Table 4
Growth Rates of Value Added By Sector, 1952–1981
(Percent)

Period	Net domestic product	Agriculture	Industry	Services
1952–56	7.4	3.8	13.2	7.6
1956–61	6.3	3.9	8.0	6.9
1964–66	9.8	5.6	12.9	10.4
1966–71	10.8	1.1	16.8	10.5
1971–81	9.0	1.8	11.3	8.9

Source: Kuo, Shirley W., *The Taiwan Economy in Transition*, p. 245

throughout the year, and that development became an important source for expanded agricultural employment.

While our discussion has focused upon the export-led development that initiated a major manufacturing spurt in both the rural and urban areas, services also played a most important role in generating more employment and income. In table 4 we observe that the rate of growth of value added in services greatly exceeded that for agriculture, and was not far behind manufacturing.

Among service categories, finance, banking, insurance, and real estate led the way in generating increased value added.[8] This explosion of services along with the spurt in manufacturing helped to employ 3 million additional persons between 1961 and 1981, and to bring about full employment in 1971. The services sector alone absorbed 193,000 persons in 1961–66, 486,000 in 1966–71, and another 418,000 persons in 1971–76 to account for 51 percent, 47 percent, and 45 percent of the incremental employment growth for Taiwan's economy in each period.[9] Meanwhile, labor productivity rose progressively in the services sector over these periods.

Service establishments were typically small and medium-sized operations employing fewer than twenty and fifty persons, respectively. Therefore, we now have an important clue as to why supply responded so readily to match both rising foreign and domestic demand during the transformation period. Countless entrepreneurs came forward to create new establishments, and older ones merged with others to grow even larger. Even so, Taiwan's economy today is notable for its predominance of small and medium-sized firms. What made it possible for so much new entry into the marketplace? Every day, of course, business firms failed, but their ranks were filled by new enterprises. Taiwan's factor markets deserve special attention, for it was obviously the successful functioning of the factor markets that enabled this tremendous new growth of enterprises to take place.

Let us examine, then, the markets for financial capital and labor. By better understanding how these markets facilitated the increase in supply during the transformation, we will at last have come full circle in analyzing the growth mechanism that made Taiwan's transformation possible.

The Financial Capital Market. Since Taiwan reverted to Nationalist rule there have been three principal sectors in the financial capital market: the first consists of relatives and friends who privately advance financial capital to kinsmen in business; the second comprises private moneylenders who make loans, usually short-term, to businessmen; finally, there are formal credit institutions of national and private banks and other large-scale lending institutions that make loans to and discount notes for businesses. We do not know what proportion of the total credit supplied in any period originated from these three groups of lenders. But in the early 1950s the formal credit suppliers probably provided the smallest share of financial capital to all businesses in Taiwan.

Because the statistical evidence does not cover the first and second financial sectors, we must focus upon the formal credit market that became increasingly important over the period. There is little doubt that this source of credit supply has rapidly increased over the past thirty-five years, especially during the transformation phase. We can observe from the selected data presented in table 5 that the rate of growth for total loans grew rapidly over the period, particularly after the mid-1960s.

Moreover, if we separate these loans and discounts by their length of maturity we note that formal credit institutions increasingly made long-term loans. That development began to take place after 1959 and continued to the present. By 1981 nearly one-third of all bank loans were for more than three years maturity.

Table 5
Loans and Discounts of All Banks By Their Maturity
(Percent)

Period	Total loans (NT$ million)	Annual Rate of growth	Up to 1 year maturity	1–3 years maturity	Over 3 years maturity
11/59	3,846	—	76	13	11
12/60	9,326	142.28	73	17	10
12/65	26,096	22.87	72	12	16
11/70	70,420	21.98	73	12	15
11/75	306,991	34.49	68	20	12
12/78	470,186	15.23	67	9	14
12/81	760,369	17.45	59	11	30

Source: Bank of Taiwan, *T'ai-wan chin-jung t'ung-chi yueh-pao* (Taiwan Financial Statistics Monthly): Nov. 1955, p. 36; Dec. 1960, p. 38; Dec. 1965, p. 44; Dec. 1970, p. 46; Dec. 1975, p. 46; June 1984, p. 80.

Although we cannot conclude for certain from this information that formal credit suppliers truly dominate the financial capital market in the 1980s, there is every reason to suspect that during the transformation phase formal credit institutions supplied an ever larger share of Taiwan's capital, and these modern institutions are important determinants of the amount and cost of credit for businesses.

It is clear that formal credit institutions have expanded the proportion of their total loans to the private sector compared to the government and public enterprises. In 1953 the total loans and discounts supplied by all banks amounted to nearly NT$2 billion, with 25 and 5 percent, respectively, being furnished to business firms and individuals, 65 percent to public enterprises and 5 percent to government.[10] By 1955 loans had risen to NT$3.6 billion, with 38 percent and 5 percent, respectively, going to private enterprise and individuals.[11] Financial conditions quickly changed thereafter: bank loans skyrocketed to NT$26 billion, with 59 and 12 percent, respectively, being loaned to private enterprise and individuals.[12] By 1975 total bank loans had climbed to over NT$300 billion, with 68 percent and 10 percent, respectively, going to private firms and individuals.[13] By 1981 bank loans had risen to NT$760 billion, with 50 percent and 22 percent, respectively,

being loaned to private enterprise and individuals.[14] Beginning with the transformation phase, then, bank loans increasingly moved to the private enterprise sector, and by the end of the 1970s around three-quarters of all bank loans and discounts flowed to that sector.

Businesses always drew upon these three sources of credit, but obtaining loans from the banks proved very difficult for those without collateral. Having little choice, borrowers had to negotiate credit from the higher premium-charging private moneylenders. As economic growth promoted a larger pool of loanable funds from savings, all three sources of credit cited above provided an increasing supply of financial capital to businessmen to establish new firms and obtain their working capital. Costs for that credit naturally varied, being highest in the private moneylending sector of the credit market. In the twenty-five years between 1956 and 1981, the formal credit market changed greatly.

In 1981, there were twenty-four modern banks with 714 branches throughout the island, along with trust and investment companies, credit cooperatives, credit departments for the farmer and fishery associations, bill finance companies, security finance companies, and insurance companies. Of the total number of banks operating, only three were privately owned. All commercial banks are now subject to government regulations pertaining to the assets they can produce, their credit and reserve ratio, and their liquidity ratio. Bank funds originate from different deposits, especially customer demand deposits. Banks then use their funds to acquire income-earning assets like loans, overdrafts, discount bills, government bonds, treasury bills, and corporate debt instruments. According to official data for December 1981, banks accounted for more than 70 percent of the assets, deposits, loans, and investments held by financial institutions in Taiwan.

As early as spring 1950 the Bank of Taiwan had begun to raise interest rates on its deposits. By attracting loanable funds for demand and time deposits, the Bank of Taiwan hoped to augment savings and limit spending, thus breaking the back of the postwar inflation. This policy proved to be very successful, and bank deposits ballooned during the next three years, while at the same time the rate of price increase greatly declined. But complaints then began to arise that credit costs were too high to undertake new investment and expansion. The government then began to lower its loan rates but continued to charge higher monthly interest rates for businesses and individuals than for public enterprises.

Interest rates charged by private moneylenders remained nearly double those of monthly loan rates on unsecured loans offered by banks to businesses.[15] Between 1955 and 1965 bank interest rates slowly drifted downward as did private money lending rates, and then they leveled off until the oil crisis of 1973, when all rates again moved upward.[16] But by the mid-1970s interest rates again fell, only to rise in 1979–80 because of the worldwide inflation.

Lowering bank loan rates alone could not have financed the spurt in manufacturing exports during the mid-1960s. Other sources of credit also had become available. In July 1957 the Bank of Taiwan began supplying low-cost export loans to manufacturers on the provision that they would undertake the development of markets abroad. These short-term loans were offered at 6 percent per annum for those repayable in foreign currencies and at 11.88 percent per year for loans repayable in local currency. These rates were very much lower than the 19.8 percent for secured and 22.32 percent for unsecured loans then available to private enterprises.[17] Loans for manufacturers of exports rapidly expanded in the late 1960s and 1970s.

Financial capital markets in Taiwan, then, not only greatly increased the supply of credit for private enterprise, but these markets also allocated credit to those branches of industry and services that were rapidly expanding and in great need of credit. Rapid economic growth, of course, generated even more savings, so that more firms were able to reinvest earnings and supplement their financial requirements by short-term borrowing from the banks or private moneylenders.

The Labor Market. Taiwan's labor market consists of complex informal markets in which suppliers of different labor and occupational skills sell their services to bidders for those various skills. These markets are highly competitive and open. Organized labor never has been an intervening element in the marketplace. Entry into labor markets always has been easy, and informal personal

networks provided information of job and occupational opportunities for job seekers.

Demand for labor for fishing, forestry, and agriculture came principally from family farms that hired labor at planting and harvesting periods. These brief intervals of intense labor demand became more frequent as multiple cropping spread. The proliferation of small and medium-sized manufacturing firms and services establishments also greatly increased the demand for more semi- and fully skilled labor in the 1960s and after. Labor markets readily allocated more labor to meet that demand. Furthermore, those markets seemed to have generated the correct signals about job opportunities so that specific labor scarcities never worsened for any long period. As soon as potential workers learned of these opportunities, they acquired the vocational skills and advanced professional degrees to fill those openings.

In the early 1950s the highly protected manufacturing sector required more semi-skilled workers, and because those shortages still persisted the real monthly wage rate grew. But in the late 1950s the slowdown in manufacturing and the absence of such shortages greatly reduced the rate of real wage expansion. Then in the 1960s the great acceleration of manufacturing increased labor demand. The growth rate for real monthly wages spurted, only to slow down again in the early 1970s as the world oil crisis hit Taiwan severely, rekindling inflation and forcing some cutbacks in industrial activity. The combination of these two factors raised the consumer price index and slowed labor demand in different branches of manufacturing. But in the late 1970s real monthly wages again jumped because the labor market became extremely tight: unemployment dropped to an all-time low and manufacturing demand for labor continued expanding. We note that labor productivity more than kept pace with the expansion of real wages except in the late 1970s when the economy began to experience some price inflation.

Participation in the workforce was roughly as high in 1975 as in 1953, although the trend had been downward until the mid-1960s and then moved upward. Meanwhile the total labor force had nearly doubled.[18] The reason for this high participation rate during the transformation was the rapid entry of females into the labor force at the same time males remained in school for longer periods and entered the labor force at an older age than was the case in the very early 1950s, when many more young teens were working.

Just as participation in the workforce remained high, the quality of manpower greatly improved over these three decades, especially during the transformation, when many more people entered vocational schools as well as junior and senior high school. Between 1952–53 and 1964–65 the total number of persons passing through vocational schools rose from 40,092 to 106,811, and that number shot up more than threefold to 348,169 in 1980–81.[19] Primary school lasting six years had been declared mandatory for all children as early as 1952–53, but only 21,046 and 71,900 students, respectively, were in senior and junior high schools in those years. But their numbers had risen to 100,611 and 381,969, respectively, in 1964–65 and then skyrocketed to nearly 180,800 and over 1 million, respectively, in 1980–81.[20] Even more impressive was the fact that in 1980–81 about 96 percent of all graduates from primary school were enrolled in junior high school and roughly two-thirds of all junior high school students were able to enter high school. The tremendous expansion of the educational system naturally contributed to upgrading the skills of workers who could virtually all read and write and even possessed considerable quantitative skills.

If financial capital and labor markets worked smoothly and effectively to allocate scarce resources to their highest value-added uses, what of the money supply, prices, and variability of economic activity during the transformation? If Taiwan's economic transformation took place with minimal economic fluctuation and inflation, then domestic factor and product markets were not only well-integrated into the world market but efficiently responded to changes in world market demand without producing high economic costs at home.

Variations in Economic Activity, Prices, and Money Supply. As the Republic of China became more enmeshed in the international economy after 1965, the island's economy began to experience greater economic fluctuations in prices, money supply, and the output of goods and services. External shocks to the island economy occurred, due to fluctuating petroleum prices and

cyclical economic activity in Japan and the United States. How serious were these developments? Let us examine foreign trade first.

If we examine the balance of payments for the sixteen years 1965–1981, we note that exports grew 497 percent or at a growth rate of 11.8 percent per year, and imports by 395 percent or a growth rate of 10.5 percent, to net the economy a whopping surplus in the trade account of over US$8 billion. But for services there accrued an overall deficit of over US$5.8 billion because of expanding payments for freight, insurance, other transport services, tourism, and payments of investment earning to foreign investors.

For the capital account around US$5.7 billion flowed into the Republic of China between 1965 and 1981, largely in long-term investment. Except for the years 1965, 1968, 1974–75, and 1980, capital inflows more than offset deficits in the current account throughout the transformation period. The general picture, then, was that on both current and capital accounts large surpluses accrued.

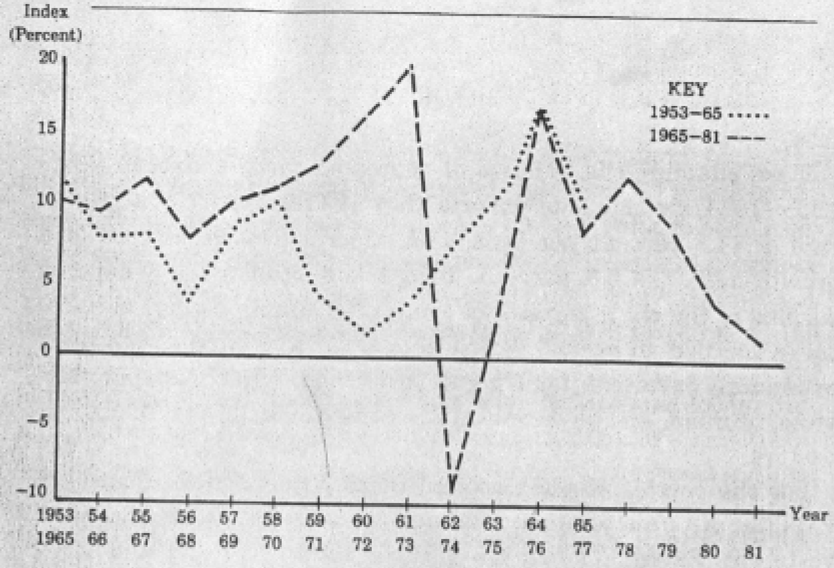
But meanwhile trade dependency, measured as the sum of exports plus imports divided by gross domestic product, had registered over 100 percent in 1979 and remained over 100 percent except in 1982.[21] In 1976 for each U.S. dollar's worth of fixed capital formation, US$0.4283 was spent on imported goods, and for each U.S. dollar's worth of exports, there were US$0.3407 worth of imports.[22] In order to reduce the high import-content ratio, it will be necessary to develop a more advanced machinery industry because machinery still accounts for about half of all fixed capital formation.

Because foreign trade has now become so important as a motive force for Taiwan's economic growth, any slowing or sudden decline in export earnings would cause a contraction of the economy. But during the transformation period this difficulty never occurred, even though oil prices jumped in 1973 and 1979. Perhaps because markets worked so well to facilitate a vigorous supply response to changing demand and international trade conditions, and because public policies also worked well to help reallocate resources, the adverse effects of oil price increases in the 1970s merely caused a severe short-term economic downturn without any serious reces-

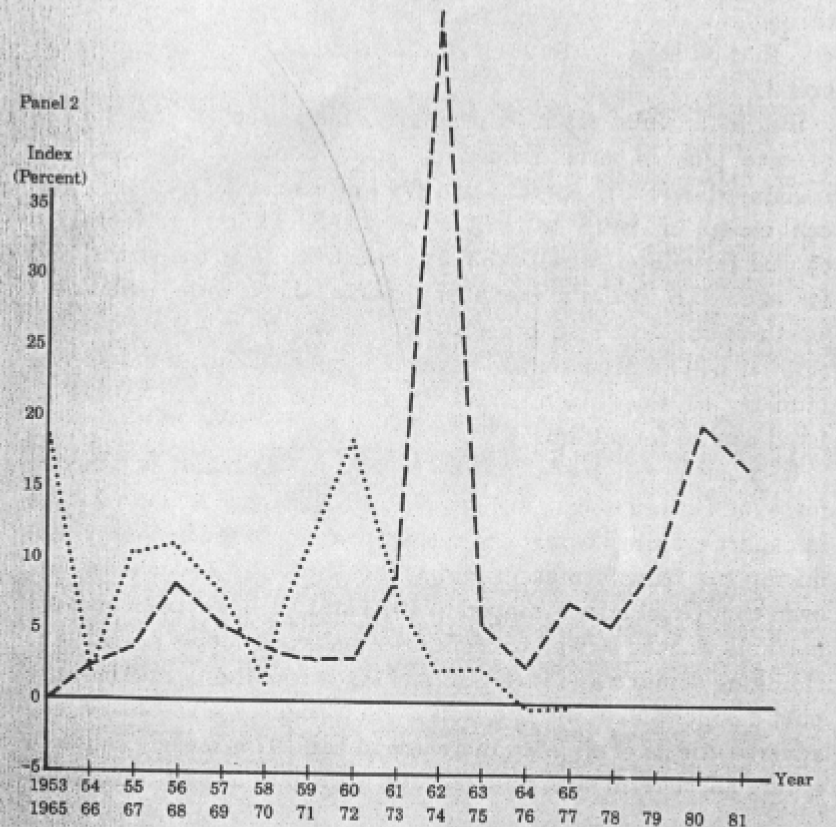
Figure 7

Panel 1

Change In GDP Index



Change in CPI Index

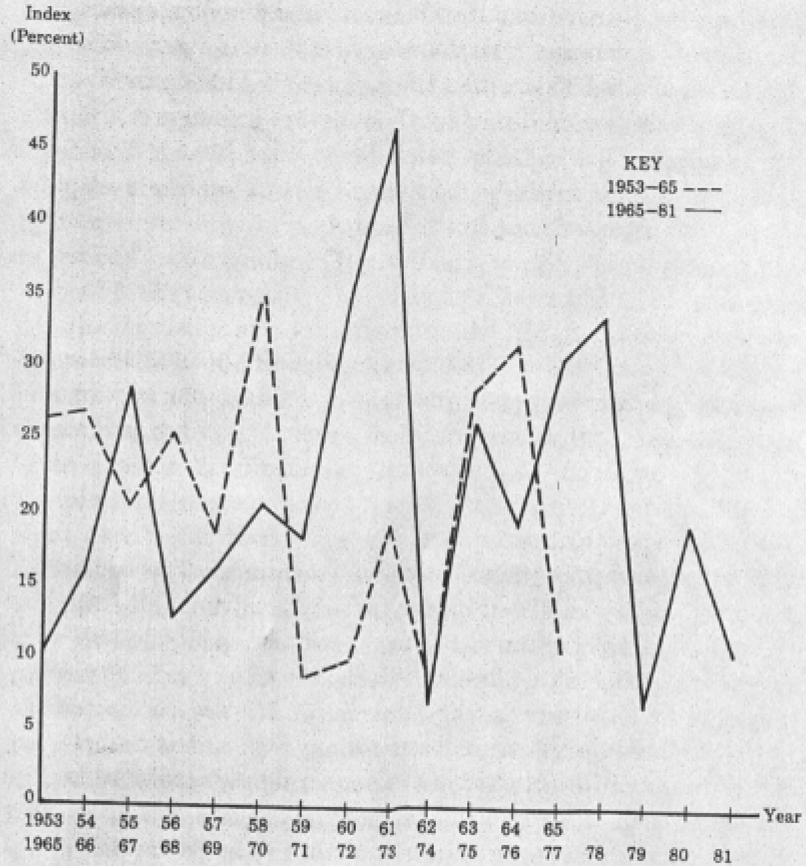


(Figure continued on next page)

Figure 7 (Continued)

Panel 3

Change In Money Supply



sion. A survey of economic activity during the transformation phase certainly does show that a rapid transmission of international market fluctuations into Taiwan's economy took place, but that overall economic variations were not really any different from those of the 1950s, when the economy had been more insulated from international market fluctuations (see figure 7, panels 1, 2, and 3; the GDP index in panel 1 is in 1952 prices). This finding is rather astonishing because domestic markets rapidly transmitted international fluctuations.

The exceptional event was the quadrupling of oil prices in November 1973 and another spurt in oil prices in 1979. The consumer price index (CPI), which averaged an increase of only 8.5 percent between 1965 and 1981, surged upward in 1973 and again in 1979. Because the government-owned China Petroleum and Taiwan Power companies absorbed most of the high petroleum prices, it was higher-priced imports that accounted for roughly half of the price change in 1973–84.[23] In other words, both higher-priced imports and higher-cost energy compelled firms to raise their prices and pass their costs on to consumers. The variations in money supply, CPI, and output certainly move together.

Yet the annual growth rate change for money supply was very large during the 1970s. Export surpluses and the sale of foreign exchange by exporters to the Central Bank have accounted for much of these large annual surges in the money supply. In 1972–73 and 1977–78 changes in net foreign assets were highly correlated with an increase in the money supply—as much as 30 percent.[24] The high trade surpluses of those four years brought a vast pool of additional money to the Taiwan economy. Some of these funds were spent domestically, but other funds flowed outward as capital to foreign countries. These large trade surpluses had naturally originated from Taiwan's highly competitive export prices. During the 1970s foreign prices rose more rapidly than domestic prices, and therefore exporters would expand their sales more rapidly than would otherwise have been the case. Taiwan's increasing trade dependency made it more vulnerable to economic fluctuations. Why? Because sudden changes in the economic conditions of Taiwan's major trading partners (Japan and the United States) produced unpredictable changes that led to large fluctuations in the money supply.

The Economic Growth Mechanism Reviewed. An expanding international market during the 1960s provided the initial demand impetus for Taiwan to accelerate its economic growth. More producers began marketing for export; resources increasingly shifted to new manufacturing and services. The financial capital and labor markets effectively facilitated the re-deployment of resources. Small and medium-sized firms led the way, locating in both the countryside and cities, hiring more workers—especially women—and buying new machines, equipment, and tools. An enormous construction boom also occurred.

Rising employment and new capital investment generated greater spending and income at home. Taiwan's labor-intensive commodities were inexpensive and improving in quality; they found rapid acceptance among foreign buyers, and so export proceeds rose rapidly. From this new income source higher savings could be realized. To be sure, the favorable financial climate on the island attracted a large flow of foreign investment. Between 1965 and 1981 about US$1.9 billion of foreign capital entered Taiwan, compared to only around US$91 million between 1954 and 1964.[25] As of December 31, 1982, the Republic of China had only US$1.8 billion worth of foreign loans outstanding.[26] The Republic of China had financed its growth during the transformation phase without relying heavily upon foreign credits. Economic growth had been self-sustaining and virtually self-financed.

The real, if simple, explanation for this achievement lies in the rate of national savings discussed earlier. Comparison with the historical experience of South Korea can be used to support this assertion. At the end of 1984, Korea's external debt totaled the equivalent of US$43 billion, 53 percent of its GNP. By contrast, Taiwan's total debt was just under US$12 billion, or 21 percent of GNP. Between 1960 and 1983, Taiwan managed to save, in gross terms, nearly 25 percent of GNP, while the corresponding figure for South Korea was 17 percent.[27]

As resource re-deployment continued, the capital-labor ratio began to rise, more rapidly in urban firms than in those located in the countryside.[28] The bulk of output produced by these firms went into exports as industrial consumer goods, such as apparel and plywood, for the markets of the high-income developed countries. The growth of intermediate and capital goods exports from the more capital-intensive firms, such as petroleum and chemical products, went to the markets of developing countries, mostly located in the Pacific Basin region.[29] These trade trends show that Taiwan adhered to its comparative advantage by producing the low-cost, high-quality goods that its most abundant resource, labor, favored. Moreover, the small and medium-sized firms that specialized along these lines could do so by combining an easily learned and adaptable technology with abundant low-cost and highly skilled labor. The step-by-step progression in manufacturing that had marked the 1960s continued throughout the 1970s. More firms began switching to electronics assembly, especially for export to developed countries, and producing machine tools and equipment.

The rate of export growth greatly exceeded the growth rate of money wages, therefore leaving an ever larger surplus for exporting firms to finance their expansion of plant and facilities. An expanding financial capital market, more formal and more fine-tuned to finance manufacturing for exports, also proved helpful. Highly competitive product and factor markets permitted rapid readjustments of supply and demand. Most notably, remarkable price stability characterized the 1963–72 period: wholesale prices rose at only 1.8 percent per year. Even between 1973 and 1982, when wholesale prices rose at 10.3 percent per year, Taiwan's inflation remained well below that of the developed countries.

Our story is still incomplete without mentioning those specific government policies that modulated the economic growth mechanism just discussed. Furthermore, we also must say something about how private enterprise and public firms responded to these policies and why they did so in the manner they did.

The State and the Private Sector

A strong tradition of state interference in the management of economic activity has always existed in Chinese history. This tradition certainly had not changed. Government policies significantly shaped the pattern of economic development on Taiwan. First, the state insisted upon retaining control over most critical industrial production and services like energy and water in the early 1950s. By 1960 little had changed and still about 48 percent of that out-

put value originated from publicly owned and managed enterprises. Between 1965 and 1981, however, the share of output value for privately owned enterprises rose much more rapidly than public-sector enterprises. By 1981 about four-fifths of all such production originated from the private sector. This great shift attests to the expansion and vitality of the private sector, but it also represents the willingness of the ruling elite to permit the state to recede from the economy instead of extending greater control. Looking at this striking shift in another way, we can observe that the annual growth rate of private industrial production greatly exceeded that of publicly managed firms. This trend, in particular, materialized during the early years of the transformation phase.

But if state control over property rights and its share of industrial production rapidly declined, government expenditures as a percentage of GNP rose as did the tax burden. The reasons for this are complex and have little to do with greater state efforts to regulate economic activity. Taiwan's leadership became especially concerned about national security in the 1970s and made vigorous efforts to upgrade the defense establishment. At the same time the government spent more for expanding the country's infrastructure (transport, harbors, etc.) and increasing services (education, public health, public administration, etc.). Greater government promotion of these activities necessitated a higher tax burden, and indeed that burden did begin to rise during the 1970s. Between 1961 and 1981 government spending as a proportion of GNP rose from 21.4 to 27.5 percent and the tax and monopoly revenues as a share of GNP for the same period rose from 14.5 to 20.0 percent. Between 1965 and 1981 the government always realized a budget surplus. Even when state spending exceeded tax revenues (as in 1981) income from monopolies, public enterprises and utilities, and loans for construction proved sufficient to prevent a deficit.[30]

Although the level of government spending has risen and society now pays a higher tax burden, prudent fiscal policy continued through all decades. Between 1952 and 1963 the government ran a budget deficit in only seven years, but it did not rely upon long-term deficit financing because those annual deficits were not large and were made up by surpluses generated in subsequent years.[31] From 1964 to 1981, however, revenues exceeded expenditures and surpluses accumulated in all years. Only in 1982 did the government run a modest NT$3 billion deficit because the worldwide recession had engulfed Taiwan and tax revenues did not rise as rapidly as expenditures. Therefore, during the transformation years government policies to promote economic growth were entirely financed through balanced budgets. Furthermore, the increase in government spending and taxation remained modest compared with other economies during their transformation phase.

Economic Doctrine and Policies. Sun Yat-sen's ideas have served as a beacon for policymakers.[32] One principle, that there must be planning within the context of a free economy, is undoubtedly the source from which so many specific policy recommendations flow.[33] The state must nurture the private sector, but it should also allow free markets to function and permit the existence of private property. Such a mixture of concerns required the achievement of four objectives.

First, most resources should be privately owned and managed except for those resources and activities which government deems necessary to manage on behalf of society: defense, communications, social services, etc. Second, policies should produce sustained, high economic growth rates but under conditions of stability. Third, new wealth should not be created at the expense of others, but all groups should be able to share the flow of benefits from development. Finally, economic growth should not be associated with distortions that lead to scarcities of resources or goods and services.

In order to realize these objectives, various kinds of policies must be initiated, refined, and abandoned as conditions dictate. If we review the policies that played such a critical role in launching Taiwan's export-led growth phase, we can refer to three broad categories: policies to restructure economic incentives; policies to induce more competition, channel the flow of economic activity in new ways, and facilitate the role of markets; and policies to achieve equilibrium within the economic system. The following examples relate to the policies that contributed so impressively to promoting Taiwan's transformation.

Probably the most important initial policy for restructuring incentives was the land reform that began in January 1949 and continued until 1955. This reform entailed reducing tenant rents, selling public lands to farmers and tenants, and limiting landholdings to roughly 1.7 acres of paddy and 7.2 acres of dry land, while redistributing all land held above that size to other rural households.[34] The government compensated landowners with bonds that could be cashed and their proceeds used to develop urban industry and services. The new farming class received government loans to purchase their land and could repay these loans over a fifteen-year period at low interest rates. The land reform proved very successful in directing rural landlords into urban businesses and giving tenants and small farmers the opportunity to purchase property of their own. Both groups had an enormous incentive to use their financial and physical resources efficiently because of the new opportunities now available to them. Land reform greatly improved the distribution of income, and it helped to promote better management of the land and to raise productivity.

The reform of the foreign exchange system that commenced in 1958 also restructured economic incentives in important ways. In spite of an initially mixed public reception, the reform was eventually implemented, largely due to the foresight and perseverance of K.Y. Yin, the leading technocrat of the 1950s. Yin argued that the exchange rate that over-valued the local currency had lowered the cost of imported goods tremendously. Because imports were so restricted and scarce in supply, there was a large discrepancy between the domestic market price of imported goods and their actual cost to importers. Windfall profits were earned by those lucky enough to obtain their quota of foreign exchange, but entrepreneurs engaged in production and dependent upon imported raw materials or intermediate goods were penalized.

The system that flourished from 1949 to 1958 set a favorable exchange rate for importing goods essential for economic development, applied a general exchange rate to bulk exports of the government and highly profitable private exports, and applied a still more favorable exchange rate to other exports. This control system was both "supply restrictive" and "cost restrictive" respectively for exporters and importers, so that the fixed multiple exchange rates favored different parties, particularly the government. The system worked reasonably well in the early 1950s to reduce imports, transfer excessive trade profits to the government, promote the growth of government-protected industries, and stabilize a minimum level of living for the people. Managing this system only required that government periodically adjust the dual rates as internal prices changed.

And so the system brought economic profits to importers, revenue gains for the government, and profits for the protected industries. But by 1955–56 the distortive effects had become more glaring. After a hard-fought battle between reformers and those who favored the status quo, a three-stage reform began on April 12, 1958, and was completed on August 10, 1959, when the basic exchange rate was merged with the exchange certificate rate to form a new basic exchange rate of NT$36.38 per US$. Taiwan at long last had moved to a single exchange-rate system.

By moving to the single exchange rate, the government was effectively devaluing the NT$ and making imports more expensive. Higher-priced imports might have generated some price inflation. Other events also threatened to make price inflation worse: an offshore gun duel with Communist China in August 1958 and a giant typhoon that destroyed much of the 1959 crop endangered the economic home front. In order to prevent current spending from pulling up prices, the government raised surtaxes, and the monetary authorities quickly elevated interest rates. Indebtedness of firms jumped in 1960, and many business failures occurred. For example, the Tang Eng Iron Works already had incurred loans of NT$245 million that it could not repay, and went under.[35] But demand deposits shot up from NT$925 million in 1960 to NT$2,800 million in 1961 due to higher interest rates paid on savings. In 1961–62 banks began making more loans and cutting their interest rates. Inflation had been defeated, and economic activity resumed.

At the same time, the government began expanding the list of allowed imports and reducing tariffs. Between 1957 and 1970 a total of 1,471 items that had been on the restricted import list were removed.[36] The government also helped exporters by remitting their taxes and conferring upon them special import duty reductions for commodities they vitally needed to manufacture for exports. Between 1963 and 1968 a total of NT$15.8 billion of taxes

and duties was remitted to Taiwan exporters.[37] Banks also began offering more loans for promoting exports.

These government policies just outlined for the years 1958 through 1961 completed the reform of the foreign trade control system that had enveloped Taiwan in the previous ten years. The economy had begun to experience a very different kind of takeoff: export-led growth was now a reality. In order to keep the economy on the new course, the state began to introduce incentives to promote greater domestic saving and investment and to attract more foreign investment.

But why did this development only begin to take place at this time? Perhaps a major reason was the phasing out of U.S. economic aid in 1965 just as the new export-led development pattern was also beginning to take form. Between 1951 and 1968 the Republic of China had received nearly US$1.5 billion in aid from the United States. That program officially ended in 1965 even though materials already in the pipeline continued to arrive as late as 1968. About 25 percent of that aid had been used in the Republic of China for special projects to produce more electrical power, improve transport, enhance farm production, and modernize the military. The remainder of that aid went to import capital, raw materials, and consumer goods that the country could not afford to import because it lacked foreign exchange. Thus, U.S. economic aid financed about 95 percent of the trade deficit on current account of balance of payments. These imported goods greatly helped to stabilize domestic prices in the 1950s. Therefore, as U.S. economic aid was to end in 1965, the government recognized the need to increase savings and attract more foreign investment in order to develop export industries and finance more capital formation.

As already pointed out above (figure 2), savings rapidly increased during the transformation period. How did policymakers encourage a high rate of savings by households, private enterprises, and public enterprises? One strategy already used in the early 1950s and repeated later was to raise interest rates for time deposits in banks. The average rate of return for one-year time deposits (deflated for price change) ranged from 1.18 to 10.15 percent between 1965 and 1981, except for the years 1974, 1980, and 1981.[38]