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Taiwan at the Crossroads

Taiwan's sustained rapid economic growth over the past three decades has been hailed over the world as a shining example of the "East Asian economic miracle." This remarkable economic performance has lifted its populace from general poverty in the early 1950s to a level of prosperity and wealth that is now the envy of the developing world. But Taiwan's growth engine seems to be "losing steam." Reduced output growth, lower domestic investment, high labor and land costs, and a rising tide of industries moving abroad have raised concerns about its continued competitiveness in the world economy.

This *Letter* argues that Taiwan's current economic problems are normal symptoms of an economy entering the stage of a "mature industrial economy," with structural changes that reflect Taiwan's changing comparative advantage in the world economy. Misinterpretation of the symptoms has led to market pessimism and slowdowns in private investment. In addition, past rapid growth has left infrastructure investment behind, resulting in widespread production bottlenecks and environment deterioration, thus further dampening private investment incentives. The appropriate government policy response to these problems must aim at facilitating the transition and strengthening the economy's industrial base for continued growth. The government's current large investments in transportation, science and technology development, and environmental improvement are consistent with this diagnosis. In addition, the government also has significantly lowered barriers to imports and liberalized its financial markets. Successful implementation of these measures will help ensure Taiwan's sustained growth and prosperity as a maturing industrial economy.

Losing steam?

Between 1952 and 1992, Taiwan's per capita income rose from less than US$200 to slightly over $10,000, resulting in dramatic increases in living standards: the proportion of households having electricity rose from 33 percent to 99.7 percent, those with tap water rose from 29 percent to 88 percent, and the population's average life expectancy increased from 58 years to 74 years. While justifiably proud of its record, in recent years Taiwan has become increasingly concerned about the future of its economy. The concern stems from several considerations.

First, the annual average output growth rate declined from 10 percent in the 1970s to 8 percent in the 1980s and to 6 percent in the early 1990s. Industrial output growth fell steadily from an average of 16 percent a year in the 1960s to 13 percent in the 1970s, to 8 percent in the first seven years of the 1980s, and to only 3.5 percent in the last five years. Equally disturbing is the decline in the domestic fixed-investment rate from an average of 28 percent a year in 1974–82 to an average of 22 percent in the last five years. Private domestic investment in particular, which boomed in the second half of the 1980s, actually fell from 1989 to 1991. These figures raise fears that the economy is "losing steam."

Second, currency appreciation and rising labor and land costs may have undercut Taiwan's trade competitiveness. Between 1985 and 1989, the value of the Taiwanese currency appreciated 52 percent against the U.S. dollar. Although it was not as large as the 100 percent appreciation of the Japanese yen from 1984 to 1988, Taiwan's economy is likely to have sustained a proportionately larger shock than Japan did, in view of the fact that Taiwan's exports account for more than 40 percent of its total output, compared to only about 10 percent in Japan. Since 1985, manufacturing wages in Taiwan have increased 114 percent, compared to only a 20 percent rise in the U.S., its largest export market accounting for one-third of its total exports. It is well known,

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although systematic data are lacking, that urban and industrial land prices in Taiwan have skyrocketed since 1985, making it one of the world's most expensive places to build a factory or a home.

Third, the high costs of production in Taiwan have accelerated the exodus of its core manufacturing industries—namely, textiles, shoes, plastics, and light machinery. Starting in 1987, soon after Taiwan's currency appreciation, manufacturers began moving plants and equipment to Southeast Asian countries, especially Malaysia, where land was cheap and wages were low. By 1990, manufacturers in Taiwan "discovered" China, with even lower wages and land prices. An official estimate stated in early 1993 that between 6,000 and 7,000 firms in Taiwan had invested in Mainland China, although less than one-half (2,700) had registered with the Taiwan government; in terms of value, the registered investments amounted to US$2 billion, but the same estimate put the actual total at five to ten times that amount. Even more disconcerting, apparently some of the more technology-intensive industries—such as electronics, plastics, and precision machinery— have begun moving to China. As the "China fever" spreads through the economy, there are growing concerns about the "hollowing out" of the Taiwanese economy and rising competition from China in world trade.

Growing into economic maturity

These symptoms of Taiwan's "losing steam" are signs of a maturing economy. In the early stage of economic development, output growth is high to the extent that resources can be shifted from less efficient to more efficient uses and world technology can be absorbed relatively cheaply. Eventually, as possibilities of resource shifts dwindle and the economy has absorbed most of the readily available, low-cost world technology, output growth decelerates and approaches a rate determined by its factor-supply growth and its own technology innovation. During this process, enhanced factor productivity leads to currency appreciation, and increased labor and land scarcity lead to higher wages and land costs.

The exodus of industries also is part of Taiwan's economic maturing. What is "hollowing out" is not the Taiwanese economy itself, but the traditional industries that are no longer internationally competitive because of high wages and land costs. In their place, what is "filling in" are more capital and technology-intensive industries that can afford to pay the high wages and high land costs and still compete in world trade. Even the recent exodus of "high-tech" industries may be more apparent than real. "High-tech" is relative, and industrial classification is seldom fine enough to reveal the different gradations of technological intensity of an industry's subgroups. On the basis of mature industrial economies' experiences, one can infer that Taiwan has been losing firms on the labor-intensive and "low-tech" end of these industries, leaving the capital-intensive and truly "high-tech" segments at home.

Indirect empirical support for this view is not hard to find. If significant hollowing out has occurred without adequate filling in, then the unemployment rate would have risen since 1985 when all the allegedly adverse factors—currency appreciation, rising wages and land costs, exodus of industries—began. On the contrary, however, the unemployment rate in Taiwan has averaged 1.6 percent since 1987 (not 1985, in order to allow for adjustment lags), which is about the same as the average of 1.7 percent in the 1970s and significantly lower than the average of 2.5 percent from 1981 to 1986. Indeed, the problem in Taiwan today is not that high wages are driving out jobs, but that there is a labor shortage, especially at the lower end of the wage scale, which has attracted a large number of immigrant workers—just as in mature industrial economies.

Although Taiwan's employment structure has undergone significant shifts since 1985 away from manufacturing towards services (manufacturing's share in total employment in 1992 was 30 percent, down from 33 percent in 1985), it would be misleading to cite this shift as evidence of industrial "hollowing out." The shifts actually started about 1980, when industrial employment, especially in manufacturing, began to decline relative to total employment, while the relative rise in service employment accelerated. Similar shifts have been observed in all mature industrial economies, including the U.S., Japan, and many European countries.

These shifts in Taiwan's employment structure have been accompanied by an astonishing acceleration of labor productivity growth since 1985. From 1970 to 1980, each additional worker in Taiwan added NT$56,000 (New Taiwan dollars) in constant 1986 prices to total output. This gross marginal productivity of labor increased to NT$85,000 in 1980–1985 and to NT$160,000 in

1985–1992. Though this measure is crude, it still makes clear that labor in Taiwan became more, rather than less, productive after 1985, despite the massive exodus of industry.

Those concerned about Taiwan's competitiveness in international trade also note that in recent years, imports grew significantly faster than exports, which led to a decline in the trade surplus from $19 billion in 1987 to $9.5 billion in 1992. However, the faster pace of import growth primarily reflected Taiwan's major trade liberalization since 1985. More importantly, the decline in the trade surplus was a much-needed correction to the excessively large annual trade surpluses that amounted to 20 percent of its output in 1986–1987.

Adjustment policies

A maturing economy requires adjustments by both business and government. Firms accustomed to high demand growth and abundant supplies of labor and land at low costs must seek products that have higher capital and technology content. With the days of inexpensive world technology fast disappearing, they must be prepared either to pay higher prices for technology or to allocate an increasing share of their budget to R & D expenditures. Workers have to learn new skills in a rapidly changing job market. To provide the workforce, the government must orient its education and industrial policies toward fostering homegrown science and technology developments. Barriers to domestic and international competition must be lowered or removed in order to enhance allocative efficiency and serve as an additional source of economic growth. Finally, there must be investment in infrastructure in order to remove bottlenecks to growth and efforts to enhance the environment to improve the quality of life—especially in economies like Taiwan's, where these endeavors have lagged behind the economy's output growth.

Indeed, in recent years Taiwan's economic policies do appear to be directed toward these goals. Beginning in 1984, the authorities abolished import quotas and lowered import tariffs to an average rate of 5 percent by 1992, comparable to those among industrial countries. In 1987, almost all exchange controls were lifted; by 1992, the currency became fully convertible. In 1989, a new banking law opened the market to private banks, abolished interest rate controls, and liberalized restrictions on the scope of banking operations. In 1992, the entire financial market—including banking, securities, and insurance—was opened to foreign entry.

In 1990, the government announced a Six-Year National Development Plan to invest more than $300 billion from 1991 to 1997 in three broad infrastructure areas: transportation and communications; urban residential construction, energy, and social welfare; and education, science and technology, and environmental protection. In 1993, the plan was augmented by a 29-point "implementation program," which specifies the details of an action plan to facilitate and expedite the restructuring of the economy.

These large public-investment programs already have borne fruit. In 1992, domestic private fixed investment rose 19 percent, reversing the decline of the preceding two years. The increase contributed more than public investment to the economy's output growth for the first time in the last four years.

Taiwan's development program is not without difficulties. The large public-investment expenditures have necessitated the issuance of a very substantial amount of government bonds, meeting resistance from legislators who are used to balanced budgets. In addition, the spending program has been made harder to sell by a failure to distinguish between the government's current spending and capital investments. In response to these concerns, the total expenditure under the Six-Year Plan was reduced this year by 27 percent. Nevertheless, by and large, the adjustment program remains on track.

Conclusion

Success in economic development can be a two-edged sword. In Taiwan, it has raised the overall standard of living, but at the same time has inflicted pains of adjustment as the economy matures. Appropriate government policies are needed to facilitate the adjustment and dispel business pessimism based on misinterpretation of economic signals. Failure to carry out these policies can unduly prolong both the adjustment pains and unwarranted market pessimism.

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