ASEAN and the Implications of the New Southbound Policy

Roy Chun Lee

Executive Deputy Director

Taiwan WTO and RTA Center

Chung-Hua Institution for Economic Research

Gordon Sun

Director

Economic Forecasting Center

Taiwan Institute of Economic Research

ABSTRACT

Taiwan's economy has entered a challenging phase. The two pillars that have underpinned Taiwan's growth for the last two decades, namely ICT/semiconductor centered industrial structure and deep integration with China, are increasingly unsustainable. Uncertainties created by the US-China economic rivalry and intensified competition from emerging countries have exacerbated the situation. In response to these tests, Taiwan's President Tsai Ing-wen introduced the New Southbound Policy (NSP) to promote economic diversification and closer relationship with ASEAN and other Southeast Asian countries. The timing of the NSP might be perfect at this juncture, but uncertainties and challenges remain. This paper starts with a discussion on Taiwan's economic difficulties, followed by an analysis on the current trade and investment relations with Southeast Asian countries, and offers thoughts on the success and challenging factors of a closer economic relation.

Keywords: Taiwan, Southeast Asia (SEA), ASEAN, trade, investment, New Southbound Policy (NSP)

由台灣與東協經貿關係論新南向政策之意涵

李淳

副執行長

中華經濟研究院 WTO 及 RTA 中心

孫明德

主任

台灣經濟研究院景氣預測中心

摘 要

台灣經濟進入了一個充滿挑戰的階段。過去二十年支撐台灣成長的兩大支柱,亦即資通訊及半導體製造為中心的產業結構,以及與中國的深度經濟融合,正日益難以為繼。美中經濟對抗造成的不確定性以及來自新興國家的激烈競爭使局勢更加嚴峻。面對此等挑戰,蔡英文總統推動的新南向政策,在此關鍵時刻有其重要性,但仍存在不確定性和挑戰。本文首先討論了台灣的經濟困難,進而分析了當前與東南亞國家的貿易和投資關係,並提出了提升經濟關係更加緊密的成功和挑戰因素的建議。

關鍵詞:台灣、東南亞、東協、貿易、投資、新南向政策

I. Introduction

Taiwan's economic performance since the 1980 has been denoted as the "Taiwan Miracle" and it was one of the four "Asian Tigers" with South Korea, Hong Kong and Singapore. But Taiwan is standing at a critical crossroad with competition from China, the rest of Asia and beyond. Economic growth momentum is evidently slowing down in recent years. The GDP growth rate is failing to match most of Taiwan's peer neighbors, and wages remain stagnated at the 1998 level. Reasons for these challenges include, inter alia, slowness in industrial structure transformation, lack of creative and high value-added new industries and inefficient services industry. Facing these problems, former and current governments all attempt to introduce a combination of industrial, financial, monetary, trade and investment polices to overcome the predicament and elevate Taiwan's economy to the next level.

The current government in Taiwan under President Tsai Ing-wen introduced two major undertakings since she took office in 2016, namely the "5-plus-2 (5+2) Industrial Innovation Plan" and the "New Southbound Policy" (NSP). The NSP is a regional strategy with the view of forging closer economic, social and people-to-people connectivity with 18 countries in the South East Asia, South Asia, Australia and New Zealand.³ Yet as current priority focuses on 6 partners, namely India, Indonesia, Malaysia, the Philippines, Thailand and Vietnam, we also narrow the discussion to India and members of the Association of Southeast Asian Nations (ASEAN) in this paper.

¹ Fu-Lai Tony Yu, "The Architect of Taiwan's Economic Miracle: Evolutionary Economics of Li Kuo-Ting," *Global Economic Review*, Vol. 36, No.1, March 2007, pp. 53-56.

² Chung-Hua Institution for Economic Research (CIER), *The policy implications of low wages on labor market and possible policy reactions* (低薪資對我國勞動市場的影響與政府因應策略), Ministry of Labor commissioned research series, 2015, pp. 14-17, https://www.mol.gov.tw/media/2688509/104 年度-低薪資對我國勞動市場的影響與政府因應策略.pdf.

³ As all these partner countries are located south of Taiwan, this is why it is referred to as the "Southbound" Policy.

While it is too early to assess the outcome of the two primary programs, the changing landscape of the economic structure in China, the rising tension of the Cross-Strait relationship, and the fallout of the US-China trade war warrant a good starting point, insofar as timing is concerned. Still many challenges lie ahead and success is not guaranteed.

Against this background, the first part this paper introduces the macroeconomic trends and industry development phases in Taiwan. It is followed by discussion on Taiwan's trade and investment in general and with selected ASEAN countries. In the third part the content and objectives of the "5+2" Plan and NSP programs, as well as the implication of the US-China trade tension in promoting economic relations with ASEAN partners is discussed.

II. Taiwan's macroeconomic performance and challenges

A. Evolution of Taiwan's macroeconomic development

Taiwan's economic development can be divided into several distinct phases from 1952 to 2017. The initial phase started with self-sufficiency import substitution policy in the 1950, gradually moved into light industry development phase in the 1960. Starting in the 1970, Taiwan moved to the more advanced level of promoting the development of basic and heavy industries and technology-intensive industries in the 1990. ⁴ The Information and Communication Technologies (ICT) sector has since then until today dominated Taiwan's manufacturing sector and has since become a hallmark for Taiwan's role in the global supply network.

During the last 60 years, Taiwan's GDP has increased from 1.4 billion USD in 1952 to 573.2 billion in 2017, and per capita income also increased to 24,936 USD from 140 USD in 1952 (Table 1). The pattern of GDP

⁴ National Development Council, *Economic Development, R.O.C. (Taiwan) 2017* (Taipei: National Development Council, 2017), pp. 9-11, https://www.ndc.gov.tw/News_Content.aspx?n=5CC81BD78364FACB&sms=8FF4788B 5E260516&s=9C025155707F0BC6.

growth can be divided by different development stages. Growth rate accelerated from 1950s-1960s with the take-off of light-industry sectors. Growth was most significant in the 1980 and 1990, with the development of capital-intensive and Information and Communications industries. GDP in 1980 grew near 3 times than the previous decade, and per capita GDP also near doubled in 1990. The speed of growth slowed down after the 1990 due to lack of spearhead industries similar to the ICT sectors in 1980 and the increased level of competition in the global supply network.

Table 1 Taiwan GDP and Industrial Structure (1952-2017)

Unit: %; USD

| | | 1952-59 | 1960 | 1970 | 1980 | 1990 | 2000 | 2010-17 |
|------------------------|------------------|---------|------|-------|-------|--------|--------|---------|
| | USD billion | 1.4 | 5.0 | 33.9 | 152.7 | 304.2 | 392.1 | 573.2 |
| GDP | Per Capita (USD) | 140 | 356 | 1,951 | 7,805 | 13,947 | 17,531 | 24,936 |
| | Growth Rate (%)* | 8.7 | 9.9 | 10.9 | 8.5 | 6.6 | 3.8 | 3.4 |
| Unemployment Rate (%)* | | 3.9 | 3.3 | 1.7 | 2.1 | 2.0 | 4.4 | 4.2 |
| Inflation Rat | te (%)* | ı | 4.8 | 8.9 | 4.4 | 2.9 | 1.0 | 1.0 |
| Industrial | Agriculture | 26.8 | 16.6 | 8.8 | 4.8 | 2.4 | 1.7 | 1.7 |
| | Industry | 25.6 | 35.9 | 43.3 | 41.0 | 31.4 | 31.1 | 35.4 |
| Structure | -ICT industry | ı | 1 | ı | 5.3 | 9.4 | 14.2 | 16.7 |
| (%) | Service | 47.6 | 47.6 | 48.0 | 55.0 | 66.4 | 66.0 | 62.8 |

Source: Directorate General of Budget, Accounting and Statistics (DGBAS), National Statistics, https://eng.stat.gov.tw/mp.asp?mp=5.

In the last decades, low unemployment and inflation rates have been one of the hallmarks of Taiwan's economic development performance. Through its successful export and industry promotion policy, unemployment rate had decreased from 3.9% in 1950s to 1.7% in 1970s. Although employment rate increased after 1980 from 2.1% to 4.2%, it remains below U.S. and Europe levels. The Taiwan government was able to keep a steady inflation rate even during several global upheavals in the past (e.g. inflation rate was 8.9% during the 1970 oil crises). Inflation rate is as low as 1.0% from 2000 till 2017. One reason of low inflation rate is the stability of utility services (electricity, water, oil/gas etc.) costs offered by state-owned enterprise (SOE) such that the government was able to maintain steady price levels

It is of note that fluctuation in Taiwan's GDP growth has been

^{*}GDP growth rate, employment rate and inflation rate are average of the period; other indicators are the end year of period.

increasingly apparent after the 1997 global financial crisis, and remained sluggish since 2010 (Figure 1). As most international organizations, including OECD and IMF, are downgrading the forecast for 2019-20 global economic outlook, ⁵ addressing issues associated with economic slowing-down and exploring new driving forces for sustainable economic growth thus becomes increasingly critical policy agenda for Taiwan.

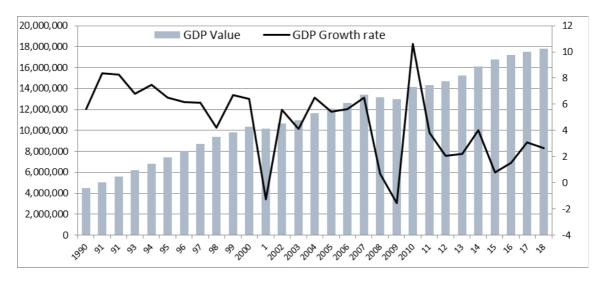


Figure 1 Changes in Taiwan's GDP value and growth rate

Source: Directorate General of Budget, Accounting and Statistics (DGBAS), National Statistics, https://eng.stat.gov.tw/mp.asp?mp=5.

B. Major phases of Taiwan industrial structure reforms

Taiwan's major industry structures went through dynamic reforms in the last four decades as well. Right after WWII, the agriculture sector was the key economic sector, accounting for 26.8% of the GDP, which was higher than the manufacturing sector's share of 25.6% in 1959.⁶ As policy started to encourage the development of the manufacturing sector focusing

中華民國一〇八年 夏季

70

⁵ The latest outlook forecast from OECD is available at: OECD, "OECD Economic Outlook May 2019," http://www.oecd.org/eco/outlook/economic-outlook/.

⁶ Industry sector includes the process of raw materials and other non-manufacturing activities.

on light manufacturing, its ratio of GDP increased to 35.9% in 1969 while agriculture sector's share reduced to 16.6%; the share of GDP for the services sector essentially remained unchanged in the this 20-year period. The manufacturing sector's GDP ratio reached its peak at 44% in 1985 due to the rapid expansion of capital-intensive manufacturing activities. Subsequently manufacturing sector ratio decreased to the lowest point of 29% in 2000 but returned to 35% in 2016.

For the services sector, its development and contribution to Taiwan's economy started to take off only after the 1980's. The main driver is that as Taiwan's economy entered a double-digit growth period, standard of living and demand for modern services also increased. In 2017, the services sector stands at 62.9% of the GDP. The speed of decline for the economic importance of the agriculture sector is significant. Until the 1960, the agriculture sector was the backbone of Taiwan's economy, yet its share of GDP began to dive into an almost free-fall style descent. Since the year 2000, agriculture sector's share has stayed at around 2% of the total GDP (1.7% in 2017). That said, agriculture remains a politically and culturally important sector. Thus, initiatives have been introduced to create a next-generation agriculture sector in Taiwan, which will be further discussed in the next section.

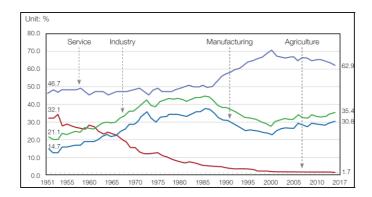


Figure 2 Percentage of GDP by Output of Major Industries in Taiwan

Source: National Development Council, Economic Development, R.O.C. (Taiwan) 2017

(Taipei: National Development Council, 2017), p. 20,

https://www.ndc.gov.tw/News Content.aspx?n=5CC81BD78364FACB&sms=8FF4788B5 E260516&s=9C025155707F0BC6.

After the 2009 global financial crisis, Taiwan's manufacturing sector's economic contribution went up again. Correspondingly, the growth rate for services sector declined since 2000. One possible reason behind this is that the market size of Taiwan's services sector is relatively small, and some key services sectors such as healthcare, financial and utilities, are still dominated by the public sector (through SOEs or directly supplied by government agencies). Taking the financial sector as the example, Huang and Jiang find that the domination of SOE banks constrains the intensity of competition, thus resulting in slowness in introducing innovation in Taiwan's banking sector.⁷ Second, with off-shore manufacturing started to accelerate in the 1990's, demand for supporting services (e.g. financial, logistics, accounting and ICT services) also declined accordingly. Further, the process of services internationalization in Taiwan has been slow, with most services providers competing only in the domestic market.

For the manufacturing sector, the importance of the ICT manufacturing has continued to increase since the start of the 1990s. Taiwan remains a key global ICT manufacturing today. On average, the ICT sector's share of total production value of the manufacturing sector remains at 34% in recent years and is on the rise (Table 2). This is supported by strong external demand for smartphones and other innovation products. Key characteristic for Taiwan's ICT sector is the OEM (Original Equipment Manufacturer) business model. From final products such as computer in 1980s to components in 2010s, Taiwan's ICT companies served as contract manufacturers for the IBM in 1980, Dell & HP in 2000, and Apple Inc. in recent years.

.

⁷ Tai-Hsin Huang and Dian-Lin Jiang, "The Causality between Market Competition and Innovation in Taiwan's Banking Sector (我國銀行業市場競爭度與金融創新之關聯)," *The CBC Journal* (中央銀行季刊), Vol. 36, No.2, June 2014, pp. 15-52.

Table 2 Current economic and industrial development in Taiwan (2016)

| Major manufacturing sectors | Share of output (%) | Production index (2011=100) | |
|-----------------------------|---------------------|-----------------------------|--|
| Metal machinery | 28.72 | 96.7 | |
| Information electronics | 34.13 | 118.02 | |
| Chemical industry | 25.94 | 103.96 | |
| Commodity industry | 11.21 | 100.54 | |

Source: Industrial Development Bureau, Ministry of Economic Affairs (MOEAIDB), "Industrial Development in Taiwan," April 2018, p.6, https://tinyurl.com/y4rqvrwz.

III. Taiwan's trade and investment relations with ASEAN

A. Bilateral trade relationship with ASEAN countries

Taiwan is highly trade-dependent. The average trade dependency rate (total trade value as % of GDP) for Taiwan was 103% between 2014 and 2016, with export dependency at 56%, and import dependency at 47%. For comparison, trade dependency rates for China, Korea and Japan stand at 37%, 31% and 78% respectively.⁸

This high degree of trade dependence implies that Taiwan is sensitive to changes in the international trading environment. As reflected in Figure 3, Taiwan's trade performance was directed affected by the global downturns in 2001, 2009 and 2014-15. Although rebounds occurred after each crisis, this fluctuation still reflects Taiwan's vulnerability to the global trade environment. Another notable development is the steady decline of exports since 2012 (Figure 3). This suggests that there are long-term and structural issues at work rather than merely cyclical effects. In addition to the off-shoring of manufacturing development discussed above, increased intensity of competition from China, ASEAN and other emerging economies, as well as the change in global supply chain structure due to automation are

⁸ Based on World Bank, "Trade (% of GDP)," https://data.worldbank.org/indicator/ NE.TRD.GNFS.ZS.

some of the possible structural factors in this regard. Finally, the uncertainties created by the on-going U.S.-China trade war further exacerbate the situation and outlook in the foreseeable future.

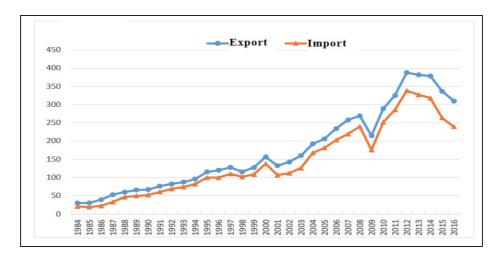


Figure 3 Changes in Taiwan's Trade in Goods

Source: Directorate General of Budget, Accounting and Statistics (DGBAS), National Statistics, https://eng.stat.gov.tw/ct.asp?xItem=37408&CtNode=5347&mp=5.

In 2017, Taiwan's trade reaches USD 576.6 billion, with export values at USD 317.3 and import USD 259.3 billion respectively (Table 3). The main products exported are consistent with the manufacturing structure discussed above, with ICT components and products account for 45% of total export. Other major export categories include commodity related products (metal, oil, chemicals, plastics, rubber, textile) accounts for 30%, and machine, transportation and electrical products stands at 20%. With respect to export markets, top export destinations are China, Hong Kong, US, EU and several NSP partners.

China is the single most important export destination for Taiwan, and top market for almost all export categories except transportation, mining, and textile. The U.S. is the largest market for Taiwan's transportation products (mainly auto parts targeting the after-sale market), and ASEAN is the major market for Taiwan's mining and textile products. Collectively, major NSP partners (i.e. Singapore, Vietnam, the Philippines, Malaysia, Thailand, India and Indonesia) accounts for 19.1% of Taiwan's total export

in 2017, making the block number two trading partners next to China. Nonetheless, exports to both India and Indonesia are relatively insignificant.

Table 3 Taiwan's main export markets

| Partners | 2013 | 2014 | 2015 | 2016 | 2017 |
|-----------------------------|-------|-------|------|-------|-------|
| Total exports (USD billion) | 303.7 | 313.6 | 280 | 280.5 | 317.3 |
| Share of total export (%) | | | | | |
| China | 26.8 | 26.2 | 25.4 | 26.3 | 28 |
| Hong Kong, China | 12.9 | 13.6 | 13.6 | 13.7 | 13 |
| United States | 10.7 | 11.1 | 12.2 | 12 | 11.7 |
| EU(28) | 8.3 | 8.5 | 8.5 | 8.8 | 8.6 |
| Japan | 6.3 | 6.3 | 6.9 | 7 | 6.5 |
| Singapore | 6.4 | 6.5 | 6.2 | 5.8 | 5.6 |
| South Korea | 4 | 4 | 4.5 | 4.6 | 4.6 |
| Viet Nam | 2.9 | 3.2 | 3.4 | 3.4 | 3.3 |
| Philippines | 3.2 | 3 | 2.7 | 3.1 | 3.0 |
| Malaysia | 2.7 | 2.7 | 2.5 | 2.8 | 3.3 |
| Thailand | 2.1 | 1.9 | 2 | 2 | 1.9 |
| Middle East | 1.9 | 2 | 1.9 | 1.7 | 2 |
| Australia | 1.2 | 1.1 | 1.1 | 1.1 | 1 |
| India | 1.1 | 1.1 | 1 | 1 | 1 |
| Indonesia | 1.7 | 1.2 | 1.1 | 1 | 1 |
| Africa | 1.1 | 0.9 | 0.8 | 0.7 | 0.6 |
| Other | 1.1 | 1.1 | 0.8 | 0.3 | 0.6 |

Note: Grey column denotes major NSP partner countries.

Source: Authors' compiling from: Bureau of Foreign Trade, MOEA, "Trade Statistics-Export/Import Value (By Country),"

https://cus93.trade.gov.tw/FSCE010F/FSCE010F?menuURL=FSCE010F.

Another unique feature of Taiwan's export portfolios is the high level of intermediate products. As demonstrated in Figure 4, the most significant change of Taiwan's export structure in the past 25 years is the rapid decline of consumer (final) products, falling from 27.35% in 1996 to 18.01% in 2016. Contrarily, contribution of intermediate inputs, including raw

materials, capital goods, and parts/components increased from 72.65 to 81.99%. However, the export structure varies across different markets. For example, while 20% of Taiwan's export to ASEAN countries is consumer products, it accounts for only 8% of Taiwan's export to China. The fact that 61% of Taiwan's export to China is capital goods (e.g. machineries or work stations) directly corresponds to the high level of off-shore manufacturing investments by Taiwanese firms in China.

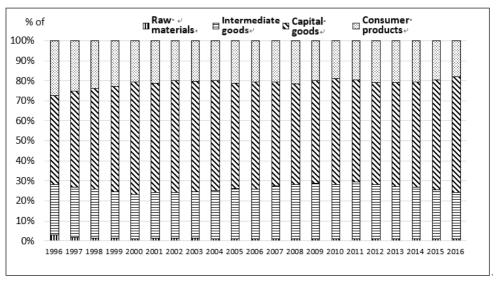


Figure 4 Changes in Taiwan's export portfolios (1996-2016)

Source: Calculated based Bureau of Foreign Trade, MOEA, "Trade Statistics," https://cus93.trade.gov.tw/FSCE010F/FSCE010F/.

Collectively ASEAN is the second largest export market of Taiwan; export value was 57.7 billion USD, accounting for over 18% of total export in 2017. ASEAN is also Taiwan's third largest import source, accounting for near 12% of import in 2017. Of note is that while China remains Taiwan's largest export market, its importance has been declining overtime in the decade, while export to ASEAN 10 countries is on the rise; Yet the degree of change has been incremental (Table 4). As for the change in Taiwan's import from China and ASEAN, there is a noticeable increase of import from China since 2009, and it surpasses Japan to becomes Taiwan's largest import source in 2014. At the same time, import level from ASEAN remains constant in the last decade, with a minor decrease in 2017.

Table 4 Trend in Taiwan's trade to China and ASEAN (2011-2017)

| | China as % of Taiwan's total | | ASEAN-10 as % of Taiwan's t | | |
|------|------------------------------|--------|-----------------------------|--------|--|
| Year | Export | Import | Export | Import | |
| 2011 | 28.02 | 14.31 | 15.28 | 11.50 | |
| 2012 | 27.24 | 15.49 | 16.72 | 11.65 | |
| 2013 | 26.80 | 15.12 | 18.78 | 11.66 | |
| 2014 | 26.78 | 15.78 | 19.24 | 12.08 | |
| 2015 | 26.18 | 17.53 | 18.98 | 12.45 | |
| 2016 | 25.40 | 19.33 | 18.16 | 12.39 | |
| 2017 | 26.36 | 19.08 | 18.30 | 11.78 | |

Source: Authors' compiling from Bureau of Foreign Trade, MOEA, "Trade Statistics-Export/Import Value (By Country)," https://cus93.trade.gov.tw/FSCE010F/FSCE010F.

Among the ASEAN-6 countries, Singapore is the 6th largest trading partner of Taiwan globally, and most important partner in the ASEAN region. This is followed by Vietnam, Malaysia, the Philippines, Thailand and Indonesia. Table 5 shows the distribution of products that Taiwan exports to the ASEAN-6 in 2017. The major trade products between Taiwan and Singapore are semiconductor and oil related products due to similar technology and petrochemical industry structure (Table 5).

Vietnam is the 2nd largest export market of Taiwan to ASEAN, but the structure of products exported from Taiwan is different for other ASEAN countries. Because of investment-led trade, Taiwan's exports to Vietnam are labor-incentive light industry raw material or semi-finished products such as metal, machine, textile, chemical, rubber & plastics, optical and engineer's products. The main items that Taiwan imported from Vietnam are semiconductor, ceil-phone, shoes, cement, glass, and seafood. Similar to Singapore, the main products between Taiwan and Malaysia are semiconductors, refined oil, PCB board, and other electronics components. Refined oil and transportation are the major products that Taiwan exported to the Philippines and Thailand. Indonesia is not the main trading partner of Taiwan among ASEAN 6, accounting for just 5% of Taiwan export to ASEAN-6 countries. But Indonesia is a major import source of commodity products such as coal, natural gas and crude oil ASEAN.

Table 5 Main Taiwan Export Products to ASEAN 6 countries (2017)

| Sectors | Singapore | Vietnam | Malaysia | Philippine | Thailand | Indonesia | | |
|-----------------------|-----------|---------|----------|------------|----------|-----------|--|--|
| Unit: USD 10 Million | | | | | | | | |
| Electronics | 53 | 5 | 24 | 12 | 7 | 1 | | |
| Mining | 23 | 2 | 11 | 61 | 0 | 3 | | |
| Metal | 7 | 30 | 19 | 11 | 25 | 10 | | |
| Machine | 15 | 29 | 12 | 8 | 18 | 17 | | |
| Textile | 1 | 64 | 3 | 6 | 10 | 16 | | |
| Chemical | 14 | 34 | 16 | 7 | 19 | 10 | | |
| Rubber & Plastics | 7 | 41 | 17 | 8 | 17 | 11 | | |
| ICT products | 30 | 18 | 19 | 10 | 17 | 6 | | |
| Optical, Precision | 22 | 34 | 20 | 13 | 7 | 3 | | |
| Engineering equip. | 18 | 21 | 20 | 13 | 19 | 9 | | |
| Transportation | 9 | 11 | 9 | 21 | 36 | 15 | | |

Note: Top 2 products to each country are highlighted in grey color.

Source: Authors' compiling from Bureau of Foreign Trade, MOEA, "Trade Statistics," https://cus93.trade.gov.tw/FSCE010F/FSCE010F/.

B. Investment relationship with ASEAN

In early stages of Taiwan economic development, inward foreign direct investment (FDI) was significantly higher than outward FDI. Initially, foreign capital invested in Taiwan went into areas of textile, umbrella, furniture, toys and other light-industry products manufacturing. Inflow capital helped Taiwan's economy to gradually move from light to capital-intensive industries and export grows quickly. Inward FDI also brings in industry know-how, management models, and new technology, which facilitated in refining overall productivity of Taiwan. Over time, Taiwanese companies were able to generate capital stock capacities. As Taiwan's production costs starts to increase (due to factors such as higher labor costs and stricter environmental regulation) and the NT dollars significantly appreciated in the 1980s, outward FDI became larger than inward (Figure 6). Over time Taiwan has become a major investor in the

Asia Pacific region.

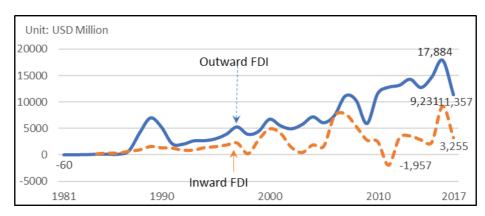


Figure 6 Taiwan FDI trend (1981-2017)

Source: Authors' compiling from Central Bank of the Republic of China (Taiwan), "CBC Statistics," https://cpx.cbc.gov.tw/Tree/TreeSelect.

The total accumulated outward FDI from Taiwan is USD 298.2 billion from 1952 to 2017 according to Taiwan Ministry of Economic Affair statistics (Table 6). On average, 58% of the outward FDI goes to China, which is followed by Latin America (15%), ASEAN (11%) and North America (5%). This structure remained basically unchanged in 2017 with China receiving 44% of Taiwan's FDI and British Caribbean following as the second largest destination of Taiwan's investment.

Taiwan businesses started to invest in China directly after 1991 when the government restrictions were relaxed. Investment to China increased because of similar culture, language, physical proximity and most importantly cost-saving incentives. Subsequently the 45% sharp depreciation of the Chinese RMB in 1994, and the 1998 Asia financial crisis that have critically affected ASEAN economy are some of the factors contributing to the acceleration of Taiwan's FDI to China by especially small and medium enterprises. The percentage of Taiwan outward FDI to China rose up from 0% to 42% in the period of 1991-2000 and investment to ASEAN declined to 12% from 32% in 1952-1990 period.

The second wave of outward investment took place in early 2000s. Taiwan ICT OEM companies started to move their manufacturing base to

the Yangzi River Delta in China and the scale of investment became significantly larger during this period. At policy level, Taiwan government's position during late 1990 to early 2000s was to encourage investment to the ASEAN region instead of China based on economic security reasons. But many ASEAN countries were still recovering from the 1998 financial crises, and China's rapidly growing economy, potential market size and investment incentives were all taking off, so FDI to China (and British Caribbean) continued to increase. The supply chain built in China since 2000s has moved up from final assembly lines to upper stream parts and components manufacturing, implying that not only the quantity of FDI is on the rise, so is the level of manufacturing quality.⁹

Table 6 Geographical distribution of Taiwan's outbound investment (1952-2017)

| | | | | Unit: % | | | | |
|---|---|------|------|---------|--|--|--|--|
| Accumulated FDI (298.2 billion US dollars) | | | | | | | | |
| | 1952-2017 1952-1990 1991-2000 2001-2017 | | | | | | | |
| China | 58 | 0 | 42 | 62 | | | | |
| ASEAN 6* | 11 | 32 | 12 | 10 | | | | |
| Latin America (mainly British Caribbean Islands) | 15 | 16 | 28 | 13 | | | | |
| North America | 5 | 43 | 10 | 4 | | | | |
| Top 5 destination in recent years | | | | | | | | |
| | 2014 | 2015 | 2106 | 2017 | | | | |
| China | 58.5 | 50.5 | 44.4 | 44.4 | | | | |
| British Caribbean Islands | 17.6 | 13.3 | 12.5 | 28.4 | | | | |
| Singapore | 0.8 | 1.1 | 7.1 | 4.4 | | | | |
| United States | 1.6 | 1.7 | 1.5 | 4.0 | | | | |
| Viet Nam | 3.7 | 5.7 | 2.1 | 3.3 | | | | |

Source: Investment Commission, Ministry of Economic Affairs (MOEAIC), Monthly Report, https://www.moeaic.gov.tw/english/news_bsAn.jsp.

The reason for British Caribbean Islands (i.e. Cayman and Virgin

中華民國一〇八年 夏季

80

⁹ Min-Wen Hu, et al., "The Transformation of Investment Portfolio by Taiwan Firms in China (臺灣企業對大陸地區投資行為轉變之研究)," *Bank of Taiwan Journal* (臺灣銀行季刊), Vol. 61, No. 1, March 2010, pp. 295-307.

Islands) to become the second largest destination of Taiwan's FDI is primarily regulatory circumvention¹⁰. Taiwan has until today a stringent regulation regime that requires all outbound FDI intended for China that is larger than USD 1 million to apply for prior approval by the investment review commission; FDI going elsewhere is not subject to such requirement. Further, there is an annual ceiling for aggregate investment to China by a single company. For instance, the annual ceiling for each natural person or SMEs is set at USD 2.7 million. In order to bypass the approval process (and ceiling), many Taiwanese SMEs opted to move capital to the British Caribbean Islands, which are well-known tax heaven and allows mail-box companies to operate as the transit place for capital.

As subsequent movement of capital from the British Caribbean are not monitored by Taiwanese authorities, it is difficult to estimate the final destinations and level of investment that goes from British Caribbean to China and other places, although it is reasonable to suspect a large portion of the such FDI is intended for China. An indirect evidence is that the British Virgin Island is also the second largest source of accumulated inbound FDI in China in 2017.¹¹ By the same token, part of Taiwan's investment in ASEAN could also go through similar indirect channels. In both cases, the actual levels of Taiwanese FDI in China and ASEAN are likely to be significantly higher than the official figures.

Business environment of China has been changing rapidly since 2005. One key development in 2005 was the Chinese decision to reform the exchange rate regime, including the appreciation of RMB against the US dollar. The introduction of floating exchange rate against the U.S. currency

¹⁰ Jung-Pao Kang, "Strategies to Refrain Restrictions on Investment in China: Examples Starting from ASE Group (臺資企業的兩岸悲情分析—由日月光併購案談起)," *Prospect & Exploration Monthly* (展望與探索), Vol. 4, No. 12, December 2006, pp. 1-4.

¹¹ Ministry of Commerce of the People's Republic of China, Report on Foreign Investment in China 2017 (中國外商投資報告), July 26, 2018, http://images.mofcom.gov.cn/wzs/201804/20180416161221341.pdf.

resulted in at least 30% appreciation of the RMB in the last 10 years. Labor and land cost also began to increase, tax incentives started to phase out and many restrictions were introduced to the "3H1L" industries - high energy-using, high pollution, high input, and low efficiency. The cost of production for the labor-intensive industries such as textile or footwear manufacturing increased swiftly. The trend made many Taiwan-based business start to rethink their future investment decision. If they still want to stay in Chinese coastal provinces, they are now compelled to increase productivity and reduce pollution. Alternatively, Chinese inland provinces, back to Taiwan or migrate to ASEAN countries also became possible options. As the business environment of Chinese inland provinces may become as challenging as their coastal peers in the near future, and Taiwan's environment remain unsuitable for traditional labor-intensive industries, ASEAN thus became an increasingly attractive alternative for the next generation investment area for Taiwan.

Taiwanese investment to ASEAN-6 countries stands at USD 2.8 billion in 2017, a growth rate of 25.3% from 2016. Accumulated total FDI of Taiwan to ASEAN 6 countries reached USD 32.6 billion from 1952 to 2017. 41% of the investment is in Singapore, followed by Vietnam (28%), Malaysia (11%), Thailand (10%), Philippine (6%), and Indonesia (5%). The level of FDI going to these partners varied across time. Malaysia, the Philippines and Thailand were the major recipient countries before 1990, with Singapore and Vietnam became the leaders since 1991. The accumulated investment in Singapore and Vietnam is near 70% of total FDI by Taiwan in ASEAN-6 countries from 1952-2017. Of note is that as Singapore serves as the forward base for Taiwan (and other countries) investment to the ASEAN region, actual level of investment to other

_

Chris Isidore, "China revalues yuan: Move away from fixed dollar peg could lessen competition for U.S. firms, raise import prices," CNN, July 21, 2005, https://money.cnn.com/2005/07/21/news/international/china yuan/.

^{13 &}quot;'3H1L' industries (「三高一低」企業)," *people.cn (人民網*), September 25, 2008, http://cpc.people.com.cn/BIG5/134999/135000/8104690.html.

ASEAN countries thus should be considerably higher than the official figures.

Table 7 Distribution of Taiwan's Investment to ASEAN-6 Countries (1952-2017)

Unit: %

| | | | | Cilit. 70 |
|-----------------|--|-----------|-----------|-----------|
| Accumulated tot | 52-2017 al FDI at 32.6 billion dollars | 1952-1990 | 1991-2000 | 2001-2017 |
| Singapore | 41 | 7 | 27 | 45 |
| Vietnam | 28 | 0 | 17 | 31 |
| Thailand | 11 | 23 | 17 | 10 |
| Malaysia | 10 | 36 | 22 | 6 |
| Philippine | 6 | 24 | 7 | 5 |
| Indonesia | 4 | 9 | 10 | 3 |

Source: Investment Commission, Ministry of Economic Affairs (MOEAIC), Monthly Report, https://www.moeaic.gov.tw/english/news_bsAn.jsp.

Taiwan's FDI to the ASEAN-6 countries was limited before 1985. Since Vietnam opened its market for FDI in 1987, in tandem with Taiwan government's 1st generation "Southbound" policy that was introduced in 1993, Taiwan's investment to Vietnam started to take off. Yet the impact of the 1997 Asia financial crisis and the 1998 anti-Chinese protest in Indonesia severely affected Taiwan investors' confidence, and the amount of investment went to below USD 10 billion per year until 2007. In the most recent 10 years, FDI to ASEAN-6 countries regained momentum with a number of large investment cases, such as Taiwan's Advanced Semiconductor Inc. investment in Singapore in 2007, MediaTek's acquisition of Singapore's MStar Semiconductor Inc., and, most notably, Formosa Petrochemical's USD 11.6 billion investment in Vietnam for a major steel factory project.¹⁴

^{14 &}quot;Formosa Ha Tinh Steel added a new investment of USD 1 billion (台塑河靜鋼廠 新增

With respect to country distribution of Taiwan's investment to the ASEAN-6 countries, Singapore is the largest recipient county of Taiwanese investment, with an accumulated USD 13.5 billion of FDI to Singapore. Main investment sectors include high-tech manufacturing, financial, transportation and retail sales service. The second largest destination of Taiwanese investment is Vietnam with USD 9.2 billion (apparently most of the investment of the Formosa Petrochemical steel factory came indirectly from Taiwan). Accumulatively, Taiwan ranked the 4th largest FDI source of Vietnam after South Korea, Japan and Singapore. The main sectors Taiwan is investing in Vietnam are mainly labor-intensive manufacturing, such as textiles, footwear, foodstuff, plastic products, furniture and machines.

For the remaining ASEAN-6 countries, the accumulated investment to Thailand, Malaysia, Philippine and Indonesia are USD3.6, 3.1, 1.9 and 1.4 billion respectively. Electronic, electrical and financial are the major industries of Taiwan investment to these countries. Taiwan companies has increased investment in Cambodia in recent years, accumulating to USD1.1billion and the main industry is textiles. There is a significant portion of Taiwan's FDI to ASEAN that is in the services sector, especially in the financial and transportation services. Taiwan's investment to the Philippines financial services accounts for almost half of the accumulated investment to the country. Vietnam appears to be the only exception with Taiwanese investment mainly going for the manufacturing sector. Investment to other ASEAN countries such as Laos, Myanmar and Brunei are few due to lack of qualified workforce, infrastructure and supply chains.

¹⁰ 億美元投資)," *China Times (中時電子報)*, July 26, 2017, http://www.chinatimes.com/newspapers/20170726000046-260202.

Table 8 Sectoral distribution of Taiwan's Investment to ASEAN-6Countries (1952-2017)

Unit: %

| | | Indu | Service | | | |
|------------|-------------------|-------------------|-----------------|-------------------------|--------|-----------|
| | Food & Textile | Chemical & Rubber | Metal & Machine | Electronic & Electrical | Retail | Financial |
| Singapore | 1 | 3 | 0 | 29 | 12 | 47 |
| Vietnam | 15 | 13 | 53 | 6 | 2 | 8 |
| Thailand | 13 | 6 | 3 | 34 | 4 | 35 |
| Malaysia | 31 | 5 | 7 | 13 | 4 | 33 |
| Philippine | 16 | 3 | 3 | 29 | 1 | 46 |
| Indonesia* | 21 | 15 | 7 | 6 | 4 | 25 |

^{*}Agriculture 2% and Mining 11%.

Source: Investment Commission, Ministry of Economic Affairs (MOEAIC), Monthly Report, https://www.moeaic.gov.tw/english/news bsAn.jsp.

IV. Future prospect of Taiwan ASEAN economic relationship

A. Taiwan's economic challenges

Economic development in Taiwan faces a number of challenges. First, while foreign trade remains to be a major contributor of Taiwan's economy, its ability to underpin and stimulate economic and wage growth is decreasing. Several unfavorable conditions offer partial explanations to this situation, including, among other things, competition from China and other emerging economies and the migration of Taiwan manufacturing firms to overseas bases.

Second, as discussed above, GDP growth for Taiwan has been sluggish and is well below other Asian Tigers in recent years. At the same time wage growth has stagnated since 2002, and domestic demand remains weak. One factor contributing to this economic standstill is the slowness in industry upgrading and transformation relative to competitors. As a result, there is

increasing number of Taiwan products competes in price rather than quality and functionality, thus undermining the ability to grow.¹⁵

The rise of China as a competitor execrates the situation. In the last decade China has accelerated in building its own supply chain across many industries that are competing directly with Taiwan, including for instance, steel, petrochemical, LCD Panel and electronics. As China advances in manufacturing capacity, its comparatively low price and the preferential treatment obtained under its free trade agreement with ASEAN, China's export market share expansion in ASEAN market significantly outpaced that of Taiwan. As demonstrated Table 9. Chinese export market share (as % of total export to ASEAN) in the ASEAN region has increased 170% between 2006 to 2017 (from 11.4 to 19.5%), while Taiwan's market share remains on average 5.6% at the same time period.

This direction of change creates great uncertainties for Taiwan, and the most challenging part is perhaps China's ambitious industry policy in the semiconductors sector and eventually the "Made in China 2025" grand program. As discussed above, the ICT sector is the single most important manufacturing sector both in terms of production and export values. Schott et al. compare the value of Taiwan's top export product categories vis-à-vis that of Japan and Korea and find that Taiwan's industry structure is highly concentrated (and thus dependent) on the ICT sector, especially semiconductors manufacturing (accounting for 25% of total export). ¹⁷ In

¹⁵ Yi-Ling Lin and Tzu-Ting Yang, "Decoupling of Wage Growth and Productivity Growth in Taiwan: an Empirical Investigation (經濟成長、薪資停滯?初探台灣實質薪資與勞動生產力成長脫鉤之成因)," *Economic Literature* (經濟論文), Vol. 46, No. 2, June 2018, pp. 263-322.

¹⁶ Wen-Juan Wang, "Discussion on the Creation of the Red Supply Chain (紅色供應鏈形成環境之探討)," *Economic Outlook Bi-Monthly* (經濟前瞻), No.177, May 2018, pp.79-86.

Jeffrey J. Schott, Cathleen Cimino-Isaacs, Zhiyao (Lucy) Lu and Sean Miner, "Prospects for Taiwan's Participation in the Trans-Pacific Partnership," Peterson Institute for International Economics, PIIE Briefing 16-7, September 2016, p.10, https://www.piie.com/system/files/documents/piieb16-7.pdf.

contrast, Japan's top export (auto and auto parts) account for 13.8% of Japan 's total export value, and Korea's number one item (also semiconductors) accounts for only 9.9%. This implies that Taiwan is sensitive and vulnerable to any change in the global ICT and semiconductors supply chain.

Table 9 Changes in Taiwan and China 's Exports to ASEAN 10

Unit: %

| Period - | Export Gr | owth Rate | Market Share | | |
|----------|-----------|-----------|--------------|-------|--|
| | Taiwan | China | Taiwan | China | |
| 2008 | 8.0 | 18.9 | 4.9 | 11.9 | |
| 2009 | -23.4 | -13.0 | 4.8 | 13.4 | |
| 2010 | 35.4 | 31.3 | 5.0 | 13.4 | |
| 2011 | 17.8 | 21.9 | 4.9 | 13.5 | |
| 2012 | 8.6 | 14.2 | 5.0 | 14.5 | |
| 2013 | 9.1 | 12.2 | 5.4 | 16.0 | |
| 2014 | 3.0 | 7.5 | 5.6 | 17.4 | |
| 2015 | -10.7 | 2.2 | 5.5 | 19.8 | |
| 2016 | -2.8 | 1.0 | 5.4 | 20.0 | |
| 2017* | 16.0 | 11.8 | 5.6 | 19.5 | |

*January-October

Source: Data retrieved from CEIC Database, https://www.ceicdata.com/en.

Unfortunately for Taiwan, the development of a domestic semiconductor sector is also considered as a vital step for both economic development and national security by China. As such, China introduced an import substitution policy in 2014 under the framework of the "Guideline for the Promotion of the Development of the National Integrated Circuit (IC) Industry." As part of the effort, Chinese government has since established the IC Industry Investment Fund with initial funding of 140 billion RMB and aims to raise another 200 billion RMB (USD 31.6 billion) in 2018. 19

China State Council, "Guideline for the Promotion of the Development of the National Integrated Circuit Industry," 2014, https://members.wto.org/CRNAttachments/2014/SCMO2/law47.pdf.

¹⁹ "China Is Raising Up to \$31.5 Billion to Fuel Chip Vision," *Bloomberg*, March 1, 2018, https://www.bloomberg.com/news/articles/2018-03-01/china-is-said-raising-up-to-31-5-

The short-term objective of the Guideline and the Fund is to double the sales value of Chinese domestic IC sector by 2020 (thus reducing reliance on imports) and enter the global supply chain. With competition from China with sufficient state-backed funding, the pressure for Taiwan to reduce dependency on semiconductors and to diversify is mounting.

A second associated yet distinct uncertainty for Taiwan is the high level of off-shore manufacturing activities. According to MOEA's annual survey, the level of off-shore manufacturing has increased significantly in recent years. On average, more than 55% of manufacturing activities for major product categories (see Figure 7) took place outside Taiwan in 2016 (Figure 7(A)). Further, significant quantities of off-shore production activities have migrated to China. As indicated in Figure 7(B) below, the highest level of off-shore manufacturing happens to be in the ICT sector (computers and associates, smartphones etc.), with over 93% of the manufacturing took place outside Taiwan (and 98% of which is in China). This is followed by electrics (70.6%; with again 98% in China), optical (47.3%, with 95% of which in China) and electronics (47%, with 80% of which in China).

High production cost is one of the primary reasons for this structure. Another important reason is Taiwan's lagging behind in joining the regional economy integration process, due mainly to the China factor. To date Taiwan is the only major trading economy in the Asia Pacific region that has not been able to have FTAs with other trading partners except with Singapore and New Zealand. For the purpose of comparison, South Korea, for instance, has 15 FTAs with 52 countries as of 2017, and has another 8 FTAs (24 countries) under negotiation. Consequently Taiwanese export faces discriminatory treatment across the board in many industries except ICT because of the ITA agreement.

billion-to-fuel-chip-vision.

Korea Customs Service, "Current status of FTAs pushed for," February 2017, http://www.customs.go.kr/kcshome/main/content/ContentView.do?contentId=CONTEN T ID 000002320&layoutMenuNo=23225.

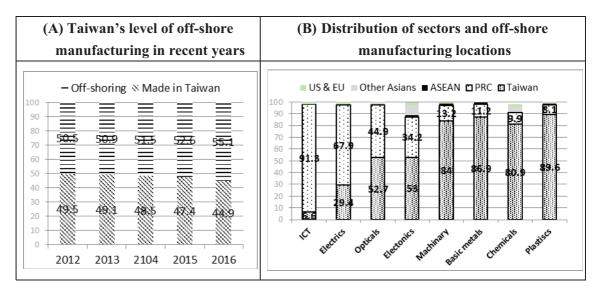


Figure 7 Level and Distribution of Taiwan's off-shore manufacturing activities by products and partners (% of total production)

Source: Department of Statistics, MOEA, "Export Orders Survey," https://dmz26.moea.gov.tw/GMWeb/investigate/InvestigateBA.aspx.

The high level of off-shore manufacturing and China-concentration issue reflect a number of policy implications. First and foremost, while not commensurate in absolute numbers, the rapid migration of manufacturing activities off shore implies graduate loss of job opportunities in the manufacturing sector.²¹ Second, with the speed of economic hollowing-out, there are genuine concerns associated with economic security considerations in light of cross-strait economic competition. Third, China-concentration implies Taiwan is exposed to a considerably higher level of risk in the economic rivalry between the U.S. and China. This is because an important part of the off-shoring manufacturing in China is either OEM activity on behalf of U.S. branding companies, or the production/assembling of final

²¹ Chung-Hua Institution for Economic Research (CIER), *The policy implications of low wages on labor market and possible policy reactions*, pp. 55-62.

products targeting the U.S. market.²²

As reported by the US Congressional Research Services, ²³ annual orders for products from U.S. buyers are much larger than the reported level of annual U.S. imports from Taiwan. For example, while U.S. imports from Taiwan in 2013 were USD 38 billion, export orders from U.S. firms was more than three time in value (\$107.2 billion). CRS also noted that gap between U.S. direct imports from Taiwan and U.S. export orders to Taiwan firms continues to broaden over the last 10 years.

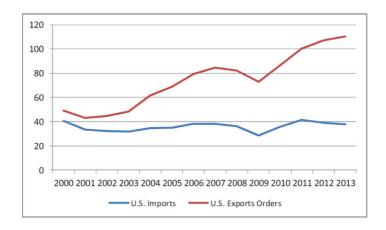


Figure 8 Comparison of U.S. Export Orders Placed with Taiwan Firms and U.S. Merchandise Imports from Taiwan: 2000-2013 (USD billions)

Source: Shirley A. Kan and Wayne M. Morrison, "U.S.-Taiwan Relationship: Overview of Policy Issues," Congressional Research Service, CRS Report No. 7-5700, December 2014, p.46, https://fas.org/sgp/crs/row/R41952.pdf.

Fourth, the changing operation environment in China is creating

_

²² For a recent analysis of the tri-party trade relationship, see Shu-Fai Yang and Jung-Yi Kao, "The potential impact of the new US trade policy on Taiwan's trade performance (美國川普新政對台灣貿易發展之機會與挑戰)," *Economic Outlook Bi-Monthly* (經濟前 瞻), Vol. 173, No. 5, September 2017, pp. 20-25, http://www.cier.edu.tw/site/cier/public/data/173-05 前瞻焦點.pdf.

Shirley A. Kan and Wayne M. Morrison, "U.S.-Taiwan Relationship: Overview of Policy Issues," Congressional Research Service, CRS Report No. 7-5700, December 2014, p.46, https://fas.org/sgp/crs/row/R41952.pdf.

pressure for many Taiwanese firms to opt for the "China+1" strategy, i.e. diversification of production capacities outside China. In 1990s and early 2000s, Chinese government provides a comprehensive set of incentives to attract Taiwan companies to relocate in China; Yet these policies started to phase out beginning in the mid-2000ssuch. Meanwhile, other developments, including the appreciation of the RMB, labor cost increase, removal of tax incentives and restrictions on "3H1L" (high energy-used, high pollution, high input and low efficiency) industries, are all taking place at the same time period. In short, the cost advantage of China is rapidly diminishing and many Taiwan companies face challenges of finding alternatives outside China.

ASEAN seems to be a perfect candidate. But the environment of ASEAN has its own shortcomings, and not suitable all industries due to under-developed infrastructures, short supply of qualified labor force and electronics supply chain. As such, only some traditional industries such as metal, petrochemical, textile have already made their decision and moved to ASEAN. Still the macro and long-term trend in China warrants ASEAN to become a favorable attraction for Taiwan companies considering the China+1 approach.²⁴

B. Taiwan's new economic initiatives and the role of the NSP

In responding to the challenges discussed above, the current government under President Tsia Isng-wen introduced two major economic policy undertakings when she took office in May 2016. The first is the "5+2

It is worth noting that the issue of aging of business leaders is bringing complication to the process. Most of the prominent and major multinational companies in Taiwan, such as TSMC, Hon Hai-Foxconn, Acer, ASUS, petrochemical (Formosa Petrochemical), and metal (China Steel), etc., are still managed by first-generation entrepreneurs. This is even true for many SMEs. According to the Economist magazine, Taiwan's business bosses are the oldest in the Chinese-speaking world: the average age is approaching 62 years old: "Taiwanese bosses are the Chinese-speaking world's oldest," *Economist*, January
11,
2018,

https://www.economist.com/news/business/21734486-future-leadership-problem-many-family-run-firms-including-foxconn-worlds-biggest.

Industrial Innovation Plan" (hereinafter 5+2 Plan). The second is the "New Southbound Policy" (hereinafter the NSP). The 5+2 Plane was launched in 2016 to provide the center pillar of industrial transformation and development framework. The seven (5+2) innovative industrial pillars are: the Asia Silicon Valley (focusing on introducing Internet of Things to next-generation manufacturing), smart machinery, green energy technology, biomedical industry, defense industry, new-generation agriculture, and the circular economy.²⁵

The official objective of the 5+2 plan is to transform industrial innovation, moving towards high-value-added, service-oriented business models. It envisions achieving industrial innovation, job creation, equitable wealth distribution, and sustainability. The economic rationales however intend to address many of the challenges discussed above, namely the two concentration (product and production base) issues by encouraging and diversifying Made-in-Taiwan manufacturing, as well as to modernize and create new jobs for the services sector. As for the NSP, it is designed to elevate relationship with ASEAN and six other partners (India, Nepal, Bangladesh, Sri Lanka, Australia and New Zealand) in this region through the following four key areas of cooperation:²⁶

- Soft power connectivity: enhancing cooperation through, inter alia, medical, education, technology, agricultural cooperation and small and medium enterprises cooperation.
- Supply chain connectivity aims to enhance economic ties through supply chain integration, focusing on the following priorities: ICT, domestic demand-oriented industries, energy and petrochemicals, new agriculture, and financial services.

²⁵ "5+2 Innovative Industries Plan," Executive Yuan, Taiwan, https://english.ey.gov.tw/iip/B0C195AE54832FAD.

-

Complete introduction of the NSP policy is available at: Office of Trade Negotiations of Executive Yuan and Bureau of Foreign Trade, MOEA, "An Introductory Guide to Taiwan's New Southbound Policy," September 19, 2017, https://www.ey.gov.tw/File/75DCF5BD02AC64E7.

- Linking regional markets: through two-way investment and trade relationship and strengthening linkages among different markets via soft (i.e. legal and regulatory) and hard infrastructure.
- People-centered approach and People-to-people connectivity through intensified people-to-people interaction via education, tourism and culture exchanges.

In the initial stage, the NSP received mixed reactions. Critics argued that the NSP is vague and hollow without any apparent "new" elements. Especially the meaning of NSP as a "people-centered" economic policy is confusing. Second, as the NSP covers a total of 18 countries, there is lack of the sense of priority. In addition, there are concerns that the NSP would exacerbate the industry hollowing-out problem by encouraging g more Taiwan firms to invest in ASEAN and other NSP partners.

While there are merits in these critics, it is important to note that the NSP is not an economic-only policy after all. As a matter of fact, the policy rationale that underpins NSP goes beyond trade and investment promotions. As reflected in the "Guidelines for the New Southbound Policy,"27 the ultimate goal of the NSP is to "gradually build up mutual trust and a sense of community." Yang argues that the NSP aims to achieve the "4Rs," namely relocation, reinvention, reinvigoration, and reform. Relocation means to enhance and relocate Taiwan's role and capacity in the ASEAN and other NSP regional network with the view of demonstrating that Taiwan is willing and able to make contributions to the development and prosperity in this region. Reinvention implies Taiwan's willingness to reinvent its partnership as a member of the community for the mutual benefit of Taiwan and NSP partners. For reinvigoration factor, it is to elevate engagement and connectivity with both public and private stakeholders in the region. Finally, the NSP policy also plays a role in promoting reform agenda in Taiwan, including the mind-set and institution framework in engaging with NSP

²⁷ Office of Trade Negotiations of Executive Yuan and Bureau of Foreign Trade, MOEA, "An Introductory Guide to Taiwan's New Southbound Policy," p. 32.

partners.²⁸

This is not to say that trade and investment promotion is outside the scope of the NSP; to the contrary there are still strong economic elements in the NSP program. For instance, one of implicit economic rationales of the NSP is indeed to address the China-dependent concern by way of encouraging diversification of economic relations with NSP partners and providing facilitations to enhance access to the domestic markets of NSP partners.

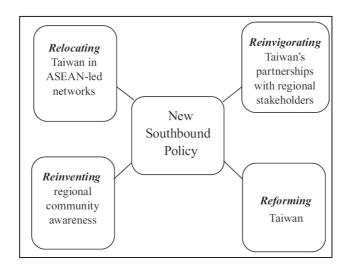


Figure 9 The 4Rs in NSP Objectives

Source: Alan H. Yang, "Strategic Appraisal of Taiwan's New People-Centered Southbound Policy: The 4Rs Approach," *Prospect Journal*, No.18, October 2017, p. 8.

In responding to some of the shortcomings discussed above, the NSP policy made consequent adjustments and new directions were introduced in mid-2017. First it is now focusing on the implementation of five "Flagship" Programs and three "Areas with Major Prospective". The five Flagship Programs include: 1). Regional Agricultural Development, 2). Medical and

-

²⁸ Alan H. Yang, "Strategic Appraisal of Taiwan's New People-Centered Southbound Policy: The 4Rs Approach," *Prospect Journal*, No.18, October 2017, pp. 1-34.

Healthcare Cooperation and the Development of Industrial Chains, 3). the Industrial Talent Development, 4). Industrial Innovation and Cooperation, and 5). the New Southbound Policy Forum and Youth Exchange Platform. The three "Areas with Major Prospective" are: Cross-border E-commerce, Tourism, and Infrastructure development. Second the NSP is targeting for the time being six priority partners, namely India, Indonesia, Malaysia, the Philippines, Thailand and Vietnam.²⁹

Consistent with the 4Rs objectives, economic elements in the NSP must now take into account the need of the NSP partners and the development dimension of trade and investment in the effort to achieve "win-win" mutual benefit in the process. The objective is to share Taiwan's achievements and advantages in both "soft power" and manufacturing experiences. In this regard, the economic roles of the five NSP "Flagship" programs have to be read in tandem with, for example, the 5+2 Plan to understand the connection of Taiwan's diversification effort with both the supply chain and domestic market of the NSP partners (Figure 10). Similarly, the Industrial Talent Development flagship program contributes to the effort in addressing the lack of qualified labor issues in ASEAN countries and India.

-

²⁹ Office of Trade Negotiations of Executive Yuan and Bureau of Foreign Trade, MOEA, "An Introductory Guide to Taiwan's New Southbound Policy," p. 30.

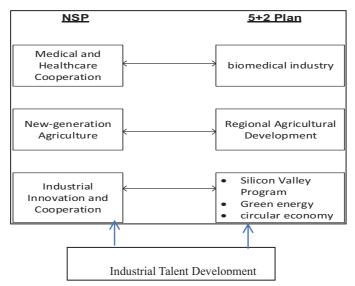


Figure 10 The relationship between the NSP Flagship programs and the 5+2 Plan

Source: Authors' own figure.

Taking the Medical and Healthcare Cooperation and the Development of Industrial Chain Flagship Program (The NSP Healthcare Flagship Program) as an example, one of the short-term assignments under the program is to establish a regional network on the prevention of dengue fever. At the same time, supply chain connectivity initiative will try to link healthcare services provider, made-in-Taiwan monitoring information system and future dengue fever vaccine (under development) with the collaborating ASEAN partner's healthcare stakeholders. A network of healthcare professionals and regulators will be created through capacity-building and training programs provided for healthcare and medical professionals from the 5 priority ASEAN countries plus India. Finally, the program also pursues regulatory confidence-building and

³⁰ "The medical and public health cooperation and the development of industrial chains flagship project of the New Southbound Policy," Health & Welfare NSP Project Office,

CIER, March 31, 2018, https://nsp.mohw.org.tw/cp-2-151-a6047-1.html.

understanding with the view of harmonization in the long run.

Most of the projects under the NSP Healthcare Flagship Program are designed to accommodate the development need of the NSP partners rather than direct trade and investment facilitations, it however creates essential enabling factors for Taiwan's medical products and healthcare service providers through enhancing connectivity with the local medical and healthcare networks and lowering of regulatory and other policy impediments. These underpinning factors would improve the market access opportunities for Taiwanese business and service providers. This is the role NSP plays in promoting intensified economic relationship with NSP partners and in facilitating enhanced economic engagement in the 5+2 new areas outside ICT manufacturing.

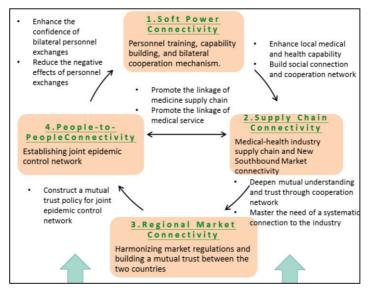


Figure 11 The framework of the NSP Flagship Program on Medical and Healthcare Cooperation and the Development of Industrial Chain

Source: "Objectives and Five Main Points of the Medical & Health New Southbound Policy," Health & Welfare NSP Project Office, CIER, October 21, 2016, https://nsp.mohw.org.tw/cp-2-172-b841e-1.html.

There are of course constraints and limitations to the NSP policy. The Cross-Strait political tension between Taiwan and PRC might impel China to create obstacles for Taiwan to achieve the 4Rs in NSP by leveraging its political and economic 'sharp' power. ³¹ Taiwan's relative lack of experiences in investigating, understanding and reflecting the need of ASEAN and other NSP partners also render the risk of mismatch between what Taiwan is trying to promote and what ASEAN and other NSP partners really want. Finally, many of the Taiwanese firms that are considering moving their production base to ASEAN are SMEs, who often do not have many experiences in operating in non-Chinese speaking environment. The ability for Taiwan government to offer timely assistance and facilitations is a challenging test as well.

C. The challenges and opportunities of the US-China trade war

Global trade has been overshadowed by the trade war between the U.S. and China. In the first year of the Trump Administration, the possibility of trade sanctions was widely considered lip services for the sake of creating bargaining chips. Those threats were made real and prominent, however, when the U.S. announced on June 15, 2018, a definite date to implement 25 percent punitive tariffs on made in China products worth USD 50 billion. Taiwan and the rest of the world trade community are all on high alert as regards the potential economic fallout. Yet there are opportunities as well.

After a bilateral negotiation hat ended without any resolution, ³² President Trump announced a definite Section 301 tariff sanction list against China starting July 6, 2018. ³³ The first U.S. list includes 818 product items

中華民國一〇八年 夏季

98

³¹ See for example, Christopher Walker and Jessica Ludwig, "The Meaning of Sharp Power: How Authoritarian States Project Influence," *Foreign Affairs*, November 16, 2017, https://www.foreignaffairs.com/articles/china/2017-11-16/meaning-sharp-power.

For a chronicle timeline of U.S. –China trade war and past negotiation undertakings, see: Dorcas Wong and Alexander Chipman Koty, "The US-China Trade War: A Timeline," *China Briefing*, September 11, 2019, https://www.china-briefing.com/news/the-us-china-trade-war-a-timeline/.

^{33 &}quot;Statement on Steps to Protect Domestic Technology and Intellectual Property from China's Discriminatory and Burdensome Trade Practices," White House, May 29, 2018,

(amounting to USD34 billions of import value from China) that will be subject to an additional 25 percent tariff. There is also a second list of 284 products (worth USD16 billion) that has come into effect on August 23. Beijing immediately published its own list of products subject to additional tariffs in retaliation with matching values and effective dates.

With the tariffs in place, the overture of the US-China trade war has started, with only the scale, length and battlefields yet to be confirmed. In response to Chinese retaliation, the U.S. implemented a third list of worth USD 200 billion, earmarked for an extra 10 percent tariff on September 27, 2018.³⁴ After another failed attempt to reach an agreement on May 2019, the tariffs on the third list were increased to 25 percent on May 10, 2019. As of June 2019, the size China-made products that are subject to additional 25 percent tariff accounts for almost half of the total Chinese imports to the U.S. (valued at USD539 billion in 2018).³⁵ Despite the fact that the two sides agreed to resume negotiation at the 2019 G20 meeting in Osaka, President Trump announced on 5th August 2019 that the US will levy additional 10 % tariff on the remaining Chinese import (worth USD300 billion) after an unsatisfied round of talk from September 1.³⁶ Once in effect, virtually all products originated from China are subject to US additional tariffs sanction.

Assessment of the first U.S. list reflects the fact that more than half of the list (421 items) constitutes machinery and apparatus, especially relating to work stations and platforms, followed by motors, electronic components and devices and related products (186 items), and instrument and optical

https://www.whitehouse.gov/briefings-statements/statement-steps-protect-domestic-techn ology-intellectual-property-chinas-discriminatory-burdensome-trade-practices/.

Office of the United States Trade Representative, "Request for Comments Concerning Proposed Modification of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation," July 17, 2018, https://ustr.gov/sites/default/files/301/2018-0026%20China%20FRN%207-10-2018_0.pdf.

³⁵ United States Census Bureau, "Trade in Goods with China," https://www.census.gov/foreign-trade/balance/c5700.html.

³⁶ "Timeline: Key dates in the U.S.-China trade war," *Reuters*, August 10, 2019, https://www.reuters.com/article/us-usa-trade-china-timeline/timeline-key-dates-in-the-u-s-china-trade-war-idUSKCN1UZ24U.

devices (117 items). These three product categories account for almost 90 percent of the list. The second U.S. list includes many new product categories that are, according to the U.S. authority, identified as closely related to the China's "Made in China 2025" policy. The most notable features in the second list are a large number of petrochemical and plastic products such as polyethylene, and the inclusion of semiconductor-related products. Finally, in the proposed final list of USD 300 billion, two main categories of products affected will be smart phones (worth USD 44.8 billion) and laptop computers (USD 38.7 billion), accounting for almost 30 percent of the list in terms of value.³⁷

It is noteworthy that the scope of U.S. sanctions goes beyond trade to include possible restrictions on Chinese investments in technology-sensitive industries and export controls in similar areas. As China imported only USD150 billion worth of U.S. products in 2017, this suggests that China will have to find new targets if it wishes to maintain its tit-for-tat retaliatory approach. Restrictions on U.S. investment and boycotting U.S. brands are just some of the options China has employed in the past, and which remain open to Beijing.

Although the U.S.-China trade war directly applies only to products originating from the U.S. or China, Taiwan's high dependence on offshore manufacturing in China and the deep involvement of the Chinese supply networks do not bode well in terms of the impact on Taiwan's economy. As discussed above, 70 percent of Taiwan's foreign ICT orders (including smart phones and laptop computers) are now manufactured in China; For machinery and electronics, which are also the main targets of the U.S. punitive tariffs, the shares are around 60 percent. These Taiwanese manufacturers will likely be the first group of industries to bear the cost of the trade war. Many studies suggest it will be among those hardest hit by the

-

³⁷ Finbarr Bermingham, "Donald Trump 'declares war on Christmas', as new trade war tariff leaves firms with little room to manoeuvre," *South China Morning Post*, August 2, 2019, https://www.scmp.com/economy/china-economy/article/3021141/donald-trump-declares-war-c hristmas-new-trade-war-tariff.

trade spat due to their extensive operations in China.³⁸ With the U.S. still expanding the tariff list, the victims are sure to grow. Worse still, many suggest the economic tension between the U.S. and China could be a long-term, strategic struggle. If this is the case, we are witnessing merely the opening chapter.

For Taiwan, despite all the impacts and costs, the trade war offers paradoxically the opportunity to reconsider our economic and trade structure with China and other partners. Specifically, as the "U.S.-China-Taiwan" triangle that has underpinned Taiwan's economic growth for the last 20 years appears to be increasingly unsustainable, finding and creating a new framework, or doubling down on efforts related to the NSP appears to be further justified by this external impetus.

In light of the on-going tension, many Taiwanese investors in China have considered the possibility of relocating from China (perhaps a new definition of the NSP's Relocation objective). President Tsai openly wishes that relocation to focus on NSP countries. This is a logical reaction to the situation, yet one needs to take into account the characteristic of Taiwanese investment in China to understand the potential outcome. This is because over the years, Taiwan businesses' participation in the Chinese economy has evolved. While the 'World Factory' incentive remains valid for many Taiwan companies, the domestic Chinese market has become increasingly important as well. One indication is the dramatic increase of investment in the Chinese services sector by Taiwanese investment since 2010. For example, the sector accounted for 40.58 percent of total Taiwan investment to China for both 2012 and 2013, an increase from just 10 percent in 2007.³⁹

³⁸ See a summary of the impact assessment: "How trade war with U.S. can hurt growth in China and beyond," *Reuters*, July 6, 2018, https://www.reuters.com/article/us-usa-trade-china-economics-explainer/how-trade-war-with-u-s-can-hurt-growth-in-china-and-beyond-idUSKBN1JV37K.

³⁹ Chung-Hua Institution for Economic Research (CIER), *A Study on the Changing Patterns of Taiwan's Outbound Investment in China*, Report commissioned by the Investment Commission MOEA, 2018, pp. 15-20.

This change in investment structure is only part of the new profile of Taiwanese investment in China: those in the manufacturing sector are now also part of the Chinese domestic supply network. There is a lack of reliable survey investigating the level of involvement of Taiwanese companies in the so-called 'Red Supply Chain,' but Taiwan Semiconductor Manufacturing Company (TSMC)'s USD 3billion investment in Nanjing is just one of the high-profile cases already in place.

In short, there are now at least three categories of Taiwan investments in China, including Made-in-China products but for the U.S. and other foreign markets, Made-in-China products mainly for the Chinese domestic market, and service providers targeting for Chinese consumers. Each category faces a different scenario in light of the trade war, with those that primarily use China as a manufacturing base for U.S. market likely to be hit the hardest. Fallout on Taiwan investment that are members of the Red Supply Chain will be commensurate to the level of impact on the Chinese final products in the U.S. market. Finally, Taiwan service providers in the Chinese services sector will be, for the time being, the least affected, as the outlook for the Chinese economy is still looking positive in the short run. They will certainly feel the pain as well if the overall Chinese economy suffers a slowdown, due to a potential prolonged trade war, which extends into different policy areas.

Given the above categorizations, it is likely that Taiwan investment seeking to relocate investment because of the trade war will be found among category A. Yet this group of Taiwan investors was already leaving China before the trade war due to rapidly rising production costs. The intensity of that investment has since declined rapidly. In 2017, China only captured 38.5 percent (USD9 billion) of Taiwan's total outbound investment of USD24 billion. In the same time period, the allocation of investment to ASEAN almost tripled, growing from 6.3 percent of the total in 2010 to 16.7 percent in 2017. This is not to say that the U.S.-China trade war has no bearing on the trend of Taiwan investment migration away from China. The tariffs provide new impetus to accelerate the process.

Of note is that Taiwan and other foreign investors are probably more

inclined to reduce but not completely terminate their operations in China, as the longevity and intensity of the trade war remains uncertain and China continues to be a major economic power. Further, there are also costs associated with migration, such that when the cost of relocation is larger than the extra tariffs impose by US, the trade war will be an unlikely reason to move. The NSP certainly will facilitate category A Taiwan investments migration and relocation toward ASEAN and India. Taking into account the historical investment pattern, Vietnam, Malaysia and Thailand will be key partners in the NSP arena. How to lower the cost of migration to NSP will be a critical assignment for the Taiwan government.

V. Conclusions and Suggestions

Taiwan's economic relation with ASEAN partners is on the rise, but the increase has been incremental and gradual; until today China remains the single most important economic partner for Taiwan. Nonetheless, the timing for Taiwan to diversify its relationship with China and to elevate ties with ASEAN is right, as there is an increasing number of companies who want to jump on the China+1 bandwagon. The likelihood of U.S.-China trade conflicts further accelerates the process.

As such, the introduction of the New Southbound Policy by President Tsai's administration reacts rightfully to the context. Yet there are challenges and limitations. If all things went according to plan, it is likely that Taiwan's economic relationship with ASEAN countries will continue to grow and enter a new high point in the next few years. Yet there are challenges ahead, which require further attention.

The US-China trade war undoubtedly creates new impetus to accelerate the "Going South" process, especially given the fact that all made-in-China products are now subject to US punitive tariffs from September 2019. This development indicates that not only ICT sectors but also all products that are currently manufactured in China for the US market face similar pressure in finding new production locations and re-building supply network. It is true that US and China are still engaged in negotiation with the view of finding at least partial solutions, yet the unpredictability of the tariff war, in tandem with the uncertainty created by the still evolving technology war, suggest

that even if US and China is able to reach some kind of agreement in the near future, the incentive to re-configurate current supply network remains valid and strong.

The NSP in this regard comes in a right timing, yet caution is needed. First although the NSP started as a regional economic policy, its objectives and people-centered approach imply the policy has a much broader agenda than trade and investment. This agenda is in fact what makes the NSP "new" comparing to several previous and unsuccessful policies. As such, as expectations are growing for the NSP to play a role in mitigating the adverse effect of the US-China trade war, it is important for the NSP policy to remain on its intended path and committed to the policy's original mission. Second, if Taiwan wants to reduce its economic dependency on China, it is equally important to attract Taiwan investments in categories B and C to join the migration bandwagon, and facilitating access to local ASEAN and India markets is a critical factor to achieve this objective. This suggests that the content and priority of the NSP need to be updated in a dynamic way. Finally, for the sake of Taiwan's job opportunities and wage growth, it would be most beneficial if Taiwan investments come back home. So in addition to the NSP, we might consider launching a "New Homebound Policy" (NHP) as well.

Bibliography

- "'3H1L' industries (「三高一低」企業)," *people.cn (人民網)*, September 25, 2008, http://cpc.people.com.cn/BIG5/134999/135000/8104690.html.
- "5+2 Innovative Industries Plan," Executive Yuan, Taiwan, https://english.ey.gov.tw/News_Content.aspx?n=0899B3FCC4B38357 &sms=8BCD9CBBA95A001D&s=9FDC09B0F3DB4F96.
- "China Is Raising Up to \$31.5 Billion to Fuel Chip Vision," *Bloomberg*, March 1, 2018, https://www.bloomberg.com/news/articles/2018-03-01/china-is-said-rai sing-up-to-31-5-billion-to-fuel-chip-vision.
- "Formosa Ha Tinh Steel added a new investment of USD 1 billion (台塑河 靜鋼廠 新增 10 億美元投資)," *China Times (中時電子報)*, July 26, 2017, http://www.chinatimes.com/newspapers/20170726000046-260202.
- "How trade war with U.S. can hurt growth in China and beyond," *Reuters*, July 6, 2018, https://www.reuters.com/article/us-usa-trade-china-economics-explaine r/how-trade-war-with-u-s-can-hurt-growth-in-china-and-beyond-idUS KBN1JV37K.
- "Objectives and Five Main Points of the Medical & Health New Southbound Policy," Health & Welfare NSP Project Office, CIER, October 21, 2016, https://nsp.mohw.org.tw/cp-2-172-b841e-1.html.
- "Statement on Steps to Protect Domestic Technology and Intellectual Property from China's Discriminatory and Burdensome Trade Practices," White House, May 29, 2018, https://www.whitehouse.gov/briefings-statements/statement-steps-prote ct-domestic-technology-intellectual-property-chinas-discriminatory-bur densome-trade-practices/.
- "Taiwanese bosses are the Chinese-speaking world's oldest," *Economist*, January 11, 2018, https://www.economist.com/news/business/21734486-future-leadership -problem-many-family-run-firms-including-foxconn-worlds-biggest.
- "The medical and public health cooperation and the development of industrial chains flagship project of the New Southbound Policy," Health & Welfare NSP Project Office, CIER, March 31, 2018,

- https://nsp.mohw.org.tw/cp-2-151-a6047-1.html.
- "Timeline: Key dates in the U.S.-China trade war," *Reuters*, August 10, 2019, https://www.reuters.com/article/us-usa-trade-china-timeline/timeline-ke y-dates-in-the-u-s-china-trade-war-idUSKCN1UZ24U.
- Bermingham, Finbarr, "Donald Trump 'declares war on Christmas', as new trade war tariff leaves firms with little room to manoeuvre," *South China Morning Post*, August 2, 2019, https://www.scmp.com/economy/china-economy/article/3021141/donal d-trump-declares-war-christmas-new-trade-war-tariff.
- China State Council, "Guideline for the Promotion of the Development of the National Integrated Circuit Industry," 2014, https://members.wto.org/CRNAttachments/2014/SCMQ2/law47.pdf.
- Chung-Hua Institution for Economic Research (CIER), *A Study on the Changing Patterns of Taiwan's Outbound Investment in China*, Report commissioned by the Investment Commission MOEA, 2018.
- Chung-Hua Institution for Economic Research (CIER), *The policy implications of low wages on labor market and possible policy reactions* (低薪資對我國勞動市場的影響與政府因應策略), Ministry of Labor commissioned research series, 2015, https://www.mol.gov.tw/media/2688509/104 年度-低薪資對我國勞動市場的影響與政府因應策略.pdf.
- Department of Statistics, MOEA, "Export Orders Survey," https://dmz26.moea.gov.tw/GMWeb/investigate/InvestigateBA.aspx.
- Directorate General of Budget, Accounting and Statistics (DGBAS), National Statistics, https://eng.stat.gov.tw/mp.asp?mp=5.
- Hu, Min-Wen, et al., "The Transformation of Investment Portfolio by Taiwan Firms in China (臺灣企業對大陸地區投資行為轉變之研究)," *Bank of Taiwan Journal* (臺灣銀行季刊), Vol. 61, No. 1, March 2010, pp. 295-307.
- Huang, Tai-Hsin and Dian-Lin Jiang, "The Causality between Market Competition and Innovation in Taiwan's Banking Sector (我國銀行業市場競爭度與金融創新之關聯)," *The CBC Journal* (中央銀行季刊), Vol. 36, No.2, June 2014, pp. 15-52.

- Industrial Development Bureau, Ministry of Economic Affairs (MOEAIDB), "Industrial Development in Taiwan," April 2018, https://tinyurl.com/y4rqvrwz.
- Investment Commission, Ministry of Economic Affairs (MOEAIC), Monthly Report, https://www.moeaic.gov.tw/english/news_bsAn.jsp.
- Isidore, Chris, "China revalues yuan: Move away from fixed dollar peg could lessen competition for U.S. firms, raise import prices," *CNN*, July 21, 2005, https://money.cnn.com/2005/07/21/news/international/china yuan/.
- Kan, Shirley A. and Wayne M. Morrison, "U.S.-Taiwan Relationship: Overview of Policy Issues," Congressional Research Service, CRS Report No. 7-5700, December 2014, https://fas.org/sgp/crs/row/R41952.pdf.
- Kang, Jung-Pao, "Strategies to Refrain Restrictions on Investment in China: Examples Starting from ASE Group (臺資企業的兩岸悲情分析—由日月光併購案談起)," *Prospect & Exploration Monthly* (展望與探索), Vol. 4, No. 12, December 2006, pp. 1-4.
- Korea Customs Service, "Current status of FTAs pushed for," February 2017, http://www.customs.go.kr/kcshome/main/content/ContentView.do?content Id=CONTENT ID 000002320&layoutMenuNo=23225.
- Lin, Yi-Ling and Tzu-Ting Yang, "Decoupling of Wage Growth and Productivity Growth in Taiwan: an Empirical Investigation (經濟成長、薪資停滯?初探台灣實質薪資與勞動生產力成長脫鉤之成因)," *Economic Literature* (經濟論文), Vol. 46, No. 2, June 2018, pp. 263-322.
- Ministry of Commerce of the People's Republic of China, *Report on Foreign Investment in China 2017* (中國外商投資報告), July 26, 2018, http://images.mofcom.gov.cn/wzs/201804/20180416161221341.pdf.
- National Development Council, *Economic Development, R.O.C. (Taiwan)* 2017 (Taipei: National Development Council, 2017), https://www.ndc.gov.tw/News_Content.aspx?n=5CC81BD78364FACB &sms=8FF4788B5E260516&s=9C025155707F0BC6.

- OECD, "OECD Economic Outlook May 2019," http://www.oecd.org/eco/outlook/economic-outlook/.
- Office of the United States Trade Representative, "Request for Comments Concerning Proposed Modification of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation," July 17, 2018, https://ustr.gov/sites/default/files/301/2018-0026%20China%20FRN% 207-10-2018 0.pdf.
- Office of Trade Negotiations of Executive Yuan and Bureau of Foreign Trade, MOEA, "An Introductory Guide to Taiwan's New Southbound Policy," September 19, 2017, https://www.ey.gov.tw/File/75DCF5BD02AC64E7.
- Schott, Jeffrey J., Cathleen Cimino-Isaacs, Zhiyao (Lucy) Lu and Sean Miner, "Prospects for Taiwan's Participation in the Trans-Pacific Partnership," Peterson Institute for International Economics, PIIE Briefing 16-7, September 2016, https://www.piie.com/system/files/documents/piieb16-7.pdf.
- United States Census Bureau, "Trade in Goods with China," https://www.census.gov/foreign-trade/balance/c5700.html.
- Walker, Christopher and Jessica Ludwig, "The Meaning of Sharp Power: How Authoritarian States Project Influence," *Foreign Affairs*, November 16, 2017, https://www.foreignaffairs.com/articles/china/2017-11-16/meaning-sharp-power.
- Wang, Wen-Juan, "Discussion on the Creation of the Red Supply Chain (紅色供應鏈形成環境之探討)," *Economic Outlook Bi-Monthly* (經濟前瞻), No. 177, May 2018, pp. 79-86.
- Wong, Dorcas and Alexander Chipman Koty, "The US-China Trade War: A Timeline," China Briefing, September 11, 2019, https://www.china-briefing.com/news/the-us-china-trade-war-a-timeline/.
- Yang, Alan H., "Strategic Appraisal of Taiwan's New People-Centered Southbound Policy: The 4Rs Approach," *Prospect Journal*, No.18, October 2017, pp. 1-34.
- Yang, Shu-Fai and Jung-Yi Kao, "The potential impact of the new US trade policy on Taiwan's trade performance (美國川普新政對台灣貿易發展之機會與

挑戰)," Economic Outlook Bi-Monthly (經濟前瞻), Vol. 173, No. 5, September 2017, pp. 20-25, http://www.cier.edu.tw/site/cier/public/data/173-05 前瞻焦點.pdf.

Yu, Fu-Lai Tony, "The Architect of Taiwan's Economic Miracle: Evolutionary Economics of Li Kuo-Ting," *Global Economic Review*, Vol. 36, No. 1, March 2007, pp. 53-67.