelled to employ methods so primitive that they rarely found water and if successful had no way of bringing it to the surface or of keeping it from becoming contaminated with mud from the sides of the well; small wonder that many of them gave up in disgust after digging a few shallow holes.[89] Yen's efforts to use Shansi's rivers for irrigation were equally haphazard and nearly as fruitless. Instead of attempting to control the turbulent waters of the Fen River by constructing masonry dams equipped with check gates, he relied on a system of old-fashioned earthen dams which because they lacked check gates had to be destroyed each year and then rebuilt for use the following year.[90] Inasmuch as his dikes too were made largely of earth, they gave way quickly under the pressure of the water, leaving the river to wander at will across the floor of its valley, frequently taking hundreds of lives and causing considerable property damage.[91] Yen demonstrated so little interest in dam building that none of his new motor roads came within forty miles of the best location for a dam on the river Fen. A foreign authority on water control who visited Shansi after 1930 found that the situation with respect to rivers in other parts of the province was still worse and criticized the provincial government for neglecting even to gather the hydraulic data necessary to initiate a serious program of water conservation.[92]

According to another foreigner, Yen was unable to secure the services of experienced personnel from outside Shansi

[88] *Williamson*, p. 21, and "Lü," "Shan-hsi shu-cheng t'an," *HTPL*, Sept. 11, 1926, p. 10.
[89] *CEB*, April 4, 1925, p. 194, and *Lectures*, IV, p. 39 (Dec. 1921).
[90] Oliver J. Todd, *op.cit.*, pp. 539-550.
[91] See *ibid.*, p. 158, and *NCH*, Aug. 18, 1923, 448:2-3, and Sept. 22, 822:3.
[92] Oliver J. Todd, *op.cit.*, pp. 159, 533, 549-551.

and did not make use of the trained men available.[93] Perhaps this is why he insisted on raising sheep and planting trees in regions where these activities were bound to result in failure, owing to lack of pasturage and poor soil.[94] Many of the sheep that died, moreover, were victims of rinderpest and other diseases which might have been overcome if Yen had not ignored the need for properly trained veterinarians.[95] He likewise spent much money trying to promote sericulture, an industry ill-suited to the cold and dry climate of Shansi,[96] but which he may have introduced simply because in the Confucian classics it is hailed repeatedly as an effective means of enriching the country. Finally, he seems to have been less interested in taking realistic steps to rehabilitate the economy of Shansi than in planting trees along the sides of the highways and carrying out other pretentious but comparatively valueless projects designed to attract the attention of visitors and leave them with the impression that he was a progressive ruler.

Yen's program also miscarried because local officials who were responsible for implementing it had not enough interest and insufficient training to undertake anything as demanding and technically complicated as economic modernization. Many of them placed saplings they received from the government in dry and rocky ground where the young trees quickly died; others aroused the wrath of the peasants by coercing them into irrigating newly planted trees with water they needed for their crops or ordered them to plant trees in soil normally used to grow foodstuffs.[97] Furthermore, inspection tours undertaken with the professed aim of examining dikes and irrigation projects generally were used as opportunities for enjoying a holiday in the countryside.[98] In addition to blaming local officials for the failure of his efforts to promote sericulture in Shansi,[99] Yen accused them of retaining for use as scrap paper the information bulletins periodically given to them by the agricultural experimentation stations for distribution to the peasants.[100]

[93] *Fairfield*, p. 13.
[94] *CEB*, May 2, 1925, p. 253, and Oct. 17, 1925, p. 222.
[95] *NCH*, March 29, 1924, 480:5.
[96] *Fairfield*, p. 16. [97] Wang Ch'ien, *op.cit.*, p. 7a.
[98] *NCH*, July 21, 1917, 140:2.
[99] *Lectures*, III-B, p. 3 (June 1918), and III-A, pp. 42, 80 (April, May 1918).
[100] *Lectures*, III-B, p. 3 (June 1918).

Since the bulk of these officials came from the landholding class it is possible that many of them deliberately sabotaged Yen's program, lest its unsettling effect on the peasantry upset the status quo in the countryside. Yen was forced to admit also that peasants brought to Taiyuan to learn more advanced methods of farming "become so sophisticated and fond of luxury that they are unwilling to return to their villages."[101]

In the final analysis, however, Yen was unable to vitalize agriculture in Shansi because he neglected to effect changes in the system of land ownership and other reforms that would encourage peasants to employ the new methods of farming he urged upon them. Most farmers were unwilling to adopt innovations as long as landlords and moneylenders would continue to appropriate the greater part of any increase in productivity that resulted. Together with the ignorance of the peasants, their conservative outlook, and their deep-seated hostility toward government, this explains why the bulk of the farming population resisted tenaciously Yen's efforts to implement his program. For example, the peasants refused to feed or otherwise care for the Merino sheep Yen forced upon them, not only because they regarded these animals as government property but also for fear that if they acquired more livestock their taxes would be raised.[102] Besides neglecting to water or actually destroying most of the trees they planted at Yen's behest,[103] they normally were unwilling to surrender land which the Bureau of Water Control needed in order to construct wells and irrigation ditches, generally on the grounds that they would not benefit from these innovations but sometimes because the bodies of their ancestors were buried in the land demanded from them.[104] Needless to say, the extra taxes that Yen imposed for the purpose of financing the work of the Bureau of Water Control, as well as other aspects of his program, aroused considerable opposition,[105] causing him to complain that his subjects were misconstruing the slogan "Strengthen the Nation by Enriching the Country" (*fu-kuo ch'iang-kuo*) to mean simply higher taxes and larger conscription quotas.[106] Similar-

101 *Lectures*, VII, p. 75 (1922).
102 *Lectures*, III-A, p. 473 (Aug. 1936), and III-B, p. 70 (Dec. 1919).
103 Leon Wieger, *op.cit.*, p. 356.
104 *Lectures*, III-B, p. 5 (June 1918).
105 *Lectures*, III-A, p. 240 (Aug. 1924).
106 *Lectures*, III-B, p. 67 (Aug. 1919).

ly, although the price of cotton rose steadily throughout the 1920's and Yen offered substantial rewards to persons who cultivated it, most of the peasants stubbornly continued to grow cereals until Yen began punishing severely farmers who ignored his orders.[107]

Even the schools that he founded with the aim of teaching children from peasant families how to practice modern farming failed to generate much enthusiasm among the peasants, who generally were not anxious to have their children become farmers, but instead wanted them to take up studies that would prepare them for a career in the bureaucracy.[108] Yen could have reassured the peasants and won their support for his program only by enacting land reforms and reducing their dependence on moneylenders through the extension of cheap credit, low-priced fertilizer, and crop insurance; however, before 1931 he was too conservative and too overawed by the gentry and the banking interests in Shansi to do more than talk vaguely about the desirability of land reform and the greater productivity that would result from it.[109]

Money and Banking

Because Yen did not succeed in increasing appreciably the output of Shansi's economy, specie continued to leave the province, causing the value of money in Shansi to fluctuate wildly. Yen professed to be alarmed by the popular unrest this aroused,[110] and in 1919 he created his own bank of issue, the Provincial Bank of Shansi (*Shan-hsi sheng-li yin-hang*), which quickly acquired a dominant position with respect to other banks in Shansi and attempted to prevent prices from rising any higher by seeking to withdraw from circulation all notes except its own.[111] Although nominally a privately operated enterprise, in reality the new bank was controlled by Yen, who contributed much of its capital, dictated its policies, and appointed its directors and managers, generally from among

[107] The Bureau of Village Administration of the Shansi Provincial Government, comp., *Shan-hsi liu-cheng san-shih hui-pien* (*A Compilation of Documents Relating to the Six Policies and Three Matters in Shansi*) (Taiyuan, 1929), II, p. 1b.

[108] *Fairfield*, p. 16. [109] Yen Hsi-shan, *op.cit.*, p. 21.

[110] *Lectures*, III-C, pp. 30-31 (Nov. 1918).

[111] *Industrial Gazetteer*, p. 118-i, and *Ching-chi* (*Economics*), Oct. 16, 1924, as quoted in *Archives*, Oct. 1924, p. 203.

his own friends and relatives.[112] It appears to have been a highly profitable venture for everyone concerned, and its currency remained comparatively stable throughout most of the 1920's,[113] perhaps because it deliberately located its branch offices in obscure and inaccessible places with a view to discouraging most of the population from exchanging their banknotes for specie.[114]

The activities of Yen's new bank did not solve the monetary problems afflicting Shansi, however. Money changers and privately owned banks still issued copper certificates and usually in amounts far in excess of their capital,[115] while at the same time a large quantity of debased and counterfeit coins entered Yen's domain from neighboring provinces, so that between 1913 and 1923 the value of copper coins and certificates in Shansi depreciated by 50 percent.[116] In 1923 this situation provoked a financial panic that brought ruin to hundreds of banks and money-changing shops. Yen responded by curtailing substantially the right of such establishments to issue copper certificates and outlawed speculation, which was another major cause of Shansi's chronic monetary instability. In the absence of a significant increase in agricultural or industrial productivity, however, currency and copper coins being used in the Model Province continued to decline in value. By the end of 1924, for example, they were worth 80 percent less than at the beginning of the year,[117] much to the discomfiture of the laboring class; the growing shortage of specie brought on soaring interest rates as well.[118] In the past interest rates rarely exceeded 10 percent in Shansi, but by 1925 they averaged 24 percent and rates of up to 100 percent were by no means uncommon.[119] Yen attempted to remedy this situation by establishing at least five farmer-worker banks (*nung-kung yin-hang*) for the purpose of extending

[112] Wang Chen-i, *op.cit.*, p. 5, and *Hua-pei jih-pao* (*North China Daily*), Dec. 15, 1930, as quoted in *Archives*, Dec. 1930, p. 199.
[113] Ch'ü Chih-sheng, *op.cit.*, p. 2, and E. Kann, "Copper Banknotes in China," *CEJ*, July 1929, p. 571.
[114] *NCH*, Oct. 30, 1926, 206:2.
[115] E. Kann, *op.cit.*, p. 571, and *NCH*, Nov. 10, 1923, 373:1, and Feb. 2, 1924, 165:5.
[116] *CEB*, April 25, 1925, p. 239.
[117] *Ibid.* [118] *CEB*, Nov. 14, 1925, p. 277.
[119] *CEB*, Oct. 25, 1924, p. 11, Jan. 31, 1925, p. 69, April 4, 1925, p. 199.

low-interest loans to farmers and laborers. These banks failed to win the confidence of the public, however, owing to irresponsible management, and there is evidence that interest rates continued to rise.[120] Yen denounced his own officials for encouraging the inflationary spiral by printing money for their personal use and accused them of conspiring with speculators bent on profiting from fluctuations in the value of the currency.[121] Yet he too was responsible for the monetary troubles that plagued his regime, since in his eagerness to raise more revenue he provoked additional inflation by minting his own copper coins and allowing them to circulate in competition with coins from other provinces.[122] No wonder he attacked the use of money and called for its replacement with some form of barter.

Summary and Conclusions

For a variety of reasons, during the latter half of the nineteenth century and the first decades of the twentieth Shansi's economy deteriorated rapidly. The result was a perennial trade deficit which by draining specie out of the province caused deflation and chronic monetary instability. Yen tried to remedy this situation by promoting the manufacture in Shansi of goods normally imported from foreign countries or other provinces; but his efforts in this direction were half-hearted and the industries he erected, too small, and inadequately capitalized to compete with factories outside Shansi. Lack of rail transportation in much of Shansi also militated against industrialization and prevented Yen from exploiting a potentially valuable source of foreign exchange in the form of Shansi's enormous reserves of coal. Farm output remained low, moreover, owing in part to the absence of vital modern water control projects but chiefly because in Shansi farms were minuscule in size and worked in a primitive fashion by ignorant and impoverished peasants whose exploitation at the hands of the rich discouraged them from adopting innovations which might have resulted in larger yields. All of this suggests that in Shansi economic growth depended on economic and social

[120] *Industrial Gazetteer*, p. 130-hsin, *CEB*, Oct. 24, 1925, p. 238, and Chao Shu-li, *op.cit.*, pp. 19-20.
[121] *CEB*, April 25, 1925, p. 239, and *Shansi Report*, pp. 308-309.
[122] Yen Hsi-shan, *op.cit.*, pp. 26-29.

changes so thoroughgoing that they could not come about as long as the men who ruled the province were committed to tradition and had a large stake in the existing order. Yen Hsi-shan's interest in economic modernization was genuine, but until the 1930's it was not profound enough to overcome the conservatism that kept him from initiating the sweeping changes necessary to pursue it effectively.