

Taiwan Miracle Redux: Navigating Economic Challenges in a Contested Democracy



Ryan Terribilini and Tze-ting Huang

January 2020



About the Global Taiwan Institute

GTI is a 501(c)(3) non-profit policy incubator dedicated to insightful, cutting-edge, and inclusive research on policy issues regarding Taiwan and the world. Our mission is to enhance the relationship between Taiwan and other countries, especially the United States, through policy research and programs that promote better public understanding about Taiwan and its people. www.globaltaiwan.org

GTI Taiwan Scholarship Program

GTI Taiwan Scholarship program enables outstanding researchers from the United States to perform valuable Taiwan policy research based on field visit to the country.

About the Authors

Ryan Terribilini has worked on numerous projects at the intersection of technology, policy, and operations. He spent four years at Google developing the Android hardware and software ecosystems by managing direct-to-consumer device support operations and creating policies for the world's biggest mobile app marketplace. At Ripple, Ryan served as Head of Developer Relations and Platform Partnerships. Through this role he engaged with numerous financial institutions and Fin-Tech entrepreneurs building the payment systems of the future. He also spent two months in Delhi working with Catalyst to develop an accelerator program focused on building financial services for underserved populations in India. Previously, Ryan was the CEO of Formosa Financial – a treasury management platform for companies in the blockchain space. He is currently a research associate at the University of Oxford's Centre for Technology and Global Affairs. Ryan is a magna cum laude graduate of the University of California, Berkeley with a degree in Classical Civilizations and a graduate of the University of Oxford's Master of Public Policy program. Ryan is the recipient of GTI Scholarship in 2018.







Board of Directors

Wen-yen Chen (Chairperson)	Chieh-Ting Yeh (Vice Chairperson)	Jennifer Hu (Vice Chairperson)
John Huang	Keelung Hong	Aki Hsu
Stephanie Hu	Hertz Huang	Howard Huang
Patrick Huang	Victor Huang	Anthony Kang
Hong-tien Lai	Jennifer Lee	KF Lin
Heather Lin	Charles Pan	Minly Sung
Sunshene Tsou	Arthur Tu	Kevin Lin
Fred Wang	Kristie Wang	Sarah Wei
Lily Wang	Elise Whang	

Advisory Council

Wen-yen Chen

Peter Chow

David Tsai

James Wang

Advisory Board

Gordon Chang Columnist for The Daily Beast, author of *The Coming Collapse of China*

> Ralph Cossa Pacific Forum CSIS

June Teufel Dreyer Professor, University of Miami

Dafydd Fell Director, Centre of Taiwan Studies, School of Oriental and African Studies

Richard Fisher Senior Fellow, International Assessment and Strategy Center

Toshi Yoshihara Senior Fellow, Center for Strategic and Budgetary Assessments

> Wallace Gregson Retired Lieutenance General, USMC

Thomas Hughes Consultant, Hughes And Company

Shirley Kan Retired Specialist, Congressional Research Service (CRS)

Matt Salmon Vice President for Government Affairs, Arizona State University; Former Member of Congress from Arizona

Fang-long Shih Co-director, Taiwan Research Programme, London School of Economics and Political Science

> William Stanton Former AIT Director (2009-12)

Michael Reilly Former British Representative to Taiwan

> Robert Wang Georgetown University

Mark Stokes Executive Director, Project 2049 Institute

John Tkacik Senior Fellow and Director, International Assessment and Strategy Center

> Masahiro Wakabayashi Professor, Waseda University in Japan

Arthur Waldron Professor, University of Pennsylvania

Gerrit van der Wees Former Editor and Publisher, Taiwan Communiqué

Stephen M. Young Retired U.S. Ambassador

Joseph Bosco Former China Country Desk Officer in the Office of the Secretary of Defense

Table of Contents

Executive Summary	5
Introduction	
From Reconstruction to The Taiwan Miracle and Beyond	10
Taiwan's Democratization: Opening the Political Marketplace	12
The Effect of Democratization on Policy Making	14
Case Study: Taiwan's ICT Sector	19
Conclusion	22

Executive Summary

The Taiwan Miracle (台灣奇蹟) of the 1960s and 70s brought about a massive wave of industrialization and economic growth, driven mainly by the development of a thriving high technology sector. The economic drivers underlying the Taiwan Miracle were centrally controlled by the Nationalist party,

satisfaction that has not been effectively addressed by any recent national economic policies, regardless of the party in charge of the Executive Yuan at the time.

Although both major political parties in Taiwan agree on this imperative, many administrations have tried

Kuomintang (KMT) (中 國國民黨), who managed critical relationships in both directions: between local industry and the global markets where trading partners bought Taiwanese goods.

After establishing a diverse and robust technology-driven export economy, the resulting "Clearly the trend shows increasing domination of Legislative Committees in proposing policies. However, in-depth research of these bills shows that they are more focused on smaller scale policy at the local level rather than massive national programs.

and failed to successfully retrofit Taiwan's information communication technology (ICT) industry to keep up with global competition in the 21st century. This research paper elucidates differences in the policy making process under one-party KMT rule versus the contested multi-party status quo to

high wages and creation of labor unions were factors in the push towards democratization in the late 1980s. The period of rapid economic development coincided with the bottom-up civil society movements and the beginnings of political liberalization. This ultimately led to a subsequent top-down democratization process that began with the lifting of martial law and admittance of new political parties, such as the Democratic Progressive Party (DPP) (民主進步黨), in the late 1980s, culminating with direct legislative and presidential elections in 1992 and 1996, respectively.

In the more recent decades since the surge of the economy in the late 1970s and early 1980s, Taiwan's competitive edge in its high technology industries has been eroded by cheaper access to labor and other factor endowments in competing countries undergoing their own rapid development such as China, South Korea, and Vietnam. With export and GDP targets stagnating in the last decade, it is imperative for Taiwan to revive its technology manufacturing sector through investments in innovation industries. Recent electoral outcomes and political campaign messages in the 2020 election point to growing economic disdevelop an understanding of the effect that Taiwan's democratic system of governance has had on its economic development while providing recommendations on potential areas for reform or improvement. As such, Taiwan's experience may offer a model for democratizing countries with developing economies.

Introduction

Democracy's Moment of Reckoning with Globalization

From the United States to the United Kingdom and beyond, countries with democratic political systems and developed economies are facing a moment of reckoning. For the past 50 years, increasing global economic integration has coexisted (and often been vociferously supported) by groups of all political persuasion within multi-party political systems. While this process has increased living standards for hundreds of millions globally, given domestic businesses access to international markets, and provided citizens with access to better products at lower costs, the undesirable consequences of globalization are suddenly coming into focus.

Tensions around wage stagnation, income inequality, offshoring of manufacturing jobs, and trade imbalances are increasingly being reflected in emerging brands of populist politics that gain grassroots support through giving voice to the anger of forgotten working classes. Unfortunately, this kind of political rhetoric often contains vitriolic anti-immigrant and nationalistic strands, resulting in violent extremes. Through the lens of populism, it is easy to view the global economy as nothing more than a zero-sum game with countries constantly seeking an upper hand over their adversaries.

Thus far, countries that previously promoted democratic values abroad have not delivered an adequate response to the legitimate grievances of their citizens. With growing anxieties surrounding labor automation, sovereign debt crises, and increasingly interlinked trade and financial networks, many have begun to ask if democracies are actually capable of managing long-term economic development through short-term political cycles. This question is particularly acute when considering the cross-border nature of financial markets and the established importance of multilateral organizations such as the World Trade Organiza-

tion (WTO) and International Monetary Fund (IMF) in setting the "rules of the game".

So how do democratic societies deliver more economic benefits for its people in spite of the negative side effects and confounding complexities of globalization? Unsurprisingly, the answer is anything but clear cut—potential solutions will inevitably be multi-faceted and subject to unique circumstances of the country in question. Instead of searching for a magic bullet to address these problems, a better approach can be found in exploring potential frameworks to manage the myopic nature of democratic politics within the context of long-term economic development in an increasingly connected and globalized system.

Of course, we must ask where Taiwan fits into this conversation. Although existing under a particularly unique set of historical consequences, many aspects of Taiwan's contemporary economic challenges are similar to those of other developed and democratic nations. Luckily for Taiwan, ugly forms of populist politics capitalizing on xenophobia and other types of fearmongering have not taken root, although identity issues are core to the question of the island's political status. Exploring how to navigate the challenges of economic development in the midst of Taiwan's ongoing democratic evolution is the focus of this research project.

Modern Taiwan: Democratization with Development

With the emerging issues of globalization faced by democracies as a backdrop, Taiwan makes for a particularly interesting case study. As a "third wave" democracy that is continuing its process of consolidation, the outcomes of economic policies implemented when Taiwan was under the rule of a one-party military state are still reverberating today. Consequently, many are beginning to wonder whether Taiwan's democratic institutions are capable of delivering the same kinds of economic successes delivered by the KMT during the martial law period. This question is particularly pressing in light of the fractious nature of domestic politics in Taiwan, with conflicting concepts around the nature of national identity, autonomy, and social justice being injected into many aspects of economic policy making—particularly in the arena of international trade. This is due to the fact that Taiwan's economy remains export-oriented and highly dependent on supply chains embedded within its main trade partner and chief political adversary—China.

Ironically, the stage was set for these debates to play out through Taiwan's emergence as one of the four "Asian Tigers" along with Hong Kong, Singapore, and South Korea. The rapid economic growth engineered by the KMT has come to be known as the Taiwan Miracle, during which time living standards and GDP grew at an astounding rate. With this esteemed status as one of the most vibrant economies in Asia as historical retrospective, it is important to consider how and why Taiwan has fallen behind most of its fellow tigers.



Figure 1: GDP Growth of Four Asian Tigers (1960-2014)¹

Identity Politics as Economic Battleground

As things stand, Taiwan is home to a young and vibrant democracy that many consider to be one of the most successful in Asia—if not the entire world. In its 2019 Freedom in the World report, Freedom House gave Taiwan top scores on political rights and civil lib

erties.² Oftentimes, this vibrancy devolves into a fierce battleground for identity politics to play out - usually pitting the more mainland-aligned visions of the KMT against the DPP's staunchly pro-independence faction.

The blue-green political divide has been most prevalent in considerations around Taiwan's trade and investment policies. Spring 2014 saw the triumph of the studentled Sunflower Movement³ — an event sparked by the KMT's efforts to quickly ratify a trade treaty before completion of the standard legislative review process. Known as the Cross-Strait Services Trade Agreement (CSSTA), the deal aimed to liberalize trade in services and open up more investment opportunities between Taiwan and China. With Taiwan's sovereignty continually challenged through political and militaristic means, opponents of the treaty voiced concern that it would give China dangerous access to critical industries such as finance and media. After occupying the Legislative Yuan for 23 days in the spring of 2014, the Sunflower Movement achieved its primary objective and prevented the passage of the CSSTA. The CSSTA sought to build upon increasingly close ties between Taipei and Beijing, enjoying strong support by President Ma Ying-jeou and his KMT allies in the Legislative Yuan. After the passage of the Economic Cooperation Framework Agreement (ECFA) between Taiwan and China in 2010, the CCSTA was touted to be a natural extension of the previous deal that had granted Taiwan tariff-free access to the mainland market for 539 products as China pushed for further economic integration.⁴

Just a few years later, the historical consequences of these events continue to unfold before our eyes. The civil society protests of 2014 and the election results of 2016 and 2020 can be viewed as a democratic rejection of closer economic integration between Taiwan and China. Although the protests were not di-

^{1 &}quot;Four Asian Tigers." Wikipedia, Wikimedia Foundation, 26 Nov. 2018, en.wikipedia.org/wiki/Four_Asian_Tigers.

^{2 &}quot;Taiwan." Freedom House, 1 June 2019, freedomhouse.org/report/ freedom-world/2019/taiwan.

Keim, Anna Beth. "Taiwan's Kids Are Not All Right." Foreign Policy,
 Foreign Policy, 17 May 2016, foreignpolicy.com/2016/05/17/taiwans-kids-are not-all-right-youth-dpp-tsai-ing-wen-youth-movement-china-discontent/.
 "Economic Cooperation Framework Agreement." Wikipedia,

Wikimedia Foundation, 5 Nov. 2018, en.wikipedia.org/wiki/Economic_Cooperation_Framework_Agreement.

rectly led or promoted by the DPP, they nonetheless became a flashpoint of identity politics that eventually carried over into resounding electoral victories for DPP-backed candidates. Problematically for President Tsai Ingwen (蔡英文), Taiwan's export-driven economy had grown increasingly dependent on trade with China in the previous 16 years. Exports generally account for roughly 70% of Taiwan's GDP with 40% of the value of those exports going to China and Hong Kong.⁵



Figure 2: Taiwan's trade with China6

Beyond trade policy, Taiwanese politics also encounter turbulence around other divisive issues such as transitional justice, financial regulation, contracting for government projects, and more. While diverse in their respective issues, these conflicts all ultimately stem from the same common source: divergent ideas of Taiwan's current identity and its economic future.

Overcoming this source of division while charting a course for reinvigorating Taiwan's stagnant economy is the most pressing matter facing current and future administrations. In particular, we seek to analyze how administrations throughout recent history have all tried to do the same thing: make Taiwan's ICT industry globally competitive again. It is the authors' opinion that the search for options and the likelihood of their success can only be assessed through a historical analysis of efforts to date viewed in the context of Taiwan's current policy making environment and mechanisms.

Where Next for Taiwan? Charting a Course for the Future

Before charting potential courses for the economy going forward, it is essential to first understand how Taiwan arrived at this point. To do that, we must understand two distinct but interlinked eras within Taiwan's modern history. The first era covers the rapid industrialization of the economy in the second half of the twentieth century. The Taiwan Miracle saw the economy undergo consistent year-over-year annual growth, peaking in the 1970s at an average rate of 10.7%. The healthy sustained growth over this period drastically accelerated living conditions, average wages, and labor organization that provided necessary preconditions for democratization. This second epochal shift began developing in the mid-1980s, as the development of labor unions began to spill over into other forms of political organization. This set off a chain of events including transfers of power within the KMT hierarchy, constitutional reform, and finally the direct presidential election of 1996.

Since this major milestone in Taiwan's political history, the economy has grown steadily albeit nonspectacularly. Four different presidents were elected between 1996 and 2016, with alternation between KMT and DPP. As Taiwan's democracy consolidated, a chasm between gross domestic product (GDP) per capita and real earnings gradually opened wider and wider. Since these two lines crossed in 1995 they have only grown further apart since, leaving many in Taiwan to wonder: "If the economy is doing well, why I am not seeing any of those benefits for myself?"



Figure 3: Real earning and GDP per capita in Taiwan⁷

MOEA data.

7

^{5 &}quot;Taiwan Exports." | 1998-2018 | Data | Chart | Calendar,
TRADING ECONOMICS, tradingeconomics.com/taiwan/exports.
6 Horwitz, Josh. "Taiwan's Trade with China." Atlas. Quartz,
14 Dec. 2016, https://www.theatlas.com/charts/HyFsBvCme

From 1996 to 2018, GDP per capita has grown 87 percent, yet real earnings are only up by 22 percent.⁸ Many scholars have attempted to diagnose the cause of this unhinging between GDP and earnings growth, yet there is no agreed upon consensus on the definitive source of this issue. One suggested theory is that the steadily decreasing value of exported goods cannot keep pace with the import costs of other goods, thus raising prices in Taiwan while netting less cash for workers.⁹ This possibility, alongside the decreasing returns to labor due to manufacturing automation are two possible driving forces contributing to wage stagnation over the past 20 years.

The discrepancy between GDP and wage growth has given rise to a general feeling of economic malaise that has impacted Taiwan's politics in multifaceted ways-most dramatically manifested in the protests of the Sunflower Movement of 2014. While there were numerous underlying issues contributing to the activist's motivations, undoubtedly many participating students felt that the Ma government (and previous administrations) had not done enough to provide young generations with economic opportunities. The pervasive sense of hopelessness along with political disillusionment that Taiwan was being "sold out" to China proved to be a powder keg for activism with ongoing reverberations. So why have successive governments tried and failed to evolve Taiwan's economy to bring more benefits back to its labor force?

There is no simple answer but increasing global competition in Taiwan's traditionally foundational industries are certainly a contributing factor. Whether under a KMT or DPP administration, both parties have tried to revive the fortunes of the ICT industry. For President Chen Shui-bian in the early 2000s this took the form of the first and second "National Development Plan for a New Century" while President Ma Yingjeou brought forth the "Challenge 2008: Six-Year National Development Plan."¹⁰ Both of these plans attempted to foster the development of new industry and the improvement of existing ones, including digital content (such as software, online games, media, music, and more) and biotechnology. The program was branded as "Two Trillion and Twin Star Development" but subsequently reported huge losses in profit due to lack of technological edge in the target industries. President Ma did not continue to pursue this losing strategy and the plan was subsequently shelved during his administration.¹¹

The research question that this project seeks to answer is how democratically elected governments in Taiwan can more effectively navigate, design, and administer economic policies and programs. To do so, we need to develop a detailed understanding of the policy making process both during the era of one-party KMT rule and during the current period of ongoing multiparty politics. Before discussing the effects of Taiwan's democratic system on its' economy post-1996, we must first understand the interaction between economic development and political evolution in Taiwan.

^{8 &}quot;平均薪資近6萬,為何大眾很無感——從「中位數」看見更多低 薪族",報導者the reporter,

^{2018.05.25,} https://www.twreporter.org/a/unequal-distribution-of-income 9 林依伶,楊子霆 (2015): < 經濟成長、薪資停滯 初採台灣時 薪資與勞動生產力成長脫鉤之成因>

¹⁰ Website of National Development Council, R.O.C

^{11 &}quot;Post-Industrial Development in East Asia: Taiwan and South Korea in Comparison." Post-Industrial Development in East Asia: Taiwan and South Korea in Comparison, by Min-Hua Chiang, Palgrave Macmillan, 2018, pp. 77–77.

From Reconstruction to The Taiwan Miracle and Beyond

Part I: Land Reform (1945-1960)

In the aftermath of World War II, Japan ceded control of Taiwan, the Nationalists lost the Chinese Civil War and consequently asserted control over the island. The chaos of this momentous historical event, alongside the civil unrest generated by the 228 Incident and the need for massive reconstruction projects due to American shelling of Japanese infrastructure put Taiwan's post-war economy in a precarious po-

sition. With economic output shrinking, a period of hyperinflation ensued, resulting in the issuance of the New Taiwan dollar by the Bank of Taiwan in June 1949. The swapping of the Old Taiwan dollar for the New at a rate of 40,000 to 1 helped stabilize prices and paved the way for a period of gradual growth.

During this era, Taiwan's economy was

almost entirely dependent on agricultural output to sustain the livelihood of the people. With three-fifths of the population working as farmers, maintaining food prices was highly dependent on access to farming lands and subsequent policies. Through land reform policies, crop yields increased significantly leading to a surplus of agricultural resources primed for export and an influx of foreign exchange alongside imposition of import controls. The simultaneous "squeezing"¹² and "absorption"¹³ effect paired with foreign aid assistance provided by the United States ultimately generated much needed political and economic stability as Taiwan worked towards self-sufficiency.

Part II: Domestic Growth and International Integration (1961-1980)

With the economy stabilized through land reforms, increasing crop yields, and critical US foreign aid packages, light industry in Taiwan began to develop through government support. In the early phases of industry development, local small and medium enter-

"With the transition from one-party rule with power wielded by "strongman's will" to a representative system enabling action based on "people's desire", the consolidation of Taiwan's democracy over the last thirty years is still being analyzed to understand how it impacts reform in many areas: institutional, financial, economic, and otherwise.

prises (SMEs) weren't competitive on global markets regardless of production costs or technology advantages. As part of an import substitution industrialization (ISI) strategy,¹⁴ the KMT Government fiercely defended local companies against competition from international firms by implementing restrictions on imports. Credit enhancements were also provided through gov-

ernment guaranteed loans so that the banks could lend more freely to these firms.¹⁵ With the domestic market quickly becoming saturated, firms needed to find new markets to expand to. This created the impetus for shifts in economic policies — namely those governing foreign exchange mechanisms and export regulations.

As the end of regular US aid grew near, the need for full-scale economic development became all the more pressing. This required mitigation of major problem areas encountered by prospective investors at the time, namely the prohibitively high tax burden, cost,

Taiwan Miracle Redux: Navigating Economic Challenges in a Contested Democracy

15

¹² Squeezing is a period when borrowing is difficult or a time when profits decline due to increasing costs or decreasing revenues.

¹³ Absorption is the total demand for all final marketed goods and services by all economic agents' resident in an economy, regardless of the origin of the goods and services themselves.

^{14 &}quot;Import Substitution Industrialization." Wikipedia, Wikimedia Foundation, 30 Aug. 2018, en.wikipedia.org/wiki/Import_substitution_industrialization.

Author interview with Dr. Lin, 11 April 2018.

and complexity of the investment process. These problems were largely mitigated by the "Incentive Investment Regulations," which encouraged exports through tax reductions and helped investors more easily obtain industrial land for manufacturing use.

cial development are largely derived from the influence of government institutions - it is clear that the Taiwan Miracle was largely engineered by prudent policy decisions. Considering the gradual approach taken in opening markets

Unfortunately, this influx of foreign investment was short lived, as international changes regarding the Republic of China's political status created a climate of uncertainty. Taiwan's increasingly unstable political posi"Under any circumstances, any country tion by first developing transitioning from one-party rule to a contested democratic system is going to undergo massive changes when it comes to the design, deliberation, and execution of policy decisions.

tion throughout the 1970s was further exacerbated by a globaleconomic recession that saw a massive depreciation of the US dollar along with soaring commodities prices.

Part III: An Institution-Driven Economic Miracle and Political Consequences (1981-1996)

The preceding 30 years of growth had transformed Taiwan's economy from small scale sharecropping system based on agricultural output to one of the four "Asian Tigers" leading the global technology market with production of electronic goods, semiconductors, and other highvalue manufactured products. Transformation brought with it increasing living standards, gross domestic product, and innovative industries that could scale to meet the world's growing demand for Taiwan-made goods.

With growing grassroots political organization, the transition to a liberalized, open market economy became all the more apparent to the Nationalist Government. Rather than focusing on pushing policies to encourage growth at all costs and state-intervention in industry, efforts would instead be guided towards establishing free markets across the economy. To guide this process, the "Economic Innovation Committee" was established in May 1985 with the input of academics, economic experts, and representatives of industry.

Viewing this case through the lens of institutional theory - which states that economic effects on soto international competilocal industry through imposition of import controls, then creating channels for absorption of foreign capital, before finally launching large-scale export promotion policies it is clear that these policies were

ultimately successful because they were well-designed, appropriately timed, and most importantly calibrated to reflect the position of Taiwan's economy relative to external factors in the global market.

Taiwan's Democratization: Opening the Political Marketplace

Part I: Outside the Party, Into a New Era

S hortly after the establishment of a multi-stakeholder economic policy development process under the auspices of the Economic Innovation Committee, changes in Taiwan's political landscape began to take hold as well. From the mid-1970s to early 1980s members of the Tangwai ($\$) movement had begun to contest elections for seats in the Legislative Yuan, despite the fact that opposition parties were still technically illegal. Under the banner of this movement, 18 founding members formally established

a new party on September 28, 1986 at the stately Grand Hotel Taipei.¹⁶

Despite the legal uncertainty surrounding the creation of an opposition party, the establishment of the DPP was a watershed moment in the political history of Taiwan.¹⁷ With many early party

members working in legal, journalistic, and artistic fields the Party's platform and foundational goals are aligned around constitutional reforms to ensure freedoms for the press, assembly, association, and speech.

Shortly after the founding of the party, President Chiang Ching-kuo (蔣經國) announced the end of 40 years of martial law on July 15, 1987. With the suspended constitution now back in force and a new political party promoting democratic reforms in the ascendancy, the process of Taiwan's democratization began to accelerate.

With President Chiang's death in 1988, the accession of Vice President Lee Teng-hui (李登輝) to the

top of the executive branch and chairmanship of the KMT further solidified the direction of political reform.

Part II: Wild Lily and The Dissolution of the National Assembly

As the first Taiwan-born president of the Republic of China (ROC), Lee Teng-hui brought a unique set of perspectives and experiences on the history of his homeland and its opportunities for the future. Lee consolidated his power after being confirmed as chairman at the 13th National Congress of the Kuomintang on July 8th 1988. It was here that Lee named 16 benshengren to

"The research question that this project seeks to answer is how democratically elected governments in Taiwan can more effectively navigate, design, and administer economic policies and programs. the 31-member Central Committee — the "Taiwanization" of the party had now taken hold in the KMT's most powerful policy making body.

His cabinet within the Executive Yuan was promptly reorganized as well, with a similar outcome to Lee's party re-

shuffling efforts. As a reaction to these sudden shifts in power, the National Assembly passed an amendment in March 1989 to extend their term beginning in 1986 to nine years - despite the fact that they had never been democratically elected in the previous 40 years.

This culminated in the Wild Lily Movement on March 16, 1989 when nine students from National Taiwan University gathered in front of the Chiang Kai-Shek Memorial Hall to air their grievances and push for drastic reforms. First and foremost, amongst these demands was dissolution of the National Assembly to begin the process of rebuilding the congressional system to become an organ of representative democracy.

President Lee was sympathetic to the students concerns and after days of protests he met with the Wild Lily Movement's leaders to confirm his commitment to gradually addressing their demands, starting by

¹⁶ Wu Yang-he,"台灣地區解嚴後政黨體系發展之研究", Master thesis of Graduate Institute of Development Study of National Chengchi University, 1992 (202)

¹⁷ "DPP Resolution on Taiwan's Future." Legitimacy Is Crux of Taiwan Issue, www.taiwandc.org/nws-9920.htm.

announcing the timetable for reform on the day of his inauguration for his second term as president.¹⁸

Part III: Direct Presidential Election and the Third Taiwan-Strait Crisis

President Lee would spend most of that term instituting the reforms promoted by the Wild Lily Movement, which ultimately led to him having to compete in a multi-party democratic election to serve a third and final term as president. With Lee's successful implementation of many reforms and Taiwan's democratization garnering international attention, he cruised to victory with 54% of the overall popular vote.

Despite the landmark achievement represented by this momentous occasion, it was not without its share of troubles. In the buildup of the campaign the People's Republic of China (PRC) began military exercises in preparation for a potential attack on Taiwan. Missiles were launched by the People's Liberation Army (PLA) from the Nanjing Military Region that landed miles off the coast of Taiwan in the Strait. This show of aggression led the United States to intervene by deploying warship battle groups in the vicinity of the Taiwan Strait. Tensions cooled once the election had taken place, but the message from the PRC was made clear — democracy itself is tantamount to secession as either party (KMT or DPP) could, in Beijing's view, use their election as the basis for establishing an independent Taiwanese state.

Taiwan's economy and political system had come so far in the half century since the beginning of KMT rule on the island. From wartime reconstruction, to land reform, to import substitution industrialization, each piece of Taiwan's economic puzzle coming into place created a strong foundation for its democratization process. Parties would have to openly share and promote their policy platforms to gain the consensus of the people in an open marketplace of ideas. Whether or not the structure of Taiwan's government institutions and political terrain would be able to effectively guide economic development forward remained to be seen. With fault lines drawn between the KMT and DPP, economic policies often became tied up in identity politics and geopolitical strategy instead of being assessed on pure growth potential or merit. From this point onwards, this research project will analyze how democratization has affected economic policy making process and the respective follow-on effects.

¹⁸ Jacobs and Liu, "Lee Teng-hui and the Idea of "Taiwan",June 2007, The China Quarterly 190(190):375 - 393.

The Effect of Democratization on Policy Making

Decentralizing Decisions

Under any circumstances, any country transitioning from one-party rule to a contested democratic system is going to undergo massive changes when it comes to the design, deliberation, and execution of policy decisions. To understand how the ongoing process of democratization that achieved notable milestones from 1987 to 1996 (when Taiwan held its first direct presidential election) continues to have major influence over Taiwan in this regard today, it is helpful to first assess the two broad methods of policymaking seen in the pre- and postdemocracy era—authority-based and process-based. ongoing national emergency. Only with President Lee's repeal of the "Temporary Provisions Effective during the Period of National Mobilization for Suppression of the Communist Rebellion" in 1991 did the KMT's monopoly on political power come to an end after 42 years. During these years, this power was enabled by a combination of support from the United States alongside successful implementation of economic reforms described earlier. Broadly speaking, the way the KMT exercised power in this era can be concisely broken down into two periods—totalitarian rule under Chiang Kaishek and authoritarian rule under Chiang Ching-kuo.

. After the KMT's retreat to Taiwan following their de-

an authority-based In policy making system, the ability to make decisions lies exclusively with those holding power-political, economic, military, or otherwise. Under the conditions of a democratic election, candidates running for office are expected by citizens to effectively represent their interests if elected. In this way, the political system is "The differences between the policy making process under the two Chiangs versus the democratic system with constitutional checks and balances are manifold, but fundamentally hinges on whether officials are required to be loyal to their party or a particular constituency that helped them get elected to begin with.

designed to reflect the public's will—albeit oftentimes imperfectly and without the total consensus of the population. Within the various branches of government,¹⁹ this will is manifested by the agendas of elected leaders, whether they be exercised by the President and various ministries within the Executive Yuan or lawmakers proposing bills inside the Legislative Yuan.

Part I: Totalitarian and Authoritarian Methods

From 1949 until 1991, the constitution was suspended by the KMT under what they deemed to be an

feat in the Chinese Civil War in 1949, Chiang Kai-shek urgently needed to solidify his ruling power and control over the island. This was accomplished by establishing martial law, which gave the government unprecedented power to suppress all forms of political dissent and purge opponents of the Party, whether real or perceived. As all local administrative and ju-

dicial agencies were subsequently controlled by the military, tens of thousands of suspected communists were killed or imprisoned in a period that has come to be known as the "White Terror" (句色恐怖年代).

Consolidating this power required internal reformation of the KMT to ensure that the institutions of government continue to be controlled by the party, virtually guaranteeing all power to be held by the president and the military. This strategy was crystallized through selection of a 16-person KMT reform committee (中 央改造委員會) that promoted a party reform outline (本黨改造綱要), which explained the relationship between the party and the government in detail.

¹⁹ The Republic of China government has five branches: Executive, Legislative, Judicial, Examination, and Control Yuan.

In doing so, the reform committee effectively exercised control by exerting influence over party members who were concurrently acting as government officials or elected representatives. The will of the party and state were essentially one and the same.

Additionally, under the "Temporary Provisions" the president's powers were also significantly enlarged to the point that all executive decisions were not subject to any form of supervision by judicial or legislative branches of government such as the National Assembly and Legislative Yuan. Without any checks or balances, President Chiang held complete totalitarian power during this time. In the 10 years following the establishment of the KMT reform committee, the organizational structure of the government continued to evolve towards further consolidation of the party and the state. As of 1959, things were arranged as depicted below:



Figure 4: Central Party-Government Relations²⁰

Despite the apparent complexity of the above diagram, the policy making process itself was relatively simple. Policies would be decided upon by the party, then subsequently legalized and implemented by various government institutions. For the most important national policy decisions, discussions were held amongst the Central Committee and Central Standing Committee which were occupied by loyalists and confidantes of President Chiang Kai-shek. In the event that government officials wanted to propose policy they would first be compelled to discuss with their respective political department or party division. These organs were either led by member-officials or by a committee that was elected by member-representatives. From here, the group would arrive at a proposal, then send along their conclusions to the Central Standing Committee for further discussion.

If the Committee decided they would like to follow through with a particular policy proposal, they would then use executive powers to request that the Executive Yuan, Examination Yuan, and Judicial Yuan commence drafting of the bill, then send it off to the Legislative Yuan to be put up for a vote (and ultimately passed). In parallel, party leadership would instruct their ranks within the Legislative Yuan to vote for the bill.²¹ In order to assure legislator support for the bill and enforce party discipline, the status of all party members was clearly laid out by regulations passed in 1951 as part of the changes passed by the party reform committee. The promulgation of this reform made it explicitly clear that all candidate nominations stemmed from Chiang Kai-shek himself, while reinforcing that party instructions should be strictly followed in all circumstances. This process explains the existence and pervasiveness of party organs within every government institution. Within this interconnected state-party structure, the Central Standing Committee held unchecked power to control the policy making process from beginning to end. With Chiang Kai-shek acting as both head of country and party, he held ultimate authority over all decisions.

Even if President Chiang had been subjected to oversight by the core bodies of the ROC government including the National Assembly, Legislative Yuan, and Control Yuan, the elected officials themselves were not representative of citizens on Taiwan due to the "10,000 Years Congress" (萬年國會) problem. Although the Constitution called for election by every province of the "Mainland," the establishment of the PRC government in this territory made representative government a practical impossibility. As such, these bodies continued to be controlled by the KMT while policy was led by the Executive Yuan and President Chiang on a 25-year term. With no end to his control in sight and continued optimism (some may say delusion) that recapturing the "Mainland" was imminent, President

²⁰ Zeng Ji-qun. "The Constitution of R.O.C. and Party-government Relations", Wu-nan published, Taipei, 1995, p.113.

²¹ Zeng Ji-qun. "The Constitution of R.O.C. and Partygovernment Relations", Wu-nan published, Taipei, 1995, p.105

Chiang had no incentive to alter the structure of the government or its electoral mechanisms.

From 1978 to 1988, Chiang Ching-kuo's government had a similarly strong stranglehold on power thanks to the continued imposition of martial law. During this time there was expansion of seats in Congress to be inclusive of the so-called "Free Areas of the Republic of China" (中華民國的自由地 區) including Taiwan, Penghu, Kinmen, and Matsu. Although this did provide for some degree of local representation, the 53 seats from these districts only constituted a small portion of the 1,387 total seats of which over 70% were still controlled by the KMT.

In summary, the two Chiang's were able to exercise complete control over the policy making process during the era by using their expansive executive powers to control legislative branches while simultaneously stymieing reform efforts through keeping the "Temporary Provisions" in force.

"It is incumbent on politicians to rely on those with relevant subject matter expertise while accounting for the impacts on social welfare and resource distribution when considering potential social and political impacts of a given policy.

Part II: Developing Democratic Process through Executive and Legislative Power

The differences between the policy making process under the two Chiangs versus the democratic system with constitutional checks and balances are manifold, but fundamentally hinges on whether officials are required to be loyal to their party or a particular constituency that helped them get elected to begin with. Things began to gradually change in the early 1980s when supplementary elections became a necessity for the Legislative Yuan due to the thinning ranks of their aging members. Although the first supplementary election had been held in 1969, it was limited to just thirty seats. In the 80s, the number of available seats expanded to 70. This expansion coincided with the development of the Tangwai movement. With new candidates entering the political fray without KMT ties, representatives needed to be conscious of their constituencies preferences rather than blindly follow the orders of party leadership. This caused a change in the political dynamic as representatives pushed harder to influence the content of bills, even though the Executive Yuan still held final sway over the ultimate policy outcomes. The beginning of more policy engagement from legislators represented the early signs of the further changes that were to come.

Needless to say, the rules for governing suddenly became very different when confronted by actual constitutional restraints and democratic reforms. Those kicked off forcefully after Lee Teng-hui came into power following Chiang Ching-kuo's death in Janu-

> ary 1988. The first major instance of reform came shortly thereafter, with the first direct election for the Legislative Yuan being held in 1992. With the people of Taiwan now able to exercise their political preferences through voting, candidates needed to respect their interests through legislative power if

they hoped to stay in office for additional terms. As direct presidential elections began in 1996, the two primary branches for development and implementation of policy had come under democratic influence.

To understand how, it is important to understand the constitutional basis of the Executive Yuan's power. According to the Constitution, the Executive Yuan is tasked with executing the laws of the state (as the name suggests) and proposing bills. The head of this branch is known as the premier and is appointed by the president with no approval required from the legislature. While the Executive Yuan holds the duty of bill proposal and working with the Legislative Yuan on administration, the role of president itself has no direct power over policy making other than the ability to appoint the premier. It is the premier's job to advise and execute on policy at the president's behest. For this reason, Taiwan's system of government is called "semipresidential" because the head of the executive branch is actually the premier but because they are appointed by the president (who is in turn elected by the people) the practical reality is that the president holds the cards when it comes to setting the policy making agenda.

Of course, this is all contingent on the healthy functioning of a democratic electoral process to put the president in office in the first place. To gain broad support, candidates make appeals that resonate with voters key interests. In Taiwan, research has shown that voters take into consideration a broad range of factors including personality, political track record, and stance on national identity in addition to various policy proposals which may or may not be salient depending on voters' demographics. To become a two-term president, in their first term most presidents will seek to achieve major policy milestones as promised during their campaigns thus propelling them to reelection.

Some of the same dynamics hold true for members of the Legislative Yuan, who strive to represent their constituencies interests throughout the process of drafting, reviewing, and voting on bills. Of course, in addition to acting as representatives of their respective districts, legislators often require the support of their party to provide policy guidance, campaign strategy, funding, resources and more. Over time, constitutional reform has shifted the influence over legislators from their parties to their constituencies through the evolution of the electoral system. With the first direct election for the Legislative Yuan in 1992, this aspect of the Constitution was able to finally be implemented in a representative democracy. As expected, this transition further accelerated the trend of more constituency influence on policy making. This trend began to manifest itself in the policy making process within the branches of government as well, as the Legislative Yuan started taking a more proactive role in proposing policy. This is evidenced by the fact that in 1986 the Executive Yuan put forward 89.9% of all bills. Within ten years, this figure had dropped to just above 20%, as more and more bills were proposed by committees within the Legislative Yuan. The table below outlines this trend through each session of the legislature:

Session Year		Term of	Proposed by		Proposed by 🐱		Proposed by Caucus.		Total .	
		office(M/Y)	Executive Yuan J Legislative Committee J Ca							
			number	%-	number	%.	number	%.	number	%.
1st -	1986.	1987/2-1990/1	134.	89.90	15.	10.1.0	- <i>o</i>	ø	149.	100.0
1st -	1989.0	1990/2-1993/1	169.	50.1	168.	49.9.	-0	e	337.	100 <i>.</i> °
2 nd ,	1992.	1993/1-1996/1	240.0	24.1	757.	75.9.	- <i>o</i>	÷	997.	100.0
3 rd ,	1995.	1996/2-1999/1	294.	23.9	935.	76.1.	- <i>o</i>	÷	1229.0	100.0
4 th o	1998.	1999/2-2002/1	801	35.3 -	1345.	59.3 -	121.	5.4.	2267.0	100.0
5 th ,	2001.0	2002/2-2005/1	758.	28.8	1714.	65.1.	162.	6.1.	2634.0	100.0
6 th ,	2004.0	2005/2-2008/1	363.	16.3 -	1612.	72.3.	256.	11.5.	2231.0	100.0
7 th ₂	2008.0	2008/2-2012/1	734.	20.0	2806.0	76.5	127.	3.5	3667.0	100.0
8 th .	2012.0	2012/2-2016/1	592.	10.8 -	4587.	83.8	296.	5.4.	5475.	100.
9 th .	2016.	2016/2-2020/1	581.	12.1.	3894.	81.3	312.	6.6	4787.0	100.

Figure 5: Bills Proposed by Executive and Legislative Yuan, by Session²²

Clearly the trend shows increasing domination of Legislative Committees in proposing policies. However, in-depth research of these bills shows that they are more focused on smaller scale policy at the local level rather than massive national programs. One major reason for this difference is the resource gap between the Legislative and Executive Yuan. New Power Party (NPP) (時代力量) Spokesperson Lee Chao-li provides some historical background on the emergence of this trend towards policy localization by legislators:

"The influence of Legislative Committees enhanced the policy making process of the national economy after 1992, the term in the 1980s towards opening up banking are a good demonstration of this trend. However, the influence usually comes from the outside, which means the Legislative Committee would prefer to implement their intentions through personal interactions or party liaisons to the government, such as the Premier or the President, instead of through the legal process of bill passing and reviewing. Only the policies which are directly related to their constituency, such as local construction, would be packaged and proposed as a formal bill by the Committees."

-Lee Chao-Li, New Power Party Spokesperson²³

Due to resource constraints, many legislators' strategic approach is to find the most efficient path to pursuing their goal of re-election. With limited time,

22

23

Website of the Legislative Yuan.

Author interview with Lee Chao-li, 1 November 2018.

budget, and staff, most of them take the path of least resistance and propose non-controversial, small scale policies.²⁴ In regard to budget issues, in 2019 the Executive Yuan had a budget of 2.1 trillion NTD while the Legislative Yuan only received 3.4 billion NTD. Additionally, the Executive Yuan has staff of 82,672 when accounting for all ministries whereas the Legislative Yuan currently is limited to 113 committees, each of which is legally mandated to have between four and fourteen assistants. This means

that the maximum number of assistants to these committees is capped at 1,582. Even if this number were reached, the result is that for every assistant to the Legislative Yuan there are 52 employees within the Executive Yuan.

"Because successful policies require industry cooperation, in the early phases of democratization the government became more responsive to taking industry feedback into account during the policy making process.

This change is most

visible in the shift from the single non-transferable vote with multi-member district system that was in place from 1995 to 2004 (third and sixth legislative election, respectively) to the single-district two-votes system (also known as mixed electoral system). In the former, the party could nominate more than one candidate for each district. This system pushed candidates to fiercely compete for votes and popularity amongst the people in order to emerge as the winner of the race. The candidate that best represented the interests of the people tended to win.

Things changed in 2005 as the seventh constitutional amendment was passed to first take effect in the elections of 2008. Thanks to this amendment, one set of seats would continue to be allocated based on a majoritarian method where the leading vote getter would take the seat for the district. Remaining seats in the Legislative Yuan are allocated to parties based on proportional allocation, thus ensuring that some small parties could have a seat even if they did not win any district directly through the election. The shift to this system made many prospective Legislators-at-Large more responsive to the party's needs since their appointment is decided by party leadership rather than popular vote.

In summary, the development of electoral politics in Taiwan has had a lasting impact on the policy making process. With the transition from one-party rule with power wielded by "strongman's will" to a representative system enabling action based on "people's desire",

the consolidation of Taiwan's democracy over the last thirty years is still being analyzed to understand how it impacts reform in many areas: institutional, financial, economic, and otherwise. The question we seek to understand is how this transition has affected economic policy making in particular, and

the impact that is having on Taiwan's political scene.

Liao Da-chi,"How does a Rubber stamp become a roaring Lion – the case study of the transformation of the Taiwanese legislative yuan's role during the process of democratization", Journal of Social Science and Philosophy, 17(2), 2005.

Case Study: Taiwan's ICT Sector

Part I: Research-led Commercialization

hile the president (and by extension, the Executive Yuan) hold final say over national economic policy, it is important to understand where they source their ideas from. Most poli-

cies are sourced from advisors that include scholars, industry experts, and technical officials. According to Dr. Lu Jun-wei of the Taiwan Institute of Economic Research (TIER), presi-

dents need to rely on outside expertise for formulate their policy platforms since they are not trained economists with in-depth understanding of either local industry capacity or macro-level global market conditions.

"Honestly speaking, no matter which party or president controls the government, the economy department dominates most of the industry and economy policies."

"Most of the political leaders comes from political backgrounds, so they are usually not so familiar with economic and industry issues. Therefore, on this aspect, they rely on technical officials and scholars very deeply."

–Dr. Lu Jun-wei, Taiwan Institute of Economic Research²⁵

To see how this process plays out in practice, we have analyzed ICT industry policy across the two main eras of governance models in Taiwan and controlling administrations amongst both major parties. By comparing and contrasting the historical approaches we can begin to discern the effect of democracy on the system.

As outlined in the Taiwan Miracle section of this research paper, early iterations of ICT industry policy were oriented around import substitution and export promotion. This was accomplished through implementing a potent blend of tax incentives, re-leasing of factory lands, and favorable investment conditions. These economic drivers alongside the establishment of institutions with technical expertise such as the National Science Council (created in 1959) are considered to be the origins of ICT policy in Taiwan.

"The will of the party and state were essentially one and the same.

With this foundation established, the government did not take drastic positive policy action until the early 1970s. Motivated to move up the ICT value

chain due to economic strains created by the global oil crisis, the decision was made to begin developing value-added products rather than simply relying on traditional manufacturing. To further accelerate this shift, a semi-governmental research institute known as the Industrial Technology Research Institute (ITRI) was founded in 1973.²⁶ The goal of ITRI was to harness the value of applied science research by using it to directly upgrade and transform aspects of the Taiwan ICT industry. This proved to be a winning strategy, as this fueled 20 years of growth funded by national and corporate research and development (R&D) investment alike. Underpinned by leading-edge scientific research and continued investment, innovations were easily spun out and commercialized by local businesses.

This operating model was further refined by the establishment of science industry parks in Hsinchu that lured companies with tax, land, and facilities support. It was shortly after this point that Taiwan established itself the world-leading original equipment manufacturer (OEM) ecosystem. In economic theory, Ronald Coase "theory of the firm", firms are the engines of production, Taiwan's system had a division of labor with its own parts, but the narrow focus helped unlock economic efficiencies.

During the 1990s, many of the policies and factor endowments that had given Taiwan's ICT sector its initial competitive edge began to fade. Although ITRI

25 Author interview with Dr. Lu, 26 November 2018.

continued to be the engine of research development and commercialization, other issues surrounding the local business climate and infrastructure upgrades became larger priorities. Faced by this reality, tax benefits for specific forms of technology investment were gradually phased out as new policies were introduced to encourage new product and sector development. The table below briefly summarizes the timeline of these phases and shifts in policy strategy:

Stage	Starting	Growing	Maturity & Transforming	Creating
Term	Before 1970	1970-1990	1990-2010	2010-
Strategy of government	Attracting foreign investment	Introduce foreign technology, technology transfer to local company	Complete the ecosystem of local industry, improving environment and infrastructure, develop software industry	Encourage software and application industry by subsidy and resource allocation
Important policy	Guideline for the National Development of Science (1959), Act of Encouragement of Investment (1970)	Science technology development plan (1979), plan for recruitment and education of science and technology personnel (1983), Guideline for National technology development in 10 years (1986)	Legalize technology IP protection, Statute for Upgrading Industry, Two Trillion and Twin Star Development plan, Challenge 2008 6-year National development plan, national technology conference	National technology plan for AI, Nano chip, IT, Asia Silicon Valley
Result	National Science Council founded	ITRI founded (1973), MOS between ITRI and RCA (1976), Technology consultant team of Executive Yuan (1979), UMC founded (1980), Hsinchu Science Park (1980), TSMC founded (1987)	Tainan & Kaohsiung Science park, Nangang Software park (1992), several law for protecting IC tech, upgrading the infrastructure in Hsinchu science park	
Government's role	Leading	Leading	Leading + platform building	Leading + platform building

Figure 6: Summary of ICT Policies in Taiwan (Before 1970-2010)²⁷

Part II: Policy Making Process for the ICT Industry

From the table above it is clear that the government's policy approach has been responsive to the capabilities of Taiwan's scientific research community and needs of industry. Although decision making power to set policy was held by different groups with varying political circumstances through the decades, one thing has been remarkably consistent—the reliance on experts and technical officials to oversee, develop, and direct the process of research commercialization.

During the period of one-party KMT rule, decision making power rested exclusively with the president or premier. Even with centralized control, these actors still leaned heavily on the know-how of outside experts. Under Chiang Kai-shek, this manifested itself through the establishment of numerous technical advisory groups—whether that be the Science Development Direction Committee, the Development Research Team for Technology Application within the Executive Yuan, or the Board of Science and Technology (also housed within the Executive Yuan). These groups all leveraged the expertise of scholars and industry practitioners alike, with their opinions often taken into serious consideration as policy was developed.

The "hand in glove" arrangement between subject matter experts and government institutions was further extended in the 1980s as specific ministries added their own technology advisory departments. At the same time, research institutes such as Academia Sinica, ITRI, and other derivative advisory units still had the mandate of implementing policy while providing critical feedback on future plan development.

As industry upgrading initiatives are rolled out by one administration after another, the Ministry of Economic Affairs continues to source its policy proposals from derivative agencies such as ITRI and Institute of Information Industry (III). Only after democratization in the 1990s were concerns directly from affected industries and the Legislative Yuan were taken into account during the policy making process. Because successful policies require industry cooperation, in the early phases of democratization the government became more responsive to taking industry feedback into account during the policy making process. Similarly (albeit somewhat more indirectly), the introduction of democratically elected representatives to the Legislative Yuan injected the voice of the people into some aspects of national economic policy. This brought issues such as equitable resource distribution, social justice, labor welfare, and environmental protection to the forefront of select economic issues. However, due to the resource, time, and knowledge constraints, most legislators do not take a very active role in engaging with or challenging the economic policies promoted by the Executive Yuan. The quote and diagram below provide a simple explanation of the industrial policy making process going from the conceptual phase within the Executive Yuan to becom-

²⁷ Table constructed by authors based on research summary.

ing a bill that needs to be passed by the Legislative Yuan.



Figure 7: Industrial Policy Making Process²⁸

Dr. Lu Jun-wei of TIER points out how this process has played out in recent years through the Tsai administration's implementation of the "5+2 Industrial Innovation Plan":

"After industry policy has been drafted, she (President Tsai Ing-wen) would let the administrative officer present the policy in the standing central committee of the party, to discuss with the mayors who are party members. If they have strong concerns, the policy would be adjusted, but in most of the cases, they have no comments about the policy."

"Regarding President Tsai's five innovative industries policy, the process is that the first draft is proposed by scholars and advisors, then consulting with the industry and party on this basis before converting the policy into bills and sending off to the Legislative Yuan. Basically,

B Diagram constructed based on author's research.

this process was the same as during the administrations of Chen Shui-bian and Ma Ying-jeou."

–Dr. Lu Jun-wei, Taiwan Institute of Economic Research²⁹

In summary, it is clear from analyzing the history of the ICT industry development in Taiwan that the policy content has continually adjusted to meet the challenges of the prevailing global market and political environment. Even with the differing processes observed under KMT rule versus those under democratization, the consistent participation of outside experts has produced an unexpected degree of continuity that is largely unaffected by politics as far as technical policy content is concerned. Rather, it is incumbent on politicians to rely on those with relevant subject matter expertise while accounting for the impacts on social welfare and resource distribution when considering potential social and political impacts of a given policy.

Even as ICT policies since 1996 have been successful by some measures (such as GDP and industry growth), understanding why Taiwan's economy is increasingly less competitive relative to other countries with strong ICT industries is a more confounding puzzle. Although this research has found the impact of domestic politics to be smaller than expected, the impact of increased labor automation, growing market access for developing economies, and the global saturation of certain ICT products are potential causal factors for Taiwan's ongoing 20 years of tepid economic growth.

²⁹

Conclusion

In Taiwan's transition from a developmental state under one-party rule to an established high-tech economy with a perpetual multi-party political contest, the policy making process naturally began to take other factors beyond growth into consideration.³⁰ Concerns around resource allocation and income distribution found their way into the political debate, leading to difficulties in achieving policy consensus despite the fact that the process for developing industrial and economic policies has remained largely the same throughout KMT and DPP administrations since 1996.

Despite this, the impact of democracy on the content of these policies is not as large as many observers would think. If the strategic approach and implementation mechanisms are virtually identical for industrial policy making across parties and administrations, then obviously other factors need to be considered as problem areas that need to be addressed.

"Specifically, Taiwan needs to accelerate its transition from having its GDP be largely dependent on manufacturing output and exports to a services-based economy. This requires adequate preparation and policy reform in education, labor, and sector specific regulations.

Specifically, Taiwan needs to accelerate its transition from having its GDP be largely dependent on manufacturing output and exports to a services-based economy. This requires adequate preparation and policy reform in education, labor, and sector specific regulations. By focusing too much of the Executive Yuan's resources on ICT industrial policy over the last 20 years the government has missed opportunities to ride the growth waves of software and web-based development trends that are driving economic growth in other countries. Under the Tsai administration's 5+2 Innovative Industries Plan, the new strategy is intended to promote seven pillars of the economy that can potentially be the next major sources of Taiwan's economic growth. With a well-educated labor force and established technology sector, initiatives such as the "Asian Silicon Valley Plan" hold great promise. By leveraging Taiwan's hardware manufacturing capacity, the plan calls for National Development Council (NDC) investment to create an integrated software development ecosystem that can bring about job growth through spawning of new products and companies via innovation clusters. NDC Deputy Minister Cheng Cheng-mount explains the some of the overarching goals of the program:

"Our goal is by 2025 for production value of

IoT in Taiwan to account for 5% of global market value... We want to cultivate a healthy environment for new startups. We also want to experiment with applications of IoT such as smart cities, driverless cars, smart healthcare. Some of these don't require regulatory

sandboxes and can be just tried out on the market without government approval."

-Deputy Minister Cheng Cheng-mount, National Development Council³¹

As far as implementation of these plans goes, it seems that the overriding complexity and coordination problems between the Executive Yuan and responsible ministries will be difficult to overcome. Then KMT Congressman Jason Hsu (許統仁) has been working to coordinate various technology industry stakeholders with the Executive Yuan, respective regulators within their ministries, and the Legislative Yuan insofar as it needs to approve new legislation to create favorable conditions for innovation.

Taiwan Miracle Redux: Navigating Economic Challenges in a Contested Democracy

31

"Legislation can be forward thinking. For example, when we look at new industries like autonomous vehicles or cryptocurrency, blockchain, we can use legislation to open up new grounds. To lead to the legislative departments to think boldly because the legislative branch by default and by design are conservative — they cannot create new categories of businesses."

-Former Congressman Jason Hsu, Legislative Yuan³²

Encouraging this shift in perspective within all branches of the government, and within groups participating in Taiwan's civil society is certainly a step in the right direction. With the breakneck pace of technological change and bureaucratic bottlenecks encountered through policy implementation, enhancing the speed and adaptability of change management within developed democracies is an ongoing challenge. Taiwan is by no means alone in facing this challenge and should continue to develop mutually beneficial relations with countries that have an alignment of political values and technology needs.

In closing, it is incumbent upon the current administration and future political leaders to face these challenges in an unbiased and clear minded fashion—by better communicating their strategies, proposed policies, and potential problems an ongoing dialogue with citizens can brings closer alignment between the aspirations for their own future and the government's hopes of delivering lasting economic impact for Taiwan's future generations.

32 Author interview with Congressman Hsu, 6 December 2018.