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ECONOMIC DEVELOPMENT
TAIWAN, REPUBLIC OF CHINA **2004**

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Economic Development Taiwan, Republic of China 2004

CONTENTS

• Geographic Features and Natural Resources.....	2	• Public Finance.....	22
• Economic Performance in 2003.....	4	• Labor Force and Employment.....	24
• Growth with Stability and Equity.....	6	• Education.....	26
• Saving and Investment.....	8	• Science and Technology.....	28
• Trade.....	10	• Social Security.....	30
• Composition of Trade.....	12	• <i>Challenge 2008</i> National Development Plan.....	32
• Trading Partners.....	14	• The New Ten Projects.....	34
• Foreign Direct Investment.....	16	• Strategies of Economic Development.....	36
• Production Structure.....	18	• Economic Development Plans 1953-2004.....	42
• Monetary and Financial Development.....	20	• Future Development Prospects.....	45

Geographic Features and Natural Resources

Strategically located in the middle of a chain of islands stretching from Japan in the north to the Philippines in the south, and only 160 kilometers off the southeastern coast of the Chinese mainland, the island of Taiwan is a natural gateway to East Asia. Taiwan occupies an area of only 36,006 square kilometers, roughly equal to the size of the Netherlands. At mid-2003, its population stood at 22.5 million. With 625 persons per square kilometer, Taiwan is one of the most densely populated areas in the world.

Three-quarters of the land is mountainous, with a spine-like ridge of steep mountains extending from north to south. About 60% of the land is forested, but forest resources are minimally exploited because of limited accessibility and environmental concerns. Even though only one-quarter of the land is arable, the subtropical climate permits multi-cropping of rice and growing of fruit and vegetables all year round. However, agricultural production accounted for only 2.4% of real gross domestic product (GDP, at 1996 prices) in 2003.

Although Taiwan does have deposits of coal, limestone, marble, dolomite, and natural gas, it is not richly endowed by nature. Indeed, more than 90% of its energy needs are met by imports, and its rapid industrialization also has relied heavily on imports of raw materials. However, Taiwan has an ample supply of human resources, of which it has made highly effective use.

POPULATION & NATURAL RESOURCES (2003)

TOTAL AREA	36,006	Km ²
TOTAL POPULATION (mid-year)	22,494	1,000 Persons
POPULATION DENSITY	625	Persons/Km ²

RESERVES

<input type="checkbox"/> COAL	103	Million M.T.
<input type="checkbox"/> NATURAL GAS	7	Billion M ³
<input type="checkbox"/> MARBLE	297	Billion M.T.
<input type="checkbox"/> DOLOMITE	110	Million M.T.
<input type="checkbox"/> FOREST	357	Million M ³

Economic Performance in 2003

Taiwan's economy showed a steady improvement through most of 2003. Though the US-Iraq war and the SARS outbreak caused a sharp dip in the second quarter, the economy recovered quickly and grew progressively stronger after these challenges were effectively overcome. In particular, the government's efforts to accelerate investment in infrastructure and the provision of public services helped speed Taiwan's economic rebound in the second half of the year. Taiwan recorded an economic growth rate of 3.24% in 2003, while consumer prices declined 0.28%. Taiwan's per capita GNP in 2003 ranked 28th among economies with a population exceeding one million, while its foreign exchange reserves were third-largest after those of Japan and mainland China. Taiwan was the world's 15th biggest exporter and its 16th largest importer. Other economic highlights of the year included:

- A decline of 0.3 percentage point in the misery index (unemployment plus consumer price inflation) to 4.7%.
- An expansion of 4.7% in industrial value added, due largely to a surge in the manufacture of information and electronic products. Information and high-tech industries dominated the manufacturing sector, accounting for 35.8% of total manufacturing value added (at 1996 prices), far above the next-largest share of 8.2% for the chemical industry. Meanwhile, high-tech products contributed more than half, or 57.1%, of Taiwan's total exports, up from 56.8% in 2002.
- Growth of 2.6% in the service sector, which was fueled by a 7.5% expansion of the communications industry owing to further opening of the domestic telecommunications market. These developments underscore the growing importance of high technology in Taiwan's economy.

Major Economic Indicators*

Item	Unit	2001	2002	2003
Economic growth rate (real GDP increase)	%	-2.18	3.59	3.24
Gross national product (GNP)	US\$ billion	286.8	289.3	295.9
Per capita GNP	US\$	12,876	12,916	13,157
Changes in consumer price index (CPI)	%	-0.01	-0.20	-0.28
Exchange rate (end of the year)	NT\$ per US\$	34.999	34.753	33.978
Prime/Base lending rate** (end of the year)	%	7.600	7.310	3.330
Unemployment rate	%	4.57	5.17	4.99
Foreign exchange reserves (end of the year)	US\$ billion	122.2	161.7	206.6
Merchandise exports (at FOB prices)	US\$ billion	122.9	130.6	144.2
Merchandise imports (at CIF prices)	US\$ billion	107.2	112.5	127.3
Balance of trade in merchandise	US\$ billion	15.6	18.1	16.9
Balance of trade in goods & services	US\$ billion	16.0	20.9	20.6
Balance of trade in goods & services as percentage of GDP	%	5.7	7.4	7.2

* GNP and trade figures are given at current prices. ** Base lending rate since 2003.

Sources: 1. Directorate-General of Budget, Accounting and Statistics (DGBAS), Executive Yuan, R.O.C., *Quarterly National Economic Trends, Taiwan Area, R.O.C.*, No. 104, Feb. 2004.

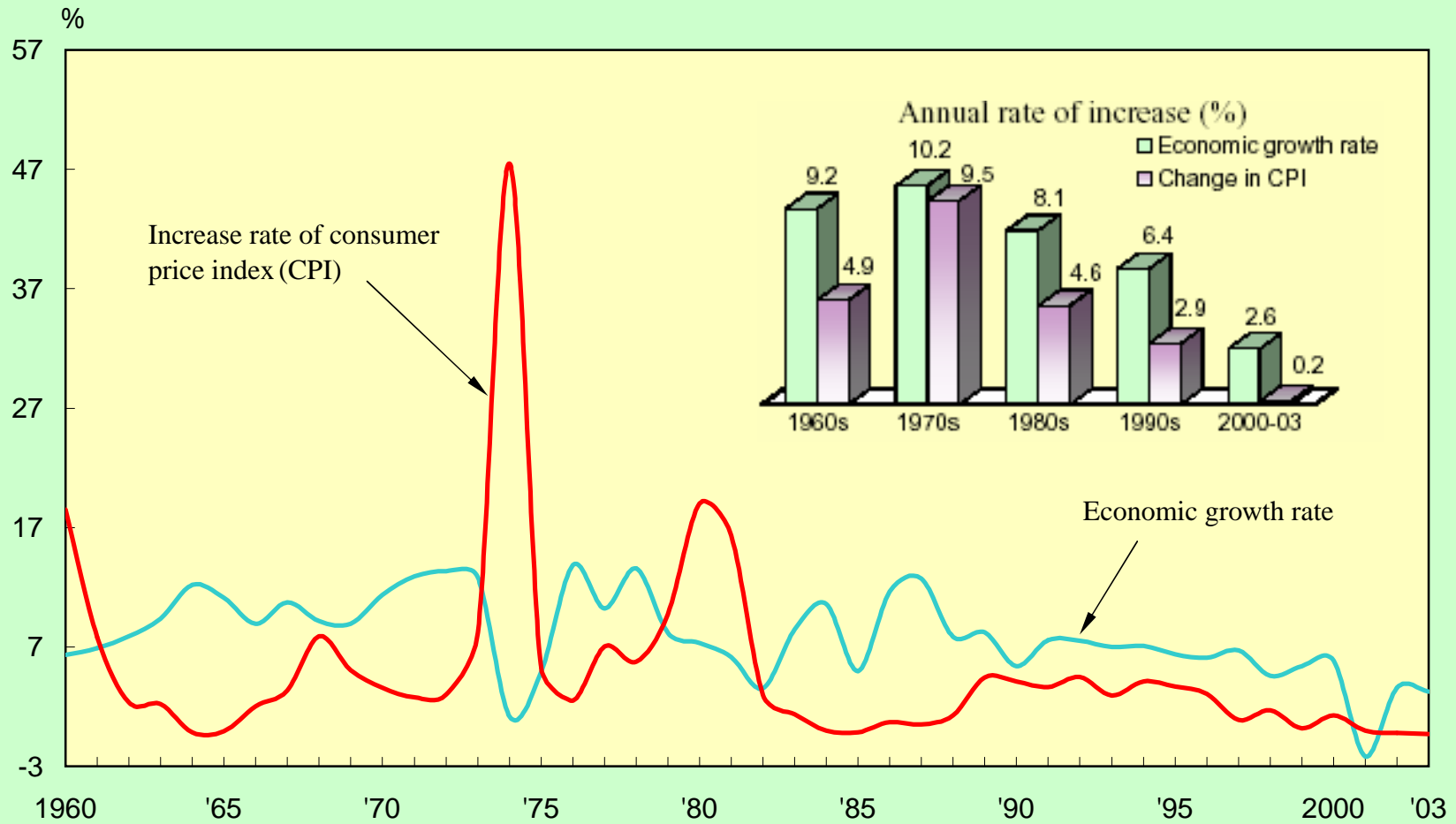
2. The Central Bank of China, R.O.C., *Financial Statistics Monthly, Taiwan District, R.O.C.*, Feb. 2004.

Growth with Stability and Equity

Rapid economic growth, stable prices, low unemployment, and equitable income distribution — these are among Taiwan's most noteworthy economic achievements.

- From 1960 through the 1980s, Taiwan sustained an average annual economic growth rate of 9.2%, while unemployment remained below 2.0% of the labor force for most years after the mid-1960s.
- Aside from the oil-crisis years, consumer prices rose at an average annual pace of 4.3% during the 1970s. In the 1980s, their increase slowed to only 3.0% per year.
- Although Taiwan's economy has entered a more-mature stage in recent years, growth momentum has been maintained. In the 1990s, the economy expanded 6.4% per year, consumer prices rose at an average annual rate of 2.9%, and the unemployment rate averaged 2.0%. From 2000 through 2003, the corresponding figures were 2.6%, 0.2%, and 4.4%, respectively.
- Breaking the US\$1,000 level in 1976, per capita GNP reached US\$13,157 in 2003. The ratio between income received by the most-affluent one-fifth of Taiwan's households and that received by the least-affluent one-fifth rose from 4.17 in 1980 to 6.39 in 2001. The increase in the ratio was largely due to a decrease in the size of households in the lower income group as well as rising unemployment. The ratio declined to 6.16 in 2002, thanks to the growing redistributive effects of government programs (including the provision of living allowances and social insurance premium subsidies for less well-off members of society, the adjustment of taxes and fees, etc.) and the creation of more jobs.
- This record of growth with stability and equity has been matched by only a handful of other countries worldwide.

Economic Growth and Price Changes



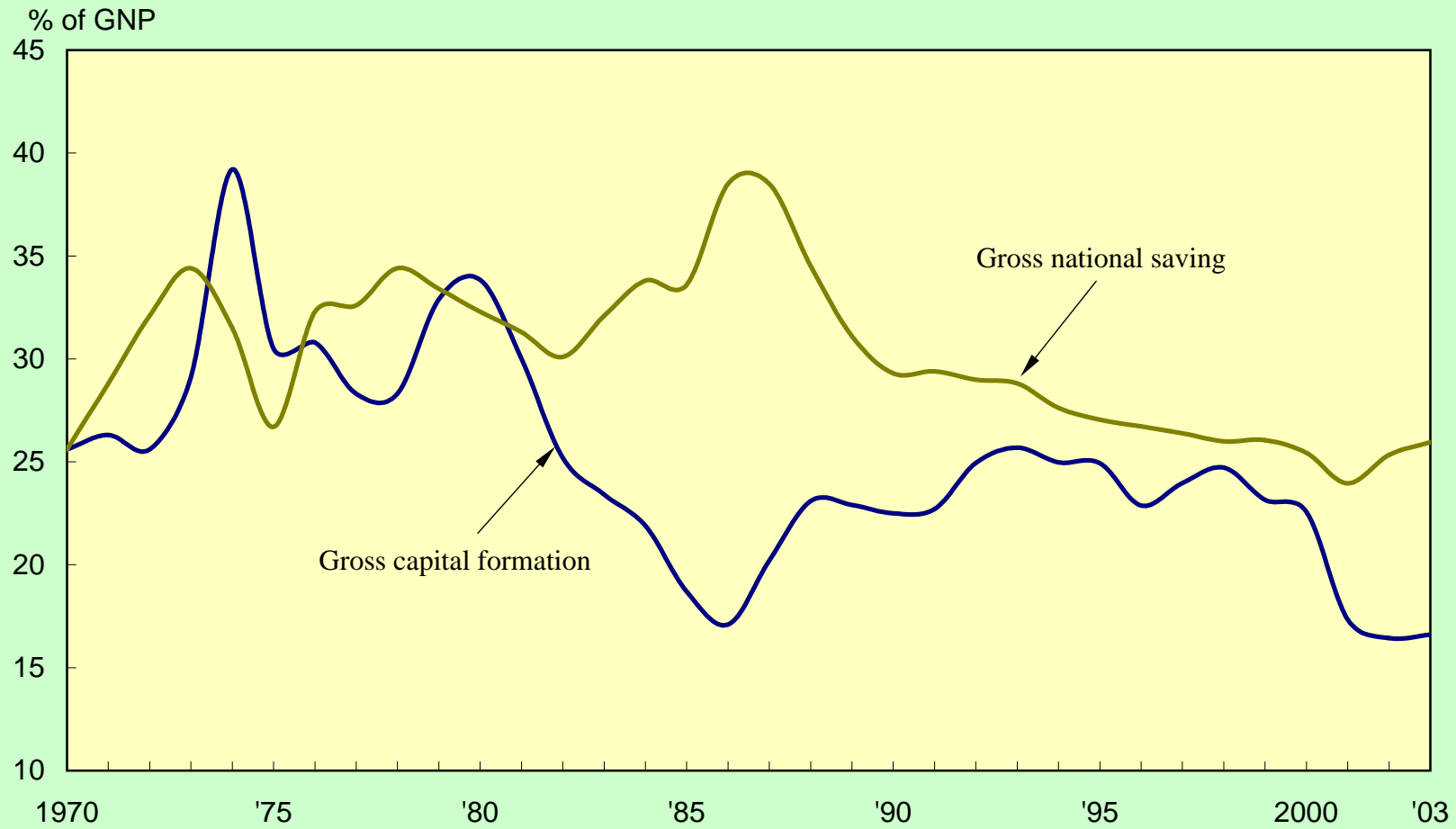
Sources: 1. DGBAS, *Statistical Abstract of National Income, Taiwan Area, R.O.C., 1951-2004*, March 2004.
 2. DGBAS, *Quarterly National Economic Trends, Taiwan Area, R.O.C.*, No. 104, Feb. 2004.

Saving and Investment

High levels of saving and investment have contributed importantly to Taiwan's economic growth since the 1960s. However, in the 1980s a sharp increase in Taiwan's trade surplus, coupled with explosive growth in liquidity, gave rise to an economic-bubble boom toward the end of the decade. In 1986, excess saving (external current account surplus) rose to a peak of 21.4% of GNP. Stock and real estate prices exploded, production costs soared, and the investment climate deteriorated rapidly. The government responded by stepping up the pace of economic liberalization, increasing public investment, and encouraging industrial restructuring. These measures succeeded in reducing the trade imbalance and restoring economic stability.

In recent years, as a result of higher income and the opening of domestic markets, consumer tastes and preferences have become more sophisticated, and household saving relative to income has fallen. At the same time, rising costs of land, labor, and environmental protection have shaved profits and reduced internal saving by business enterprises. Meanwhile, because of slower growth in current revenue and rising expenditures for social welfare, the current account surplus in the government's budget has declined sharply. For all of these reasons, national saving fell markedly to 26.0% of GNP in 2003 from an all-time high of 38.5% in 1987. However, gross investment (capital formation) rose sharply from 17.1% of GNP in 1986 to 25.7% in 1993, before slipping back to 17.4% in 2001 and dipping further to 16.6% in 2003.

Saving and Investment



Source: DGBAS, *Quarterly National Economic Trends, Taiwan Area, R.O.C.*, No. 104, Feb. 2004.

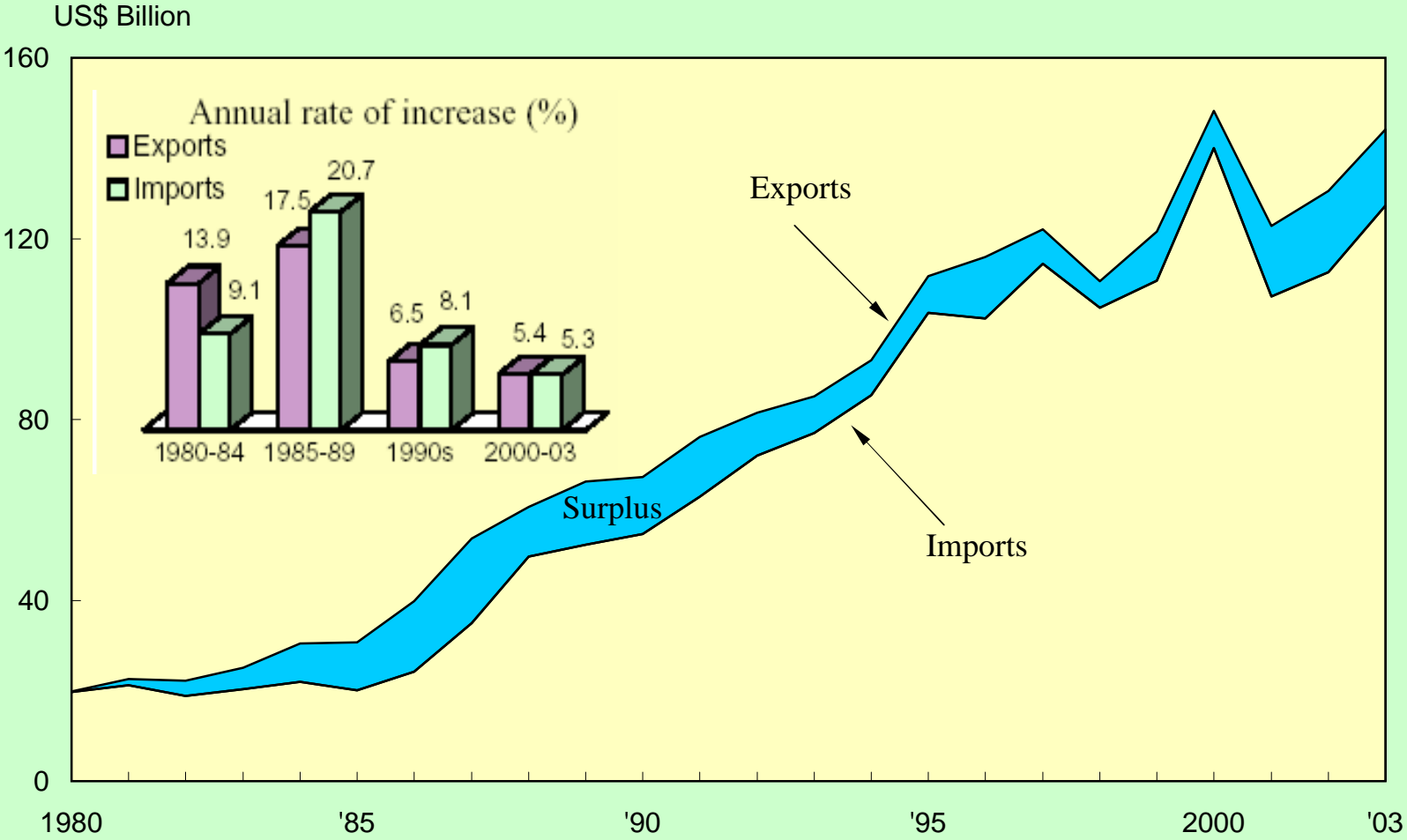
Trade

By switching to an outward-looking strategy and promoting foreign trade early in the course of its development, Taiwan was able to achieve a much more rapid pace of economic expansion than would have been possible if it had focused attention on only its limited domestic market. Taiwan's foreign trade grew rapidly in the 1960s and 1970s. In 1971, Taiwan recorded its first trade surplus. The amount by which merchandise exports exceeded imports soared to a peak of US\$18.7 billion in 1987.

To correct this external imbalance, the government first allowed Taiwan's currency to appreciate to a level determined by the market, then began to increase public spending and bolster domestic demand. It also aggressively pursued economic liberalization and took steps to upgrade the legal and administrative structure, assigning high priority to services and the development of infrastructure. As a result, the trade surplus narrowed significantly and in 1998 amounted to only US\$5.9 billion.

As global economic expansion quickened from 3.0% to 3.9%, world trade grew 4.5% in 2003, well above the 3.1% rate recorded in 2002. Taiwan's two-way trade rebounded smartly during the year. Exports rose by 10.4% and imports by 13.1%, markedly higher than the year-earlier increases of 6.3% and 4.9%, respectively. With imports expanding faster than exports, the annual trade surplus for 2003 amounted to US\$16.9 billion, down from US\$18.1 billion in 2002.

Trade



Source: Ministry of Finance, R.O.C., *Monthly Statistics of Exports and Imports, Taiwan Area, R.O.C.*, Feb. 2004.

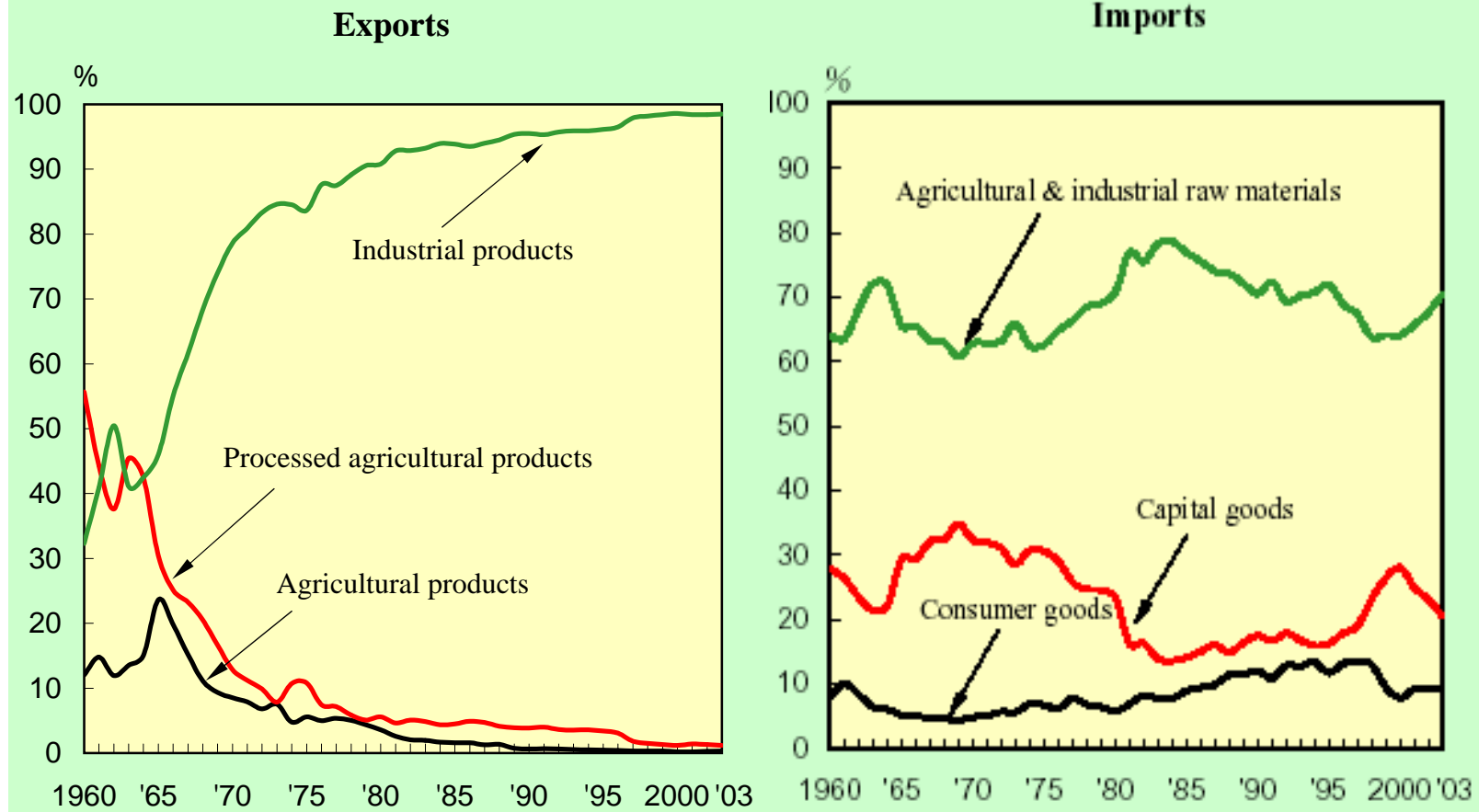
Composition of Trade

The composition of Taiwan's merchandise trade has changed substantially over the years, reflecting the restructuring and upgrading of its industry as well as progress in the liberalization and globalization of its economy.

Industrial products have steadily increased their share of Taiwan's exports, accounting for more than 90% of total exports in 1990 and reaching 98.5% in 2003. Within this category, exports of capital- and technology-intensive goods have shown impressive growth, raising their share of total exports from 32.2% in 1981 to 75.3% in 2003. And as efforts to develop high-technology industries have borne fruit, electronics and products related to information technology have seen their share of total exports rise considerably, from 13.7% in 1981 to 31.4% in 2003.

Because Taiwan has few natural resources, more than 60% of its total imports consist of agricultural and industrial raw materials. Between 1981 and 1997, rapid expansion of the local machinery industry held imports of capital goods to less than 20% of total imports. However, following a surge in investment by high-tech firms beginning in 1998, the share of capital goods in imports climbed to 28.0% in 2000 before easing to 20.5% in 2003. Similarly, because of progress in economic liberalization and rising income, the proportion of consumer goods in total imports grew steadily to 13.6% in 1997, after which it changed course and diminished to 9.1% in 2003.

Composition of Trade



Source: Ministry of Finance, R.O.C., *Monthly Statistics of Exports and Imports, Taiwan Area, R.O.C.*, various issues.

Trading Partners

Because of the continuing shift of the center of world economic gravity from West to East, and the increasing trend toward regional economic integration, Taiwan's trade with countries of the Asia-Pacific region has been steadily increasing, and its trade and economic ties with those countries have been strengthening.

In 2003, Taiwan shipped 19.7% and 14.9% of its exports to Hong Kong and mainland China, respectively, making them its largest and third-largest export markets worldwide. Moreover, most of the Hong Kong-bound exports were transshipped to the Chinese mainland, further underscoring the growing significance of cross-strait trade. The United States slipped to second place among Taiwan's major export markets, with its share of Taiwan's total exports diminishing sharply from 27.7% in 1993 to 18.0% in 2003.

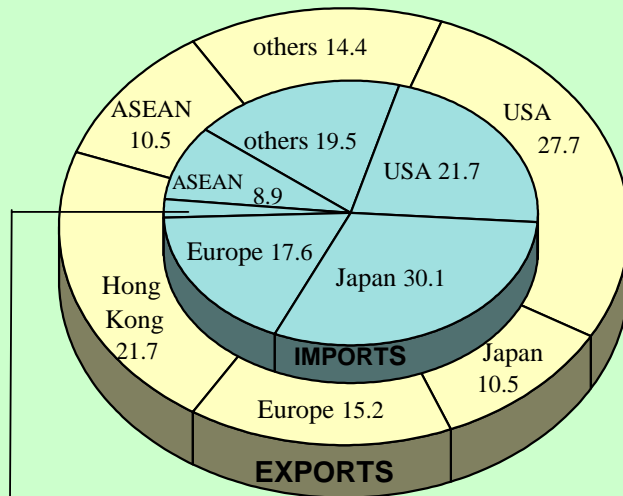
Seeking to further diversify Taiwan's trade markets, the government in recent years has been vigorously promoting a "southward policy." Under this policy, trade between Taiwan and ASEAN has shown steady growth. In 1997, Taiwan's exports to ASEAN accounted for an all-time high of 13.3% (US\$16.2 billion) of its total exports (up from only 5.5% in 1987). ASEAN's share of Taiwan's total exports stood at 12.1% in 2003.

Because of geographic factors and industrial complementarity, Japan and the United States have long been the major suppliers of Taiwan's imports. Before 1995, these two countries consistently provided more than half of Taiwan's total imports. In 2003, however, they accounted for only 38.8%. On the other hand, the share of Taiwan's imports originating in ASEAN has gradually increased, from 8.9% in 1993 to 13.7%, while that from mainland China has jumped from 1.3% to 8.6%.

Trading Partners

Unit: %

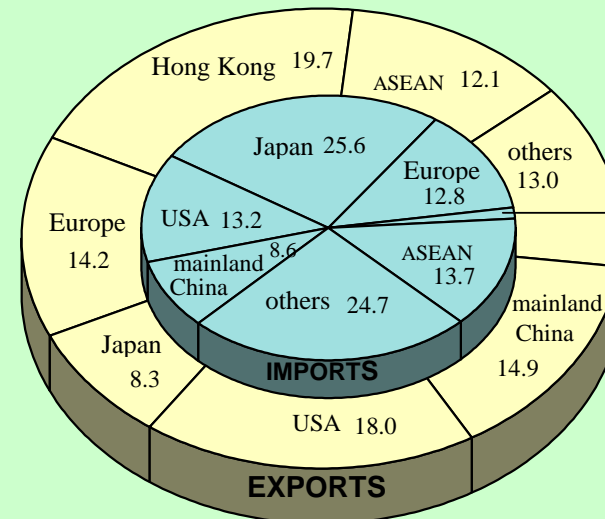
1993



Hong Kong 2.2

Exports: US\$85.1 Billion
Imports: US\$77.1 Billion

2003



Hong Kong 1.4

Exports: US\$144.2 Billion
Imports: US\$127.3 Billion

Source: Ministry of Finance, R.O.C., *Monthly Statistics of Exports and Imports, Taiwan Area, R.O.C.*, Dec. 2000 and Feb. 2004.

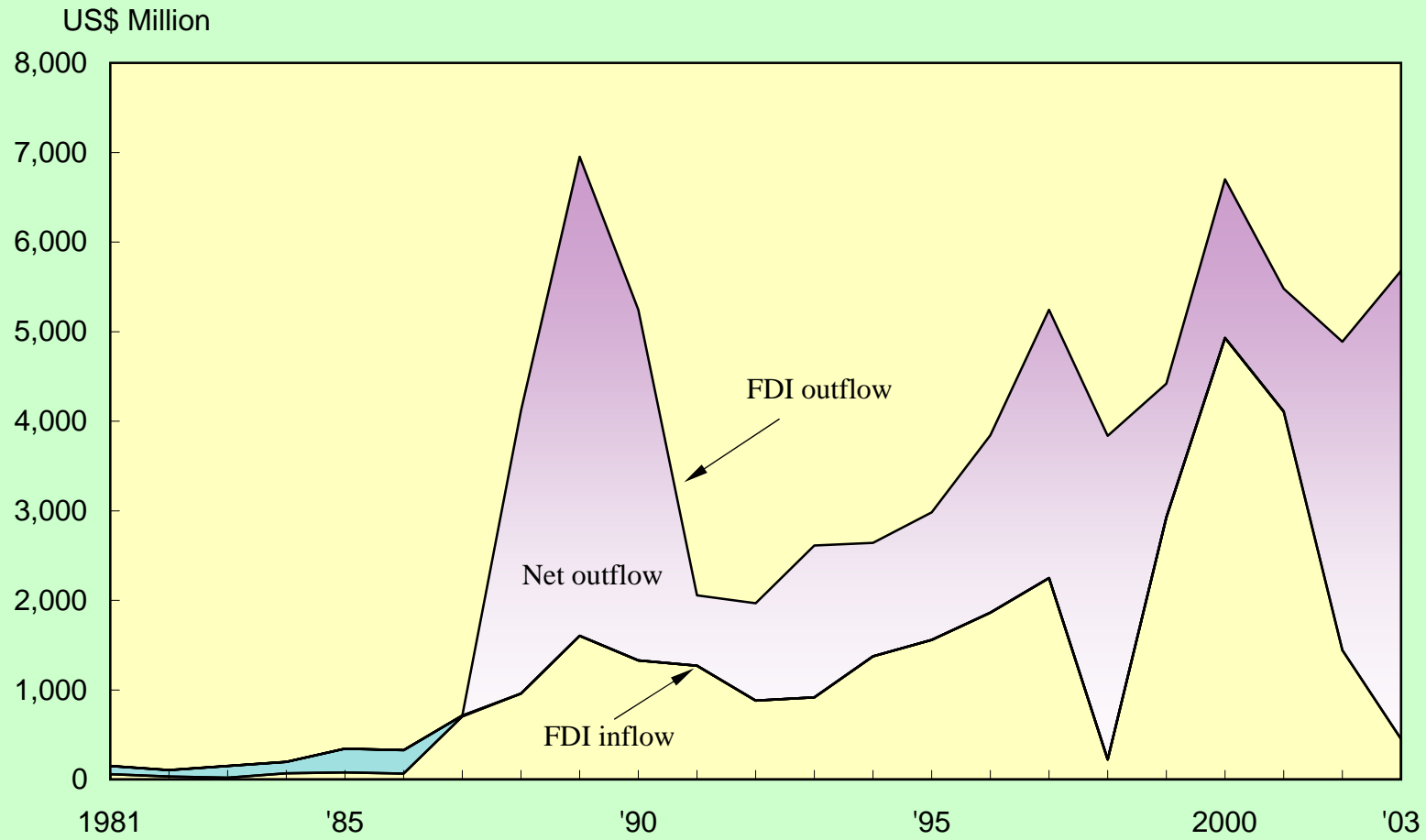
Foreign Direct Investment

Foreign direct investment (FDI) plays an important role in the process of Taiwan's economic development. And the transfer of technology and broadening of markets that accompany such investment have made a vital contribution to the industrialization of the Taiwan economy. The years since the mid-1980s have brought dramatic change to both the domestic and the world economy. As liberalization and globalization became new watchwords worldwide during the 1990s, Taiwan's foreign direct investment in Asia-Pacific countries rose precipitously, making the island the second-largest intra-regional investor after Japan. Having graduated from Original Equipment Manufacturing (OEM), to Original Design Manufacturing (ODM), and on to Configure to Order (CTO) manufacturing, Taiwan's business enterprises now literally straddle the world, marking the island's emergence as a key player in global logistics.

In Taiwan's 1989 balance of payments, outward FDI reached a peak of US\$7.0 billion and net capital outflow stood at US\$5.3 billion. Since then, owing to a resurgence in domestic investment, the FDI outflow from Taiwan has largely followed a moderating trend. However, in 2003 Taiwan's total outward FDI jumped 16.2% to US\$5.7 billion while inward FDI shrank 68.7% to US\$0.5 billion, resulting in a net capital outflow for the year of US\$5.2 billion.

Approved inward investment peaked at US\$7.6 billion in 2000, owing mainly to the opening of the fixed- network market of the telecommunications sector. In 2003 it returned to a more-normal level of US\$3.6 billion, still higher than the US\$2.7 billion annual average recorded for the period from 1992 to 1999. Approved outward investment in 2003 totaled US\$11.7 billion, including backdated approvals of US\$3.1 billion in investments going to mainland China. Of this total, 23.4% went to the Americas, 66.0% to mainland China (just below its highest level of 66.6% in 2002), 9.1% to Asia (2.6% to ASEAN), and 0.7% to Europe.

Foreign Direct Investment



Source: The Central Bank of China, R.O.C., *Balance of Payments Quarterly, Taiwan District, R.O.C.*, Feb. 2004.

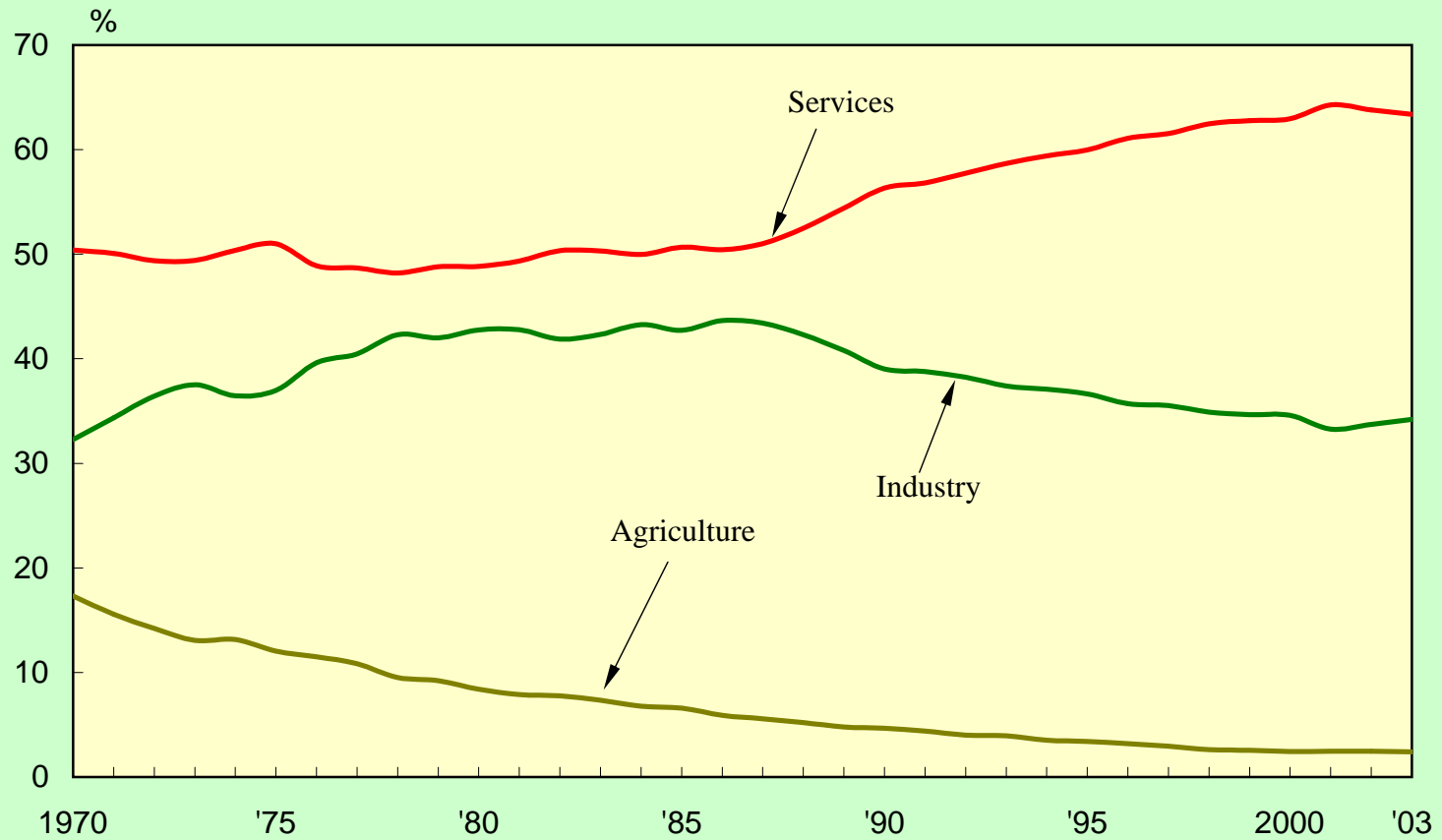
Production Structure

During the early stage of Taiwan's rapid industrialization, there was a heavy flow of productive resources from agriculture to industry. The period also saw a steady increase in industrial production as a share of gross domestic product (GDP). Industry's share of real GDP (at 1996 prices) rose from 22.0% in 1961 to a peak of 43.6% in 1986, after which it began to gradually decline. Since the mid-1980s, owing to increasing consumer spending fueled by a considerable accumulation of personal wealth, domestic demand has been growing strongly. With growth in demand for services particularly robust, the service sector has generated more than 50% of Taiwan's GDP since 1985.

In 2003, industrial production accounted for 34.2% (manufacturing for 28.7%) of GDP and agriculture for only 2.4% (roughly one-fourth of its contribution in 1979). Continuing its strong-growth trend, the service sector generated 63.4% of GDP for the year.

Over the course of Taiwan's economic development, the government has given high priority to continuous upgrading of the industrial structure. As the competitive advantage of Taiwan's traditional industries began to erode in the 1980s, the government responded by establishing the Hsinchu Science-Based Industrial Park as a seedbed for the new technologies and industries of the future. This was an important step on the road toward the development of high-tech industries. Taiwan is currently the world's fourth-largest producer of IT hardware and the largest contract supplier of integrated circuits (ICs). In the service sector, the opening of the domestic telecommunications market to outside competition has slashed phone rates by 50%, with the mobile phone penetration rate now above 110% and the number of broadband Internet households exceeding 3.17 million.

Gross Domestic Product by Sector*



* at 1996 prices.

Source: DGBAS, *Statistical Abstract of National Income, Taiwan Area, R.O.C., 1951-2004*, March 2004

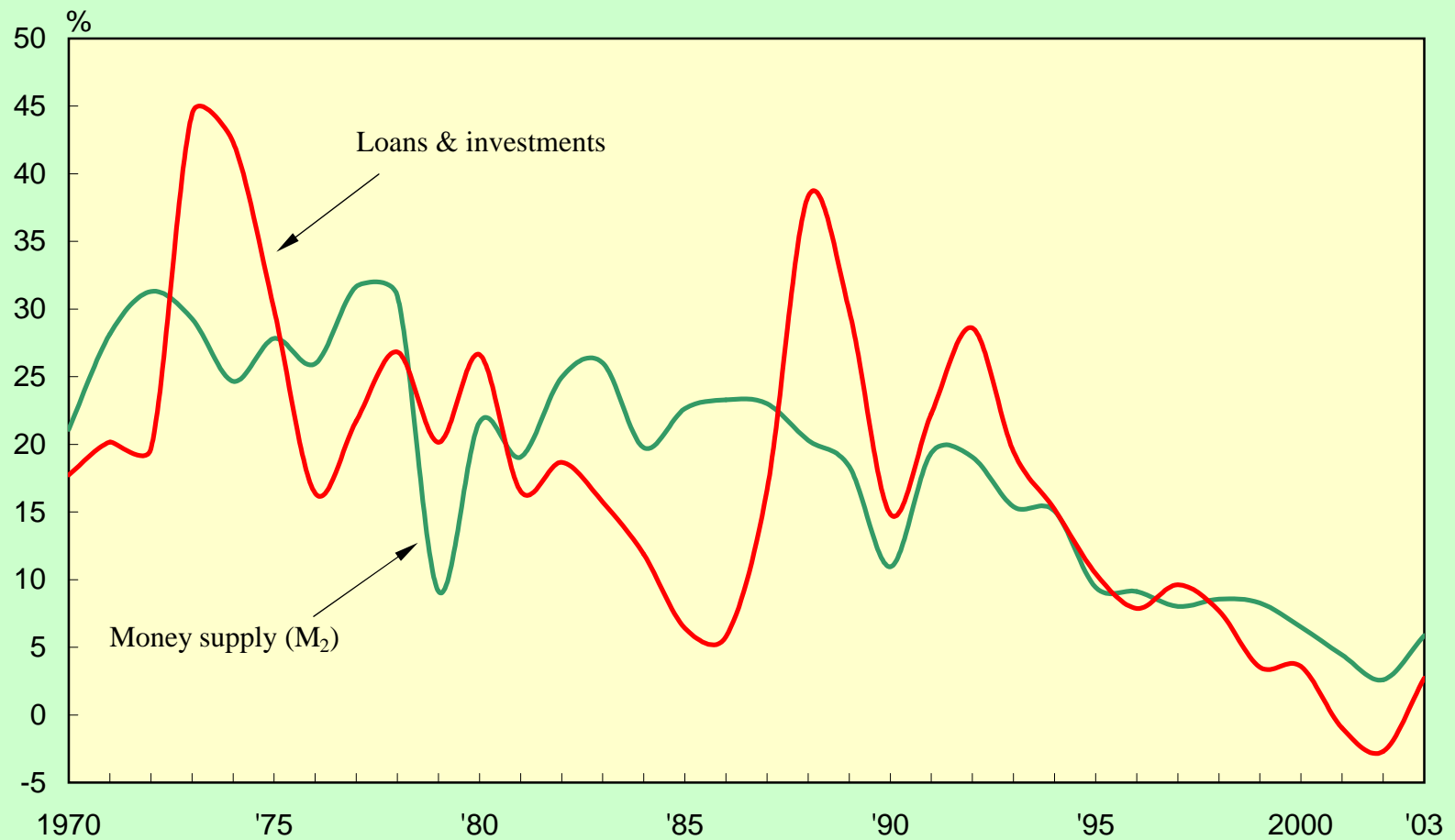
Monetary and Financial Development

With the economy entering a period of more-moderate growth and the use of credit and debit cards growing rapidly, demand for more-traditional forms of money has slackened and the pace of monetary expansion has slowed. After expanding at an average rate of 25.1% per year from 1970 to 1982, and 19.4% per year from 1983 to 1994, the broadly defined money supply (M_2) grew at a still-lower average rate of 7.1% from 1995 to 2002. The corresponding figures for outstanding loans and investments by major financial institutions were 24.7%, 18.7%, and 4.9%, respectively. Recently, with low interest rates reducing the opportunity cost of holding cash and the economy rebounding strongly from recession, the M_2 rate of expansion has picked up sharply, more than doubling from 2.6% in 2002 to 5.9% in 2003, while outstanding loans and investments reversed their contraction of 2.7% in 2002 to grow by 2.7% in 2003.

To enable Taiwan to keep pace with the increasing world trend toward financial liberalization, improve its competitive standing in world financial markets, and encourage the adoption of international financial practices, the government since the late 1970s has been modernizing its financial regulations and lifting restrictive financial controls, generating many opportunities for financial innovation and new financial products.

In new economic legislation enacted since the turn of the century, a Law Governing the Merger of Financial Institutions paves the way for the expansion of such institutions through mergers and acquisitions, and a Financial Holding Company Law seeks to tap the benefits arising from the integrated management of financial-services firms. Moreover, under the *Challenge 2008* Six-Year National Development Plan, financial reform focuses on achieving the “2-5-8” targets of cutting the banking sector’s non-performing loan (NPL) ratio to below 5%, and raising banks’ capital adequacy ratio to at least 8%, within two years. By the end of 2003, the NPL ratio of domestic banks had already been slashed from 8.04% in the first quarter of 2002 to 4.33%, its lowest level since 1998.

Changes in Money Supply and Credit



Source: The Central Bank of China, R.O.C., *Financial Statistics Monthly, Taiwan Area, R.O.C.*, various issues.

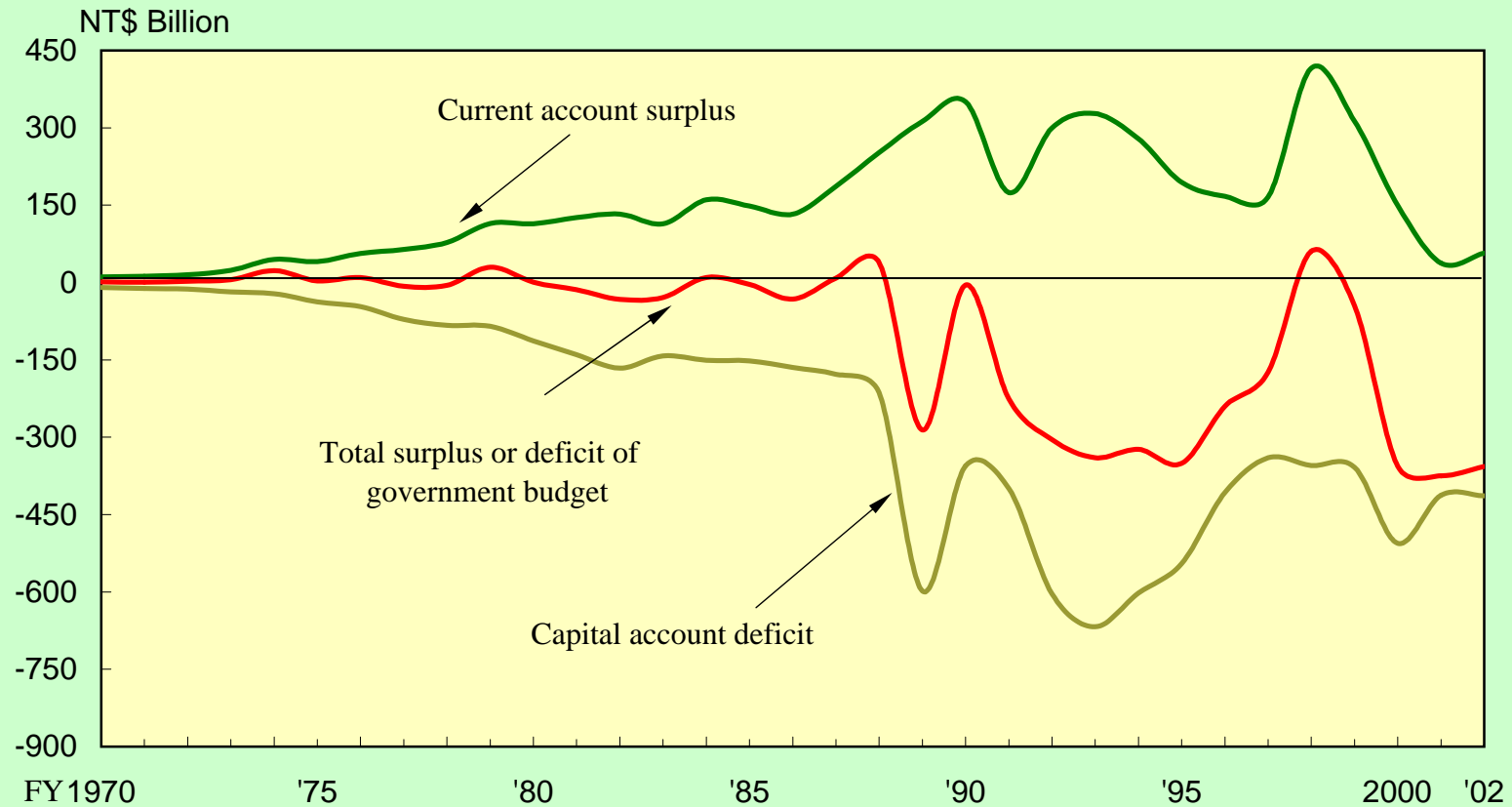
Public Finance

Taiwan's public sector long enjoyed a surplus in its current account large enough to cover capital-account expenditures. However, in 1991, as the government launched a new series of major infrastructure projects and significantly expanded social welfare programs, fiscal outlays began to rise rapidly. In FY 1992 and FY 1993, government spending accounted for 30% of GNP. And with the increase in public expenditures outpacing growth in revenue, the government turned to public debt issues and borrowings to finance the growing budgetary deficits.

In response to this situation, the government in June 1996 introduced a package of fiscal reforms designed to reduce the imbalance between revenues and outlays and to lay the groundwork for a more rational system of taxation and expenditure.

Thanks to a big jump in the growth of tax receipts, from 6.3% in FY 1997 to 20.5%, the government recorded a budgetary surplus of NT\$60.9 billion in FY 1998, the first surplus in ten years and a considerable improvement over the NT\$174.0 billion deficit in FY 1997. Since then, the budget has slipped back into deficit, due mainly to sluggish or declining revenue growth and a dramatic increase in social welfare spending, including the cost of recovering from the severe earthquake that struck Taiwan on September 21, 1999. In FY 2002, the government incurred a deficit of NT\$356.9 billion, with revenue and spending as shares of GNP decreasing to 17.8% and 21.4% from 19.6% and 23.4%, respectively, a year earlier. Total actual public debt outstanding increased 9.7% during FY 2003, from NT\$3.15 trillion in FY 2002 to NT\$3.45 trillion, and from 32.7% to 35.1% of average GNP for the preceding three years.

Government Budget



Notes: 1. Financing revenues and debt repayments are excluded.

2. Before 2000, the fiscal year begins July 1 of preceding year and ends June 30. FY 2000 extends from July 1, 1999, to Dec. 31, 2000. Subsequent fiscal years follow the calendar year (from Jan. 1 to Dec. 31).

Source: Ministry of Finance, R.O.C.

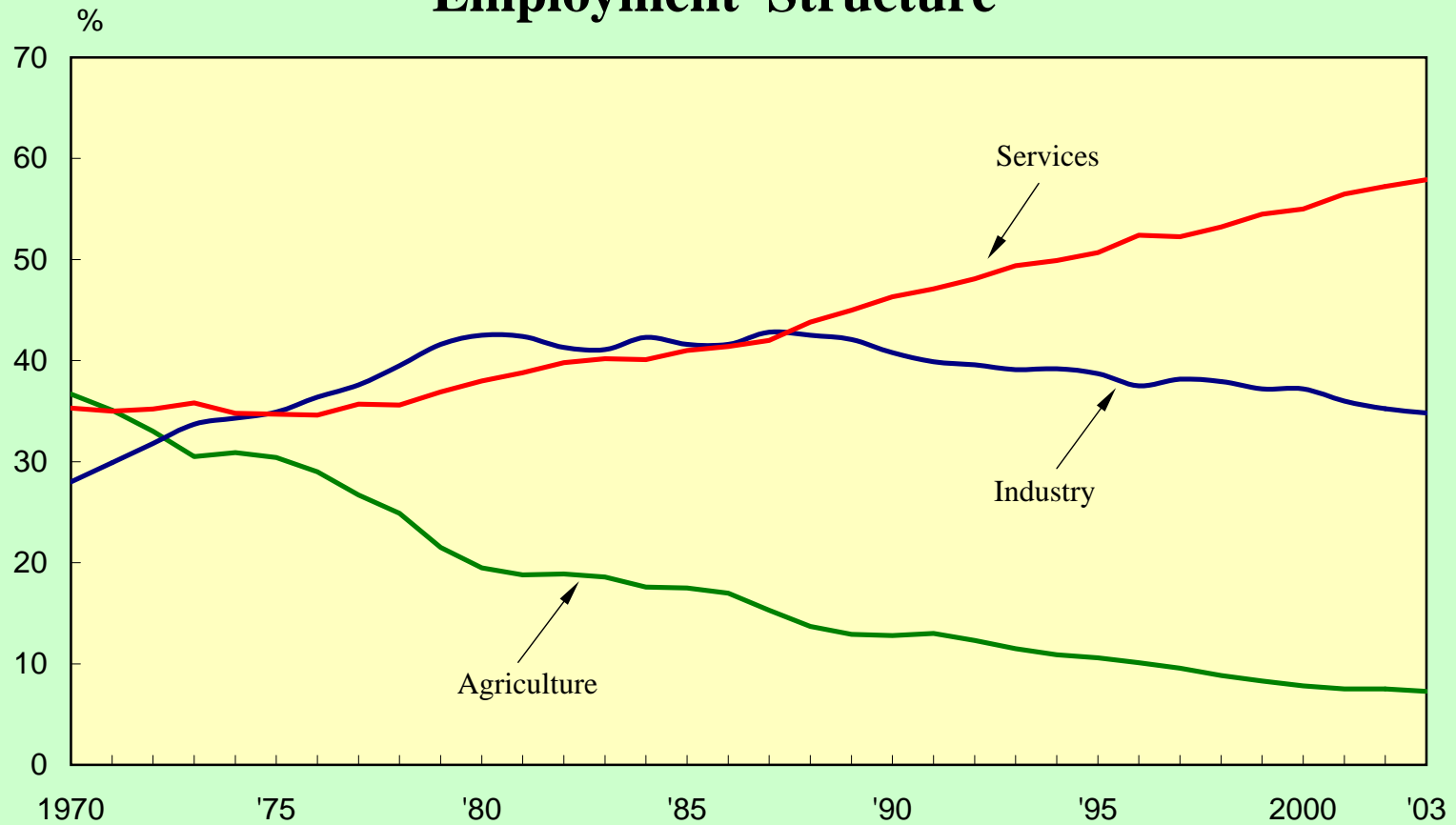
Labor Force and Employment

Because of a high birth rate prior to the early 1980s, Taiwan's working-age population has steadily expanded, from 66.7% of total population in 1990 to 70.9% in 2003. Nevertheless, the labor force participation rate has declined steadily over the years, falling to 57.3% in 2003 from its peak of 60.9% in 1987, largely because of a desire by young men and women to extend their education.

Over the last ten years, total employment has increased 0.9% annually. Unemployment remained between 1.5% and 2.0% of the labor force until 1995. However, since the second half of 1995, owing to short-term slack in the economy and labor-market rigidity, unemployment has turned upward. A higher level of structural unemployment, resulting from the ongoing transformation of Taiwan's domestic economic structure and exacerbated after 2001 by sluggish world economic growth, has contributed to the rise in joblessness. The unemployment rate reached 2.6% in 1996, touched 2.99% in 2000, jumped to 4.57% in 2001, and rose again to 5.17% in 2002. However, the rate subsided to 4.99% in 2003, thanks to growing economic prosperity and the introduction of a NT\$20 billion Program to Expand Employment in Public Service.

As Taiwan has developed from an agricultural into an industrial economy, dramatic changes have taken place in its employment structure. Agricultural employment, for example, fell from 36.7% of total employment in 1970 to 7.3% in 2003, while employment in industry rose from 28.0% to a peak of 42.8% in 1987, before declining to 34.8% in 2003. Meanwhile, the service sector has increased its share of total employment from 35.3% to 57.9%, and promises to be the major provider of new job opportunities for years to come.

Employment Structure



Sources: 1. DGBAS, *Retrospective Estimation and Adjustment of Taiwan Area Manpower Data: 1951-1983*, Oct. 1984.

2. DGBAS, *Monthly Bulletin of Manpower Statistics, Taiwan Area, R.O.C.*, March 2004.

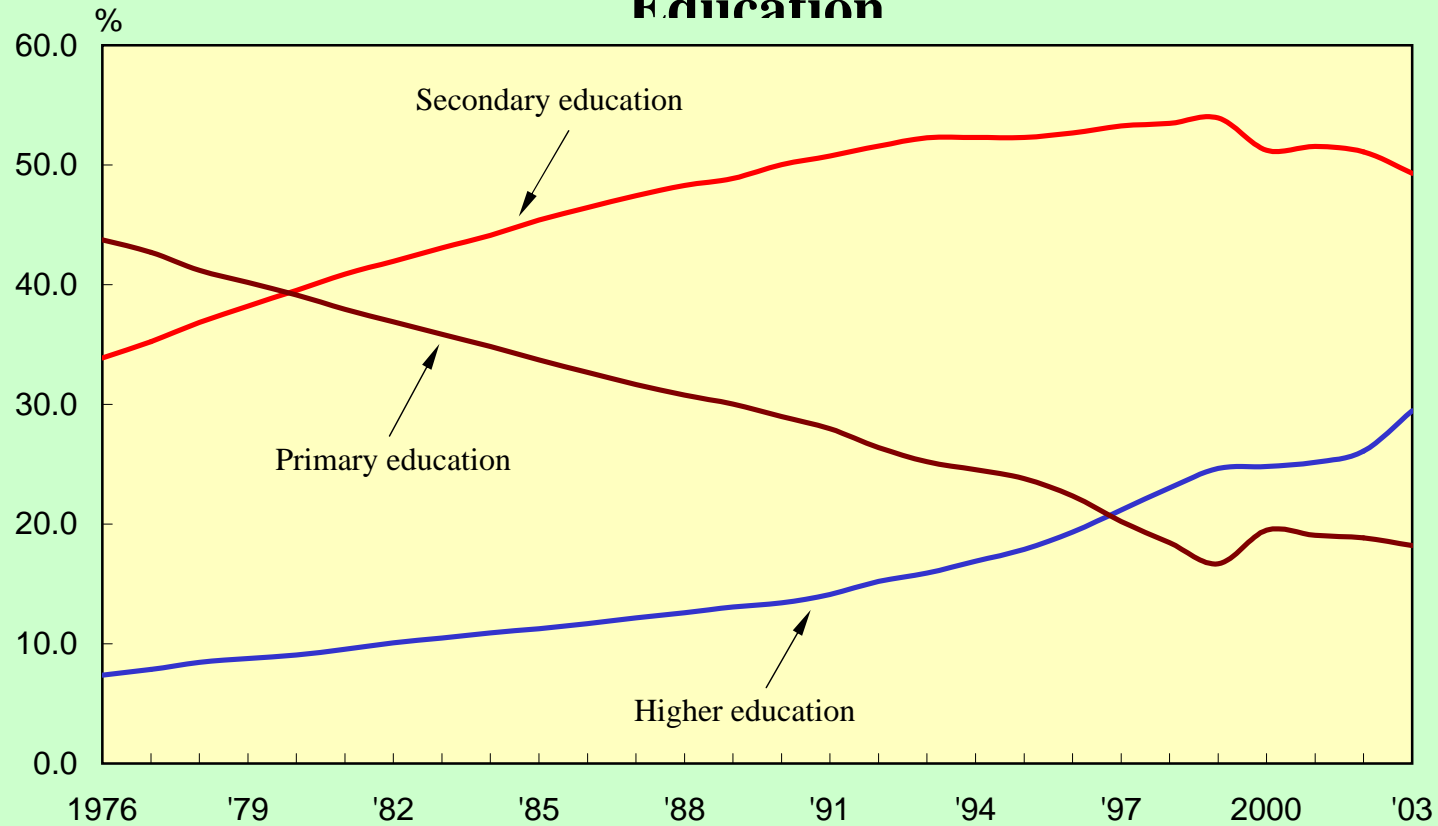
Education

The government has long placed heavy emphasis on education, and educational expenditures have consistently accounted for a major proportion of its annual budget. Since the introduction of a nine-year compulsory education system in 1968, all public education programs have stressed not only high standards of excellence but also easy access for everyone. The achievement of these goals is reflected by a steady rise in the rate of literacy and in the educational attainment of Taiwan's population.

While only 33.9% of the population 15 years of age and older had graduated from high school or vocational school in 1976, by 2003 the rate had risen to 49.3%. Similarly, the proportion of the population aged 15 or older with a college or university degree rose from 7.4% in 1976 to 29.5% in 2003. Those with a higher education now outnumber those with only a primary-level education, reflecting the success of efforts to upgrade Taiwan's human resources.

Thanks to high educational standards and equal educational opportunity, Taiwan has accumulated an impressive stock of human capital and developed a significant capacity for research and development (R&D). To ensure the continuous upgrading of human resources, Taiwan's most precious asset, the government has made plans to enhance the cultivation of high-quality technical talent domestically while recruiting top-flight scientists and technicians from abroad. It will also promote the learning of English in order to provide a more-cosmopolitan living environment. At the same time, it will encourage the habit of lifelong learning by completely integrating its education system with the Internet, fostering the emergence of a computer-literate, world-conscious, and innovative e-generation.

Population Aged 15 and Over by Level of Education



Note: Primary education includes primary school and “self-taught” education outside the formal school system; secondary education includes high school, vocational school, and the first three years of five-year junior college; and higher education includes university and the senior two years of junior college.

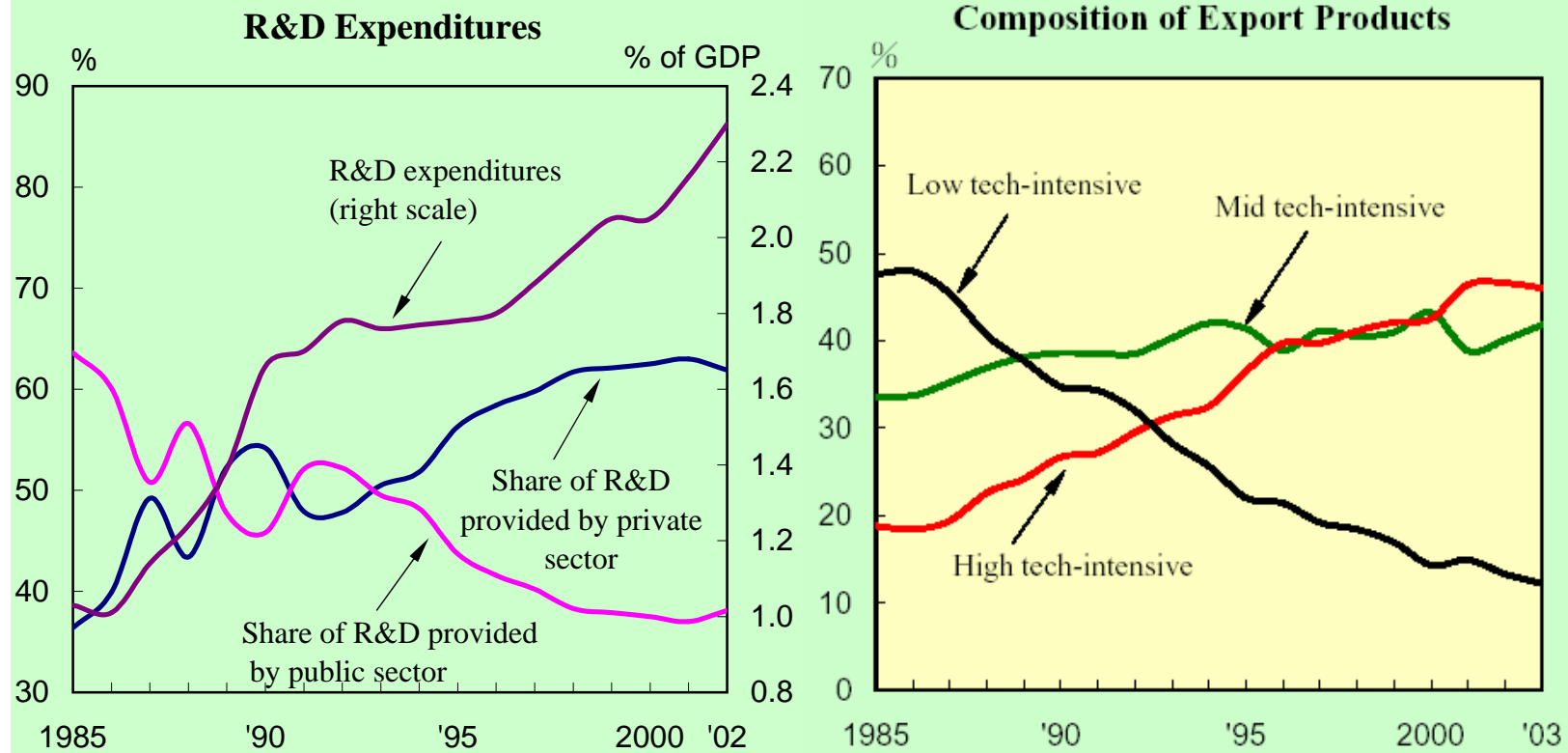
Source: Ministry of Education, R.O.C.

Science and Technology

Science and technology (S&T) development in Taiwan may be divided into two stages: a labor-intensive stage from 1952 to 1985, and a technology-intensive stage after 1985. During the earlier period, Taiwan significantly enhanced the international competitiveness of its light industries by introducing production, managerial, and marketing know-how from abroad and by achieving better use of labor and capital. The later stage has been marked by strong government support for applied technological development and by the promotion of technology-intensive industries. Thanks to a concerted effort by the government, research institutions, and the business community, Taiwan's progress in S&T development includes the following milestones since 1985:

- Total R&D spending rose from only 1.03% of GDP in 1985 to 2.30% in 2002, and the government has set the goal of raising it to 3% by 2006. Moreover, the private sector overtook the public sector in R&D spending for the first time in 1993, and, since then, private-sector R&D expenditures have grown much more rapidly than those of the public sector. In addition, the number of research personnel per 10,000 population rose from 12.8 in 1985 to 42.5 in 2002. Meanwhile, Taiwan's world ranking rose from 36th to 18th in the Science Citation Index and from 26th to 11th in the Engineering Index.
- The government is stepping up implementation of the Two-Trillion, Twin-Star Industries program, under which investment of NT\$353 billion in 2002 and NT\$377 billion in 2003 generated additional production value of more than NT\$1.22 trillion and NT\$1.55 trillion, respectively.
- From 1985 to 2003, high-tech-intensive products increased their share of total exports from 18.8% to 46.0%.

Science and Technology



Sources: 1. National Science Council, Executive Yuan, R.O.C., *Indicators of Science and Technology, R.O.C.*, 2003.
 2. Ministry of Finance, R.O.C., *Monthly Statistics of Exports and Imports, Taiwan Area, R.O.C.*, Feb. 2004.

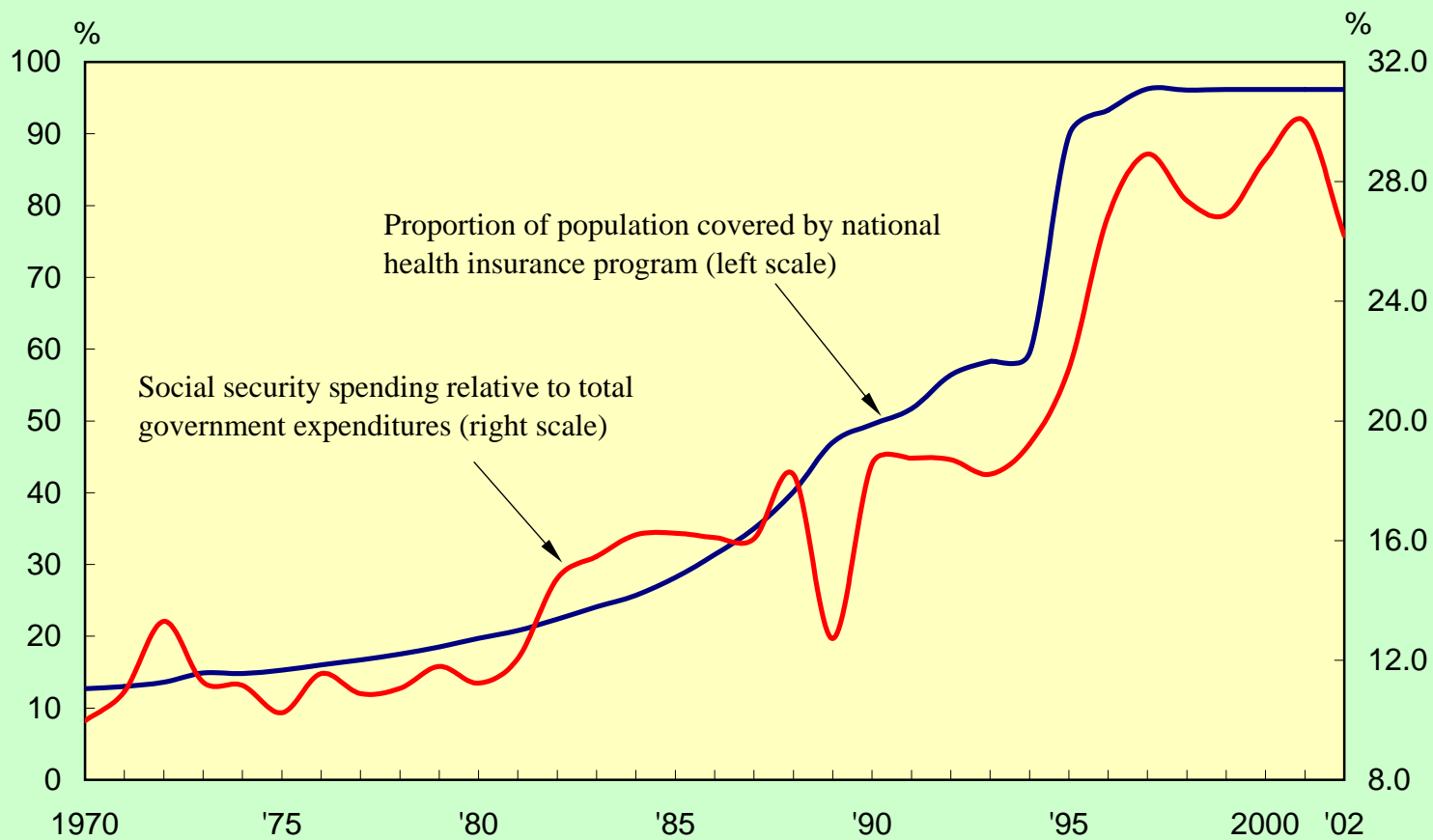
Social Security

In recent years, amid sweeping social, economic, and political transformation, the people of Taiwan have looked to the government to ensure the provision of basic needs. In response, the government has not only enacted new social security legislation, but worked on improving the quality and efficiency of existing social services. These efforts are reflected by a steady rise in public spending on social security, from 10.0% of total government outlays in FY 1970 to 26.2% (social welfare, 15.1%; pension & survivors' benefits, 8.0%; and community development & environmental protection, 3.1%) in FY 2002.

The government has been taking additional steps to strengthen Taiwan's social safety net. In March 1995, it introduced national health insurance, which now covers almost the entire population. In addition, unemployment insurance coverage was inaugurated in January 1999.

As part of its measures to tackle the rising level of structural unemployment stemming from Taiwan's industrial transition, in July 2003 the government introduced a NT\$20 billion Program to Expand Employment in Public Service. This program created 72,000 new jobs in the public sector during the second half of 2003, helping to reduce the jobless rate by 0.23 percentage point for the year as a whole. Other measures implemented to alleviate unemployment included a Mid- to Long-Term Program for the Promotion of Sustainable Employment, a Project for the Upgrading of Job Skills, a Plan for the Development of Care-Services and Welfare Industry, and a National Travel Card Scheme.

Social Security



Note: Debt repayments are excluded from government expenditures.

Sources: 1. Ministry of Finance, R.O.C.

2. Bureau of National Health Insurance, R.O.C.

***Challenge 2008* National Development Plan**

To prepare Taiwan to meet the needs of economic development in the new century, in 2002 the Executive Yuan unveiled the *Challenge 2008* Six-Year National Development Plan. The plan sets out three reforms — in the political, financial, and fiscal spheres — and ten key individual plans.

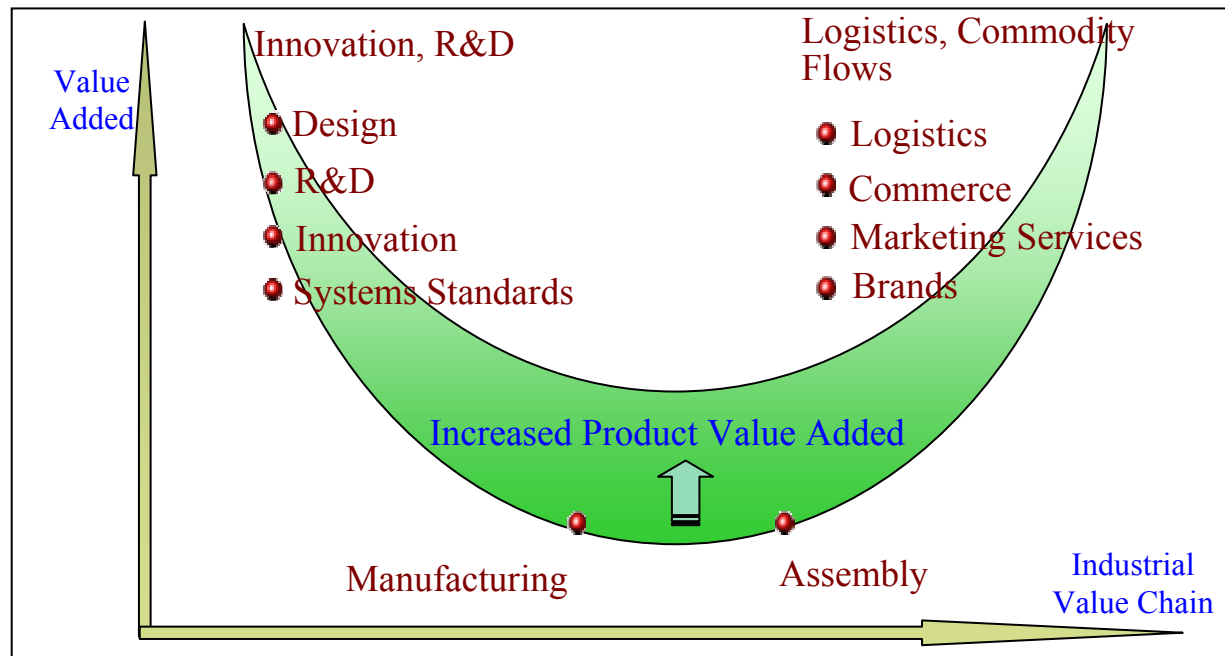
Political reform aims to transform government into a system of public administration that is small, lean, and proactive. Fiscal reform seeks to balance government revenues and expenditures within five to ten years. And financial reform targets cutting the banking sector's non-performing loan (NPL) ratio — a measure of bad loans as a proportion of total bank-loan portfolios — to 5%, and raising banks' capital adequacy ratio to 8%, within two years.

The ten key individual plans are focused on accelerating development of the economy, improving the living environment, and upgrading the role of culture and the arts in modern life — all with a view to speeding Taiwan's emergence as a “green silicon island.” No longer able to rely on the type of low-value-added mid-stream processing and contract manufacturing that provided a key source of growth in the past, Taiwan must now invest more heavily in human resources, R&D, innovation, logistics networks, and its living environment. It must strive to lift its industrial value chain, especially at the two ends, to create a steeper smile curve for Taiwan and ensure its future economic prosperity.

New Thinking on Industrial Positioning

— lifting industrial value added

- tech and capital intensive
- high value (not necessarily high prices)
- greater variety, lower volume
- key parts, accessories, & materials



$$\text{Value of Enterprises} = \text{Capacity to Create Value (R\&D, Manufacturing)} \times \text{Capacity to Realize Value (Logistics, Services, \& Marketing)}$$

The New Ten Projects

To speed the implementation of *Challenge 2008*, the government has designated key projects related to this plan as the New Ten Projects. These projects are designed to enhance Taiwan's competitive strength, maintain its number-one competitiveness ranking in Asia, and make Taiwan one of the world's three strongest economies.

■ Innovation, R&D, and Investment in Human Resources

1. Developing Top-notch Universities & Research Centers

☞ Number one ranking in Asia in at least 15 disciplines within 5 years; at least one university ranked among the world's top 100 universities within 10 years.

■ Cultural Innovation and Knowledge Industries

2. Establishing International Arts and Popular Music Centers Islandwide
3. Implementing the Mobile Taiwan ("M" Taiwan) Plan
4. Holding the Taiwan Exposition

☞ Opening international art and cultural exhibition centers in northern, central, and southern Taiwan.

☞ Building two integrated broadband networks with a total length of 6,000 km.

☞ Holding the Taiwan Expo 2008.

The New Ten Projects

■ Global Competition and Logistics

5. Converting the Railway System to a Rapid Transit Network
6. Carrying out Third-Phase Freeway Construction
7. Developing the Kaohsiung Harbor Intercontinental Container Center

■ Sustainable Ecology & Modern Living Conveniences

8. Constructing MRT Systems in Northern, Central, and Southern Taiwan
9. Building Wastewater Treatment Systems
10. Constructing Lowland Reservoirs and Desalination Plants

- ☞ Transforming the Taiwan Railway: converting 8 sections to MRT mode; developing 3 new branch lines.
- ☞ Developing sightseeing areas in Ilan, Hualien, Taitung, and Nantou that are conveniently accessible to urban residents in northern, central, and southern Taiwan.
- ☞ Building a deep-water harbor with storage facilities for 15,000 TEU containers.
- ☞ Constructing ten major “green transport” MRT lines with a combined length of 199 kilometers.
- ☞ Raising the proportion of the population connected to wastewater sewerage from 10.7% to 27.3%.
- ☞ Constructing four artificial lake reservoirs (the Taoyuan, Yunlin, Tainan, and Kaoping Lakes) with a combined area equivalent to two-and-a-half Sun Moon Lakes or 18 Chengching Lakes.
- ☞ Constructing seawater desalination plants in Taoyuan and Hsinchu, and on offshore islands (Kinmen, Matsu, and Penghu).

Strategies of Economic Development

During the past five decades, Taiwan has achieved rapid economic growth, price stability, and equitable income distribution, as well as very low unemployment until 2001. In addition, its industry has successfully shifted from labor-intensive to capital- and technology-intensive production. A very important factor behind Taiwan's economic success has been pragmatic and flexible government policies — especially the promotion of social and political stability and the adoption of an outward-looking development strategy. And whenever new problems have arisen, timely, market-friendly policy initiatives have been undertaken to cope with them. Taiwan's economic development can be divided into six stages:

The 1950s: in Pursuit of Stability and Self-sufficiency

In the 1950s, top priority was given to economic stabilization and food production. The major tasks were to effectively utilize U.S. economic aid for development, and to make use of tariffs and import controls in fostering the development of domestic industry. A land reform program was introduced to encourage food production, stabilize food prices, and promote social stability. At the same time, the development of labor-intensive import-substituting industries was encouraged in order to lessen dependence on imports and the need for foreign exchange.

The 1960s: Expanding Exports of Light Industry

In the 1960s, emphasis was placed on promoting labor-intensive and export-oriented industries to take advantage of low-cost labor and tap the potential of markets beyond Taiwan. Toward that end, the government introduced

reforms in foreign exchange administration and taxation, enacted the Statute for the Encouragement of Investment, and in 1966 established Taiwan's first export-processing zone. Amid buoyant recovery of the world economy, Taiwan's exports increased rapidly, becoming the locomotive of its economic growth.

The 1970s: Developing Basic and Heavy Industries

By the end of the 1960s, rapid export expansion had stimulated strong domestic demand for machinery, equipment, and intermediate materials on the one hand, and led to a substantial improvement in the production structure on the other. Meanwhile, management had become more sophisticated and industrial technology more advanced. The time had come to encourage a gradual shift to basic and heavy industries. This was accomplished by promoting the production of domestic substitutes for imported intermediates and the development of capital-intensive industries. This strategy enabled Taiwan to effectively reduce its reliance on foreign suppliers of essential intermediate products and to upgrade its industrial structure.

The 1980s: Economic Liberalization and Technology-Intensive Development

In the early 1980s the economy began to reap the benefits of trade-promotion policies, and an increasing surplus was recorded in foreign trade. Against this background, the government adopted economic liberalization and internationalization as new guiding principles for Taiwan's further development, and endeavored to bring market forces into full play. At the same time, Taiwan began to tap its ample capital resources to develop such capital- and technology-intensive industries as electronics, information, and machinery.

The 1990s: Coping with Change and Setting New Priorities

As the 1990s began, Taiwan turned to the task of strengthening its infrastructure. Toward this end, a Six-Year National Development Plan was introduced in 1991. In 1994, the government assigned top priority to the implementation of Twelve Major Construction Projects, covering transportation, culture and education, improvement of living standards, water resources development, and environmental protection. A Comprehensive Physical Development Plan was initiated with a view to rationalizing land use, improving the investment climate, and upgrading the quality of life. In January 1997, a Plan for National Development into the Next Century (1997-2000) was introduced. Aimed at accelerating Taiwan's transformation into a modern industrialized society, this plan was centered on the achievement of three goals: strengthening national competitiveness, improving the quality of life, and promoting sustainable development. At the same time, as an overture to the emergence of a mature economy, efforts were begun to develop Taiwan into an Asia-Pacific Regional Operations Center (APROC).

In 1998, to remove Taiwan from the shadow of the Asian financial crisis as quickly as possible, the government launched a Domestic Demand Stimulus Plan. And in February 1999, it began to implement a package-style program to strengthen Taiwan's economic fundamentals.

As the turn of the century approached, it became increasingly apparent that "inspiration," in the form of innovation and R&D, had replaced the "perspiration" of the earlier labor- and capital-intensive era as a key driver of economic growth. With that in mind, Taiwan stepped up efforts to transform and upgrade its industrial structure, investing heavily in human resources, logistics networks, and the environment.

The 2000s: Sustainable Development on a Green Silicon Island

The National Development Plan for the New Century (2001-2004), the Plan to Develop a Knowledge-Based Economy, and the Global Logistics Development Plan are being given the highest priority as Taiwan moves forward into the twenty-first century. Liberalization, internationalization, and systemization will continue to serve as guiding principles as this agenda is carried out. The ultimate objective is to harness the power of Taiwan's dynamic silicon-based economy to provide a clean and self-renewing natural environment for an increasingly affluent and compassionate civil society.

From 2002 to 2007, the government will implement the new national development plan, *Challenge 2008*. This is a strategic development plan that emphasizes such goals as strengthening international competitiveness, upgrading the quality of life, and promoting sustainable development. Built around ten programs involving substantial investments in manpower, R&D and innovation, logistics networks, and the living environment, the plan also aims to achieve significant political, financial, and fiscal reforms.

As Taiwan moves forward into the new century, fixed investment by its government has declined by NT\$117.5 billion, from a peak of NT\$520.7 billion in 1999 to NT\$403.2 billion in 2003. The government investment rate (government fixed investment as a share of GDP) also has fallen, from a peak of 7.3% in 1994 to 4.1% in 2003, or by 3.2 percentage points. With these developments in mind, the Executive Yuan in 2003 planned the New Ten Projects, both to address the pressing need for raising public investment in infrastructure and to speed the implementation of *Challenge 2008*.

Strategies of Economic Development

1950s	<p>In Pursuit of Stability and Self-sufficiency</p> <ul style="list-style-type: none"> Introducing economic planning in 1953, after the completion of postwar rehabilitation Implementing a land-reform program, stimulating agricultural production, and promoting economic stability Developing labor-intensive import-substituting industries to reduce the trade deficit
1960s	<p>Expanding Exports of Light Industry</p> <ul style="list-style-type: none"> Encouraging saving, investment, and exports Introducing new agricultural products Establishing export-oriented industries and export-processing zones
1970s	<p>Developing Basic and Heavy Industries</p> <ul style="list-style-type: none"> Improving infrastructural facilities and eliminating transport bottlenecks Establishing intermediate-goods industries Developing basic and heavy industries
1980s	<p>Economic Liberalization and Technology-Intensive Development</p> <ul style="list-style-type: none"> Restructuring industrial production and expanding R&D spending Promoting economic liberalization and internationalization Expanding domestic demand to improve the trade imbalance

Strategies of Economic Development (*Continued*)

<p>1990s</p>	<p>Coping with Change and Setting New Priorities</p> <ul style="list-style-type: none"> Stepping up public investment (promoting the BOT scheme) and improving the investment climate Speeding up deregulation to strengthen national competitiveness Enforcing pollution controls and rationalizing land use to promote sustainable development Encouraging more-balanced economic and social development to improve the quality of life Developing Taiwan into an Asia-Pacific Regional Operations Center
<p>2000s</p>	<p>Sustainable Development on a Green Silicon Island</p> <ul style="list-style-type: none"> Developing a knowledge-based economy Providing a clean and self-renewing natural environment Fostering the development of an affluent and compassionate civil society Promoting the spread of e-commerce and developing a complete range of supply-chain services to speed Taiwan's emergence as a major international procurement and logistics base Implementing the new national development plan, <i>Challenge 2008</i> a strategic plan paving the way for Taiwan's emergence as a "green silicon island" in the first decade of the new century Planning the New Ten Projects, to address the pressing need for raising public investment in infrastructure and to speed the implementation of <i>Challenge 2008</i>.

Major Themes of the ROC's

Plan	1st Medium-Term Plan 1953-1956	2nd Medium-Term Plan 1957-1960	3rd Medium-Term Plan 1961-1964	4th Medium-Term Plan 1965-1968	5th Medium-Term Plan 1969-1972
Theme	<ol style="list-style-type: none"> 1. Step up agricultural and industrial production 2. Promote economic stability 3. Improve balance-of-payments deficit 	<ol style="list-style-type: none"> 1. Expand agricultural production 2. Accelerate industrial development 3. Stimulate export expansion 4. Create job opportunities 5. Narrow balance-of-payments deficit 	<ol style="list-style-type: none"> 1. Maintain economic stability 2. Speed up economic growth 3. Strengthen industrial base 4. Improve investment environment 	<ol style="list-style-type: none"> 1. Foster economic modernization 2. Maintain economic stability 3. Develop sophisticated industries 	<ol style="list-style-type: none"> 1. Maintain price stability 2. Promote export expansion 3. Intensify infrastructural development 4. Upgrade industrial structure 5. Accelerate pace of agricultural modernization

Economic Development Plans

6th Medium-Term Plan 1973-1975	7th Medium-Term Plan 1976-1981	8th Medium-Term Plan 1982-1985	9th Medium-Term Plan 1986-1989
<ol style="list-style-type: none"> 1. Speed up modernization of industry 2. Expand infrastructural development 3. Improve manpower quality 4. Encourage export expansion 	<ol style="list-style-type: none"> 1. Raise energy efficiency 2. Improve industrial structure 3. Step up manpower development 4. Promote balanced economic and social development 5. Complete the Ten Major Development Projects 	<ol style="list-style-type: none"> 1. Maintain reasonable price stability 2. Continue economic growth 3. Ensure coordinated industrial development 4. Provide adequate job opportunities 5. Promote more-equitable income distribution 6. Emphasize balanced regional development 7. Foster social harmony 	<ol style="list-style-type: none"> 1. Promote trade liberalization 2. Expand public investment 3. Strengthen the fiscal and monetary system 4. Speed up the modernization of services 5. Actively develop key technologies 6. Step up pollution control

Major Themes of the ROC's Economic Development Plans (*Continued*)

Plan	10th Medium-Term Plan 1990-1993	Six-Year National Development Plan 1991-1996	Plan for National Development into the Next Century 1997-2000	National Development Plan for the New Century 2001-2004
Theme	1. Policy directions (1) Increase public expenditures (2) Streamline laws and regulations, and enforce economic liberalization policies 2. Implementation priorities (1) Improve investment environment (2) Actively promote transportation development (3) Strengthen environmental protection (4) Devote more resources to social welfare	1. General goals: Rebuild social and economic order, and promote balanced overall development 2. Policy goals: (1) Raise national income (2) Ensure the provision of sufficient resources for continued industrial growth (3) Promote balanced regional development (4) Improve the national quality of life	General goal: National modernization 1. Sharpen national competitiveness 2. Enhance the quality of life 3. Promote sustainable development	General goal: To develop Taiwan as a “green silicon island” 1. Develop a knowledge-driven, silicon-based economy 2. Provide a clean, self-renewing natural environment 3. Foster the development of an affluent and compassionate civil society

Future Development Prospects

From a trading outpost in the 17th century, Taiwan has today been transformed into a major player in the global economy, and a key innovator in information technology. Taiwan's economic achievements have been in no small part due to its continuous pursuit of economic liberalization and globalization, which also helped it gain membership in the WTO in January 2002. In the 21st century, we have committed ourselves to accelerating progress in this direction, with the aim of strengthening the competitiveness of our increasingly knowledge-driven economy. We will continue to build upon our economic and industrial achievements, enhancing our capacity for innovation and developing a society noted not only for its material prosperity but also for its cultural diversity and high quality of life. Working together, we will realize our vision of transforming Taiwan into a "green silicon island."

Expanding our trade and investment in the Asia-Pacific region will remain an important priority, as we reach out to form closer trade and economic ties with neighboring countries. While seeking to promote greater harmony and balance between the different sectors of our own economy, we will continue to pursue the healthy development of cross-strait ties, helping to create a 'win-win' situation for both sides on the basis of equality and mutual benefit.

As a productive and responsible member of the international community, Taiwan has enjoyed significant benefits and advantages. In return, we are determined to do our utmost to further the goals of peace and prosperity worldwide.

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