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## The strategies adopted by Taiwan in response to the global financial crisis, and Taiwan's role in Asia-Pacific economic integration

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### ARTICLE INFO

#### Keywords:

Global financial crisis  
Regional economic integration  
Industrial policy  
ECFA

### ABSTRACT

The global financial crisis that began in 2008 exposed weaknesses in Taiwan's industrial structure and in the structure of its foreign trade; it also pointed out the importance of industrial upgrading and transformation if Taiwan is to remain economically competitive. The aim of this paper is to explore the strategies that Taiwan has adopted in response to the global economic crisis, and the medium- and long-term strategies that Taiwan will need to adopt in the face of the trend towards economic integration in the Asia-Pacific region.

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### 1. Introduction

The sub-prime mortgage crisis in the U.S. was the prelude to a financial and economic crisis the effects of which have been felt all around the world; those economies in Europe and the Americas whose financial sectors had been highly internationalized and whose economies were closely linked to the U.S. were particularly badly affected. As the level of financial internationalization in Taiwan is still relatively low, the extent of asset destruction in Taiwan was limited. However, the Taiwanese economy is heavily dependent on exports, and the destruction of wealth in Europe and North America led to reduced demand for imports, which had a severe impact on Taiwan's export performance. The financial crisis revealed a number of weaknesses in Taiwan's industrial structure and the structure of its foreign trade. The fall in the purchasing power of American consumers had an indirect impact on Taiwan's exports. In the first quarter of 2009, exports fell by over 30%. Adding to this the effects of weak domestic demand, Taiwan's first-quarter economic growth rate was an unimpressive –8%. The question of how the Taiwanese economy has coped with the recent crisis, and how Taiwan can upgrade and transform its industries so as to protect itself from the impact of a similar impact in the future, is an important one.

At the same time, the global trend towards regional economic integration continues unabated. Taiwan's diplomatic isolation has made it difficult for it to participate in this process of regional integration, and there is a risk that Taiwan will become marginalized. There is a need for in-depth research to determine what strategies Taiwan should adopt in response to this situation.

This paper has two main objectives: Firstly, to explore the impact of the global financial crisis on Taiwan and the strategies that the Taiwanese government has adopted to cope with the crisis. Secondly, to analyze the role that Taiwan plays within the Asia-Pacific regional economy and the strategies that Taiwan should adopt in response to the trend towards regional economic integration.

The paper is divided into five sections. Following on from this Introduction, Section 2 analyses the impact of the global financial crisis on Taiwanese industry and the Taiwanese economy as a whole. Section 3 describes the medium- and long-term strategies that Taiwan has adopted in response to the financial crisis, while Section 4 explores the role that Taiwan plays within the Asia-Pacific regional economy and the strategies that Taiwan will need to adopt in response to the process of regional economic integration; the final section presents the concluding remarks.

### 2. The impact of the global financial crisis on Taiwan's industrial structure and overall economy

The recent global financial crisis has had a serious impact on Europe and the U.S., causing their economies to contract and purchasing power to shrink. Europe and North America are the main export markets for Taiwanese industry, so Taiwan has also been severely affected by the crisis. The manufacturing sector accounts for by far the bulk of Taiwan's exports, and the impact here has been especially pronounced. The largest share of Taiwan's fixed capital investment is concentrated in the IT and electronics industry; this sector's export performance has been severely affected by the worsening of the global economic climate, and manufacturers have responded by cutting back on capital expenditure. The impact of the global economic downturn has

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also spread upwards through the value chain to gradually affect the shipment performance of manufacturers of large-sized LCD panel, memory, and PC components. Several cyclical industries that had been expanding vigorously before the crisis – including the chemicals and plastics industry, the iron and steel industry, the cement industry, the shipping industry, etc. have also felt the effects of the global economic downturn.

The banking and insurance industries were the “epicenter” of the financial crisis. As might be expected, the asset management business and mutual fund business, which had been growing rapidly in recent years, both contracted. Falls in the value of overseas assets, the need to make increased provision for bad debt, and the reduction in the interest rate spread between deposits and loans, will all have had an impact on earnings in the banking and insurance industry. With business falling off, the relevant departments have been shedding staff. However, the impact of the global financial crisis on Taiwan’s financial sector has been mitigated to some extent by Taiwan’s relatively low level of financial internationalization.

What with the impact of layoffs and pay cuts, negative growth in real wages, falling house prices, and dramatic fluctuations in the stock market, Taiwanese consumers have seen a dramatic contraction in their personal wealth. Consumer spending has fallen as a result, leading to low growth rates in the commercial sector.

The effects of the financial crisis have thrown into sharp relief the excessive concentration of Taiwan’s exports in a handful of industries and the overall weakness of the industrial structure. The main imbalances in Taiwan’s industrial structure can be outlined as follows (Wang and Wei, forthcoming):

Firstly, Taiwan is excessively dependent on the electronics and IT sector. The information and communications technology (ICT) industry, chemical industry and metallurgical industry between them account for around 70% of Taiwan’s GDP, and 60% of Taiwan’s exports. The 19.17% growth rate that the electronics and IT sector posted in 2007 contributed 2.14% to Taiwan’s overall economic growth rate (Table 1). However, with the worsening economic climate in Europe and North America leading to lower demand for imports, there was a pronounced deterioration in the export performance of Taiwan’s ICT industry; the industry’s exports declined by 34.20% in the first half of 2009.

Secondly, Taiwanese industry is largely engaged in original equipment manufacturing (OEM) and original design manufacturing (ODM) production. Most of the patents that Taiwanese

manufacturers secure relate to production process technology; the overall level of value-added is low, and Taiwanese companies lack the strong brands that they would need to gain full benefit from their R&D activities. Taiwanese products are heavily concentrated in the mid-stream and upstream segments of the value chain, with intermediate goods accounting for over 70% of total exports (Fig. 1). As a result, of this situation, Taiwanese companies generally have only limited knowledge of trends in consumer demand for the final goods that are produced using their intermediate goods.

Thirdly, of Taiwan’s “Two Trillion, Twin Star” industries, the semiconductor (DRAM) industry and large-sized TFT-LCD panel industry are both cyclical, capital-intensive industries that are highly vulnerable to economic downturns.

A fourth point is that, while the service sector accounts for around 70% of Taiwan’s GDP, its level of competitiveness is low, the pace of industry upgrading has been slow, Taiwan’s service industries have found it hard to internationalize, and the service sector as a whole has done little to help Taiwan’s manufacturing industries add value, or to integrate their operations with those of manufacturers to enhance Taiwan’s overall competitive advantage. The service sector’s GDP contribution rate in 2007 was 2.93%, only slightly higher than that of the manufacturing sector (2.70%) (Table 1). The small size of Taiwan’s domestic market, combined with shortages of human talent and capital and inadequate investment in R&D have imposed constraints on the extent to which the service sector has been able to internationalize or grow its exports. Even so, the importance of the service sector to Taiwan’s economy should not be underestimated; the financial sector, wholesale and retailing, logistics and the restaurant business in particular account for a large share of employment in Taiwan.

### 3. The policies adopted by the Taiwanese government in response to the global financial crisis

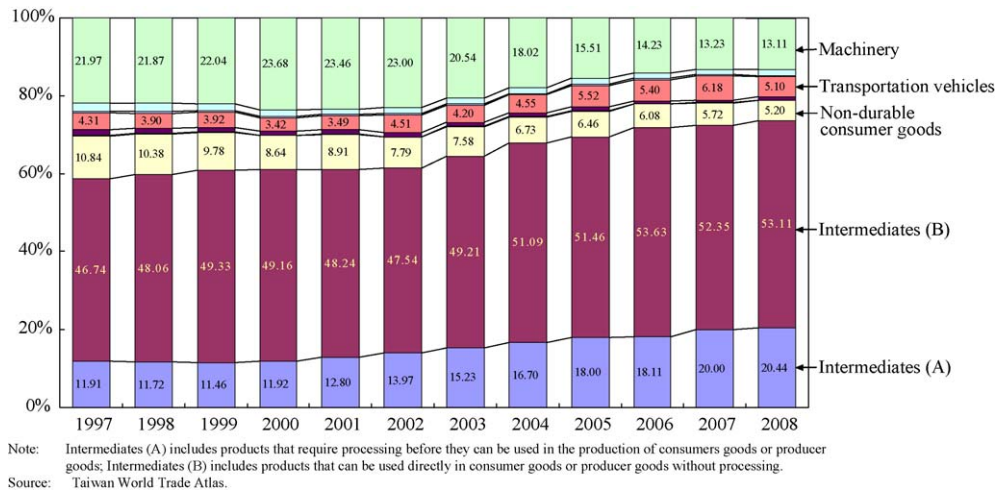
As regards the measures adopted by the government in response to the global financial crisis, as with many other countries, Taiwan has relied heavily on monetary and fiscal policy to cope with the impact of the crisis (Wang and Wei, forthcoming). The Taiwanese government adopted a relaxed monetary policy and cut interest rates so as to boost bank liquidity. In terms of fiscal policy, the government allocated NT\$500 billion to support a range of public construction projects over a period of 4 years. The

**Table 1**

Taiwan’s economic contribution rate from each industry.

	All industries	Agriculture	Manufacturing + mining	Manufacturing	Information industry	Service industries
Real GDP growth rate						
2003	3.50	−0.06	4.00	5.34	9.58	3.39
2004	6.15	−4.09	8.94	9.74	14.51	5.28
2005	4.16	−8.07	6.34	6.96	17.95	3.53
2006	4.89	6.09	7.04	7.51	18.10	3.93
2007	5.72	−2.91	9.31	10.29	19.17	4.30
Growth contribution (%) = industry’s real GDP growth rate (current year) × that industry’s share of real GDP (previous year)						
2003	3.50	0.00	1.13	1.26	0.73	2.37
2004	6.15	−0.07	−2.54	2.34	1.18	3.68
2005	4.16	−0.13	1.85	1.73	1.57	2.44
2006	4.89	0.09	2.10	1.92	1.79	2.70
2007	5.72	−0.04	2.83	2.70	2.14	2.93
Growth contribution rate (%) = industry’s growth contribution/growth contribution by all industries						
2003	100	0.00	32.29	36.00	20.86	67.71
2004	100	−1.14	41.30	38.05	19.19	59.84
2005	100	−3.13	44.47	41.59	37.74	58.65
2006	100	1.84	42.94	39.26	36.61	55.21
2007	100	−0.70	49.48	47.20	37.41	51.22

Source: Statistical Yearbook, Directorate General of Budget, Accounting and Statistics, Executive Yuan (2009).



**Fig. 1.** Intermediate goods account for the largest share of Taiwan's exports. *Note:* intermediates (A) includes products that require processing before they can be used in the production of consumers goods or producer goods; intermediates (B) includes products that can be used directly in consumer goods or producer goods without processing. *Source:* Taiwan World Trade Atlas (2009).

government also distributed consumption coupons worth around US\$120 each to every citizen (costing a total of NT\$82.5 billion) with the aim of boosting domestic demand. New jobs were created through public investment, and special unemployment benefits were provided for the short-term unemployed.

The following sections will examine the short-term and medium- and long-term industrial policies adopted by the Taiwanese government.

### 3.1. Short-term policies

As regards the short-term policy measures adopted by the government in response to the global financial crisis, the Ministry of Economic Affairs (MOEA, 2009) has focused on four key areas: stimulating consumer spending, helping small and medium enterprises (SMEs) to secure funding, promoting investment, and boosting exports (MOEA, 2009). The main measures adopted to boost consumer spending included programs to encourage consumers to replace old appliances and other consumer durables with new, low-energy-consumption, environmentally-friendly appliances. Measures taken to help SMEs secure the financing they need include investment promotion, five-year tax exemptions, and measures to encourage large-scale investment projects. In terms of export promotion, the MOEA has been working to stimulate exports to China, and also to other emerging markets, with the aim of reducing Taiwanese exporters' excessive reliance on a handful of key markets. The distribution of consumption coupons to boost consumer spending was another important measure that helped to provide a short-term stimulus to the economy.

The government's i-Taiwan 12 projects also constitute a key policy. The aim of this initiative is to leverage 12 key public construction projects to stimulate domestic demand and create a new "economic miracle" for Taiwan. It is anticipated that the i-Taiwan 12 projects will involve total investment of NT\$3990 billion over 8 years, with the government providing two-thirds of this and the remaining one-third deriving from private-sector investment. The 12 projects include: construction of a fast, convenient island-wide transportation network (NT\$1452.3 billion), establishment of the Kaohsiung Free Trade Zone and Eco-Port (NT\$NT\$57.7 billion), creation of the Taichung Asia-Pacific Sea and Air Logistics Hub (NT\$50 billion), development of the Taoyuan International Air City (NT\$67 billion), the Intelligent Taiwan project (NT\$225 billion), the Industrial Innovation Corridors

project (NT\$115 billion), Urban and Industrial Zone Renewal (NT\$57 billion), the Farm and Village Regeneration project (NT\$150 billion), the Coastal Regeneration project (NT\$20 billion), the Green Forestation project (NT\$30 billion), the Flood Prevention and Water Management initiative (NT\$186 billion), and a Sewer Construction program (NT\$240 billion). It is anticipated that the implementation of these 12 projects will create around 120,000 jobs per year.

### 3.2. Medium- and long-term policies

With regard to medium- and long-term industrial policies, analysis of the industrial structure shown in Fig. 2. It shows that, firstly, the financial crisis has revealed serious weaknesses in both Taiwan's industrial structure and the structure of its foreign trade. Effective service sector development and the successful promotion of low-priced products both require the support of a large domestic market; the signing of an "Economic Cooperation Framework Agreement" (ECFA) or similar agreement with China would constitute an important medium-term strategy for expanding access to the China market and stimulating the upgrading and transformation of Taiwanese industry.

Another important point is that the trend towards regional economic integration—which can be seen in the "ASEAN + 1" and "ASEAN + 3" agreements in Asia, the European Union (EU) in Europe and NAFTA in North America – represents a significant threat to the future competitiveness of Taiwan's exports. The ECFA is a key strategy for helping Taiwan to avoid becoming marginalized by this process of regional economic integration. At the same time, Taiwan cannot afford to become excessively dependent on the China market. In the long term, Taiwan will still need to focus on upgrading and transforming its industries and promoting the development of emerging industries, and should attempt to secure membership of the "ASEAN + 1" and "ASEAN + 3" groupings so as to enhance the degree of economic autonomy that Taiwan is able to maintain.

The following sections analyze the government's strategy with regard to the ECFA and the six key "Flagship Industries." Section 4 considers the role that Taiwan will play within the process of Asia-Pacific economic integration.

#### 3.2.1. The ECFA

The planning for the ECFA agreement with China is based on the fact that current trends in regional economic integration are

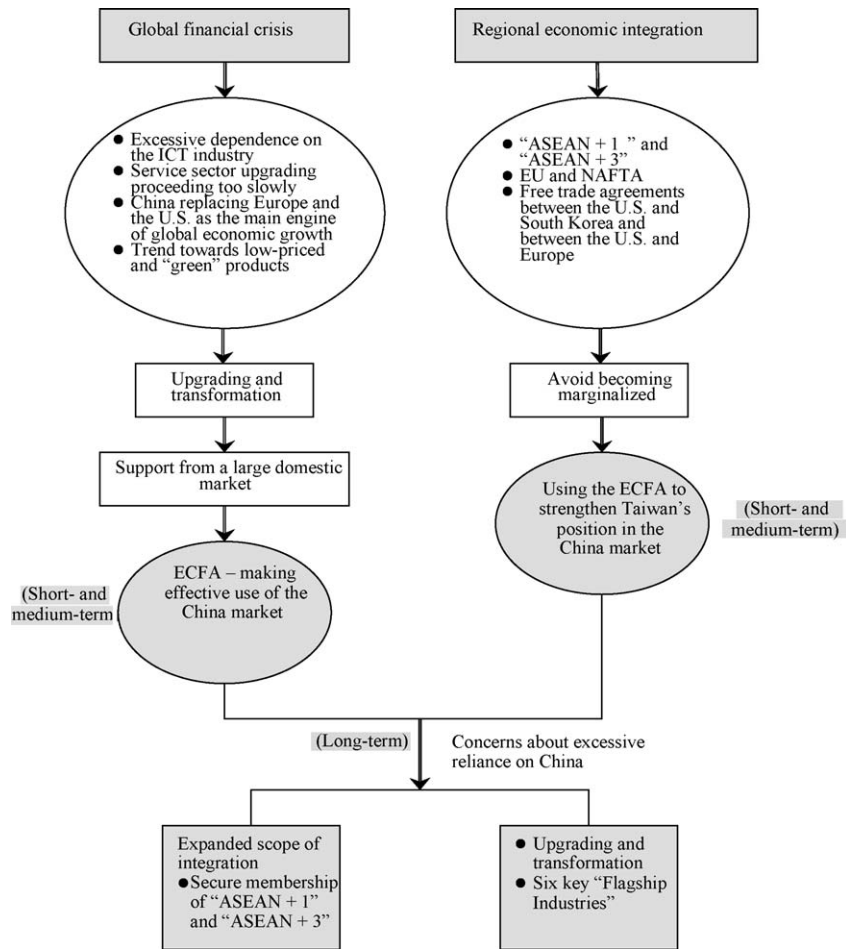


Fig. 2. Taiwan's medium- and long-term economic development strategies.

working to Taiwan's disadvantage. In particular, Taiwan will be excluded from both the "ASEAN + 1" and "ASEAN + 3" groupings. Another point is that 40% of Taiwan's exports go to China. The signing of the ECFA will help Taiwan to secure its position in the China market, and will help those industries that are especially dependent on exports to China – including the petrochemical industry, iron and steel, machinery manufacturing, and car parts – to maintain their competitiveness. The ECFA will also help Taiwanese companies to develop the Chinese domestic market. Finally, the ECFA can be used to encourage Taiwanese business-people that have been operating in China to repatriate their earnings and invest in Taiwan, thereby helping Taiwan to reposition itself as an Asia-Pacific Operations Hub.

The ECFA is a cross-strait free trade agreement that will take effect gradually, using tariff reductions, liberalization of invest-

ment and trade, economic collaboration and dispute resolution mechanisms to strengthen cross-strait economic and trading ties between Taiwan and China, creating a win-win situation for both countries (Chu, 2009).

### 3.2.2. The six key "Flagship Industries"

To drive the upgrading and transformation of Taiwan's industries, the Executive Yuan has been implementing the six "Flagship Industries" plan, to promote the development of six key emerging industries: the "green" energy industry, biotech, tourism, healthcare, high-value-added agriculture, and the cultural and creative industries (Table 2). The resources made available under the plan will be used to guide and encourage private-sector investment, helping the industries in question to develop new business opportunities and to upgrade themselves more rapidly.

Table 2  
The six "Flagship" plans.

Item	Funding	Production value created	Industries that will benefit
"Green" energy industry	NT\$20 billion over 5 years	NT\$1 trillion	Mainly the solar cell and LED industries
Biotech industry	NT\$60 billion in biotech venture capital funding	Doubling of production value to NT\$260 billion within 4 years	Pharmaceuticals and biotech industries
Tourism	NT\$30 billion tourism development fund	NT\$550 billion within 4 years	Restaurant and hotel industries, etc.
Healthcare	NT\$86.4 billion in investment over 4 years	NT\$346.4 billion over 4 years	Medical electronics and medical devices industries
High-value-added agriculture	NT\$24.2 billion over 4 years	NT\$158.9 billion over 4 years	Orchid cultivation, agro-tourism, etc.
Cultural and creative industries	NT\$20 billion to establish venture capital funds	NT\$1 trillion within 4 years	TV, film, music, handicrafts, design and digital content industries

Source: Six Emerging Industries, Executive Yuan (Taiwan) (2009).

The main methods that will be used in the six key Flagship Industries plan are outlined below (Wang, 2009):

- a. The Diamond Promotion Plan for the Biotechnology Industry: The Executive Yuan has given its approval for the Diamond Promotion Plan for the Biotechnology Industry, which includes the Biotechnology Venture Capital (BVC) initiative, the Supra Incubator Center (SIC) project, as well as various other mechanisms, and which will be implemented in collaboration with the Taiwan Food and Drug Administration (TFDA). The government will also be providing the funding, legal affairs, IP, technology and operational support that the biomedical technology and biomedical materials industry requires at its current state of development. In this all-out effort to promote the development of the biotech sector, the government will be working to develop integrated incubation mechanisms and build a world-class legal and regulatory environment for the pharmaceuticals sector as a whole.
- b. Developing the “green” energy industry: The government is aiming to have the biotech sector and green technology replace the IT sector as Taiwan’s most competitive industries. The “green” energy industry – including photovoltaics, LED, wind power, biomass energy, etc. – will be a key focus of the government’s promotional efforts in the future.
- c. Healthcare: Taiwan possesses advanced medical technology, and has a National Health Insurance system that is the envy of the world. To transform healthcare from a burden into a valuable industry, the government has initiated the Healthcare Industry Upgrading Plan, which covers the long-term care industry, the spa industry, “smart” medical services, and the internationalization of medical services.
- d. High-value-added agriculture: The government will be encouraging the development of those forms of agriculture that have significant market potential, such as flower cultivation and flower markets, tropical fruit production, ornamental fish breeding, etc. The government will also be working to develop a high-quality seed cultivation industry, to promote Taiwan’s development into an Asia-Pacific plant, aquaculture and poultry propagation and breeding center.
- e. Promotion of the tourism industry and related cross-industry alliances: The formation of alliances between Taiwan’s tourism industry and other emerging industries can help to promote industrial growth and create new jobs. One possible example would be the integration of spa operation with the health and beauty industry. The linking together of industries in this way could create an additional NT\$550 billion in tourist revenue, and create an extra 410,000 tourism-related jobs, while also attracting at least 10 leading international hotel chains to establish themselves in Taiwan.
- f. The cultural and creative industries: Cultural and creative industry development will emphasize design, digital technologies, video, popular music, and cultural and creative industry start-ups linked to the National Palace Museum.

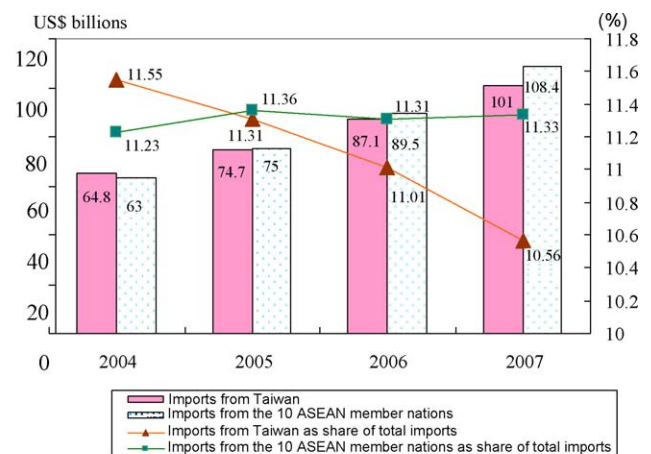
### 3.3. Policy discussion

The short-term policies adopted by the Taiwanese government in response to the global financial crisis were intended to minimize the externalities that the crisis created for the Taiwanese economy (through its negative impact on industry and on the financial sector); these policies can be thought of as “emergency rescue,” aimed at reducing the risk of a crisis of confidence. Given the need for these policies to be implemented as quickly as possible, there was little room for making adjustments to them. The focus of the discussion in this paper will therefore be on the government’s medium- and long-term strategies, and on the ways in which they could be adjusted.

Firstly, as regards the i-Taiwan 12 projects, the emphasis in these projects is mainly on “hardware” infrastructure, and several of the projects derive from the platform adopted in President Ma Ying-jeou’s election campaign; they were not subjected to rigorous evaluation, and will therefore need item-by-item cost-benefit analysis and the establishment of a clear priority order to avoid a situation where public construction is being undertaken for its own sake, drawing off valuable resources from other areas. Some of these resources might be utilized to better effect by investing them in “software” construction, manpower cultivation and education. Taiwan has already reached a relatively high level of economic development, and has largely satisfactory basic infrastructure; further large-scale investment in this area is likely to produce only very limited benefits.

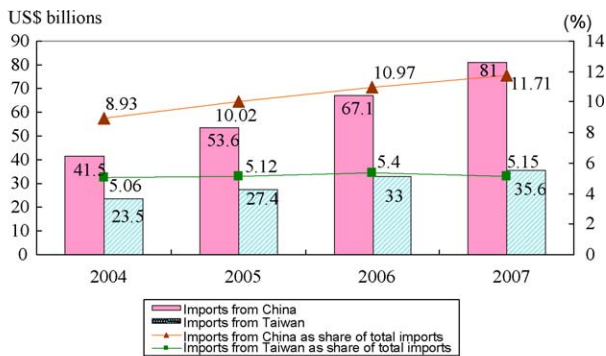
Turning to the ECFA, the signing of an FTA or similar agreement with China is a vital step to strengthen Taiwan’s access to its largest export market and prevent Taiwan from becoming marginalized. However, the ECFA is at best a short- to medium-term policy tool; it is not a panacea (Commercial Weekly, 2009). The ultimate goal should be to make effective use of the ECFA to help Taiwanese companies leverage China’s resources, establish strong brands, build economies of scale, expand into global markets, and boost Taiwan’s international competitiveness (Wang and Lin, 2007). If, on the other hand, the ECFA is just used to protect existing markets, and Taiwanese companies fail to make an active effort to upgrade and transform themselves, then the Taiwanese economy will become ever more dependent on China. Taking the “ASEAN + 1” and “ASEAN + 3” agreements as an example, the ASEAN member nations have not seen any significant increase in their share of the China market, but China’s share of the Southeast Asian market has grown steadily (Figs. 3 and 4). Signing an FTA with China is at best a short-term protective measure; without a serious effort to upgrade and transform Taiwanese industry, Taiwan will be doomed to see its international competitiveness decline steadily; Taiwan should take the lessons from ASEAN seriously (Lan, 2005).

Finally, let us go on to consider the six “Flagship Industries” plan. As far as the theory behind this plan is concerned, the idea is for the government to implement a large-scale project to achieve a breakthrough in key industries; the aim is to focus resources, achieve a “big push” effect, and build economies of scale and economies of cope, so as to speed up economic growth. There are solid theoretical underpinnings for this type of strategy (Thirlwall, 1994). The choice of the “green” energy industry, biotech, tourism, high-value-added agriculture, healthcare and the cultural and



Source: Chu Ching-yi (2009), *Creates Win Win Prospect for Taiwan Strait*.

Fig. 3. China’s imports from ASEAN and Taiwan. Source: Chu (2009).



Source: Chu Ching-yi (2009), *Creates Win Win Prospect for Taiwan Strait*.

Fig. 4. ASEAN's imports from Taiwan and China. Source: Chu (2009).

creative industries as the emerging industries to focus is in conformity with international trends (OECD, 2009), the need to reduce carbon dioxide emissions, the trend towards smaller families and the aging of the population; overall, the government's strategy in this respect can be said to be broadly correct.

However, there are several suggestions that can be made regarding the planning for the promotion of the six key Flagship Industries, to avoid distortions during plan implementation:

1. The key performance indicators (KPIs) that have been set for individual ministries and agencies need to be reconsidered, so as to encourage closer collaboration between ministries and between central and local government, thereby reducing the risk of system failure.

In the past, the theoretical framework for government promotion of the development of emerging industries and support for innovation and R&D was based largely on the concept of market failure; it was generally held that the government should only intervene in cases where the level of risk was particularly high, or where investment in a particular industry carried high externalities (Arrow, 1962; Rothwell and Zegveld, 1981, etc.). However, developments in theory in this area since around 2000 have stressed that system failure is another major factor that can hinder breakthroughs in technology development, and that governments are justified in helping emerging industries to overcome this problem (Hauknes, 1998). System failure may occur when there is insufficient communication and exchange of information between the different parts of a country's innovation system (including communication between different central government ministries, between central and local government, between government and industry, and between industry and the university sector). Legal and regulatory constraints can also hamper innovation and discourage entrepreneurship, leading to a decline in innovation and productivity in the economy as a whole.

The individual plans for promoting the development of the six Flagship Industries are all inter-ministerial, inter-disciplinary projects, where the extent and quality of interaction between central government agencies, between central and local government, between the government and the private sector, and between industry and academia, will have a major impact on the projects' success or failure; there is a clear need for communication, the building of consensus, and coordinated use of resources. The question is how to achieve this strengthening of communication and integration? This paper suggests that the first priority should be to reexamine the KPIs set for each individual government ministry or agency. Firstly, all ministries (and particularly those with oversight over the service sector) should

cease to focus mainly on regulation, and should be explicitly tasked with promoting industrial development; only then will it be possible to achieve the deregulation that is needed to help industries such as healthcare, biotech and communications services, which are all currently tightly regulated, to regain their vitality (Wang, 2009). Secondly, the provision of assistance by a ministry to help other ministries complete particular tasks should be listed as a major KPI, so as to promote inter-ministerial collaboration. At the same time, the allocation of funding assistance by central government to local government should take into consideration the needs of both local and central government, in order to facilitate coordinated policy implementation. Thirdly, the KPIs for individual government employees also need to be reviewed to create new incentive mechanisms, for example by increasing the disparity in pay levels between government employees at different levels so as to provide more incentive for high performance, thereby enhancing overall efficiency. Adjusting KPIs in this way will increase the likelihood of the six Flagship Industry plan being a success, thanks to the increased focus on deregulation, communication and coordination, and the avoidance of system failure.

2. Moving away from supply-side thinking and strengthening communication with industry and with universities, so as to build consensus and increase resource allocation.

Given the difficult financial situation in which the government finds itself at present, the active collaboration of the private sector is vital if the government's policies are to be implemented effectively. So far, efforts to promote and publicize the six Flagship Industries plan have been limited, and have been very much supply-side oriented, with little thought being given to the question of how to boost demand. What is needed is to gain a thorough understanding of companies' needs and capabilities, supplemented by top-down planning, to ensure a good fit between the measures that the government adopts and its objectives; only then will private-sector companies be willing to allocate resources to support the government's plan.

3. More investment in service sector infrastructure is needed to support those aspects of the six Flagship Industries plan that relate to the service sector.

Two of the industries covered by the six Flagship Industries plan are service industries. The key element in service sector development is infrastructure, but the kind of infrastructure that the service industries need is significantly different from that required by manufacturing; it includes deregulation, the relaxation of restrictions on the free movement of human talent, establishment of statistical databases, and data collection (e.g. data relating to overseas distribution channels, international legal and regulatory issues, etc.). Ensuring that adequate service sector infrastructure is in place is a vital prerequisite to ensure success in the six key Flagship Industry plans and in the development of the service sector as a whole.

4. The signing of the ECFA will create an enlarged home market for the six key Flagship Industry plans, making the completion of this agreement an even more urgent task.

Markets and distribution channels are of great importance in the implementation of the six Flagship Industries plan. The signing of the ECFA will help to secure Taiwan's access to the Chinese market, making it easier for Taiwanese companies to build economies of scale, grow their brands and expand into interna-

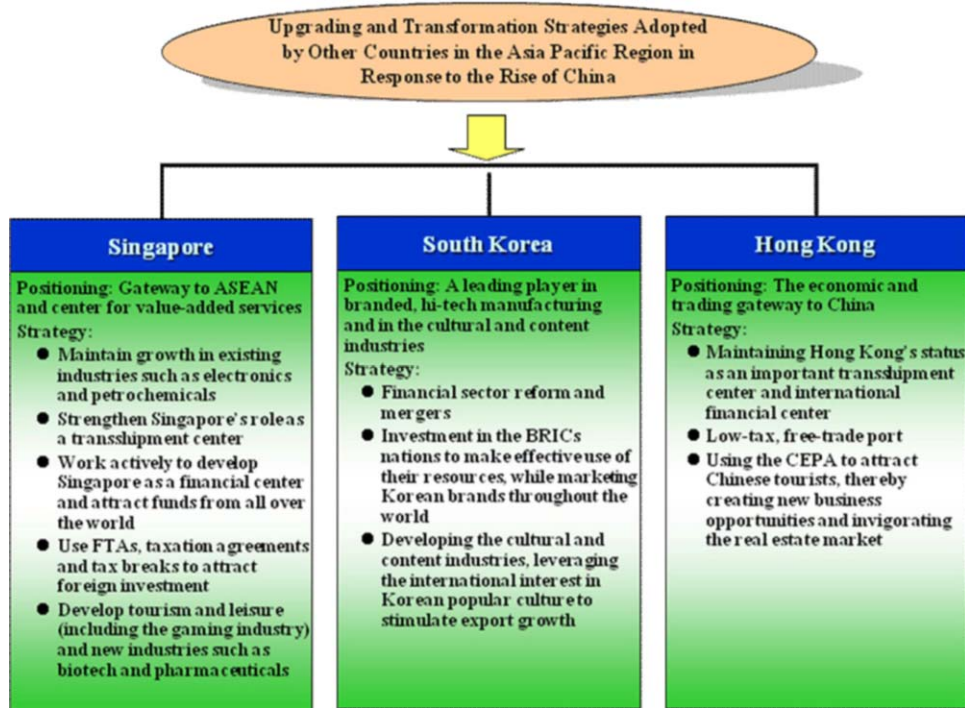


Fig. 5. The positioning, upgrading and transformation strategies adopted by other countries in Asia-Pacific region in response to the rise of China. Source: The present study.

tional markets, thereby helping them to increase their competitiveness over the long term. The signing of the ECFA is thus an urgent necessity for Taiwan.

**4. The role of Taiwan in Asia-Pacific economic integration**

Over the past 10 years, faced with the economic rise of China, Taiwan has maintained a conservative, closed stance. As a rule, small countries located near to a large country will normally experience a “magnetic pull,” and with the added impact of globalization the impact on the smaller nation’s economy can be severe. However, if the small country can reposition itself and clarify its vision, then there can be significant opportunities for economic growth. Taking Singapore as an example, since Singapore’s economy began to be affected by competition from China, Singapore has responded by signing free trade agreements and bilateral taxation agreements with other countries, while also using tax breaks to attract foreign investment, and at the same time investing actively in China in order to leverage China’s resources for Singapore’s benefit. Domestically, Singapore has worked actively to develop its biotech, tourism and gaming industries, helping to restore high rates of economic growth (Fig. 5).

Hong Kong’s economy was in terrible shape in 2002. However, the Closer Economic Partnership arrangement that was agreed between Hong Kong and China in 2003 helped to attract large numbers of Chinese tourists to Hong Kong, while also stimulating the growth of the restaurant and hotel industries (along with various other service industries), the real estate market and the stock market, helping to put an end to the economic stagnation that had been affecting Hong Kong.

By contrast, the policy of “walling itself off” that Taiwan adopted led to a situation in which economic growth and income growth in Taiwan were lower than in any of the other “Four Asian Dragons” (Figs. 6 and 7). It is thus vitally important for Taiwan to reposition its economy so that it can leverage resources from other parts of the Asia-Pacific region to strengthen Taiwan’s own competitive advantage.

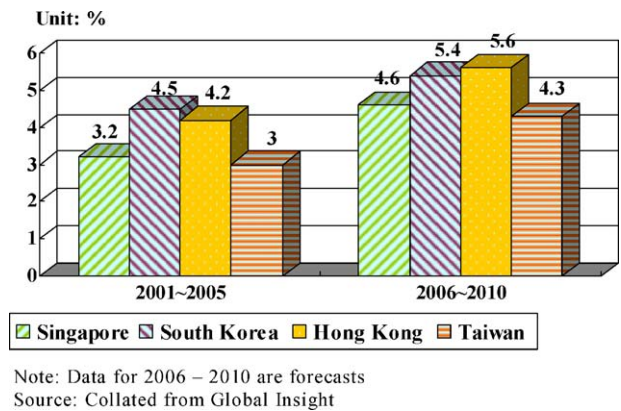


Fig. 6. Changes in the real economic growth rates of the “Four Asian Dragons” in the 2000s. Note: Data for 2006–2010 are forecasts. Source: Collated from global insight.

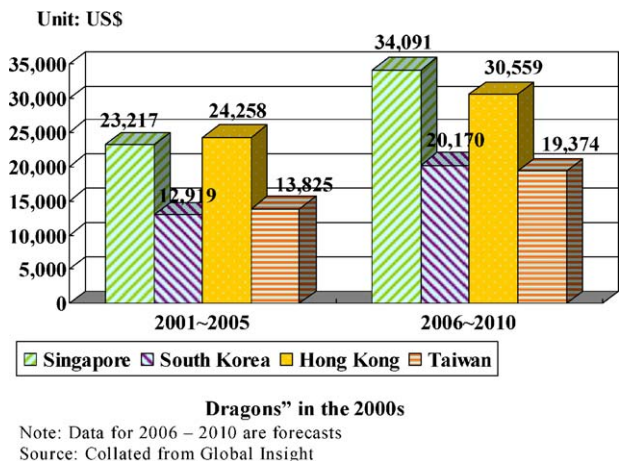
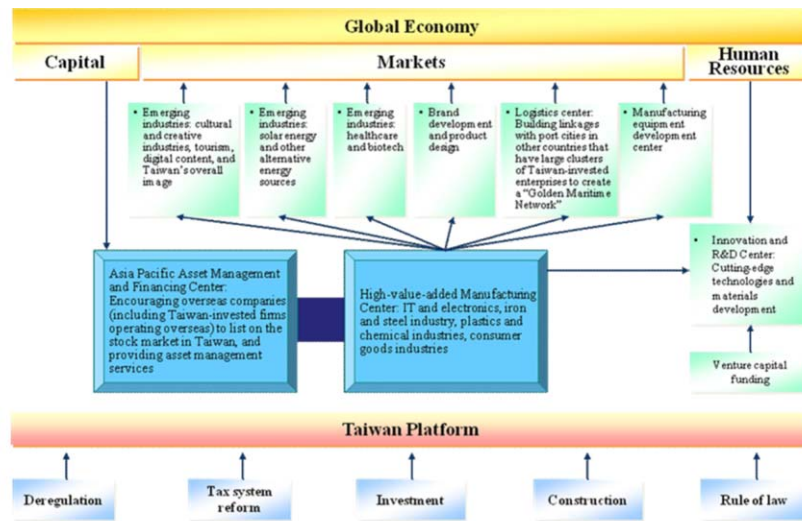


Fig. 7. Changes in the nominal per capita GDP of the “Four Asian Dragons” in the 2000s. Note: Data for 2006–2010 are forecasts. Source: Collated from global insight.





Source: Deregulation and Reconstruction – the Key Work Items at the Current Stage of Government Strategy Implementation (July 2008 – Dec. 2009)

**Fig. 8.** Comprehensive strategy for raising competitiveness: advancing on seven fronts to build global competitiveness. Source: Deregulation and reconstruction – the key work items at the current stage of government strategy implementation (July 2008–December 2009).

As can be seen from Fig. 8, Taiwan is in a position to rebuild itself into an Asia-Pacific High-value-added Manufacturing Center and Asia-Pacific Asset Management Center. The advantage that Taiwan can leverage to achieve this goal is the steady development of cross-strait economic and trading ties, the dense network of overseas investment by Taiwanese firms and businesspeople, Taiwan's strength in IT, and the vitality of Taiwan's capital markets. Of course, these objectives can only be achieved by taking Taiwan as a platform and implementing deregulation, reform of the tax system, increased investment, creation of business opportunities through public construction, and the maintenance of a level playing field with fair, transparent rules.

As regards Taiwan's role within intra-regional trade, with respect to trade between Taiwan, Hong Kong and China, over the 17-year period from 1990 to 2007, Taiwan's exports to, imports from, and trade surplus with respect to China all rose more than 10-fold. By contrast, during the same period, Taiwan's imports from and exports to Japan increased by only around 300% (Fig. 9). This gives some idea of just how close cross-strait trading relations have become. Within the Asia-Pacific region as a whole, 54.18% of Taiwan's total intra-regional exports go to the "ASEAN + 1" grouping, and 64.45% go to the "ASEAN + 3" grouping; 57.05% of

Taiwan's total intra-regional imports derive from the "ASEAN + 3" grouping. It can thus be seen that the ASEAN nations are important trading partners for Taiwan (Table 3).

At the same time, the "ASEAN + 3" grouping accounts for over three-quarters of Taiwan's overseas investment (Table 4). Taiwan's cumulative investment in China since 1970 comes to over US\$80 billion; however, Taiwan's cumulative investment in Vietnam over the same period exceeds US\$20 billion, making Taiwan Vietnam's largest source of foreign investment. In addition, Taiwan is the third largest source of foreign investment for Thailand, Malaysia, and Cambodia (Fig. 10). If one adds in Taiwanese investment channeled through the British Virgin Islands or the Cayman Islands, then Taiwan's importance to the ASEAN nations would be even more pronounced.

Besides intra-regional trade and investment, Taiwan also plays a very important role in the region's electronics and IT supply chain, providing the components and intermediate goods needed to support other countries' industries, and helping to create large numbers of jobs in the process. While Taiwanese technology and management techniques may not be up to the standard of the U.S. or Japan, they are easy for the ASEAN member nations to absorb, and help to make the learning curve less steep for these countries.

The above points illustrate Taiwan's economic importance within the Asia-Pacific region, and the vital role that Taiwan could play in the process of Asia-Pacific economic integration. If Taiwan was allowed to participate fully in the process of regional economic

**Table 3**  
Taiwan's trade with ASEAN, China, Japan and South Korea unit: %.

Share of Taiwan's total exports						
	2003	2004	2005	2006	2007	2008
China (inc. Hong Kong)	35.70%	37.97%	39.15%	39.81%	40.70%	38.95%
ASEAN	12.04%	13.17%	13.79%	13.92%	14.72%	15.23%
Japan	8.25%	7.57%	7.62%	7.28%	6.46%	6.87%
South Korea	3.13%	3.09%	2.96%	3.19%	3.16%	3.41%
ASEAN + 1	47.74%	51.15%	52.94%	53.74%	55.42%	54.18%
ASEAN + 3	59.12%	61.80%	63.52%	64.21%	65.03%	64.45%
Share of Taiwan's total imports						
	2003	2004	2005	2006	2007	2008
China (inc. Hong Kong)	23.94%	25.16%	26.21%	27.15%	27.95%	26.70%
ASEAN	12.80%	12.65%	12.74%	12.79%	12.90%	13.02%
Japan	16.21%	16.38%	16.05%	14.67%	13.28%	12.91%
South Korea	4.83%	4.92%	5.02%	5.19%	4.93%	4.41%
ASEAN + 1	36.74%	37.81%	38.95%	39.94%	40.85%	39.72%
ASEAN + 3	57.77%	59.12%	60.02%	59.80%	59.05%	57.05%

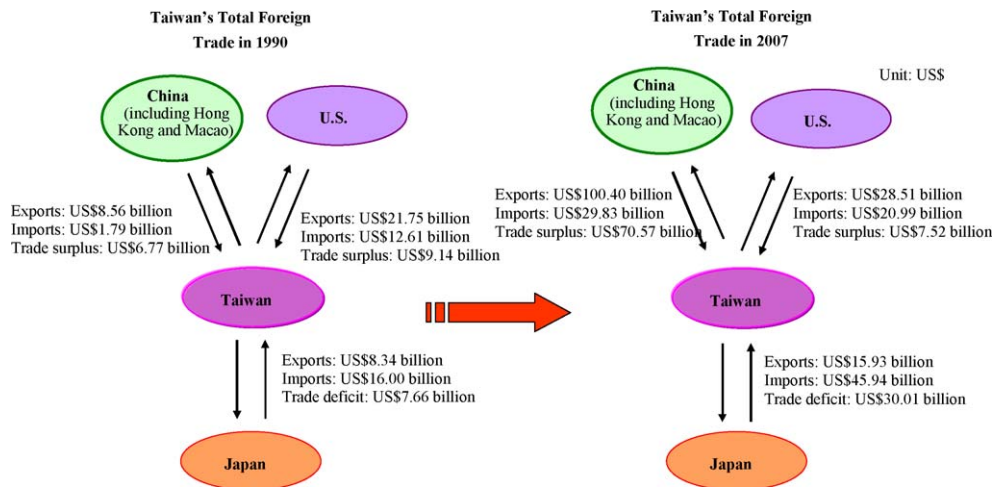
Source: Medium and Small Enterprises Administration, White paper on Small and Medium Enterprises in Taiwan (2009).

**Table 4**  
Taiwanese investment in China, ASEAN, Japan and South Korea as a percentage of Taiwan's total overseas investment.

	2001	2002	2003	2004	2005	2006	2007
China (inc. Hong Kong)	33.31	63.07	65.91	63.49	64.01	62.77	<b>56.48</b>
ASEAN	23.04	9.55	10.16	16.10	14.26	13.61	<b>20.22</b>
Japan	1.96	0.22	0.79	1.34	0.45	0.09	0.10
South Korea	0.14	0.05	0.08	0.06	0.04	0.13	0.06
ASEAN + 1	56.35	72.62	76.07	79.59	78.27	76.38	<b>76.70</b>
ASEAN + 3	58.45	72.89	76.94	80.99	78.76	76.60	<b>76.86</b>

Note: (1) Data for investment in the ASEAN member nations are based on Industrial Development and Investment Center (MOEA) statistics; data for investment in other countries are based on Investment Commission (MOEA) statistics. (2) The data for ASEAN member nations covers Thailand, Malaysia, the Philippines, Indonesia, Singapore, Vietnam and Cambodia.

Source: Medium and Small Enterprises Administration, White paper on Small and Medium Enterprises in Taiwan (2009).



Source: Collated from Taiwan Statistical Data Book (2008).

Fig. 9. Taiwan's trade with China. Source: Collated from Taiwan Statistical Data Book (2008).

integration, it would without question be able to make a major contribution to the region's development.

This paper has examined the problems that Taiwan has faced following the impact of the global financial crisis. These issues include Taiwan's excessive reliance on ODM/OEM production, its lack of strong brands, an industrial structure that is insufficiently diversified (with the ICT sector accounting for too large a share of the economy), an high level of dependence on exports (which account for around 70% of GDP), the very large share of Taiwan's exports going to the China market, the slow pace of upgrading and transformation in the service sector, and the mixture of opportunities and risks deriving from the normalization of cross-strait trading relations between Taiwan and China.

Looking ahead to the future, Taiwan's short- and medium-term strategies for coping with the impact of the global financial and economic crisis are focused on the ECFA and the six key Flagship Industries plan. In the long term, the keys to sustainable economic growth will be the upgrading and transformation of Taiwan's industries, and securing participation in the process of Asia-Pacific economic integration. Taiwan already makes an important contribution to intra-regional trade and investment in the Asia-Pacific region, while the overseas networks established by Taiwanese enterprises and businesspeople, as well as the strength of Taiwan's ICT sector, its closely integrated supply chain and its superior management standards, can play an important part in ensuring continued economic growth in the Asia-Pacific region. On the basis of the above analysis, it can reasonably be said that

Taiwan's participation is vital to the process of Asia-Pacific economic integration.

### 5. Concluding remarks

This paper has examined the problems that Taiwan has faced following the impact of the global financial crisis. These issues include Taiwan's excessive reliance on ODM/OEM production, its lack of strong brands, an industrial structure that is insufficiently diversified (with the ICT sector accounting for too large a share of the economy), an high level of dependence on exports (which account for around 70% of GDP), the very large share of Taiwan's exports going to the China market, the slow pace of upgrading and transformation in the service sector, and the mixture of opportunities and risks deriving from the normalization of cross-strait trading relations between Taiwan and China.

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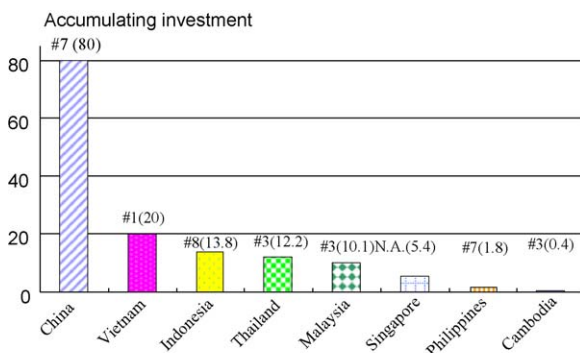
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Source: The Present Study.

Fig. 10. Taiwan's ranking in Asian Countries' investment. Source: The present study.

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