The Asian Development Miracle: Taiwan As Model

By Andrew B. Brick

There occur, on rare but unique occasions, defining moments in human history. This is one of them. Marxism is dead. As a scenario, as a prescription, as a roadmap to progress, the model of the command economy is utterly discredited. Not coincidentally, the alternative model—that of free-market capitalism—is ascendant. History, contrary to Francis Fukuyama's extravagent thesis, has by no means ended: it merely is in the process of being recreated.

How essential it is, as a consequence, that we understand the complexities—and ambiguities—of the triumphant alternative. Is it transportable? Does it work everywhere? Are its underlying principles valid for all time? These are crucial questions. Prior even to these questions, however, is one other: What is it?

The Asian development model is an exemplar of the entire phenomenon. And the Republic of China on Taiwan (ROC), in particular, often is cited as the model of the model. The purpose here is to discover what makes the Taiwan model tick.

Keys to Asia's Economic Success

As the failed god of the command economy is laid to rest across the globe, something called free-market capitalism is being celebrated. From the formerly Iron Curtain countries to the farthest reaches of South America and Africa, the capitalist alternative has been declared winner and champion. The world used to have two seriously different ways of running an economy. Today it has only one.

Or does it? To be sure, Eastern Europeans these days regard the idea of the state as a guiding hand for an economy more as a sick joke than a serious policy prescription. But ask a Pole what form of capitalism he favors—the purist "monetarist" version, the social-market one, or perhaps the Asian-country-as-corporation "miracle" model—and the laughter quickly subsides. There are details to this transformation that Karl Marx's victims never began to consider.

Unfortunately, the transformation's success depends on the details. The success of Asia's Tigers, for instance, makes it easy to gloss over the differences in the way the region's successful governments and people worked to better their condition. Hong Kong is the only one of them that legitimately can claim to be laissez-faire, even though two-fifths of the territory's housing is subsidized by the Crown Colony's government. Singapore, Asia's other city-state, is one of the most statist governments on earth. South Korea, meanwhile, pursued policies that kept interest rates low, all the while feeding credit to a handful of wholly Korean, world-scale companies, called *chaebol*. In contrast, the Republic of China on Taiwan let interest rates rise to high market levels. This brought the island some of the world's highest savings and investment rates, an industrial structure built on a multitude of quite small enterprises, and relatively equal incomes.

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Despite such diversity, though, there are certain threads that commonly run through the East Asian development experience.[1] From Seoul to Singapore, the Asians have committed themselves to:

✓ Economic growth through international competitiveness.

Relatively resource-poor countries with small domestic markets can survive only if they sell abroad. The Asian development miracle focuses on and interrelates production, output, and marketing. Today, the combined merchandise exports of Hong Kong, the Republic of China on Taiwan, Singapore, and South Korea are double the combined efforts of all the countries in Central and South~~-America, even though the latter sit on the doorstep of the~~ world's largest single market—the United States. In the quarter-century that began in 1965, East Asia's share of gross world product nearly tripled, from 8 percent to 22 percent. Its share of manufactured exports did triple, from 8 percent to 24 percent.[2]

✓ Sustaining free markets and private property.

To these ends, inflation rates are kept low, real interest rates gently positive, and exchange rates stable. Says Singapore's former prime minister Lee Kuan Yew: "Markets and property are the key to an individual's economic self-interest and in Asia's successful economies self-interest has been given free rein."[3]

✓ Nurturing "business-first" government policies.

Government's main duty, the Asian economic miracle seems to indicate, is to keep the country competitive. Bureaucrats work for and with businessmen, not against them.[4] To be sure, the region's strong governments rarely flinch from taking tough measures to maintain macro-control of their economies. But economic policies are almost always predictable. Business is rarely caught off guard. Exclaimed one Taipei government official in a recent conversation: "What did you think golf courses were for, playing golf?"[5]

This is not to imply, however, that Asia's business-first government initiatives favor patently interventionist policies—commonly known as "industrial policies." The Asian model disparages highly distorted trade regimes and non-market allocations of resources, such as subsidies for government-favored projects. Instead, it advances vigorously the notion that economies are best kept lean and productive by their exposure to international competition. What distinguishes the task of government in the Asian miracle is the way it, in cooperation with business, adopts policies that hone a vital sense of competitiveness and allow prices to freely carry economic signals.

✓ Relatively equal distribution of incomes.

This is one of the unspoken keys to Asian development: it has allowed enough political maneuverability to push through unpopular measures in times of economic crisis, which in Asia means

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1 For more on the Asian development experience, see Robert Wade, *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization* (Princeton: Princeton University Press, 1991); Ezra F. Vogel, *The Four Little Dragons: The Spread of Industrialization in East Asia* (Cambridge: Harvard University Press, 1991); Dwight H. Perkins, *China: Asia's Next Economic Giant?* (Seattle: University of Washington Press, 1986).

2 For more, see "Asia's Emerging Economies," *The Economist*, November 16, 1991.

3 "Lee's Remarks at Constituency Meeting," from *Straits Times*, in Foreign Broadcast Information Service, February 11, 1992, p. 13.

4 Wade, *op. cit.*

5 Conversations in Washington, May 1992.

whenever growth slips below 5 percent a year. Singapore's Lee Kuan Yew frequently points to the need, early in the process of economic development, to generate an agricultural surplus that can be used to feed the industrialization of the towns.[6] (Driven to extremes, as it was in Mao Zedong's Great Leap Forward, this cross-subsidization can impoverish the countryside in favor of an urban proletariat.) For any society's development, Lee notes, this is the period most prone to be disruptive.

✔ Investing in education.

Confucius wrote that "If you plan for a year, plant a seed. If for ten years, plant a tree. If for a hundred years, teach the people." ~~For a long time, his advice was ignored.~~ At the start of the Meiji era in Japan in 1868, only 15 percent of the Japanese population was literate. Compulsory education was introduced four years later and Japan was on its way to becoming one of the world's most educated societies.[7] The obsession rubbed off on its former colonies. After the Korean war ended in 1953, for instance, Seoul launched a remarkable drive toward education: almost three-quarters of the cost of building schools, paying teachers, buying books, and organizing transport was met by parents, not by government. Today, some 38 percent of Koreans aged 20 to 24 are likely to go to college, over six times the number in 1965.[8]

There are also the intangibles of the Asian development miracle. Throughout the arc of countries that sweeps down from South Korea to Indonesia, there is profound optimism that life will continue to get better and a readiness to work diligently to ensure that it does. Winston Wang, general manager of Nan Ya Plastics in Taipei, says this reflects "the coherence of Asian societies, their commitment to common ideas, goals and values, the belief in hard work, frugality, filial piety, and national pride."[9] This is East Asia's Confucian cultural explanation.

It may be too glib. For one thing, Confucianism as it is now variously described is not unique to Asia; it is almost identical to the Calvinist work ethic identified by Max Weber in 1904 as a pillar of modernization.[10] For another thing, Asia's Confucianist manners were touted not long ago as the precise reason why the region was backward and poor. One anti-Confucian Chinese joke from the Mao Zedong days sneered: "If you were born with experience you would have been born eighty years old, or just Confucian."

Another explanation—or, at least, a critically important precondition—is the existence at "take off" in all the Tigers of a stable, benignly authoritarian set of political institutions. South Korean President Roh Tae Woo recently was quoted as observing, "People want democracy and freedom, but they also want the results authoritarianism has delivered."[11]

Then there are the altogether simpler explanations offered by businessmen like Tony Chen, head of a typical clan-conglomerate in Taipei. "What is the difference between rich Asians and other poorer people?" Chen asks rhetorically. "That's simple. We Asians are generally the greediest people on the earth. We Chinese are by nature economic animals, you know."[12]

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6 "A Map Up Here in the Mind," *The Economist*, June 29, 1991, p. 16.

7 John W. Dower, ed., *Origins of the Modern Japanese State: Selected Writing of E.H. Norman* (New York: Pantheon Books, 1975), pp. 118-156.

8 "Korea," in *Financial Times Survey*, May 29, 1992, Section III, p. 1.

9 See: "A Traditional Chinese Approach to Mainland China-Taiwan Relations," in Roger A. Brooks, ed., *U.S. Policy in Asia: The Challenges for 1990, Heritage Lecture* No. 233, June 22, 1989, p. 117.

10 Max Weber, *The Protestant Work Ethic and the Spirit of Capitalism* (London: G. Allen and Unwin, Ltd., 1904).

11 By Karen Elliott House in *The Wall Street Journal*, July 21, 1992.

12 Conversations in southern China, October 1991.

Taiwan's Economic Boom as a Model

Few people better illustrate the raw enthusiasm for the marketplace than the Chinese on Taiwan. Some twenty million people on an island the size of New Hampshire have realized staggering levels of economic growth. In 1950, the year Chiang Kai-shek's Nationalists fled mainland China for "temporary" exile on the island of Taiwan, the incomes of Taiwanese and mainland Chinese were much the same. Four decades later, Taiwan's per capita Gross National Product (GNP) dwarfs that of the mainland. Annual income per person, in a society with few extremes of wealth and poverty, is today $8,813 (and on the mainland, $350). Five years ago it was just over $5,000 and a decade ago just over $3,000. By the year 2000, the average ROC citizen will be richer than most New Zealanders and catching up fast with most Australians. The island has not experienced a decline in its Gross Domestic Product (GDP) in 40 years. Taipei's foreign-exchange reserves are over $83.2 billion, the largest in the world. They rose by $10 billion in the last year, are expected to rise by another $10 billion this year, and could reach $100 billion by 1993.

What is more, Taiwan has grown in ways that have spread the benefits to just about everyone. In 1952, the income of the best-off 20 percent of households was fifteen times the income of the lowest 20 percent; by 1980, the multiple was only 4.2. The equivalent in America that year was 7.5, in Sweden 5.6, and in Japan 4.4. For much of the last two decades Taiwan has been one of the world's most egalitarian societies, as well as one of the half-dozen fastest-growing.[13]

These numbers reflect an immense increase in human well-being. A child born in the ROC in 1990 can expect to live 74 years, only a year less than an American or a German, and fifteen years longer than an ROC citizen born in 1952. In 1988, the Chinese on Taiwan ingested 50 percent more calories a day than they had 35 years earlier. Today, there is at least one television in every household, one motorcycle for every three people, and one car for every eight.

The average ROC youngster, moreover, is twice as likely to go to the university as his (or her) British peer. There are 42 universities and 76 polytechnics on the island which, among them, graduate some 37,000 engineers and 136,000 technicians annually.[14] One in every four candidates for electrical engineering doctorates in American universities is from the ROC.

Monumental Growth. There are a variety of factors frequently cited to account for Taiwan's monumental growth. These include: early 20th century colonization by Japan that left behind the trappings of a modern infrastructure; generous American military and economic assistance—over $4 billion alone in security assistance—in the post-World War II era; a lingering Confucian work ethic; and an authoritarian political tradition that effectively dampened social welfare concerns, or enabled them to be deferred, in light of an abiding security threat.[15]

But as significant as these factors surely are, perhaps the most decisive element in Taiwan's economic growth is the fact that the island has taken full advantage of the opportunities free world trade has offered. Taiwan never embraced popular post-World War II development plans that advocated import substitution and economic self-sufficiency. The ROC chose instead to concentrate on boosting exports.

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13 For more on Taiwan's economic development, see Lawrence J. Lau, ed., *Models of Development* (San Francisco: The Institute for Contemporary Studies, 1986).

14 "Asia's Emerging Societies," *op. cit.*

15 James C. Hsiung, et al., eds., *The Taiwan Experience 1950-1980* (New York: The American Association for Chinese Studies, 1981).

After extensive land reforms had been carried out, Taipei instituted such measures as fiscal incentives and low-tariff export zones to launch an export offensive in those branches of industry where the comparative advantage of low labor costs could be exploited to the maximum. The government in Taipei, moreover, permitted prices to be determined freely by the market and pursued polices, unique in those days, of letting interest rates rise to high market levels. "More than any other policy," remarked ROC economist Hou Chi-ming at a June 1990 Heritage Foundation conference, "this basic policy choice about credit brought Taiwan the world's highest savings and investment rates." Indeed, only once in the last twenty years has Taiwan not saved more than it invested.[16]

Benefitting the Little Guy. The policies also helped create on Taiwan a business environment dominated by small, lightly-indebted firms. Unlike other Asian economic dynamos, Korea in particular, where governments kept interest rates below market rates and encouraged capital-intensive methods of production that spawned huge firms, Taiwan's economic polices engendered the growth of relatively tiny, equity-based companies. By one unofficial government reckoning, more than four-fifths of the ROC's firms in 1981 had fewer than twenty employees.[17] "The little guy has been the principal beneficiary of the island's economic growth," one trade official told The Heritage Foundation.[18]

It is these little guys, chasing the profit motive, that have come to embody the Taiwan miracle. On the surface, the typical ROC company probably would seem odd to a Wharton Business School professor. Usually dominated—and guided—by one man, its strategy seems to center on quick trading profits, rather than long-term commercial objectives. There also appears to be little or no cohesion among the several parts of the overall operation.[19]

In reality, though, blood literally binds the business. The patriarch sits in Taipei, attending to the family's finances, exploiting personal relationships—in Chinese called *guanxi*—to further business objectives. Number-One Son runs the factory in Taichung and makes frequent trips through Hong Kong to mainland China's Fujian Province—ROC citizens are proscribed from conducting business directly with their mainland Chinese brethren—to oversee the family's newest investment: a production facility on ten acres of land rented from the municipal Chinese government for 35 cents a year on a seventy-year lease. Locals work the assembly lines at a tenth the going rate in Taipei. Number-Two son, meanwhile, has recently graduated from the University of Southern California and now works for an American firm in Silicon Valley as a kind of benign industrial spy.[20]

The company's interests and reach are as global as their network of connections extend. Ancestors from the same province, village, or clan in mainland China who long ago moved abroad are nurtured and exploited to churn out products quickly and cheaply. This Chinese diaspora identifies business opportunities across the world and is self-perpetuating: As long as there exists a family there almost certainly will be a new generation of tycoons on the make.[21]

16 Remarks by Dr. Hou Chi-ming in Andrew B. Brick, ed., *The Washington-Taipei Relationship, Heritage Lecture* No. 269, p. 46.
17 Conversations at the ROC's Council for Economic Planning and Development, January 1991.
18 Conversations in Taipei, January 1991.
19 S. Gordon Redding, *The Spirit of Chinese Capitalism* (New York: Walter de Gruyter Press, 1990).
20 *Ibid.*
21 *Ibid.*

Undergirding Taiwan's Success

Today, Taiwan's firms are seizing small but lucrative niche markets that give the island crucial commercial flexibility, making it capable of responding to market changes—indeed, allowing companies to enter and leave businesses with speed and ease—that is without parallel in Asia. Centering their corporate efforts on the development of such high-tech, highly specialized products as computer software or sophisticated electronics, these companies will largely define Taiwan's place in the world economy in the next decade.

Indeed, many of the ROC's companies define the international business standard right now. Taipei's Microtech International makes the communications equipment on George Bush's motorboat. Sony, Sharp Electronics, and International Business Machines all have research and development centers in Taipei to pick local brains.

Taiwan's biggest technology leader is Acer Computer, launched in 1976 by Stan Shih, four friends, and $25,000 in savings. A decade later, Acer introduced the world's second 32-bit personal computer. America's Compaq marketed the first. Today, Acer's sales top $1 billion and the company has alliances with Texas Instruments, Daimler Benz, and Smith Corona. Acer is the Taiwan development model's model company.[22]

This is so because Acer illustrates how leading-edge industries, like the computer-hardware industry where the ROC is the world's sixth largest, thrive on the island. As pessimists on Taiwan lament its puny marketing punch, low levels of research and development (R&D)—about one percent of the ROC's GNP—and the tendency of the island's small firms to go abroad rather than upscale, Acer continues to grow and, with it, so does the island's economic miracle.

To be sure, some of the pessimists' fears are not without substance. ROC makers of shoes and textiles, for instance, are happier sending their factories to mainland China and Malaysia than upgrading them at home. They do so because the costs of producing on Taiwan have risen to prohibitive levels—it is cheaper to move the factory abroad than to invest in automation at home. As a result, Taiwan has had a net loss of manufacturing jobs in recent years, totaling 325,000 alone between 1986 and 1989. Even Acer Computer has offshore manufacturing plants in Holland and Malaysia.

Small, But Competitive. But the future is nowhere as bleak as such numbers would seem to indicate. The relatively small size of Taiwan's firms has not significantly disadvantaged them in competition with American, Japanese, or Korean giants. Acer's chief executive Stan Shih, in fact, claims that the company's relatively small size produces real benefits: a generally solid infrastructure, low overhead, and an inherently tight network of local suppliers. Acer has marketing and production links with American companies. The company paid $94 million just last year to buy Altos Incorporated, a Silicon Valley firm, to improve its U.S. distribution. And with the backing of the government in Taipei, Shih recently founded Brand International Promotion Association. With luck, Acer's brand-name will be recognized worldwide within ten years and the tag "made in Taiwan" will become a symbol of quality.

The argument that Taiwan has a problem with research and development, moreover, fails to account for the "business-first" priority of the ROC government and the remarkable talent in Taiwan's labor pool. One of Acer Company's principal strengths, for instance, is its reservoir of 800-plus engineers, many of whom have been trained in American universities. And in recent

22 Information on Acer is culled from three sources: Conversations with company officials in Taipei, January 1991; Larry P. Vasco, "Taiwan's Computer Whiz Goes Global," *Billion* Magazine, July 1989, p. 22.; and the *Economist* survey on "Asia's Emerging Economies," *op. cit.*

years Taipei has moved to vigorously promote lagging R&D. It has offered tax breaks for certain strategic industries, developed a successful science park to act as a magnet for high-tech companies, and established several quasi-public research institutions to encourage commercial applications of technology. Chief among these is the Industrial Research Institute, with a budget of $180 million a year and over 4,000 employees.[23]

Sustaining the Miracle

The ROC's biggest challenges in the future may be to avoid choking on its success, both literally and figuratively. The challenges are instructive; behind them lie flaws common to the East Asian development model.

The first problem is that growth has overwhelmed the infrastructure. Some 500 new cars pour onto Taipei's streets every day, where they immediately add to interminable traffic jams. By one estimate, Taipei's streets are ten times more congested than those of Los Angeles.[24] Few governments in Asia had the effrontery—or the foresight—to ask for taxes to develop the transport system before their economies began doubling. As a result they are confronted with roads that are choked and people who are always late.

Taipei seeks to tackle this problem with an ambition that strains belief. Over the next six years it plans to spend some $302 billion on 775 projects that will range from superhighways to high-speed trains, new airports to upgraded ports, nuclear-power plants to public libraries. The purported amount of spending represents about two-thirds of estimated infrastructure spending for all of Asia outside of Japan over the next decade.[25] Even so, as the *Economist* magazine comments, "the doubts [about Taiwan's infrastructure plans] concern not so much the money, as the will."[26]

Environmental Problems. If the problems of infrastructure threaten to hold future growth hostage to improvements in Taiwan's physical condition, problems in the environment threaten the ROC's future political stability. Like most of Asia, Taiwan proves that it can be infinitely cheaper to prevent pollution from coming out of the industrial smokestack in the first place than cleaning it up once it has. Factories across the island cheerfully pour untreated effluent into rivers and belch toxic fumes into the air. Of the country's 20 million people, only 600,000 are served by sewers.[27] Taiwan's largest company, Formosa Plastics, tried for years to build another naphtha cracker—a major petroleum plant and polluter-in-waiting—on the island, only to confront constant popular opposition.

And this is the key. Although industrial development surely has done worse damage to the environment in Russia and Eastern Europe, the resulting mess was tolerated because of communist coercion. In incipient democracies, the story is different. History here seems to suggest that people will tolerate horrendous living conditions as long as they feel their lot is improving. But the tolerance is finite. As the nation grows richer, and a middle class takes hold, the voters grow more environmentally aware and the consensus for continuing economic growth becomes more difficult to reach. The lesson for democracies is thus clear: Make development as clean as possible from the outset. It is economically cheaper and politically more palatable.

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23 "Taiwan and Korea," *The Economist*, July 14, 1990, p. 19.

24 Conversations with ROC Environmental Protection Agency officials, January 1991.

25 Julia Leung, "Taiwan Spending Plan Is Clouded by Disputes," *The Asian Wall Street Journal Weekly*, April 20, 1992, p. 1.

26 "Asia's Emerging Societies," *op. cit.* p. 15.

27 Conversations with ROC Environmental Protection Agency officials, Taipei, January 1991.

Primitive Financial System. Taiwan's final problem is one it shares with the rest of the region's most dynamic economies. To be bluntly precise, the island has a primitive financial system. It is ironic that this should be so. Energetic, entrepreneurial, vibrant little Taiwan has been an economic over-achiever for more than two decades. It is well past the vague and coy line that separates "developing" countries from "newly industrializing" ones. Yet hyperactive financial policies are squandering its economic potential.

The financial problem may partially be cultural. "Chinese seem to hate debt," one banker recently told The Heritage Foundation.[28] To be sure, Taiwan's financial regulators have been implacably anti-debt at home and mercantilist abroad. Until recently, it was a criminal offense to bounce a check in Taiwan. Even today, government banks are answerable to the ROC national legislature for writing off any loan, no matter how small.[29]

The predictable consequence of such caution is that lending policies are prohibitive. Medium- and long-term loans are rarely granted against cash-flow; lenders almost always demand security worth at least twice the face value of the loan. Until 1990, the only way a small- or medium-sized ROC company could secure needed loans for expansion was to play Taipei's fevered stock market, which resembles a high-stakes casino more than anything else. On at least one day in early 1990, turnover on the Taipei market was greater than that on the Tokyo and New York stock exchanges combined.

The dangers of such underdeveloped financial systems is that continued economic growth depends on the efficient channelling of savings toward development. Taiwan grew rich through working hard in small family businesses, making everything from handbags to sports shoes. In the 1960s, Taiwan started making cheap umbrellas; within a year it was the largest umbrella exporter in the world. But the ROC has advanced beyond such cottage industries—raising money from the family no longer produces the goods of the future. Instead, the continuation of the Taiwan miracle depends on its ability to shift to capital- and knowledge-intensive businesses, to turn jeans-makers into precision engineers. And that requires the kind of money and advice that comes with professionally-managed corporations dealing in open financial markets.

Conclusion

Perhaps the most stunning aspect of East Asia's development is the speed with which it has been accomplished. Within a single generation, the material conditions of life, even for the blue-collar worker, have been remarkably advanced. Assuming that Asia's super-competitive economies keep growing two to three times faster than the world's older economies, there likely will be a shift of economic power away from Europe and North America to the Western Pacific by the middle of the 21st century.

The speed of this transformation is apparently what makes the region so attractive as a model for development. "How can you not be amazed at a place that intends to spend several hundred billion dollars to build their infrastructure," one Polish official, in Taipei on a buying mission, remarked in conversations late last year. "For us, these Chinese are doubly intriguing because their economic culture flourished when the deadweight of tradition was lifted."[30]

28 Conversations in Washington, May 1992.
29 "Sitting on Billions," *The Economist*, March 14, 1992, p. 97.
30 Discussions in Taipei, October 1991.

Growing Interest. Indeed, the fact that Chinese entrepreneurs endured centuries of oppressive government authority commends them all the more as a model for development. There is a growing, though understandably discreet, interest among some Eastern Europeans—and Chinese communists as well!—in Taipei's experience in making the transition from an authoritarian system, in which bureaucrats held sway over the economy, to a more free-wheeling, less hidebound system. Taipei's ruling Kuomintang, while anti-communist, for years built its power on Leninist principles of dictatorship and party organization—which also, to be sure, is part of that "deadweight of tradition" from which the miracle flowed.

The irony, however, that nations fleeing communist insanity would now turn to the ROC as a model to transform themselves into a market economy appears lost these days in official Taipei. It seems the island, like the rest of East Asia, is too busy making money to notice such things.

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