

MARCH 2019

Perspectives on Taiwan

*Insights from the 2018 Taiwan-U.S.
Policy Program*

EDITORS

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A Report of the CSIS CHINA POWER PROJECT

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ISBN: 978-1-4422-8109-7 (pb); 978-1-4422-8110-3 (eBook)

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Introduction

Why TUPP?

The emergence of the People's Republic of China (PRC) on the global stage has had a profound impact on the next generation of American policy leaders. The PRC's surging economic, political, and military prowess has understandably piqued U.S. interest and attracted young practitioners of foreign policy to study and work in Mainland China. Even for those whose expertise lies further afield, the PRC's rise has come to dominate much of the current discourse on international affairs.

In some respects, this is a welcome development. The United States needs future thought leaders who are sensitive to the complexities of managing ties between Washington and Beijing. Yet, there is also a downside. With Americans focusing increasingly on the PRC, those studying or going to Taiwan have dwindled, leaving the United States with a noticeable lack of young leadership that is knowledgeable about Taiwan.

I launched the Taiwan-U.S. Policy Program (TUPP) to address this shortcoming. The program provides a much-needed opportunity for future leaders to gain a better understanding of Taiwan through first-hand exposure to its politics, culture, and history. Experiencing Taiwan influences how individuals approach their work, their writing, and their overall world view. It imbues in them an appreciation for Taiwan's contributions to promoting human rights and democracy and instills the importance of maintaining robust U.S.-Taiwan relations.


The 2018 TUPP delegation featured a diverse group of regional and functional experts, most of whom had never visited Taiwan. The program was a resounding success. Each participant left the island with a sense of how Taiwan fit into their respective fields. I am hopeful that the progress made during the first two years of TUPP will serve as a springboard for future iterations of the program. Over time, TUPP will create a corps of experts with knowledge about Taiwan and support for sustaining a close U.S.-Taiwan relationship.

I am extremely grateful to the many people and organizations that made TUPP possible. I wish to thank the Henry Luce Foundation, the Taiwan Foundation for Democracy, the Global Taiwan Institute, and the London School of Economics Alumni Association, for their generous support. I also owe a debt of gratitude to our guide and interpreter, Serena Lin. Without her contributions, the program would not have been nearly as successful.

The papers in this compendium were written by the 10 members of the 2018 TUPP delegation. Each participant was asked to reflect on their in-country experience and produce a short article analyzing a policy issue related to Taiwan. These papers are a testament to the powerful impact that follows first-hand exposure to Taiwan. I am very proud to showcase the work of the delegation.

It is my sincere hope that the groundwork laid by TUPP will prove invaluable to strengthening U.S.-Taiwan relations.

Sincerely,

A handwritten signature in black ink that reads "Bonnie Glaser". The signature is written in a cursive, flowing style.

Bonnie Glaser
Senior Advisor for Asia
Director, China Power Project
Center for Strategic and International Studies

Modernizing Taiwan’s Legal Framework to Drive a Digital Transformation

By Tania Garcia-Millan

The global economy is currently experiencing a transformation unprecedented in scope and scale. The Internet of Things (IoT), artificial intelligence, robotics, and additive manufacturing—technologies at the core of the fourth Industrial Revolution—have reconfigured goods and services, disrupted entire sectors and industries, realigned global value chains, and generated complex data and information flows. The next generation of technological breakthroughs likely will come from advances in digital infrastructure, such as cloud computing and its nearly infinite applications, machine learning, quantum computers, and advanced robotics. These technological advancements have presented lawmakers in Taiwan and around the world with significant challenges; among them, how to regulate new technologies notwithstanding that their full uses and applications are still unknown and how to ensure that legislative processes keep pace with the extraordinary rapidity of innovation and diffusion. Undoubtedly, global competitiveness increasingly depends on creating—and keeping up with—these tectonic technological shifts as well as effectively regulating them.

Taiwan is embracing the digital revolution and recently launched several strategies to catalyze a transition towards a digital economy rooted in innovation, entrepreneurship, and intellectual property. In 2016, it announced the Digital Nation and Innovative Economic Development Plan (2017–2025), a strategy to enhance digital infrastructure, build a service-based digital government, and create a fair and active internet society with equal digital rights. This development strategy is often referred to as “DIGI+” and stands for Development, Innovation, Governance, and Inclusion, with the plus signaling the possibility of upgrading the policy to create and adapt to new technologies. The core elements of the new strategy include a focus on digital infrastructure, human talent, industry, digital rights, smart cities, and globalization of a digital service economy. DIGI+ aims to inject artificial intelligence, the IoT, and big data into civil society and industry. It is expected that DIGI+ will grow Taiwan’s digital economy to nearly \$206 billion (NT\$6.5 trillion), increase the digital penetration rate to 80 percent, speed up broadband connection to 2 Gbps, ensure citizens basic rights to 25 Mbps, and position Taiwan as a global hub for innovation and enterprise.¹

1. “DIGI+ plan to build a digital nation, develop innovative economy,” Executive Yuan, November 24, 2016,

Another noteworthy policy is the 5+2 Innovative Industries Plan, a development strategy to create an Asia Silicon Valley in Taiwan; transform the biomedical, green energy, smart machinery, defense, and agricultural industries, and the circular economy model; and boost the digital economy. The “5+2” has been described as the next generation of Taiwan’s development and will be led primarily by the National Development Council and supported with an investment of \$3.3 billion (NT\$100 billion) to build new research facilities, technologies, and infrastructure, attract foreign direct investment, and strengthen human capital.²

A fundamental component for the implementation and success of Taiwan’s digital strategies is a modern and effective, yet sufficiently flexible, legal environment that is conducive to disruptive technologies and new business models. This requires both passage of new legislation where there are regulatory gaps, amendments to existing legislation, and/or deregulation where existing laws are burdensome or may create market barriers. Although an exhaustive review of the legal framework required to achieve full digitalization of all sectors, private and public, is beyond the scope of this paper, recent legislative developments in financial technology, cybersecurity, and recruitment of global talent are evidence of an emerging regulatory framework to encourage the innovation, entrepreneurship, and technological breakthroughs that are redefining the global economy.³

Fostering Innovation in Financial Services

One of the most significant laws recently adopted in Taiwan is the Financial Technology Development and Innovation Experiment Act. This cutting-edge legislation, which entered into force in April 2018 and is commonly referred to as a “regulatory sandbox,” follows legislative trends adopted in the United Kingdom, Australia, Canada, India, Singapore, and, most recently, in the State of Arizona.^{4,5} Regulatory sandboxes permit new financial technology (“fintech”) products, services, and business models to be tested in a limited live market without the constraints of immediate liability. Innovative financial technologies such as Distributed Ledger Technology (DLT), digital currencies for cross-border transactions, online platforms to streamline Initial Public Offerings (IPO), and robo-advisory services, among others, have been tested in these regulatory sandboxes.⁶ These groundbreaking legislative models are intended to strike a balance between fostering innovation while protecting consumers and ensuring the safety and integrity of financial firms and the financial system.

https://english.ey.gov.tw/News_Content2.aspx?n=8262ED7A25916ABF&s=A6E403AB5524390A.

2. “5+2’ Innovative Industries Plan,” Executive Yuan, March 30, 2018, https://english.ey.gov.tw/News_Content.aspx?n=0899B3FCC4B38357&sms=8BCD9CBBA95A001D&s=9FDC09B0F3DB4F96.

3. It is worth noting that the laws and regulations described reflect only part of a broader legal modernization process. As of the writing of this publication, there has also been legislative activity with respect to, *inter alia*, the Labor Standards Act, the Telecommunications Management Act, and the Digital Communications Act.

4. “Financial Technology Development and Innovative Experimentation Act and three Act-authorized regulations implemented on April 30, 2018,” Financial Supervisory Commission Republic of China (Taiwan), June 12, 2018, https://www.fsc.gov.tw/en/home.jsp?id=74&parentpath=0,2&mcustomize=multimessage_view.jsp&dataserno=201806120003&aplistdn=ou=bulletin,ou=multisite,ou=english,ou=ap_root,o=fsc,c=tw&dttable=Bulletin.

5. “Arizona becomes first State in U.S. to offer Fintech Regulatory Sandbox,” Attorney General for the State of Arizona, March 22, 2018, <https://www.azag.gov/press-release/arizona-becomes-first-state-us-offer-fintech-regulatory-sandbox>.

6. “Regulatory sandbox lessons learned report,” *Financial Conduct Authority* (October 2017), London, United Kingdom, <https://www.fca.org.uk/publication/research-and-data/regulatory-sandbox-lessons-learned-report.pdf>.

In Taiwan, the significance of adopting the Financial Technology Development and Innovation Experiment Act cannot be overstated. Financial services is one of Taiwan's most important sectors and, in 2016, contributed 6.8 percent of GDP and employed 4.8 percent of the workforce.⁷ However, recent research indicates that the sector faces serious challenges, including flattening revenue growth, decreasing profit margins, and insufficient supply of qualified talent.⁸ Fintech firms are widely considered the drivers of financial services innovation; yet, although Asian fintech firms have a global presence and account for 20 percent of global fintech firms, only 1 percent of these firms are based in Taiwan.^{9,10} The Financial Technology Development and Innovation Experiment Act could address this gap and bolster Taiwan's financial services sector by encouraging entrepreneurs to test financial technologies that are innovative, increase efficiency, reduce costs, and provide measurable benefits to consumers and businesses. As of this writing, the Financial Technology Development and Innovation Experiment Act had been in force just shy of one year.¹¹

Strengthening Cybersecurity and Protecting Critical Infrastructure

An increasingly digitalized economy in Taiwan likely will result in greater cross-border data flows, the emergence of novel and sophisticated digital ecosystems, and heavier reliance on digital infrastructure to support industry expansion and transformation. These processes also are likely to heighten concerns about cybersecurity particularly considering a rising number of targeted and far-reaching cyberattacks around the world.¹²

In May 2018, the Legislative Yuan passed the Cybersecurity Management Act to create a secure and stable cyber environment in the public and private domains. The Act mandates stringent requirements for providers of critical infrastructure to establish adequate cybersecurity management plans, levels of protection, and response mechanisms. The legislation defines providers of critical infrastructure as providers of tangible or intangible assets, systems, and/or internet resources that are of high importance because their impairment will have a substantial impact on, or endanger, public interest or economic activity. Industries of high importance within the purview of the Cybersecurity Management Act include information technology and communications, banking and finance, high technology parks, transportation, energy, water, emergency services, and public healthcare.¹³ Although an implementation date

7. "Taiwan's digital imperative: how a digital transformation can re-ignite economic growth," McKinsey & Co., September 2017, http://mckinseychina.com/wp-content/uploads/2017/10/McKinsey_Taiwans-Digital-Imperative-EN.pdf.

8. "Taiwan's digital imperative: how a digital transformation can re-ignite economic growth," McKinsey & Co., September 2017, http://mckinseychina.com/wp-content/uploads/2017/10/McKinsey_Taiwans-Digital-Imperative-EN.pdf.

9. Ibid.

10. Randy Bean, "How Fintech Initiatives are Driving Financial Services Innovation," *Forbes*, July 10, 2018, <https://www.forbes.com/sites/ciocentral/2018/07/10/how-fintech-initiatives-are-driving-financial-services-innovation/#450bc91b54fa>.

11. "The Financial Technology Development and Innovative Experimentation Act and three Act-authorized regulations implemented on April 30, 2018", Financial Supervisory Commission Republic of China (Taiwan), accessed December 2018, https://www.fsc.gov.tw/en/home.jsp?id=74&parentpath=0,2&mcustomize=multimessage_view.jsp&dataserno=201806120003&aplistdn=ou=bulletin,ou=multisite,ou=english,ou=ap_root,o=fsc,c=tw&table=Bulletin.

12. "Internet Security Threat Report," Symantec, April 2017, <https://www.symantec.com/content/dam/symantec/docs/reports/istr-23-executive-summary-en.pdf>.

13. "Taiwan Cybersecurity Management Act Passed," B:Inform Baker McKenzie, June 14, 2018, <http://www.baker->

has not yet been announced by the Executive Yuan¹⁴, there are indications that the public and private sectors are already working to ensure compliance with the new standards in the Cybersecurity Management Act.

In addition to that legislation, Taiwan implemented the National Cybersecurity Program of Taiwan (2017–2020), an upgrade of several cybersecurity-related initiatives led by the Executive Yuan since the early 2000s. The program tackles data fraud, theft, and large scale cyberattacks. Additionally, the program highlights the need to enhance protection mechanisms for new and evolving technologies such as mobile devices, cloud computing, and unmanned vehicles. The National Cybersecurity Program of Taiwan draws from the policy-making experiences of Germany, Japan, Singapore, and the United States in cybersecurity matters.¹⁵

An effective cybersecurity regulatory framework in Taiwan will allow consumers, businesses, and organizations to operate in more secure digital environments as well as provide nascent and existing industries the opportunity to create high value-added products and platforms for global markets. Forecasts suggest that Taiwan's cybersecurity industry could grow at an annual rate of 8.7 percent to reach \$1.56 billion by 2019.¹⁶ In the semiconductor and hardware manufacturing industries, for example, Taiwan is already leveraging its capabilities to provide equipment to global cybersecurity firms.¹⁷ Further, both small and large firms in Taiwan are engaged in artificial intelligence analytics, cyber threat intelligence, and mobile and IoT security, among others, possibly reflecting a growing emphasis on services in the cybersecurity industry. The Cybersecurity Management Act and the National Cybersecurity Program of Taiwan can support and catalyze industry growth and expansion in the coming years.

Recruiting Global Talent to Boost Digital Capabilities

Another significant legislative accomplishment in Taiwan to bolster the transition towards a digital economy is the Act for the Recruitment and Employment of Foreign Professionals, which was enacted in February 2018. The Act loosens the requirements for foreign professionals to obtain work permits, eases restrictions for obtaining permanent residency, and provides foreign professionals with pension, insurance, and fiscal incentives. The Act makes special mention of foreign professionals who possess expertise in science and technology, economics, and education, among other relevant fields.

The Act for the Recruitment and Employment of Foreign Professionals was passed in response to growing concerns about a talent deficit in Taiwan resulting, in part, from an outflow of highly skilled Taiwanese professionals to overseas markets. Research findings relied upon by the National Development Council conclude that Taiwan could have one of the largest talent gaps by 2021 when compared to 45 other economies.¹⁸ The Act

inform.com/home/2018/6/14/taiwan-cybersecurity-management-act-passed.

14. Status as of October 2018.

15. "National Cybersecurity Program of Taiwan (2017–2010)," National Information and Communication Security Taskforce, Executive Yuan, April 2017, <https://nicst.ey.gov.tw/en/807491F2A43DF876>

16. Timothy Ferry, "Taiwan Wakes Up to the Need for Stricter Cybersecurity," *Taiwan Business Topics*, May 11, 2018.

17. Ibid.

18. "General Explanation of the Act for the Recruitment and Employment of Foreign Professionals," National Development Council, consulted on August 20, 2018, https://foreigntalentact.ndc.gov.tw/en/Content_List.aspx-

seeks to attract highly-skilled foreign professionals that possess skills that are essential to the fulfillment of DIGI+ and the 5+2 Innovative Industries Plan, strategies which are determinative for Taiwan's long-term industrial and technological competitiveness. In addition to strengthening domestic capabilities, a greater presence of foreign professionals in Taiwan may also result in closer political and economic ties with other countries.¹⁹

U.S.-Taiwan Cooperation in Developing a Legal Framework for the Twenty-First Century

Taiwan is currently at a critical juncture of its economic growth and development path. In just four decades, it has evolved from a largely agricultural economy to an industrial-intensive economy and dominant global player in high-technology sectors such as hardware manufacturing (e.g., semiconductors) and consumer electronics. However, Taiwan's short- and long-term competitiveness in a rapidly shifting global paradigm will largely depend on its ability to build a truly digital economy and develop a modern, digital-age legal framework.

Taiwan's continuing economic and legal modernization will raise significant challenges for policymakers—just as it has for policymakers around the world. The United States and Taiwan have recognized the mutual benefit in forging close cooperation in digital affairs and, in 2015, created two bilateral cooperation mechanisms, the Digital Economy Forum and the Global Cooperation Training Framework. The Digital Economy Forum (DEF) was established under the auspices of the American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Representative Office (TECRO). DEF is a platform to discuss shared priorities including creating a policy and regulatory environment that will promote innovation, boost digital trade and investment, ensure data protection, and strengthen intellectual property protections, among other high stakes technology policy issues.²⁰ Since DEF was created in 2015, the United States and Taiwan have held various high-level, inter-agency meetings, launched working groups, and strengthened cooperation in smart technologies, smart cities, and start-up ecosystems.²¹

The Global Cooperation and Training Framework (GCTF), one of the signature programs of the United States-Taiwan relationship, focuses on a broad range of regional and global challenges.²² They include the role of technology in building sustainable economies, narrowing the digital divide and ensuring digital inclusivity, boosting electronic commerce, and encouraging female entrepreneurship in technology-related fields. The GCTF also envisions promoting the rule of law, providing international humanitarian assistance and

?n=6501F7D3D7CCA8A0.

19. Ibid.

20. "The American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Office in the United States (TECRO) Joint Statement on the 2nd Digital Forum," Press Release issued by the National Development Council, October 13, 2016, consulted on September 1, 2018, https://www.ndc.gov.tw/en/News_Content.aspx?n=0E2DC-BAA6CB72F12&sms=B079565EECDD8520&s=B54BDD6EB8FB5DC0.

21. Kin Moy, "Digital Economy Forum - Smart Technology Symposium" (Remarks, Taipei, April 25, 2017), American Institute in Taiwan, <https://www.ait.org.tw/remarks-ait-director-kin-moy-digital-economy-forum-smart-technology-symposium-tuesday-april-25-2017>

22. Kin Moy, "GCTF Enterovirus Laboratory Diagnosis Workshop" (Remarks, Taipei, April 23, 2018), American Institute in Taiwan, <https://www.ait.org.tw/remarks-by-ait-director-kin-moy-at-the-global-cooperation-and-training-framework-enteroviruses-laboratory-diagnosis-workshop-april-23-2018/>.

disaster relief, and ensuring energy security.²³ Although the GCTF does not focus exclusively on the digital economy, the transversal role—and impact—of technology in helping to fulfill the GCTF agenda also will likely influence Taiwan’s legislative modernization.

In addition to these cooperation mechanisms, public-private alliances and foreign direct investment may also shape future technology policy and legislation in Taiwan. In 2018, the United States’ largest technology firms announced strategic investments in Taiwan and reached several agreements with local authorities. In January 2018, for example, Amazon Web Services (AWS) and New Taipei City signed a Memorandum of Understanding to establish and operate a joint innovation center to support startups across multiple industries.²⁴ Similarly, Microsoft announced that it would create an Artificial Intelligence R&D hub in Taiwan in collaboration with the Ministry of Economic Affairs, Ministry of Science and Technology, and Ministry of Education, as well as industry and academia.²⁵ In March, Google announced investments to develop Taiwan’s Artificial Intelligence capabilities with the long-term goal that it will become Google’s AI global strategic center.²⁶ Most recently, in September, Facebook and Taiwan announced a cooperation agreement focused on economic, digital, and technological cooperation.²⁷ These investments reflect an existing—and evolving—favorable regulatory environment in Taiwan for digital investment as well as its integral role in the ICT supply chain for many of the United States’ top technology firms.²⁸

As Taiwan and the United States continue to cooperate on regulatory matters in the digital age—either through established cooperation mechanisms like DEF and GCTF or through private investment—several factors need to be considered during the policy- and legislative-making process.²⁹ First, laws and regulations should be balanced and flexible; essentially, they must foster innovation while still affording consumers, firms, and industries adequate levels of protection. Regulatory sandboxes, for example, are a prime example of how emerging technologies can be tested in live controlled environments without risking market instability. Second, cross-sectoral legislation such as, among others, competition, intellectual property, privacy, and taxation should be continuously examined to ensure they support Taiwan’s changing economy and digital strategies. Similarly, sector-specific legislation should be examined to ensure it reflects the increasingly converging nature of goods and services. Finally, regulations should aim to build a sustainable and inclusive society by encouraging women to participate in the new

23. See generally “*Global Cooperation and Training Framework (GCTF)*,” American Institute in Taiwan, consulted on September 1, 2018, <https://www.ait.org.tw/tag/gctf/>.

24. Ralph Jennings, “Why Amazon picked Taiwan for its Latest Innovation Center,” *Forbes*, August 17, 2018, <https://www.forbes.com/sites/ralphjennings/2018/08/17/why-amazon-picked-taiwan-for-its-latest-innovation-center/#53bd518e5855>.

25. “Microsoft launches artificial intelligence research hub in Taiwan,” Microsoft Asia News Center, January 12, 2018, <https://news.microsoft.com/apac/2018/01/12/microsoft-launches-artificial-intelligence-research-hub-taiwan/>.

26. “Supporting the growth of an Intelligent Taiwan,” Google in Asia Blog, March 21, 2018, <https://www.blog.google/around-the-globe/google-asia/intelligent-taiwan/>.

27. The Facebook-Taiwan agreement is expected to be signed during Facebook’s senior official visit to Taipei on September 26-27, 2018. See Morgan Scott, “Facebook to sign agreement with Taiwan on tech collaboration,” *Taiwan News*, September 19, 2018, <https://www.taiwannews.com.tw/en/news/3533423>.

28. See, e.g., Kin Moy, “Digital Economy Forum – Smart Technology Symposium” (Remarks, Taipei, April 25, 2017), American Institute in Taiwan, <https://www.ait.org.tw/remarks-ait-director-kin-moy-digital-economy-forum-smart-technology-symposium-tuesday-april-25-2017>

29. Due to space limitations, the following is a non-exhaustive list of considerations.

digital economy, adequately training future generations to be digital-ready, narrowing the digital divide, and ensuring that gains from technological progress are evenly distributed.

Taiwan's regulatory and legislative modernization will present significant challenges for policymakers. However, it will also result in tremendous opportunities for economic growth and global competitiveness in the twenty-first century.

The views and opinions expressed in this publication are solely and exclusively those of the author and do not reflect the views, opinions, or positions of any other individual or organization.

Taiwan's Cybersecurity Landscape and Opportunities for Regional Partnership

By Crystal D. Pryor

"Cybersecurity is national security" –President Tsai Ing-wen

Taiwan's Current Cybersecurity Landscape

Taiwan's government faces 20 to 40 million cyberattacks every month, according to Director General of the Cyber Security Department Howard Hong-wei Jyan. According to a Taiwanese cybersecurity expert, Taiwan's National Security Bureau (NSB) alone faces roughly 100,000 hacking attempts every month.¹ Hundreds of these attacks each year are successful.² In 2017, Taiwan's Department of Cyber Security reported 360 successful attacks on government systems, 288 of these launched by Chinese network forces.³ The attacks mostly have been categorized as Advanced Persistent Threats (APTs, active state-sponsored malware campaigns).⁴

Although Taiwan faces similar cybersecurity challenges to other nations in the region or the West, its cybersecurity landscape diverges in significant ways. First, the shared Chinese language, the economic and social integration of Taiwan and the Chinese mainland, and China's view of Taiwan as a renegade province make Taiwan more susceptible to Chinese influence. Second, Taiwan has been under attack from by China for longer. The first documented "Taiwan-China Hacker War" took place almost two

1. Joseph Hwang, "Taiwan's Cybersecurity Environment: Challenges and Opportunities" (lecture, Center for Strategic & International Studies, Washington, DC, January 5, 2018).

2. Bloomberg, "Taiwan Braces for Chinese Cyber Attacks Ahead of Elections," *The Straits Times*, September 20, 2018, <https://www.straitstimes.com/asia/east-asia/china-ramps-up-cyberattacks-on-taiwan-ahead-of-elections>.

3. Hsin-fang Lee and Jonathan Chin, "Chinese Hackers Getting Sophisticated," *Taipei Times*, April 5, 2018, <http://www.taipeitimes.com/News/front/archives/2018/04/05/2003690700>. Director General Howard Hong-wei Jyan says that "Based on matching patterns, sophistication and other characteristics, it's likely that the majority of the cyberattacks come from groups supported by China" (see "Taiwan Braces for Chinese Cyber Attacks Ahead of Elections").

4. "Taiwanese Under Siege from Blitz of Chinese Cyberattacks," *Asia Times*, April 6, 2018, <http://www.atimes.com/article/taiwanese-siege-blitz-chinese-cyberattacks/>.

decades ago, in 1999.⁵ Third, it is difficult for Taiwan to engage in valuable international cybersecurity cooperation because of its contentious political situation. Finally, because China so far has been unwilling to engage in overt military action against Taiwan, it utilizes cyberattacks to influence or deter Taiwan in the gray zone of cyberspace.⁶

Cybersecurity Infrastructure and Policy in Taiwan

Taiwan has faced serious cyber threats from China since at least 1999, which prompted the government to form the National Information and Communication Security Taskforce (NICST) in 2001 as an interagency body to promote government attention to information security. That year it also created the National Center for Cyber Security Technology (NCCST) to provide cyber security technical services, such as pre-incident protection, during-incident response and handling, and post-incident forensics and recovery, to government agencies.

In August 2016, the Executive Yuan established the Department of Cyber Security to improve the implementation of information security measures and delegate responsibilities. The Department of Cyber Security is the secretariat of NICST. It is responsible for national information and communication security policy development, legislation review, plan approval, promotion of cybersecurity-related tasks, supervision, and evaluation. The Department of Cyber Security recently drafted the Information Security Management Act, which the Legislative Yuan enacted in May 2018. The Act was published by the Presidential Office in June and will come into force for public agencies in January 2019, and for critical infrastructure operators in June 2019.⁷

Taiwan's military also has been the target of numerous attacks.⁸ In response, Taiwan created a cyberwarfare branch as the fourth branch of its armed forces—the first such independent military cyber command in the world. President Tsai inaugurated the Information, Communication and Electronic Force Command (ICEF) on June 29, 2017, formally establishing Taiwan's "cyber fourth service."⁹ The ICEF consolidates cyber- and electronic-warfare components already existing within the armed forces and is supported by the National Chung Shan Institute of Science and Technology (CSIST) and civilian sources. It oversees all aspects of cyber-defense operations.¹⁰ Its main missions are cybersecurity and cyber protection, providing military support when critical infrastructure is attacked, and incident response. The initiation of the ICEF aligns with NATO's 2016 declaration that cyberspace is a separate combat domain, in addition to land, sea, air, and space.¹¹

5. Russell Hsiao, "Critical Node: Taiwan's Cyber Defense and Chinese Cyber-Espionage," *China Brief* 13, no. 24 (December 2013).

6. Scott Morgan, "Taiwan Prepares for Spike in Chinese Cyber-Attacks in Lead-up to Elections," *Taiwan News*, July 9, 2018, <https://www.taiwannews.com.tw/en/news/3477568>.

7. Michael R. Fahey, "Taiwan Enacts Cyber Security Management Act," Winkler Partners blog post, July 17, 2018, <http://www.winklerpartners.com/?p=8933>.

8. Sophia Yang, "200 Million Cyber Attacks Hit Taiwan's Military Networks," *Taiwan News*, May 28, 2018, <https://www.taiwannews.com.tw/en/news/3441894>.

9. Philip Hsu, "Chinese Hacking Against Taiwan: A Blessing for the United States?" *Diplomat*, January 23, 2018, <https://thediplomat.com/2018/01/chinese-hacking-against-taiwan-a-blessing-for-the-united-states/>.

10. "Ministry of National Defense Launches New Cybersecurity Command," *Taiwan News*, July 4, 2017, <https://www.taiwannews.com.tw/en/news/3202752>.

11. Timothy Ferry, "Taiwan Gets Its Act Together on Cybersecurity," *The NewsLens International Edition*, May 15, 2018, <https://international.thenewslens.com/article/95683>.

Given the policy and organizational measures Taiwan has taken in recent years, Taiwan ranked ninth last year in the Australian Strategic Policy Institute (ASPI) cyber maturity in the Asia-Pacific report.¹² Taiwan received a weighted score of 56.9, which was based on governance, financial cybercrime enforcement, military application, digital economy and business, and social engagement. Taiwan trails China in cyber maturity but is ahead of India. (The United States topped this list, Japan ranked third, and South Korea ranked fifth.)

Response to China's Influence Operations in Taiwan

Security experts warn that rather than overt threats against Taiwan, “The more immediate threat instead lies in the intensification of political-warfare efforts against Taiwan.”¹³ Disinformation campaigns may help erode public support for President Tsai and her government. China has been found to be “using bots, various social media (e.g., LINE, WeChat) and content farms (also known as content mills) to saturate Taiwan with pro-Beijing agitprop. . . . China is also using the bots to spread disinformation targeting the government, which increasingly has embedded itself into traditional (dis) information campaigns, pitting the Democratic Progressive Party (DPP) against the Kuomintang (KMT).”¹⁴ One reason disinformation campaigns have been successful is that the Taiwanese media has not been rigorous in identifying fake news content or fact-checking with sources, which leads to false information being circulated online or on television shows.¹⁵

To get a handle on such efforts, in April 2016, the Taiwanese government standardized use of the term “disinformation” in place of other terms such as “fake news.” The principles the government uses to categorize “disinformation” are: 1) Does it damage the public interest? 2) Which authority’s public interest was damaged? 3) What is the impact level (national, social, or personal)? Based on the answers to these questions, the government determines which authority should take action.

The government has several principles for handling disinformation. For self-regulation, it provides a verification mechanism of quotations or messages from broadcast or media. Third-party organizations also assist with disinformation verification. For example, anyone can hand in disputes to the Institution of Watch Internet Network (iWIN). Finally, the government has an official release mechanism for major messages. The ministries actively clarify controversial information and publish correct information through channels such as the Executive Yuan’s “clarified message forum.”

With regard to authorities’ duties, disinformation is divided into three categories: the National Security Council (NSC) handles National Security, the Executive Yuan is responsible for cyber security, and various authorities handle social security issues. The National Police Agency responds to cybercrime, while other competent authorities protect

12. Thomas Uren et al., *Cyber Maturity in the Asia-Pacific Region 2017* (Canberra: The Australian Strategic Policy Institute, 2017).

13. J. M. Cole, “Will China’s Disinformation War Destabilize Taiwan?” *National Interest*, July 30, 2017, <https://nationalinterest.org/feature/will-chinas-disinformation-war-destabilize-taiwan-21708>.

14. Ibid.

15. Lihyun Lin, “Taiwan,” *Digital News Report 2018*. Reuters Institute for the Study of Journalism, 2018. <http://www.digitalnewsreport.org/survey/2018/taiwan-2018/>.

individual rights—for example, iWIN is responsible for child and youth protection: <i.win.org.tw/iWIN>. Every competent authority sets up a “government important information release forum” to actively clarify information.

In the event of disputes, the National Development Council will establish internal control mechanisms for the government, such as collection, statistics, renewal, and follow-up. The development and provision departments provide a “controversial information management system” to facilitate follow-up on various controversial issues and process tracking.

Training and Education

The Taiwanese government, in addition to these responses to disinformation campaigns, is rolling out a new school curriculum to teach children how to identify and combat fake news. The Ministry of Education has developed a cybersecurity education website <isafe.moe.edu.tw>. Schools at all levels can acquire cybersecurity education materials and the latest information from the campus information security service website <cissnet.edu.tw>.

As for developing cybersecurity capabilities in the public sector, Taiwan has deployed a cyber capability development program following the U.S. model. The program was established in 2005, and the content was last modified in 2017. The skill sets follow the U.S. Department of Commerce National Institute of Standards and Technology (NIST) National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework. The Taiwanese government categorizes personnel as leaders, information officers, normal users, and information managers.

Options and Opportunities for the Future

Because Taiwan has long faced APTs and other cybersecurity threats, it has a keen awareness of the importance of good cybersecurity practices. The current administration has shown a robust commitment to the island’s cybersecurity. Attacks from China and other countries have provided Taiwan with valuable information and opportunities for training, helping develop the island’s cybersecurity industry and skills. Cybersecurity is big business in Taiwan: the output of Taiwan’s information security firms is projected to rise to \$1.56 billion from \$1.12 billion in 2015.¹⁶ The frequent APTs against Taiwan even have been called one of Taiwan’s best “natural resources.”¹⁷

Political tensions with China have limited Taiwan’s ability to engage in international information-sharing on cyber activities. For example, Taiwan was forced to leave the global police agency in 1984, when China joined the organization. It has not been able to attend the general assembly even as an observer, thus limiting Taiwan’s ability to coordinate with cyber investigators in other countries.¹⁸ It has also been difficult for Taiwan to gain membership into international CERT alliances.¹⁹

16. U.S. Commercial Service, Taipei, *Cyber Security: Overview, Regulatory Trends, and Opportunities in Taiwan*, (Taipei, Taiwan: U.S. Department of Commerce, 2017).

17. Philip Hsu, “Chinese Hacking Against Taiwan: A Blessing for the United States?” *Diplomat*, January 23, 2018. <https://thediplomat.com/2018/01/chinese-hacking-against-taiwan-a-blessing-for-the-united-states/>.

18. Bloomberg, “Taiwan Braces for Chinese Cyber Attacks.”

19. Uren et al., *Cyber Maturity in the Asia-Pacific Region 2017*, 79.

Undeterred, Taiwan actively pursues overseas relationships to bolster its cybersecurity, especially bilaterally. For example, the government invites observers every two years from the United States Computer Emergency Readiness Team (US-CERT) and Department of Homeland Security (DHS) to offer recommendations for improving its cybersecurity exercises. Taiwan also has a Coordination Center (TWCERT/CC), established in 1998, for the purpose of coordinating with the European Union and other CERTs.²⁰ Since 2017, the Coordination Center has participated in the “Stop.Think.Connect” program and automatic indicator sharing (AIS) established by US-CERT under US DHS. If TWCERT detects any reports, malicious IPs, or phishing websites related to Taiwan, it will share this information with the proper authorities via AIS. Taiwan also contributes information on HIDDEN COBRA (North Korean malicious cyber activity), sharing compromised IPs at least monthly. Taiwan additionally shares information on cyber threats with Japan. Taiwan has memorandums of understanding with the Japan Computer Emergency Response Team Coordination Center (JPCERT), Trend Micro, the Asia Pacific Computer Emergency Response Team (APCERT), US-CERT, and CERT-EU. In 2016, Taiwan hosted the 7th Asia-Pacific Regional Internet Governance Forum. Taiwan has also sent personnel to the NATO Cooperative Cyber Defence Centre of Excellence.

U.S. diplomats have described Taiwan as a “democratic success story, a reliable partner, and force for good in the world.”²¹ Yet Taiwan’s democracy is under threat. On July 3, 2018, the website of the ruling DPP was hacked (as it was in 2015–2016, around the time of the presidential election). Taiwan, like the United States, will hold local elections in November 2018, and a presidential election in 2020. The *Financial Times* recently quoted a spokesperson for President Tsai: “We anticipate in the run-up to elections at the end of this year and continuing until the 2020 presidential elections Taiwan will become a global hotspot for cyber-attacks and fake news.”²²

Like the United States, Taiwan also faces cyber threats from North Korea and Russia and must defend against not only attacks against its democracy, but also against its financial and other critical systems. Moreover, many of the attacks China has launched against Taiwan are later used against the United States.²³ Thus, many experts have argued that the United States should build stronger cybersecurity ties with Taiwan.²⁴ One concrete suggestion is support of Taiwan’s participation in DHS’ Cyber Storm drill, a U.S. government-sponsored biennial exercise to strengthen cyber preparedness in the public and private sectors.²⁵ Japan also is often targeted by China, likely by similar actors.²⁶

20. Since the establishment of Department of Cyber Security of Executive Yuan in June 2016, TWCERT/CC is under the supervision of Department of Cyber Security.

21. Harry Krejsa and Hannah Suh, *Phishing in Troubled Waters: Confronting Cyber Espionage Across the Pacific and the Strait of Taiwan* (Washington, DC: Center for a New American Security, 2017), <https://www.cnas.org/publications/reports/phishing-in-troubled-waters-1>.

22. Edward White, “Taiwan Braces for Chinese Meddling Ahead of Election,” *Financial Times*, July 8, 2018, <https://www.ft.com/content/cbb0f12e-7ff4-11e8-bc55-50daf11b720d>.

23. Edward White, “Taiwan Hit by Jump in Cyber Attacks from China,” *Financial Times*, June 24, 2018, <https://www.ft.com/content/8e5b26c0-75c5-11e8-a8c4-408cfba4327c>.

24. Michael Gold and J. R. Wu, “Taiwan Seeks Stronger Cyber Security Ties with U.S. to Counter China Threat,” *Reuters*, March 30, 2015, <https://www.reuters.com/article/us-taiwan-cybersecurity/taiwan-seeks-stronger-cyber-security-ties-with-u-s-to-counter-china-threat-idUSKBN0MQ11V20150330>.

25. Bonnie S. Glaser and Jacqueline A. Vitello, *Taiwan’s Marginalized Role in International Security: Paying a Price* (Washington, DC: Center for Strategic and International Studies, 2015).

26. Bloomberg, “Chinese Cyberspies Targeted Japanese Firms for North Korean Secrets,” *Fortune*, April 23, 2018, <http://fortune.com/2018/04/23/china-japan-north-korea-cyberspies-secrets/>.

Therefore, these like-minded countries dealing with similar issues—the United States, Taiwan, and Japan—would do well to partner to bolster each other’s cybersecurity. Indeed, collaborating with Taiwan on cybersecurity is a prime opportunity for the U.S.-Japan alliance.²⁷

Japan especially stands to learn from Taiwan’s attention to cyber defense. Taiwan’s new cyber military branch, the ICEF, is slated to bring together 6,000 personnel, with a proposed budget of NT\$ 33 billion (\$1.1 billion for four years from 2017).²⁸ In contrast, although Japan’s Ministry of Defense ultimately aims to gather around 1,000 personnel into its now four-year-old Cyber Defense Group, it has only managed to raise the number of personnel from a starting point of 90, to 110 last year, to a still modest 150 this year.²⁹ As for the cyber defense budget, Japan’s figures do not even reach half of Taiwan’s over four years. In fact, Japan’s budget is shrinking—from 12.4 billion yen (\$112 million) in FY 2017 to 11.0 billion yen (\$100 million) in FY 2018.

In conclusion, Taiwan faces myriad cybersecurity challenges, some more vexing than others. Yet opportunities abound for Taiwan’s further cybersecurity development, despite the international restrictions China imposes on Taiwan. With the coordinated efforts of the Tsai administration, including training and education, we will likely see Taiwan’s ranking in the Asia-Pacific climb in the next edition of the ASPI Cyber Maturity report. The United States and Japan, which face similar threats to Taiwan, stand to benefit from continued and enhanced cooperation with Taiwan on cybersecurity.

27. Julia Cunico et al., “Cybersecurity cooperation with Taiwan: an opportunity for the US-Japan alliance,” *PacNet*, no. 4 (January 2015). <https://www.csis.org/analysis/pacnet-4-cybersecurity-cooperation-taiwan-opportunity-us-japan-alliance>.

28. 黃, 彥棻. “【資安周報第22期】新政府將打造高階的臺灣資安神盾局,” *IThome*, May 9, 2016, <https://www.ithome.com.tw/news/105809>.

29. Crystal Pryor and Tom Le, “Looking Beyond 1 Percent: Japan’s Security Expenditures,” *Diplomat*, April 3, 2018, <https://thediplomat.com/2018/04/looking-beyond-1-percent-japans-security-expenditures/>.

“Digital Nation, Smart Island”

Building a Workforce for the Digital Economy

By Julie Yang

Under the concept “Digital Nation, Smart Island,” President Tsai Ing-wen is leading Taiwan through a digital transformation.¹ Digital transformation at the national level can be defined in a variety of ways, but essentially, it is the adoption of digital technologies by government, industry, and workers to enhance productivity and innovation. If Taiwan manages to achieve this digital transformation, McKinsey and Company estimates that local manufacturers could see an additional \$3 to \$5 billion in annual profits.²

Critical to a successful transformation, however, is a nation’s human capital.³ A well-educated and highly-trained workforce is better able to take advantage of new technologies to generate long-term value. Developing a competitive workforce has long been a priority for Taiwan, which underwent a series of economic transformations. The oil crisis of 1973 triggered Taiwan’s leadership to shift its economy from one based on low-cost manufacturing and cheap labor to one that relied more on technology to generate value.⁴ Achieving this transformation required greater access to education and targeted workforce training and development, among other changes. As a result, Taiwan now enjoys global recognition as a leader in high-tech manufacturing.

Yet, in a recent survey by the Economist Intelligence Unit and Telstra, 35 percent of executives in Taiwan cited talent and skills shortages as the biggest challenge to digital transformation.⁵ Addressing these shortages will require a concerted effort by the Tsai administration, the private sector, and the local population. Under President Tsai, there is a renewed sense of urgency to develop a workforce capable of meeting the global demand

1. Republic of China, “Digital Nation and Innovative Economic Development Program,” Official Government Website of the ROC, <https://digi.taiwan.gov.tw/>.

2. McKinsey China, “Taiwan’s Digital Imperative,” McKinsey & Company, October 3, 2017, 17, http://mckinseychina.com/wp-content/uploads/2017/10/McKinsey_Taiwans-Digital-Imperative-EN.pdf.

3. The World Economic Forum defines human capital as the “knowledge and skills people possess that enable them to create value in the global economic system.” World Economic Forum, “The Global Human Capital Report 2017,” September 13, 2017, <https://www.weforum.org/reports/the-global-human-capital-report-2017>.

4. Rigger, Shelley, *Why Taiwan Matters: Small Island, Global Powerhouse* (Lanham: Maryland, 2011), 54-55.

5. Economist Intelligence Unit (EIU), *Connecting Commerce* (EIU, 2017), <http://connectedfuture.economist.com/article/connecting-commerce-whitepaper/>.

for digital skills. New government initiatives aimed at promoting technical skills and entrepreneurship include the Asian Silicon Valley Development Agency and the launch of incubators and accelerators across Taiwan. Add to that mix a recent series of foreign investments by leading technology companies, and Taiwan is well positioned to develop the workforce necessary for the digital economy.

Leading Tech Companies Bet on Taiwan's Talent

Government alone cannot solve the digital skills gap. The private sector must help build the workforce of tomorrow and develop talent pipelines. Government can, however, attract investment from leading technology companies with sound public policies. Under President Tsai, Taiwan continues to provide a business-friendly environment. This is underscored by the World Bank's 2018 Ease of Doing Business report, which ranks Taiwan 13 out of 190 economies; in fact, its business score was 17.5 percent above the regional average for East Asia and the Pacific.⁶

In addition to a business-friendly environment, Taiwan's vibrant democracy and free and open internet help explain why Google recently picked Taiwan to become its largest R&D hub and data center in the region.⁷ Google opened its Taiwan office in 2006 with only one employee. Now Taiwan is home to Google's largest engineering site in Asia. This year, the company will help educate more than 5,000 Taiwanese students in artificial intelligence (AI) programming, as well as train 50,000 local businesses and students in digital marketing.⁸

Taiwan's business-friendly environment may partially stem from the government's recognition that Taiwan must quickly adopt new technologies to remain competitive. This willingness to explore new technologies, such as blockchain, can give the local workforce a head start in developing technical skills. Shortly after the Taiwan-U.S. Policy Program (TUPP) delegation's visit to Taiwan in June 2018, Microsoft's cloud computing service, Azure, announced a partnership with local companies to apply blockchain technology across a wide range of industries. Blockchain development is one of the most desirable skills in the freelance market, and demand for this skillset has grown exponentially in recent years.⁹ In addition to blockchain, Microsoft announced an investment of \$33 million to create an AI R&D hub in Taiwan. The company cited Taiwan's exceptional education system and talent pool as a major reason for the investment.¹⁰

Beyond AI and blockchain, President Tsai has highlighted the Internet of Things (IoT) and cloud computing as key engines of economic growth. Taiwan's digital infrastructure is well suited to capitalize on new opportunities in cloud computing. In 2012, researchers

6. World Bank Group, *Doing Business 2019* (October 31, 2018), <http://www.doingbusiness.org/content/dam/doingBusiness/country/t/taiwan-china/TWN.pdf>.

7. Ministry of Economic Affairs, "MOEA, Google Launch Intelligent Taiwan Program," News Release, March 27, 2018, <https://investtaiwan.nat.gov.tw/newsPage31385eng?lang=eng&search=31385>.

8. Lee-Feng Chien, "Supporting the Growth of an Intelligent Taiwan," Google Blog, March 21, 2018, <https://www.blog.google/around-the-globe/google-asia/intelligent-taiwan/>.

9. Lucas Mearian, "Blockchain Moves into Top Spot for Hottest Job Skills," *Computerworld*, May 1, 2018, <https://www.computerworld.com/article/3235972/it-careers/blockchain-moves-into-top-spot-for-hottest-job-skills.html?nsdr=true>.

10. Microsoft, "Microsoft Launches Artificial Intelligence Research Hub in Taiwan," News Release, January 12, 2018, <https://news.microsoft.com/apac/2018/01/12/microsoft-launches-artificial-intelligence-research-hub-taiwan/>

with the Institute of Electrical and Electronics Engineers (IEEE) observed that Taiwan had one of the best supply-chain management frameworks for supporting and marketing the cloud.¹¹ Foreign investment is further advancing Taiwan's cloud infrastructure. In January, Amazon Web Services (AWS) opened a joint Innovation Center in collaboration with the New Taipei City government. The Innovation Center provides technical assistance for local entrepreneurs to scale their ideas using the cloud.

Attracting Global Talent to Taiwan

President Tsai has been successful in attracting multinational technology companies to increase investment in Taiwan. But attracting global talent to Taiwan remains a work in progress. To further develop relations between Silicon Valley and Taiwan, the Asian Silicon Valley Development Agency (ASVDA) opened an office in Santa Clara, California, in addition to offices in Taipei and Taoyuan.¹² The ASVDA intends to connect Bay Area talent and resources with entrepreneurs and businesses in Taiwan. The Taiwanese-American community in Silicon Valley serves as a potential pool of talent that is willing to work or invest in Taiwan. As founder and chief executive officer of Nvidia, Taiwanese-American Jensen Huang is one of the most successful entrepreneurs in Silicon Valley. Based in Santa Clara, Nvidia is a leader in graphics processing units (GPUs), and its products are fueling developments in AI. In June, Nvidia and the Ministry of Science and Technology announced a collaboration to advance Taiwan's capability in artificial intelligence. The collaboration includes training Taiwanese developers at Nvidia's Deep Learning Institute and supporting Taiwanese entrepreneurs through a startup accelerator program.¹³

In addition to Taiwanese Americans, Taiwan can benefit from the return of Taiwanese technologists who have succeeded abroad. Before joining the Tsai administration, Digital Minister Audrey Tang was a well-known computer programmer with experience launching a startup in Silicon Valley. Minister Tang is known to hold public office hours at the Taipei Social Innovation Lab, providing entrepreneurs with an opportunity to engage directly with the minister; she also encourages entrepreneurship and innovation beyond Taipei with biweekly travels to Taichung, Chiayi, Kaohsiung, or Hualien. Returning Taiwanese technologists are also building home-grown talent through roles outside of government. Ethan Tu, a former principal development manager at Microsoft, returned to Taiwan from the United States to head a new venture, Taiwan AI Labs.¹⁴ A privately funded research organization, Taiwan AI Labs aims to develop local talent in AI technology primarily through digital learning and entrepreneurship. Launched in 2017, the venture seeks to attract foreign engineers by offering a competitive salary and recruiting talent from leading global research institutions. Tu has reached out to former colleagues at Microsoft and successfully recruited Mike Calcagno, who directed the early team that developed Cortana, Microsoft's AI-driven personal digital assistant.¹⁵

11. M. R. Lee and D. C. Yen, "Taiwan's Journey to the Cloud: Progress and Challenges," *IT Professional* 14, no. 6 (Nov.-Dec. 2012): 54-58

12. "The Asia Silicon Valley Development Plan," National Development Council, accessed July 20, 2018, https://www.ndc.gov.tw/en/Content_List.aspx?n=90BEB862317E93FC.

13. Nvidia, "Nvidia, Taiwan's MOST Unveil Collaboration to Supercharge AI Efforts," Press Release, June 3, 2018, <https://nvidianews.nvidia.com/news/nvidia-taiwans-most-unveil-collaboration-to-supercharge-ai-efforts>.

14. Judy Lin, "PTT Founder Quits High Salary Microsoft Job in U.S. to Launch Taiwan AI Lab," *Taiwan News*, April 27, 2017, <https://www.taiwannews.com.tw/en/news/3150848>.

15. Elaine Huang, "Who Says AI Gurus Ignore Taiwan?" *CommonWealth*, June 4, 2018, <https://english.cw.com.tw/>

President Tsai's New Southbound Policy (NSP) also provides an opportunity to draw foreign talent while offering overseas experience for Taiwan's workforce. Industrial training is among the early achievements of people-to-people exchanges under the NSP. The Tsai administration provided subsidies to technology-focused universities and colleges for training programs aimed at the youth in South Asian and Association of Southeast Asian Nations (ASEAN) countries. Taiwan is opening its universities to high-achieving students from these countries, while encouraging Taiwanese students to build experience in South Asia and ASEAN.¹⁶ This investment will better position Taiwan's workforce to capitalize on ASEAN's fast-growing digital economy. Currently, ASEAN's digital economy is only 7 percent of GDP, compared to 35 percent in the United States.¹⁷ But digital integration across ASEAN is estimated to add \$1 trillion to GDP by 2025.¹⁸ The region's growing online population will provide digital business and entrepreneurial opportunities for Taiwan.

The Global Dialogue on Human Capital

As countries compete in the global race for talent, it is necessary and mutually beneficial for governments to exchange ideas and address common challenges. The future of work, workforce development, and human capital have become major topics of global discussion, as automation increasingly disrupts the way people work and live. It is in this context that the World Bank launched its first Human Capital Index in October 2018.

The Asia-Pacific Economic Cooperation (APEC) is also focusing on human capital development. The APEC Framework on Human Resources Development in the Digital Age, adopted by member economies in 2017, offers a multilateral platform to discuss policies and common challenges in human capital development amid technological changes. As an APEC member economy under the name Chinese Taipei, Taiwan serves as the official capacity-building network coordinator for the Human Resources Development Working Group (HRDWG). The HRDWG aims to develop twenty-first century knowledge and skills, integrate human resources development into the global economy, and address the social dimensions of globalization.¹⁹ Taiwan should continue to take advantage of APEC as a platform to shape international dialogue, exchange best practices and ideas, and hear from global business leaders on the skills needed for the digital economy.

Active engagement in the global dialogue on human capital can help Taiwan address common challenges, including the need for a balanced approach to workforce development. This includes building a digital workforce without sacrificing investment in the arts, culture, and sports. Taiwan's rich talent in these cultural areas has enabled it to shine on the global stage. Culture also plays a critical role in strengthening a country's soft power, which can be useful in attracting foreign talent and retaining home-grown

article/article.action?id=1973.

16. Executive Yuan, "New Southbound Policy Paying Early Dividends," Republic of China, May 15, 2017, https://english.ey.gov.tw/News_Hot_Topic.aspx?n=F24AD2B907DE41B5.

17. Florian Hoppe, Tony May, and Jessie Lin, "Advancing Towards ASEAN Digital Integration: Empowering SMEs to Build ASEAN's Digital Future," Bain & Company, September 3, 2018, https://www.bain.com/contentassets/37a730c1f0494b7b8dac3002fde0a900/report_advancing_towards_asean_digital_integration.pdf.

18. Ibid.

19. "Human Resources Development," Asia-Pacific Economic Cooperation, Updated September 2018, <https://www.apec.org/Groups/SOM-Steering-Committee-on-Economic-and-Technical-Cooperation/Working-Groups/Human-Resources-Development>.

innovators. Fortunately, the Tsai administration has highlighted investment in the creative and cultural industries as part of the 2018 National Development Plan.²⁰ Another mutual concern across different economies is the risk of a growing digital divide. The Tsai administration has been mindful of the importance of investing in communities beyond Taipei. Digital Minister Tang's biweekly trips outside Taipei City demonstrate this broader commitment. Participation in the global dialogue on workforce development can help ensure that Taiwan continues its balanced approach to digital transformation.

Rather than focus on domestic solutions alone, the Tsai administration's strategy for workforce development is global and outward looking. Taiwan's robust international outreach has enabled it to secure investment from multinational technology companies, attract foreign talent, and align policies with international frameworks. The global nature of Taiwan's workforce development, plus its history of economic transitions, is reason to believe Taiwan will successfully undergo a digital transformation and continue to fulfill its potential as a "Digital Nation, Smart Island."

The views and opinions expressed in this article are solely those of the author.

20. "The 2018 National Development Plan," National Development Council, December 7, 2017, <https://ws.ndc.gov.tw/Download.ashx?u=LzAwMS9hZG1pbmlzdHJhdG9yLzExL3JlbGZpbGUvMC8xMTIzMC9kZjY2YjdhMi01ZDA-yLTQ1Y2QtODQzYi1iZjE3Mjk2NjU1YjUucGRm&n=VGhlIDlwMTggTmF0aW9uYWwgRGV2ZWxvcG1lbnQgUGxh-bi5wZGY%3D&icon=..pdf>.

The Clean Energy Outreach Opportunity in Taiwan's New Southbound Policy

By Courtney Weatherby

Taiwan is relatively well-positioned for the transition from fossil fuels to alternative energy sources, particularly compared to the many developing countries around the world that are on a similar pathway: it is the second-largest producer of solar panels globally, it has high potential for solar and off-shore wind power, and already has substantial domestic financial capital and technological expertise in this arena. This context has made it feasible for the Tsai administration to reform the Electricity Act and set an ambitious target of rapidly increasing the role of renewable energy in its power mix to 20 percent by 2025. Each of these energy reforms and the New Southbound Policy have received a great deal of fanfare, but there is opportunity to link them. Countries in South and Southeast Asia are in the midst of the same internal transition to diversify their energy supplies and develop more renewable, climate-friendly energy. There is an opportunity for Taiwan to utilize initiatives under the New Southbound Policy (NSP) to build capacity and interest in target countries, reaping not only benefits for the climate and regional energy security but also investment opportunities for Taiwanese businesses. Failing to engage in this strategic sector would be a missed opportunity for Taiwan.

Taiwan's Energy Sector: Current Status and Anticipated Changes

Reform of the power sector has been a cornerstone of the Tsai administration's domestic policy and is characterized by three trends: the elimination of nuclear energy, the reduction of coal plants, and the expansion of renewable energy capacity. The push to eliminate nuclear energy is a long-held platform of the Democratic Progressive Party, and the Tsai administration pushed through an amendment to the Electricity Act in January 2017 that legally requires Taiwan to close all nuclear power plants and become nuclear-free by 2025.¹ Nuclear power provides approximately 14 percent of Taiwan's

1. "Legislature passes amendments to reform energy market and fund long-term care," Department of Information Services, Executive Yuan, January 12, 2017, https://english.ey.gov.tw/News_Content2.aspx?n=8262ED7A25916ABF&sms=DD07AA2ECD4290A6&s=E6D6E89B3DBF899E.

total electricity mix, a very significant amount to replace within a decade. Coal—which currently provides approximately 45 percent of Taiwan’s energy production—is coming under domestic pressure over air pollution concerns and international pressure because of climate change concerns. The Tsai administration has responded by reducing the role of coal in the future energy mix. Installed capacity is not going to be closed, but there will be no new coal added and the share of coal in Taiwan’s energy mix will drop to 30 percent by 2025. These shifts will pose challenges for the utilities, given that Taiwan has a relatively low power reserve and therefore limited flexibility to respond to disruptions.

Policymakers view green energy as a key alternative to replace both coal and nuclear energy in the national power mix, along with an increase in liquefied natural gas (LNG). LNG would need to be imported, however. Although the Tsai administration’s policy vision includes the construction of new LNG import terminals, energy security concerns have led to strong support for developing domestically available solar and wind as an alternative.

Various policies support this energy transition: green energy was one of the original five pillar industries in Tsai’s campaign and is officially enshrined in the 5 Plus 2 Major Innovative Industries Policy. The 5 Plus 2 Policy aims to promote innovative industrial development in order to revitalize Taiwan’s economy, and it is accompanied by approximately \$3.3 billion in funds marked for investment in these pillar industries.² Taiwanese companies are in a good position to capitalize on this support: Taiwan produces more than two gigawatts (GW) of solar panels per year. Solar sales to date largely have been to the Chinese market, but the production capacity and technical expertise from solar manufacturing position Taiwan well to deploy this capacity domestically. China’s slowdown in solar installation in early 2018 will likely push producers to find other markets, potentially producing synergy with the energy transition at home.

The Tsai administration also has pushed through amendments to the Electricity Act to set a target for renewables at 20 percent of the national power mix by 2025. This is a significant and rapid increase from the 2 percent of the national energy mix provided by renewables in 2017. The Tsai administration set specific targets to help push investment: the targets for installed solar power are 1.5 GW by 2018, 6.5 GW in 2020, rising to 20 GW in 2025, whereas total wind power targets are set at 1.3 GW in 2020 rising to 4.2 GW by 2025.³

Challenges in the Energy Transition

Taiwan has the technical potential to meet and even exceed the mandated renewable energy targets. A clear policy mandate and generous feed-in-tariffs are attracting significant investor interest. Taiwan’s goals are ambitious in timeframe for adoption, but not necessarily in their scope: a 2011 study indicated that solar alone could meet 16 percent of Taiwan’s energy needs.⁴ This is likely an underestimate given significant improvements to

2. Timothy Ferry, “The 5 + 2 Industrial Innovation Plan,” *Taiwan Business Topics*, May 8, 2017, <https://topics.amcham.com.tw/2017/05/52-industrial-innovation-plan/>.

3. The 1.5 GW in 2018 figure is taken from “Solar PV Two-Year Promotion Project,” Bureau of Energy, Ministry of Economic Affairs, September 13, 2017, https://www.moeaboe.gov.tw/ECW/english/content/Content.aspx?menu_id=5492. The other numbers are taken from “Wind Power Four Year Promotion Plan (風力發電4年推動計),” Bureau of Energy, Ministry of Economic Affairs, May 17, 2017, https://www.moeaboe.gov.tw/ECW/populace/content/ContentDesc.aspx?menu_id=5493.

4. Cheng Dar-Yue and Guo-Rong Huang, “An evaluation of domestic solar energy potential in Taiwan incorporat-

solar panel efficiency since that date. Outside analysts have called the wind potential in the Taiwan Strait “one of the best offshore-wind resources in the world.”⁵ There is no question that Taiwan has sufficient renewable capacity to meet these targets.

However, challenges in implementation may prevent Taiwan from fully meeting its goals. One is the delay between investor interest and actual build-time: for instance, MOUs signed with private companies for wind projects are surging ahead, with Taiwan set to have auctioned rights to 5.5 GW by the end of 2018, but a slow start and bureaucratic red tape mean that many projects won’t come online in time to meet the 2025 target.⁶

Limited land availability is a serious issue for onshore wind and solar projects. Utility-scale solar projects require large tracts of land to take advantage of economy of scale that has allowed solar to become economically competitive. Land is at a premium in Taiwan, and large developments often require negotiations with numerous land-owners, which significantly complicates the process. Combined with the high standards for feasibility studies and bureaucratic processes, this has stymied rapid construction of utility-scale solar. There are significant regulatory hurdles to the deployment of rooftop solar for individual households, including a low feed-in-tariff for non-utility scale models and limits on installation size. As a result, despite significant investor interest, projections put Taiwan 30 percent below its initial two-year target for new solar capacity by the end of 2018.⁷

As projects take longer to come online than anticipated, there are accompanying risks to the power sector. These were brought vividly to the forefront of the conversation in August 2017, when Taiwan suffered a massive blackout that cut power to nearly half of Taiwan’s population. A major factor in this incident was that Taiwan has a very low power reserve, and therefore risks insufficient power when demand suddenly spikes. The commonly accepted international standard for power reserve is around 15 percent, but Taiwan’s has reached the low single digits since 2015. Tsai has directed the Ministry of Economic Affairs to find a way to raise that reserve to 10 percent in coming years,⁸ but achieving this amid a backdrop of the loss of nuclear baseload will be difficult. Taiwanese officials were pushed to restart power production at one nuclear facility in June 2018 in order to maintain a 6 percent minimum power reserve and avoid another blackout as air conditioning use spiked over the summer.⁹

NSP: An Opportunity for Taiwanese Engagement in Clean Energy

These difficulties might push some to question Taiwan’s suitability to be a leader in renewable energy for the Asia-Pacific region. However, failures and lessons learned are

ing land use analysis,” *Energy Policy*, 39: 12 (2011), 7988-8002.

5. Dan Murtaugh, Miaojung Lin, and Samson Ellis, “Nuclear Ghost Town Reveals Power Risk for Taiwan’s Energy Shift,” Bloomberg, August 5, 2018, <https://www.bloomberg.com/news/articles/2018-08-05/nuclear-ghost-town-reveals-power-risk-for-taiwan-s-energy-shift>.

6. Craig Richard, “Taiwan sets out 5.5 GW plan,” Wind Power Offshore, April 17, 2018, <https://www.windpower-offshore.com/article/1462340/taiwan-sets-55gw-plan>.

7. Tsvetomira Tsanova, “Taiwan to miss 1.52-GW solar goal, but demand is growing,” Renewables Now, March 30, 2018, <https://renewablesnow.com/news/taiwan-to-miss-152-gw-solar-goal-but-demand-is-growing-607157/>.

8. Yeh Su-ping and Francis Huang, “‘5 plus 2’ program aims to elevate industrial base: Tsai,” *Focus Taiwan*, October 3, 2017, <http://focustaiwan.tw/news/aeco/201710030011.aspx>.

9. Central News Agency, “Power reserve margin to stay above 6% before July: Tsai,” *Taiwan News*, June 18, 2018, <https://www.taiwannews.com.tw/en/news/3460215>.

equally valuable as policy inputs as successes, and countries in developing Asia are fertile ground for these lessons. Energy demand is projected to grow by another 66 percent through 2040, and 2017 estimates indicate that coal would provide nearly 40 percent of that new capacity.¹⁰ In order to avoid the significant emissions that would come from that new coal capacity, there needs to be engagement in the near term. The largest coal capacity additions will be in Indonesia and Vietnam, but seven of the ten ASEAN countries rank among the top 30 countries globally that plan to expand coal production and many are considering the role of nuclear power in their energy futures.¹¹ These same countries are priority countries for engagement under Taiwan's NSP. Energy sector trends are ever-shifting, but there is a need for engagement from countries with technical expertise in this area and Taiwan is poised to help meet that need.

Taiwan has a major benefit as a case study: policymakers in developing countries in Southeast Asia often dismiss the experiences of the United States and developed countries in Europe, preferring to learn from case studies in countries which face similar challenges to their own. Given Taiwan's relatively late start on domestic deployment of renewables, high population density, long history as an industrial base, and land availability issues, Taiwan is in a far more similar position to countries like Indonesia or Vietnam while having similar levels of technical expertise as other developed countries. For small states in particular, Taiwan's population, island nature, and land size are more relatable than case studies from Germany or the United States. Taiwan is therefore in a better position to have a dialogue with ASEAN countries that explores lessons learned from both successes and failures in its pursuit of renewable energy policy. Taiwan would be in a good position to share these lessons, support technical advancement in Southeast Asian countries, and reap access to the business opportunities that emerge in coming years as the investment environment improves.

Taiwan also benefits from the Tsai administration's signature foreign policy initiative, the NSP, in having a square focus on improving economic engagement and people-to-people ties with countries in South and Southeast Asia. Although this concept is not new to Taiwan, the NSP has taken a strategic approach aimed at strengthening both Taiwan's interpersonal relationships and economic integration with 18 priority countries throughout the Indo-Pacific, including all 10 countries of ASEAN. Four short-term goals include expanding two-way economic and cultural exchanges between Taiwan and priority countries, supporting Taiwanese businesses in adopting a "New Southbound" framework for future business expansion, supporting human resources for these exchanges, and expanding bilateral dialogue with a focus on economic cooperation.¹²

Although occasional official statements have made the case that Taiwan's advances in the green energy industry will position as a center for excellence in a region that is transitioning towards sustainable development,¹³ there has not yet been a cohesive

10. International Energy Agency, *Southeast Asia Energy Outlook 2017* (Paris: OECD/IEA 2017), 11, https://www.iea.org/publications/freepublications/publication/WEO2017SpecialReport_SoutheastAsiaEnergyOutlook.pdf

11. Christine Shearer, Nicole Ghio, Lauri Myllyvirta, Aiqun Yu, and Ted Nace, *Boom and Bust 2017: Tracking the Global Coal Plant Pipeline* (Coalswarm 2017), 7, <https://endcoal.org/wp-content/uploads/2017/03/Boom-Bust2017-English-Final.pdf>.

12. "The guidelines for 'New Southbound Policy,'" Taipei Economic and Cultural Office in Brunei Darussalam, August 23, 2016, https://www.roc-taiwan.org/bn_en/post/644.html.

13. Chang Chien-chung and S.C. Chang, "Veep confident Taiwan will achieve 2025 solar energy target," *Taiwan*

effort to integrate green energy into Taiwan's engagement under the NSP. This is a missed opportunity for Taiwan. Putting green energy investment and capacity building at the center of NSP initiatives not only would meet development and economic needs in Southeast Asian economies but also position Taiwanese businesses well for future energy investment opportunities as Southeast Asian energy demand continues to rise.

There are clear opportunities to do this within existing NSP mechanisms. Some experts have already noted that the flagship programs on talent cultivation and innovative industry collaboration will focus on solar power and sustainable development.¹⁴ This is a priority that can be woven into other mechanisms such as the Yushan Forum. The Forum, which is the flagship people-to-people exchange program under the NSP founded in late 2017, has an explicit goal of fostering regional dialogue and connectivity on issues of innovation and technology. Green energy and sustainable development easily could be targeted as a priority topic for future Yushan Forum sessions and would respond to interests highlighted in some early discussions with Singapore and Vietnam about NSP engagement.¹⁵ The Tsai Administration is coordinating with commercial banks to subsidize \$48 million in interest for \$113 million in loans for infrastructure projects under the NSP.¹⁶ Although infrastructure needs are vast, prioritizing green energy projects for funds could have knockoff benefits by supporting a landscape conducive to Taiwanese businesses interested in breaking into Southeast Asian markets while also meeting local needs.

Taiwan, like many other investors, faces limited financial capacity. Prioritizing the green energy sector for support would require tradeoffs—but it would also be a strategic investment that could reap significant economic opportunities for Taiwan in a sector that will only become more important with Southeast Asia's continued industrialization and growing regional adoption of smart appliances, electric vehicles, and other energy-intensive technological advancements.

News, March 26, 2018, <https://www.taiwannews.com.tw/en/news/2992900>.

14. Hsin-Huang Michael Hsiao and Alan Yang, "Repositioning Taiwan in Southeast Asia: Strategies to Enhance People-to-People Connectivity," National Bureau of Asian Research, January 11, 2018, <http://www.nbr.org/research/activity.aspx?id=832>.

15. Bonnie Glaser, Scott Kennedy, Derek Mitchell, and Matthew Funaiolo, *The New Southbound Policy: Deepening Taiwan's Regional Integration* (Lanham, MD: Rowman & Littlefield: 2018), 23.

16. Ku Chuan, Elaine Hou, and Kuan-lin Liu, "Government to spend NT\$1.5 billion next year on ODA program," *Focus Taiwan News*, November 4, 2017, <http://focustaiwan.tw/news/aeco/201711040011.aspx>.

The India Opportunity for Taiwan

By Tanvi Madan

A few months ago, a Taiwanese business weekly's cover story was all about the India opportunity. It included an anecdote about one businessman telling another that India might initially be a tougher place to do business than China, but it was nonetheless worthwhile and, crucially, would not be fatal over time. The idea of the India opportunity (and option) is also present in Taiwan's New Southbound Policy (NSP), which seeks to expand links with countries across South and Southeast Asia.¹ There have been previous Taiwanese efforts to look beyond this region. However, this time, there's an emphasis on building economic *and* people-to-people ties, as well as a greater focus on India.

As Taipei looks to the south, there is opportunity for broader and deeper engagement, especially as India “acts east”—an approach that includes economic, technological, and cultural engagement with Taiwan (as well as quieter security cooperation). But any interactions will have to take place in the context of India's relations with China. That country looms even larger for Delhi than it has in the past. India's China relationship has elements of cooperation, competition, and, potentially, conflict, and, like many countries, India has attempted to engage, as well as compete with Beijing. It has stressed the need for the two countries to respect each other's sensitivities. In India's case, this has meant taking cognizance of Beijing's Taiwan sensitivities, while declining for the last decade to reaffirm its earlier support for a One China policy explicitly—implicitly and occasionally explicitly linking it to a Chinese affirmation of a One India Policy, which is unlikely to be forthcoming.² This delicate dance was evident in state-owned Air India's decision to switch to using “Chinese Taipei,” but not go as far as Beijing's demand to use “Taiwan, China.” Overall, though, India's relationship with China imposes certain constraints on the way India-Taiwan relations can develop (particularly officially).³

This will require Taipei to think creatively. Beyond the under-the-radar political, defense, and intelligence links that India and Taiwan maintain, it will need to identify areas where interests are complementary or it can engage stakeholders, create constituencies, and

1. For details of the previous initiatives, see Bonnie S. Glaser et al., *The New Southbound Policy: Deepening Taiwan's Regional Integration* (Lanham, MD: Rowman & Littlefield, 2018).

2. Indrani Bagchi, “India declines to affirm ‘One China’ policy,” *Times of India*, December 17, 2010; Transcript of External Affairs Minister's first formal interaction with the media, September 8, 2014.

3. “MEA Defends Air India's Decision to Change Taiwan's Name on Its Website,” Press Trust of India, July 5, 2018.

increase its visibility beyond official circles in Delhi. To some degree, there have been steps taken under the NSP that fit these categories. But there are further opportunities on the table, some that fit under the NSP rubric and some that go beyond it. This piece looks at a few.

Economics

A major focus of the NSP is on increasing economic ties with the 18 targeted countries. Given the number of complementarities, this seems like a no-brainer for Delhi and Taipei—India needs investment and Taiwan is looking to diversify from its traditional targets of investment (particularly China). And over the last few years, investment has increased, with more Taiwanese companies also operating in India than the past (e.g., in the smartphone manufacturing sector). For the Indian government, these companies have helped—and could help further—increase manufacturing in India. (Delhi has highlighted Foxconn’s investment as a key indicator of its “Make in India” initiative having had an impact.) In certain sectors, Taiwanese firms are also bringing their Indian partners into global value chains. Moreover, Taiwan can add value in areas that India is prioritizing, for example, with its technology and techniques in the ICT, healthcare, agriculture, and food processing sectors, as well as offer opportunities for engagement at the state level. There is also a chance to cooperate in areas where India is concerned about over-dependence on China, such as the solar power sector.

Yet, there is more potential than there has been progress. For the last decade, other than one year, trade has been within the \$4-6.5 billion range.⁴ And investment, direct and indirect (i.e., through third countries), only amounted to \$1.5 billion last year.

To increase these numbers, Taiwan would like what one official called an “FTA-like agreement” or at least an updated bilateral investment promotion and protection agreement with India.⁵ Five years ago, there was some consideration of an economic cooperation agreement. Taiwan’s Chung-Hua Institute for Economic Research and India’s ICRIER studied what it would entail.⁶ But, over the last few years, for domestic reasons, India has put negotiations on free trade agreements and bilateral investment treaties into deep freeze. It’s worth keeping an eye out for a thaw on this front, given the potential for economic cooperation and the fact that Taipei might be open to including services (a sticking point with other partners and something that can make up for the fact that Indian goods exporters see limited opportunity in Taiwan). However, it is not worth just waiting for such agreements to materialize—especially since concerns about Chinese reaction might limit the extent of any agreement.

Taipei has made some efforts in this regard, building on pre-NSP initiatives. In 2017, the Taiwan External Trade Development Council (TAITRA) established an India Center

4. *External Trade Statistics*, Ministry of Finance, Taiwan, <http://web02.mof.gov.tw/njswwww/WebProxy.aspx?sys=100&funid=defjsptgl>

5. “Taiwan seeks FTA-like bilateral agreement with India,” *IANS*, March 3, 2017, https://www.business-standard.com/article/news-ians/taiwan-seeks-fta-like-bilateral-agreement-with-india-117030300337_1.html; Ashok Tuteja, “India negotiating investment protection treaty with Taiwan,” *Statesman*, April 14, 2018, <https://www.thestatesman.com/world/india-negotiating-investment-protection-treaty-taiwan-1502622348.html>

6. Kristy Hsu et al. eds., *Enhancing Trade, Investment and Co-operation between India and Taiwan* (Academic Foundation, 2013).

in Taiwan.⁷ Last year, it opened its fourth office in India in New Delhi and hosted an expo there in May. These steps can help familiarize Taiwanese companies with the opportunities available in India, as well as assist them as they navigate what can be a complicated country in which to operate. It would also help if the Taiwan Chamber of Commerce facilitated greater dialogue between those companies already investing in India and those considering the option (to share lessons learned among other issues). Where possible given competition, Taiwanese companies should also compare notes with their American, Japanese, Singaporean, or South Korean counterparts, who have had more experience operating in the Indian market (perhaps even via trilateral dialogues facilitated by the respective business chambers). TAITRA should propose to open an office in Bengaluru or Hyderabad, given the potential for cooperation between the two tech sectors.

In addition to learning about the business climate in India and market opportunities, greater awareness about India more broadly (e.g., the political and socioeconomic environment), as well as subnational variation, will help Taiwanese companies. Taiwan's government, universities, and companies should consider creating visiting professorships and fellowships for Indian professors and analysts to work in Taiwan at universities (including professional schools) and think tanks.

Government and business developing and institutionalizing links will be critical in ensuring the success and sustainability of such efforts. India and Taiwan have an annual economic dialogue, and recently established an annual industrial collaboration summit, as well as agreements between two of their chambers of commerce, and their trade and investment promotion authorities.

The chambers of commerce should also consider an annual India-Taiwan CEO Forum, or at least regular exchanges between senior business executives. This will help Taiwanese businesses establish direct connections with their Indian counterparts. It could also facilitate cooperation between Indian and Taiwanese companies, not just in India, but potentially in third countries as well. Indian and Japanese companies, facilitated by their governments, are already doing this as they undertake connectivity projects in India's neighborhood. Delhi needs partners in this regard domestically and in its extended neighborhood, and Taipei—particularly with its strength in the digital space—could bring something to the table.

Travel and Tourism

One sector that can help increase bilateral economic and people-to-people ties is tourism. Tourism from India to Taiwan has almost doubled since 2009, but it still only stands at about 35,000. In comparison, in 2016 there were five times the number of Indian departures to South Korea than Taiwan.⁸ There could be a number of reasons for the low number of Indian tourists traveling to Taiwan. For one, there is not much awareness of “brand Taiwan” in India, whether in terms of place, products, or the people. China Airlines has run advertising campaigns, but its tagline “Taiwan: Asia's Best Kept Secret” seems to have remained true.

7. “TAITRA launches India Center in Taipei,” *Taiwan Today*, April 28, 2017, <https://taiwantoday.tw/news.php?unit=6&post=114618>.

8. “Market Research and Statistics (Indian Tourism Statistics),” Ministry of Tourism, Government of India, <http://tourism.gov.in/market-research-and-statistics>.

Taipei can learn from Delhi's own Incredible India campaign, which has helped familiarize tourists around the world with different parts of India; it also targets niche audiences for, say, yoga or adventure travel.⁹ Taiwan should consider familiarizing Indian audiences with: the diversity available within a short distance (whether someone likes visiting museums or religious sites, is a foodie or adventure traveler, or loves shopping); the surprisingly—at least to this author—wide variety of vegetarian food available (important to a number of Indian tourists); and a lower cost of living than a number of other destinations like Singapore and Hong Kong (and the developed world more broadly). Taiwan should also consider offering discounts for visitors from NSP countries, for example, in entrance fees at museums—and making sure potential travelers are aware of such promotions. Improved tourism-related infrastructure (including the establishment of higher-end resorts) would also help increase the number of tourists from India.

Taipei also needs to create awareness among tourists and travel agencies about changes in its visa regime that make it easier for many Indians to travel there. For Indians, who require visas to most places (which often are time-consuming and expensive to get), how fast and easily one can get an entry permit can shape travel decisions. Taiwan now offers essentially visa-free entry (with prior online registration) for Indians who have valid visas for or permanent residency in countries like Japan and the United States. This should be promoted, and not only to those in India, but also to Indian passport holders who are permanent residents of other countries. However, with those Indians who aren't eligible for visa-free entry, Taiwan will continue to fall short compared to destinations like Indonesia, Hong Kong, and Thailand that have visa-on-arrival or e-visa/registration facilities for Indians. A visa-exemption program (allowing stays of 14 or 30 days) of the kind that Malaysian citizens enjoy would help. Taipei's plan to establish a tourism promotion office in India—as it did in 2017 in Thailand—could also create greater awareness and encourage travel to Taiwan.¹⁰

Direct connectivity between India and Taiwan is limited, with only one flight from Delhi to Taipei, twice a week. Compare that to the multiple daily flights from, say, Jakarta to Taipei. The direct flight that does exist takes 6–7 hours, whereas the one-stop flights can take twice as long, if not more. Improving connectivity will require both governments to make an effort, as well as the commercial case to be made. But it is worth considering, given the widespread impact better connectivity could have—not just increasing tourism from one country to the other, but also facilitating travel for business, employment, and education.

Finally, Taipei should work with Delhi to encourage outbound tourism from Taiwan to India. This can also help build brand Taiwan.

Education, Employment, and Exchanges

Tourism, economic links, and people-to-people ties can also be positively affected by—and, in turn, affect—increased educational and employment ties, as well as exchanges between Indians and Taiwanese more broadly.

9. See "Incredible India!" at <https://www.incredibleindia.org>.

10. Wendy Lee, "Taiwan tourism bureau to set up office in Thailand," *Taiwan News*, April 20, 2017.

Over the last seven years, Taipei has established seven Taiwan Education Centers, which can be leveraged further under the NSP's Talent Development Program.¹¹ These TECs teach Mandarin, as well as Chinese culture and history. The Taiwanese ministry of education has been subsidizing teachers to participate in these programs in India.¹² It should consider including time in Taiwan for students as part of the program. This will give them the immersion they need, but also help create a direct link. Moreover, there is a lot more scope for such language training both in India and Taiwan. Delhi, on its part, should encourage and facilitate such cooperation, including from a regulatory perspective (for example, making it easier for Taiwanese teachers to work in India). The government, private, and even non-profit sectors need more Mandarin speakers, and Taiwan could be part of the answer.

The education sector more broadly—where Taiwan has capacity and India needs capacity—offers opportunity. In 2017, there were 1,532 Indian students in Taiwan (though this is more than double the number in 2015). To put this number in perspective, there are more than a half-million Indians studying abroad.¹³

Taiwan's expanded scholarship program, particularly for professional and vocational courses, could not only help increase this number; it would also sit with the Indian government's Skill India program. Moreover, Taipei should consider working with its companies—particularly those that might be interested in doing business in/with India—to increase these scholarships, as well as create apprenticeships or internships for Indian students. (This is already being done for students from Southeast Asia.) Such efforts could be mutually beneficial, providing work experience for the students and giving the companies access to skilled individuals familiar with India.

A few other steps could make Taiwan an attractive destination for Indian students. The Taipei Economic and Cultural Center (TECC) in India office—and Taiwanese universities—need to make students aware of the opportunities available (and alleviate any concerns that English-language courses are not an option), including through roadshows. Moreover, Delhi and Taipei should work together to ensure that degrees and diplomas are recognized in the other country. In addition, although Taipei has made it easier for foreign students to apply for work permits, it might want to consider including employment permission with a student visa. The U.S. student visa, for example, comes with a one-to-three-year optional practical training option after graduation. This will help attract more students and give Taiwan access to the high-skilled workers that it needs.

There currently are only about 1,500 Indians working in Taiwan.¹⁴ But this is another potentially mutually beneficial space. There are more than 13 million Indian citizens abroad (not including the nearly 18 million persons of Indian origin).¹⁵ This is why

11. In the Delhi area at Amity University, Jamia Millia Islamia, Jawaharlal Nehru University, and OP Jindal Global University; in Mumbai at the Indian Institute of Technology or IIT; in Chennai at IIT, and the SRM Institute of Science & Technology; and in Karnataka at Manipal University.

12. Glaser et al., *The New Southbound Policy: Deepening Taiwan's Regional Integration*, 45.

13. "Taiwan-India Relations," TECC, https://www.roc-taiwan.org/in_en/post/39.html.

14. Kristy Hsu, "New Southbound Policy & Taiwan-India Economic Relations," July 2018 Presentation at Observer Research Foundation in New Delhi.

15. Population of Overseas Indians, MEA, India, December 2017, http://mea.gov.in/images/attach/NRIs-and-PIOs_1.pdf.

negotiating labor market access has been a high priority for the Indian government and a sticking point in trade deals (e.g., the Regional Comprehensive Economic Partnership). And that access has been getting tougher in a number of countries where Indians have traditionally gone to work or study: Australia (to some extent), Britain, Singapore, and the United States. Here India and Taiwan have complementary interests: Taiwan needs skilled workers; India has them.

Finally, the two sides should strive to increase and institutionalize regular exchanges—among scholars, analysts, journalists, entrepreneurs, and civil society leaders—in different sectors. This will increase awareness of the other country, sharing of perspectives, and learning about opportunities for cooperation. Here the United States could play a role. Conferences and exchanges that include Indian and Taiwanese participants can facilitate greater people-to-people interaction. Moreover, the U.S. administration, which has tended to follow a South Asia or East Asia theme for its International Visitor Leadership Program (IVLP)-like programs, should consider an Indo-Pacific theme that can include participants from India and Taiwan.

Striking Back at the Empires

Why Today's Tariff Wars Might End Up Being Good for Taiwan

By Jeffrey Gelman

A trade war is intensifying between Mainland China and the United States—and Taiwan is caught in the middle. Taiwan's economy, which is critical to its survival as a *de facto* independent state, is based in large part on its exports to the United States. As the largest economy in the world, the United States is a major consumer of Taiwanese products. Yet, much of what Taiwanese companies export is produced or assembled in Mainland China. U.S. tariffs on Chinese exports will therefore hit Taiwan particularly hard.

To avoid the worst of the U.S. tariffs, Taiwanese companies have accelerated movement of production away from Mainland China.¹ Although the shift from Mainland China has its roots in longer-term economic trends, it was more formally institutionalized by Taiwan's New Southbound Policy (NSP), which President Tsai Ing-wen launched in 2016 in part to diversify the island's economy and lessen dependence on Mainland China. This shift has continued to accelerate with President Trump's election, his populist rhetoric, and his 2018 announcements of \$250 billion worth of tariffs on Chinese goods, which has led to some Taiwanese business investments, incentivized by the NSP, to be redirected in unexpected ways. Taiwanese companies have reacted to the recent global trade shake-up by relocating production not only away from Mainland China, but also to the United States itself.

To put recent developments in proper context, however, it is important to understand the economic conditions that led to the NSP and to today's changing destinations for Taiwanese business investment. As the costs of doing business rose in Taiwan throughout the 1990s and 2000s, Taiwanese companies looked across the Strait for cheaper labor and a cheaper operating environment.² In 1992, trade between Taiwan and Mainland China

1. Lawrence Chung, "US-China trade war threats prompt Taiwan firms to consider moving away from mainland," *South China Morning Post*, July 4, 2018, <https://www.scmp.com/news/china/diplomacy-defence/article/2153727/us-china-trade-war-threats-prompt-taiwan-firms-consider>.

2. Joshua Meltzer, "Taiwan's Economic Opportunities and Challenges and The Importance of the Trans-Pacific Partnership," Brookings Center for East Asia Policy Studies, January 2014, <https://www.brookings.edu/wp-con>

was just \$748 million. By 2012, Mainland China had become Taiwan's most important trading partner with bilateral trade reaching \$121 billion.³

Today, Taiwan supplies 18 percent of Mainland China's imports of intermediate goods, the value of which amounts to 14 percent of the island's total GDP.⁴

Taiwan's economy becoming increasingly reliant on Mainland China coincided with Beijing becoming more assertive and confident in the region. This increased confidence brought with it renewed challenges for cross-Strait relations. Over the past several years, Taiwan has faced increasing diplomatic pressure, which has played out in Beijing stealing several of Taipei's diplomatic allies, and increased security friction through Beijing's aggressive military exercises, bomber flyovers, and building islands in the disputed waters of the South China Sea. When President Tsai came into office in 2016, she arrived with a plan reduce Taiwan's over-reliance on the People's Republic of China's (PRC) economy, which if successful could help lessen Taiwan's vulnerability to Chinese economic coercion.

President Tsai's NSP initiative is aimed at refocusing Taiwanese economic and trade engagement, cultural exchanges, and overall cooperation to 18 partners in South Asia, Southeast Asia, Australia, and New Zealand. Though not explicitly stated, one of the goals of the new policy initiative is to move from an increasingly hostile Mainland China to new, friendlier, cheaper places to do business and to build relationships to replace the recent losses in formal diplomatic allies.

Supposing Mainland China decides to cut off economic ties to the island, Taiwan is in essence taking steps to make sure others in the region are interconnected enough to have increased incentives to support the island. As part of the NSP, the Taiwanese government has assisted in setting up cultural and economic ties and has given incentives to companies that work with the 18 partners identified by the government. In addition, the Tsai administration has created funds for investments and lines of credit for Taiwanese companies looking to do business in NSP countries. So far, the NSP has shown signs of success through increases in Taiwanese investment—economic and cultural—to NSP countries, but it is difficult to measure shifts this large and so soon after the policy announcement.⁵

For the Taiwanese economy, producing or exporting intermediate goods for final production in Mainland China and elsewhere in the region (including the 18 targeted countries mentioned above) is just half of the story—the other half is selling those goods in the United States. Taiwan exported \$42 billion worth of goods to the United States in 2017, up from \$28 billion in 2009.⁶ That makes the United States Taiwan's third-largest

tent/uploads/2016/06/taiwan-trans-pacific-partnership-meltzer-012014.pdf

3. Ibid.

4. Brook Larmer, "Can Vietnam Avoid Getting Hurt in the Crossfire When the Tariffs Are Flying?" *New York Times Magazine*, September 2, 2018, <https://www.nytimes.com/2018/08/29/magazine/can-vietnam-avoid-getting-hurt-in-the-crossfire-when-the-tariffs-are-flying.html>.

5. Hunter Marston and Richard C. Bush, "Taiwan's engagement with Southeast Asia is making progress under the New Southbound Policy," *Brookings OP-ED*, July 30, 2018, <https://www.brookings.edu/opinions/taiwans-engagement-with-southeast-asia-is-making-progress-under-the-new-southbound-policy/>.

6. United States Census Bureau, "Foreign Trade: Trade in Goods with Taiwan," <https://www.census.gov/foreign-trade/balance/c5830.html>.

trading partner after Mainland China and Hong Kong.⁷ Taiwan's economy needs access to the United States, the largest economy in the world, to thrive economically. Exports to the United States are vital to the island and any disruption will have a huge impact.

The election of President Trump in November 2016 shook up global norms on trade. Because of the NSP and other economic incentives to move from Mainland China, Taiwanese businesses seemed readier than their international peers to make changes to their global supply chains, allowing them to be more able to react quickly to the new changing dynamics that came with the election of President Trump. Before his inauguration, and before President Trump made good on campaign promises to place tariffs on Chinese exports to the United States, Foxconn, a large electronics producer headquartered in Taiwan, started talking about establishing a production facility in the United States.⁸ Foxconn announced its plans for an investment of \$10 billion in Wisconsin shortly after Trump entered office and stated that part of its reasoning for doing so was to appease the "made in America" focus of Trump's trade policies.⁹ Foxconn saw the populist rhetoric of President Trump as a major reason to move some production to the United States, and bet that moving to the United States instead of to a NSP country would mean avoiding future tariffs the United States might impose on imported goods. Foxconn's chairman explained, "The biggest challenge we're facing is the United States-Mainland China trade war. In terms of how we manage and adapt, this is something all our high-level managers are making various plans on."¹⁰

Although the NSP initially incentivized Foxconn to search for investment opportunities in new locations, the new U.S. tariffs and new global trade dynamics guided them to the United States. In other words, once Foxconn was already looking outside of Mainland China, the company was well set up to explore investment opportunities in destinations that would be economically beneficial. As a result, the United States became an increasingly attractive destination for a company already incentivized to diversify its assets away from Mainland China.

It took more than a year from his election until President Trump formally announced the tariffs he campaigned on. By September of 2018, the United States had announced tariffs on \$250 billion of Chinese goods, nearly half of all Chinese imports, with a threat to add further tariffs up to \$517 billion if Mainland China retaliates.¹¹ One of the first targets

7. "Trade Statistics," Taiwan Bureau of Trade, Ministry of Economic Affairs, <http://cus93.trade.gov.tw/FSCE000F/FSCE000F>.

8. Cheng Ting-Fang, "Taiwanese companies see 'made in USA' opportunities," *Financial Times*, December 18, 2016, <https://www.ft.com/content/51c6bf70-c2c6-11e6-81c2-f57d90f6741a>.

9. Rick Romell, "Foxconn scales back plans for its first factory in Mount Pleasant," *Journal Sentinel*, June 28, 2018, <https://www.jsonline.com/story/money/business/2018/06/28/foxconn-first-wisconsin-factory-smaller-than-originally-planned/740627002/>.

10. Jess Macy Yu, "Taiwan's Foxconn calls Sino-U.S. trade spat a 'tech war,'" Reuters, June 21, 2018 <https://www.reuters.com/article/us-foxconn-strategy/taiwans-foxconn-calls-sino-u-s-trade-spat-a-tech-war-idUSKBN1JI06H>.

11. David J. Lynch and Danielle Paquette, "President Trump makes good on his threat to target an additional \$200 billion in Chinese imports with tariffs, ramping up the trade war," *Washington Post*, July 10, 2018, https://www.washingtonpost.com/business/economy/president-trump-makes-good-on-his-threat-to-target-an-additional-200-billion-in-chinese-imports-with-tariffs-ramping-up-the-trade-war/2018/07/10/aee91cbc-8489-11e8-8f6c-46cb43e3f306_story.html?utm_term=.391019360e43

and

Paul Wiseman and Martin Crutsinger, "Trump Imposes \$200 Billion in New Tariffs on Chinese Goods," Associated Press, September 18, 2018, <http://time.com/5398938/200-billion-tariffs-china-trump/>.

of U.S. tariffs was Chinese steel imports. When President Trump imposed this round of tariffs in March, he also put tariffs on other steel exporting countries, including Taiwan. Although the tariffs hit their intended target, Mainland China, they hit Taiwan harder. Mainland China only accounted for 2 percent of U.S. steel imports in 2017, but in the same year, Taiwan accounted for 3 percent.¹²

Although the NSP fortuitously positioned Taiwanese companies to react to new global trade dynamics, with the U.S. tariffs, Taiwan yet again has become caught in the crossfire between the economic superpowers.

Repercussions extend beyond the steel industry, and Taiwanese businesses across sectors now see Trump's tariffs as a threat to their revenue. After the announcement of tariffs on Chinese goods, Formosa Plastics Chairman William Wong said that tariffs are affecting decision-making for new production facilities: "We see the best investment of returns in the United States compared with Mainland China and Taiwan."¹³ Referring to the tariffs put in place by President Trump, Sam Wang, the chief executive of a Taiwanese electronics firm with production in Mainland China said, "A number of businessmen based on the PRC are really worried about the latest development."¹⁴

Taiwanese semiconductor manufacturers will be particularly hurt by U.S. tariffs.¹⁵ Semiconductor producers are a major part of the Taiwanese economy, and the United States is targeting semiconductors among other goods subject to tariffs from Mainland China.¹⁶ Production of key components occurs in Taiwan, but assembly takes place using lower-skilled workers in Mainland China. The final product is exported globally from there, and is therefore subject to U.S. tariffs on Mainland China.

To avoid these tariffs, companies are being forced to change supply chains to move production and assembly from the PRC and prepare for profit-erasing tariffs that might be added in the future. This sounds easier than it really is. Such changes require long-term investments in factories, staff, equipment, and in managing changing global supply chains, shipping logistics, and production times. The disruptions in output do not factor in the resources needed from the C-suite in the decision-making process for new shifts and in making new deals and logistical plans. Business leaders in Taiwan are facing huge shifts in costs, from President Trump's tariffs to incentives from the Taiwanese government and from foreign governments nudging their own investments to certain countries. These changing factors require constant attention and a gamble on what the future business operating environment will look like—not just in two or five years, but in coming decades.

12. Riley Walters, "Taiwan Caught in the Middle of the U.S.-China Trade Tiff," *Diplomat*, April 24 2018, <https://thediplomat.com/2018/04/taiwan-caught-in-the-middle-of-the-u-s-china-trade-tiff/>.

13. Cheng Ting-Fang, "Taiwan's Formosa says US is best investment spot," *Nikkei Asian Review*, March 6, 2018, <https://asia.nikkei.com/Asia300/Taiwan-s-Formosa-says-US-is-best-investment-spot>.

14. Lawrence Chung, "US-China trade war threats prompt Taiwan firms to consider moving away from mainland," *South China Morning Post*, July 4, 2018, <https://www.scmp.com/news/china/diplomacy-defence/article/2153727/us-china-trade-war-threats-prompt-taiwan-firms-consider>.

15. Song Jung-a and Edward White, "Collateral damage predicted from US-China trade war," *Financial Times*, July 12, 2018, <https://www.ft.com/content/374e899e-8592-11e8-96dd-fa565ec55929>.

16. "USTR Issues Tariffs on Chinese Products in Response to Unfair Trade Practices," Office of the United States Trade Representative: Executive Office of the President, June 20, 2018, <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2018/june/ustr-issues-tariffs-chinese-products>.

The CEO for Taiwan-based Advantech sees Trump as a long-term trend: “We expect the trade frictions between the United States and Mainland China to stay for the next five to eight years, which after all drives a mega-trend that multinational companies need to rethink their sourcing strategy.”¹⁷ More Taiwanese companies are announcing large investments in the United States or have said they are exploring large projects that would be U.S.-based, including Quanta Computer, Pegatron, and Formosa Plastics.¹⁸ Taken together, these are notable shifts not to countries of the NSP, but rather steps to maintain tariff-free access to the world’s largest economy.

Just as it is hard to measure the shifts from the NSP since its inception in 2016, it is even harder to know for sure how the recent U.S. tariffs on Mainland China are shifting multinational Taiwanese business investments at a macro level so soon after President Trump’s election—and even sooner after the tariffs on Mainland China. What leaders of large Taiwanese businesses are saying is that they are moving production to the United States because of Trump, and they are following this up with investments. Although trends currently are only anecdotal, it is clear that companies are worried that today’s populist tendencies in the United States will reshape global trade for more than just the next few years.

But for Taiwan, there is a silver lining: in the end, these long-term moves by Taiwanese businesses away from the PRC, coupled with the NSP incentives, will help Taiwan turn the tide of economic dependence on Mainland China. Taiwanese businesses, already primed by the NSP to move away from Mainland China, see the populism of President Trump as the new normal, and they are making long-term decisions to account for future economic conditions affecting production. The more Taiwan is economically intertwined with its neighbors to the south, and with the United States, and the less dependent it is on Mainland China, the more likely it is to have friends that will stand up for it diplomatically and be less vulnerable to aggression by Mainland China.

17. Cheng Ting-Fang and Lauly Li, “Made in USA’ push is here to stay: Taiwan tech giant,” *Nikkei Asian Review*, August 6, 2018, <https://asia.nikkei.com/Economy/Trade-War/Made-in-USA-push-is-here-to-stay-Taiwan-tech-giant>.

18. Lauly Li, “Quanta mulls more US and Europe output amid China trade spat,” *Nikkei Asian Review*, August 8, 2018, <https://asia.nikkei.com/Business/Companies/Quanta-mulls-more-US-and-Europe-output-amid-China-trade-spat>; Lauly Li and Cheng Ting-Fang, “Apple suppliers wary of trade war,” *Nikkei Asian Review*, March 27, 2018, <https://asia.nikkei.com/Asia300/Apple-suppliers-wary-of-trade-war>; Cheng Ting-Fang, “Taiwan’s Formosa says US is best investment spot,” *Nikkei Asian Review*, March 6, 2018, <https://asia.nikkei.com/Asia300/Taiwan-s-Formosa-says-US-is-best-investment-spot>.

The Implications of Taiwan's Growing Media Challenges

By Brandon Tensley

In many parts of Asia—and, truly, the world—democracy is more of an ambition than a reality. But not so in Taiwan. Despite the nation's diminutive clout on the international stage, for decades it has been seen as a paragon of how to build and nourish democratic norms, having dragged itself out of a period of political torpor that lasted for more than 30 years.¹

Recently, however, press freedom in Taiwan has become increasingly tenuous. In June 2018, lawmakers of the ruling Democratic Progressive Party proposed criminalizing the spread of fake news with jail time (up to three days) or a fine (up to NT\$30,000). Of the proposal, which would amend the Social Order Maintenance Act, Robert Mahoney, the deputy executive director of the Committee to Protect Journalists, said, "In a true democracy the government doesn't get to decide what is news and what isn't. Parliament should resist the temptation to criminalize reporting that officials dislike and show its commitment to Taiwan's vital free press."² In other words, it's uncertain that alterations to the Social Order Maintenance Act would solve the problem of fake news—and it's even less certain that this amendment wouldn't generate new, potentially equally serious, challenges to Taiwanese democracy.

Yet to understand the full scope of how press freedom in Taiwan is at stake, it's necessary to cast a wide gaze, and to investigate three of the primary threats to an open press there: sensationalism that undermines media credibility, Chinese influence that cloaks propaganda as news, and the aforementioned heavy-handed government efforts to rein in these two prior abuses that may have the effect of re-instituting a milder form of the media censorship Taiwan experienced decades ago—and that is ultimately of a piece with a global assault on factual reporting.

1. Yunze Zhao and Ping Sun, *A History of Journalism and Communication in China* (New York: Routledge, 2018), 112.

2. "Taiwanese Lawmakers Propose Criminalizing Spread of Fake News," Committee to Protect Journalists, June 13, 2018, <https://cpj.org/2018/06/taiwanese-lawmakers-propose-criminalizing-spread-o.php>.

A History of Warped Media

Taiwan is no stranger to media control. This was especially true during its era of martial law, which lasted from 1949 to 1987. As the scholars Gary D. Rawnsley and Ming-Yeh T. Rawnsley describe it, pre-democratic Taiwan, although it had more freedom than rigidly authoritarian regimes, was beleaguered by “a system of media ownership that privilege[d] the regime and embed[ded] the media within the state structure under centralized management.”³ What, specifically, did this arrangement look like? In the authors’ own words, the then-ruling Kuomintang (KMT) government—under the leadership of Chiang Kai-shek and, later, his son Chiang Ching-kuo—created a “labyrinthine patron-client network,” which meant that there was no genuine separation of ownership along party, government, and military lines. Put another way, the KMT pulled the strings of the state in ways both subtle and overt, and one of its most crucial weapons was the legal media industry, which was run by the party, media moguls sympathetic to the party, and journalists who were coerced into reporting only what the KMT wanted to hear.

The government also controlled the media by removing legal protections for publications via a litany of “press restrictions,” as the scholars Yunze Zhao and Ping Sun chart.⁴ For instance, the Law on Publications—passed in 1952 and not repealed until more than five decades later, in 1999—allowed the government to shutter newspapers without judicial process. This trampling of press freedom could be seen in other ways, too, including in limitations on the launch and layout of newspapers and in rules on where papers could be disseminated. G. Rawnsley and M. Rawnsley write that these laws had devastating effects on media pluralism, as “these measures combined to form a comprehensive press ban policy in 1951 that prevented the further issue of licenses and thus froze until 1987 the number of titles in circulation to a mere 31.”⁵

Democracy’s Obstacles

It’d be rash, though, to relegate Taiwan’s media problems to its censorship regime. After the period of party-controlled media ended in 1987, private journalism flourished; by 1997, there were more than 5,000 registered newspapers in Taiwan, compared to the fewer than 200 magazines that were published there before 1980.⁶ But by the new millennium, ballooning competition among publications had profoundly changed the media environment, and made it among the most sensationalist in Asia—an issue that has persisted in subsequent years. Describing journalists’ gonzo-style approach, the writer Mark Magnier writes that “in a region [Asia] where print and broadcast reporters are often de facto cheerleaders for governments and billionaires, Taiwan’s no-holds-barred journalism is alternately seen as a gutsy check on authority and the embodiment of chaos.”⁷ Some observers see Taiwanese journalists’ at times erratic behavior as little more than the generally harmless growing pains of liberalization:

3. Gary D. Rawnsley and Ming-Yeh T. Rawnsley, “The Media in Democratic Taiwan,” in *Taiwan Since Martial Law: Society Culture, Politics, Economy*, ed. David Blundell (Berkeley, CA, and Taipei: University of California, Berkeley, and National Taiwan University Press, 2012), 399.

4. Zhao and Sun, *A History*, 114.

5. G. Rawnsley and M. Rawnsley, “Democratic Taiwan,” 401.

6. Zhao and Sun, *A History*, 113.

7. Mark Magnier, “They Can’t Handle the Truth,” *Los Angeles Times*, February 28, 2005, <http://articles.latimes.com/2005/feb/28/world/fg-hounds28>.

with more competitors, publishers must find ways to secure audiences—no matter how cavalier the approach.

But others see this stylistic penchant as symptomatic of something far more severe: yellow journalism. “The [present-day] media are intruding ever more enthusiastically into the private lives of politicians and other celebrities, while the victims (and even perpetrators) of crimes and their bereaved families are paraded nightly on television with little sensitivity,” G. Rawnsley and M. Rawnsley argue. They continue: “This has led to accusations of ‘trial by media’ before cases have even reached the courtroom.”⁸ Indeed, woven into this tension is a distinct kind of irony: a long overdue, but now potentially overdone, redefinition of free expression in Taiwan.

The island nation’s media issues extend beyond finding a balance between honest reporting and good taste. In April 2018, Reporters Without Borders, an international press-freedom organization, made the case that “the main threat to [Taiwan’s] media freedom comes from China, which has been exerting growing economic and political pressure on the Taiwanese media.”⁹ In particular, some privately-owned media companies, facing pressure from the mainland, have brought their editorial stances in line with the Chinese Communist Party (CCP). In turn, the information from certain publications—such as the *China Times*, which in 2008 was purchased by the Beijing-friendly Want Want Group—often doesn’t differ much from standard-issue CCP propaganda.

This dynamic has been fueled at least in part by the cross-Strait relationship itself. The political scientist Chien-Jung Hsu argues that when former president Ma Ying-jeou took power in 2008, the Chinese government used a corrosive mixture of three specific strategies—“greater economic control over media outlets, pressure exerted on media owners, and the purchase of influential advertisements”—to bolster its media presence in Taiwan, while also suffocating press freedom there.¹⁰ In that light, China’s attempts at media appropriation—in Taiwan, absolutely, but also across the planet—should alarm anyone concerned with protecting democratic norms.¹¹

A Growing Global Crisis

In recent years, the tabloid-like tenor of the Taiwanese media and China’s cross-Strait maneuvering to chip away at press freedom have become increasingly well-documented by observers. In Western media, issues of this sort, as well as efforts to fight them, are often viewed in relation to Russia and its attempts to interfere in U.S. and European politics. But this isn’t just a Western problem. Rather, it’s global. As a result, it’s important to take stock of how other countries have tried—and, frequently, have failed—to address these challenges.

Taiwan is one such place to look. Lawmakers’ proposal in June 2018 to add a clause to the Social Order Maintenance Act aims to expand Article 63—which already punishes anyone

8. G. Rawnsley and M. Rawnsley, “Democratic Taiwan,” 398.

9. 2018 World Press Freedom Index, Reporters Without Borders, April 25, 2018, <https://rsf.org/en/taiwan>. The index ranks 180 countries, based on the evaluation of “pluralism, independence of the media, quality of legislative framework, and safety of journalists in each country.”

10. Chien-Jung Hsu, “China’s Influence on Taiwan’s Media,” *Asian Survey* 54, no. 3 (May/June 2014): 515.

11. Paul Mozur, “China Presses Its Internet Censorship Efforts Across the Globe,” *New York Times*, March 2, 2018, <https://www.nytimes.com/2018/03/02/technology/china-technology-censorship-borders-expansion.html>.

found guilty of “spreading rumors in a way that is sufficient to undermine public order and peace”—by also penalizing anyone who allegedly spreads fake news online with prison or a fine.¹² Although it’s as yet unclear what authority will do the evaluation, the implications of the proposed amendment are already concerning. Fake news is, in a sense, somewhat easy to spot: it’s something that is published without facts. (Recall the anti-LGBTQ messages that permeated social media platforms ahead of Taiwan’s November 2018 vote on same-sex marriage.)¹³ The danger of a fake news law, then, lies in its potential to be used for political purposes—to shut down dissent and prevent unpopular opinions from being aired. (As the announcement from the Committee to Protect Journalists makes clear, politicians in Taiwan do occasionally sue “political commentators and media personalities” on charges of libel.)¹⁴

Of course, Taiwan is hardly the only nation in Asia wrestling with what to do about fake news, and determining whose job it is—governments, tech companies, or other entities—to do it. For instance, in April 2018, India’s Ministry of Information and Broadcasting declared that it would begin penalizing alleged spreaders of fake news. Journalists were up in arms, believing that this move may be used as a political weapon against them or people who publish unflattering stories about the government. Fortunately, it took less than 24 hours for Prime Minister Narendra Modi’s government to bow to substantial public backlash and to do a U-turn on the issue.¹⁵

A recent case from Malaysia supports the validity of these concerns. There, the government, also in April 2018, hastily approved a bill regulating fake news—the first of its kind in the world—which includes prison time for the publication of stories deemed false. By the end of the month, that law—the Anti-Fake News Act—had claimed its first victim: Salah Salem Saleh Sulaiman, a Danish citizen whom a court had convicted of inaccurately criticizing the Malaysian police. (The charge against Sulaiman claimed that he had, “with ill intent, published fake news through a video on YouTube.”) Although Malaysia’s government insists that the legislation protects against the ills of disinformation campaigns, critics argue that, to the contrary, it’s intended to squelch free speech, especially if that speech is critical of people in power.¹⁶

In all that is a warning for Taiwan: the over-broad latitude of fake news laws can harm press freedom. In ways obvious and oblique, the kind of thinking that tends to support these laws often takes the form of attacks on the need for people to freely speak their minds. Take U.S. president Donald Trump. To him—someone who routinely disregards facts, who has a penchant for relaying unverified information—fake news doesn’t consist of factually inaccurate reports, but, instead, of information he finds disagreeable. And although the United States’ First Amendment and politically-insulated courts ensure that

12. “Taiwanese Lawmakers Propose Criminalizing Spread of Fake News,” Committee to Protect Journalists, June 13, 2018, <https://cpj.org/2018/06/taiwanese-lawmakers-propose-criminalizing-spread-o.php>.

13. Isabella Steger, “How Taiwan Battled Fake Anti-LGBT News Before Its Vote on Same-Sex Marriage,” Quartz, November 22, 2018, <https://qz.com/1471411/chat-apps-like-line-spread-anti-lgbt-fake-news-before-taiwan-same-sex-marriage-vote/>.

14. In January 2018, the high court found the media personality Clara Chou was found guilty of having defamed former president Ma Ying-jeou and had to spend 50 days in jail or pay a fine of NT\$50,000.

15. Kai Schultz and Suhasini Raj, “India’s ‘Fake News’ Crackdown Crumbles Over Journalists’ Outrage,” *New York Times*, April 3, 2018, <https://www.nytimes.com/2018/04/03/world/asia/india-fake-news.html>.

16. Reuters, “First Person Convicted Under Malaysia’s Fake News Law,” *Guardian*, April 30, 2018, <https://www.theguardian.com/world/2018/apr/30/first-person-convicted-under-malysias-fake-news-law>.

Trump's anti-media rhetoric remains exactly that, it nonetheless has become a lightning-rod issue for free press advocates around the world.¹⁷

Taiwan doesn't have the worst independent news media landscape. According to Freedom House, a U.S. think tank, there's a planet-wide attack on press freedom.¹⁸ A recent *Economist* analysis of Freedom House data commented that the "deterioration has come from all quarters: Vladimir Putin has so thoroughly throttled the Russian media that Freedom House's scorers rated Venezuela freer," and that a "free press is increasingly becoming a luxury limited to the West."¹⁹ In short, everything everywhere has its challenges, and in a region where most countries are regularly buffeted by draconian laws and practices specifically crafted to shrink the power of the press, Taiwan stands out as a bright spot. All the more reason, then, to take its own drift toward greater press censorship seriously: muzzling the media, even mildly, would only reverse the substantial democratic progress it has made over the past several decades.

17. Andrew Roth, "‘Not Welcome’: Finnish Protesters Criticise Trump-Putin Summit," *Guardian*, July 15, 2018, <https://www.theguardian.com/world/2018/jul/15/not-welcome-finnish-protesters-criticise-trump-putin-summit>.

18. "Freedom in the World 2018: Democracy in Crisis," Freedom House, June 2018, <https://freedomhouse.org/report/freedom-world/freedom-world-2018>.

19. "The Global Slump in Press Freedom," *Economist*, July 23, 2018, <https://www.economist.com/graphic-detail/2018/07/23/the-global-slump-in-press-freedom>.

Expanding the Ranks

Taiwan's SME Succession Planning and Pathways to Leadership in Manufacturing for Taiwanese Youth

By Lisa Reijula

Taiwan is confronting an issue familiar to workforce developers: job seekers with skill sets that do not match open positions and the industries that need workers. Taiwan has a glut of university graduates who are looking for jobs in offices, not factory floors. Since the early 2000s, universities with four-year degree programs have proliferated, and two-year technical and vocational schools have faded in popularity. Taiwan also faces a brain drain of young workers who are enticed by job prospects in mainland China. As in all societies, Taiwanese youth need to feel they have career opportunities in diverse and growing industries. At the same time, family-owned small and medium-sized enterprises (SMEs) that are the traditional backbone of the Taiwanese economy are facing their own demographic conundrum—how to sustain the business after the founder retires without a succession plan in place.

To revitalize family-owned SMEs, the government and business community should partner to promote both career pathways to manufacturing management for young people and their eventual leadership of manufacturing firms. For young job seekers, manufacturing can offer the appeal of a steady career, development of valuable hard and soft skills, and depending on the company, the opportunity to utilize high-tech, advanced manufacturing technologies. Taiwan's public and private sector also should collaborate to prioritize succession planning for SMEs and promote the idea of opening management to a new generation. To engineer this shift, the government and business community should connect SMEs with qualified advisors, financial resources, targeted assistance, and publicize stories of successful transitions to new ownership at small businesses.

Struggle for SME Sustainability

Small and mid-sized enterprises are the bedrock of Taiwan's economy, accounting for nearly 80 percent of total employment in Taiwan and 30 percent of total sales in 2017.¹

1. Small and Medium Enterprise Administration, Ministry of Economic Affairs, *2018 White Paper on Small and*

Largely responsible for the export-oriented economic boom of the 1980s, these enterprises typically produce components for larger manufacturers in the electronics industry.² Ten percent of Taiwanese small businesses are manufacturers, employing 25 percent of the total workforce employed at SMEs.³

Small manufacturers face a major labor shortage as well as an aging workforce. According to the Chung-Hua Institution for Economic Research, each year Taiwan's manufacturers need 100,000 workers, despite the addition of some 424,000 foreign laborers from Southeast Asia as part of the New Southbound Policy.⁴ The Taiwanese government projects the greatest demand in SME labor to be in the manufacturing sector.⁵

Despite competitive salaries and open positions, young Taiwanese are not attracted to manufacturing. Many parents do not want their children to pursue it as a career, preferring they attend a university and obtain a degree that will lead to a more prestigious profession. Manufacturing factories are often perceived as dirty, cluttered, and old-fashioned. A stigma against manufacturing persists, which coupled with fewer vocational and training institutions, results in lower numbers of young people choosing manufacturing as a career.

In addition to a shortage of skilled workers, companies in Taiwan are facing a demographic crisis in leadership. Most small businesses (some 60 percent) are still run by their founder.⁶ Leaders of Taiwanese companies are often over the age of 60.⁷ The majority of small manufacturers look to the next generation of family members for company leadership. 75 percent of SMEs in Taiwan pass leadership to the founder's heir or another family member.⁸ Few SMEs (20 percent) look outside familial ties for managerial talent.

Most SME manufacturers have not engaged in succession planning. In fact, only about one-third of companies have a formal succession plan.⁹ Leaders of Taiwanese SMEs fail to pursue succession planning for any number of reasons—automatic default to family member as a new leader, reluctance to confront one's own mortality and the need to develop a new leader, a more informal and highly individualized/idiosyncratic management system and culture, or lack of time and resources to commit to planning.

Medium Enterprises in Taiwan (Ministry of Economic Affairs, November 2018), iii, <https://www.moeasmea.gov.tw/lp.asp?ctNode=307&CtUnit=36&BaseDSD=7&mp=2>. In 2017, SMEs employed 8,904,000 people in Taiwan, which is 78.44 percent of all employed persons.

2. *Ibid.*, 43. "An SME is defined as an enterprise with less than 200 regular employees in mining and quarrying, manufacturing, and construction industries, or an enterprise with less than 100 regular employees in other industries."

3. *Ibid.*, 43. "In terms of industries, the number of employed persons working in SMEs in the manufacturing industry in 2017 stood at 2,218,000, accounting for 24.91 percent of all SME employed persons."

4. Timothy Ferryon, "Taiwan Competes for Talent and Manpower," *Taiwan Business TOPICS*, April 18, 2018, <https://topics.amcham.com.tw/2018/04/taiwan-competes-for-talent-and-manpower>.

5. Small and Medium Enterprise Administration, Ministry of Economic Affairs, *2018 White Paper on Small and Medium Enterprises in Taiwan*, 57.

6. Cindy Sui, "The Tricky Business of Succession Planning in Taiwan," *BBC News*, July 30, 2014, <https://www.bbc.com/news/business-28520234>.

7. Keith Menconion, "Confronting the Corporate Succession Issue," *Taiwan Business TOPICS*, September 13, 2017, <https://topics.amcham.com.tw/2017/09/confronting-the-corporate-succession-issue/>.

8. Claudio Fernández-Aráoz, Sonny Iqbal, and Jörg Ritter, "Why Family Firms in East Asia Struggle with Succession," *Harvard Business Review*, March 24, 2015, <https://hbr.org/2015/03/why-family-firms-in-east-asia-struggle-with-succession>.

9. Sui, "The Tricky Business of Succession Planning in Taiwan."

There are consequences, both existential and financial, for SMEs that do not consider succession-planning options. Joseph Fan of the Chinese University of Hong Kong studied the market value of 250 family-run companies in Taiwan, Hong Kong, and Singapore and determined that the eight years surrounding a CEO succession were financially turbulent, with an average loss of wealth/financial value of 60 percent.^{10 11} Many companies do not survive past the death or retirement of their founder. Data analysis of SMEs by the Taiwanese government found that only a quarter of Taiwan's SMEs have been in business for more than 20 years, compared to 46 percent of large enterprises.¹² This demonstrates the existential difficulty that succession poses to small businesses. The government report also cited the need for new ideas at traditional SMEs, noting significant sales declines at SMEs in existence for 20 years or more, describing the failure to innovate as "the crisis of the elderly age."¹³ As the retirement of their founder looms for more Taiwanese SMEs, the possibility of widespread closure of SMEs would be devastating, considering their role as major employers and engine of the Taiwanese economy.

The Opportunity

The pressures on the Taiwanese economy are intense, ranging from depressed wages to a brain drain of talent lured to mainland China by higher salaries and management opportunities. There is, however, a promising opportunity to connect two of the demographic and labor challenges facing Taiwanese society: building management pathways to new leadership of existing SMEs and promoting this opportunity to young people in need of a career path.

Policy Recommendations

To innovate, diverse perspectives and new entrepreneurial talent should be brought into SMEs that need leadership transition from their original founder. To attract young people to careers in small manufacturing firms, pathways for young people interested in ownership and management should be developed and formalized.

1) Build a pipeline of talent for future management of manufacturing SMEs.

- Expand manufacturing apprenticeships and build a management track: in addition to technical front-line production skills such as machining, engineering, and welding, there should be a route for those interested in management of SMEs that includes on-the-job training. German apprenticeships remain the most-admired standard globally, and often companies offer a front-office or management track in addition to technical or production tracks. Graduates need to see a path to leadership, and the opportunity to own or manage their own company is very attractive to young Taiwanese.
- Improve working conditions and upgrade technology: this will both attract young people and influence their parents, who may think of manufacturing facilities as

10. Fernández-Aráoz, Iqbal, and Ritter, "Why Family Firms in East Asia Struggle with Succession."

11. Joseph P.H. Fan, "The Great Succession Challenge of Asian Business" (presentation) http://www.cuhk.edu.hk/ief/josephfan/doc/public_speech/12.pdf.

12. Small and Medium Enterprise Administration, Ministry of Economic Affairs, *2018 White Paper on Small and Medium Enterprises in Taiwan*, 11.

13. *Ibid.*, 11.

dirty and poorly ventilated, uncomfortable places to work. The Ministry of Economic Affairs provides guidance to SMEs to improve industrial workplace safety and health. However, this effort should be connected to a broader push to publicize the opportunity in manufacturing, which today is a place to apply STEM skills and utilize digital technology.

- Counteract the stigma of manufacturing as a career and vocational training as educational options, which requires engaging with youth, parents, educators, guidance counselors, and early education teachers. In U.S. communities where the sector was hit hard in the Great Recession, education on the benefits of manufacturing careers begins as early as elementary school. A European Commission study on vocational education and training in member countries found that the most successful models are those led by businesses in close cooperation with educational institutions, as those programs were deemed by students and teachers alike to be high-quality and attractive career options.¹⁴

This cultural shift is time-consuming and difficult, especially as programs might start with one company or school and take years to scale up. Workforce programs are often fragmented patchworks that do not reach vulnerable or minority populations that could benefit from the assistance. In both the European Union and the United States, regions have developed industry or sector-based partnerships to marshal the dozens of stakeholders in a particular industry to connect workforce needs at employers with the programs assisting jobseekers.

2) Prioritize succession planning for SMEs and open management to new generation outside of families.

- Normalize succession planning as part of routine company management, and encourage CEOs nearing retirement to consider management talent outside of the family. The bankers, lawyers, and tax accountants who work with SMEs should recommend that companies formalize a succession plan for the long-term sustainability of the business. Instead of defaulting to a family member, companies should look to stay relevant and vital through the addition of dynamic new talent. It is admittedly very difficult for a small, family-owned company that has been run by one individual for the entirety of its existence to relinquish control to someone outside the company. That necessitates a pool of highly qualified candidates with necessary skills and training. The government plays an important role in encouraging and developing this labor pool with financial benefits, resources for training development, and public awareness campaigns with stories of companies that thrived after a leadership transition to a non-family member.

One promising example of such an initiative is in Chicago, where the manufacturing industry also faces an aging workforce, unfilled positions, and lack of succession planning by company management. Up to one-third of SME manufacturers in Cook County, the populous county that encompasses Chicago, lack a formal succession

14. "Business cooperating with vocational education and training providers for quality skills and attractive futures," Directorate-General for Employment, Social Affairs and Inclusion, European Commission, 2017, <http://ec.europa.eu/social/main.jsp?catId=1147&langId=en>.

plan.¹⁵ To prevent what they term a “Silver Tsunami” of massive job losses if these SME manufacturers close without a successor, local economic development partners have developed the Chicago Ownership Conversion Project. Led by the Manufacturing Renaissance, the Chicago Ownership Conversion Project looks to assist manufacturers with succession planning by matching them with a qualified buyer, with a priority on diversifying ownership of companies in local manufacturing. To that end, its leaders plan to develop a pool of potential buyers with particular focus on African-American and Hispanic entrepreneurs.¹⁶ The initiative will also provide financing for the company sale, whether to new owners or current employees, and advise the firm post-sale to ensure its sustainability and vitality.

- Targeted government programs: Taiwan’s public sector leaders must recognize the significant job losses that would result from widespread closure of SMEs because of succession failure, and prioritize their sustainment. The Small and Medium Enterprise Administration under the Ministry of Economic Affairs has a host of technical assistance programs for small and mid-sized businesses, but none devoted to succession planning. The Taiwanese government devotes financial resources to SME assistance; some NT\$27.57 billion in 2017.¹⁷ Given that the majority of SMEs in Taiwan face the issue of how to navigate a successful leadership transition, the government could provide a major service in promoting succession planning as necessary for business survival past the first generation, and in connecting CEOs to advisors, information, and financial resources.¹⁸ Small companies may lack the capital for facilitating a sale to new ownership.¹⁹ The Taiwanese government should explore ways to provide funding or preferential access to capital for SMEs that pursue a succession planning strategy that involves new ownership. Currently, the government provides financing guarantees for SMEs that invest in the southeastern Asian countries that are part of the New Southbound Policy. The New Southbound Policy also addresses workforce challenges by helping young people from Southeast Asia come to Taiwan to work and attend university. However, the policy does not place workers from Southeast Asia on a track to manage manufacturing companies, as they are limited to working in Taiwan’s manufacturing industry for 12 years.²⁰ This labor pool could be a potential source for management talent if the 12-year limitation was lifted or waived for candidates.

15. Dan Swinney, “The Chicago Ownership Conversion Project: Transition to Transformation,” Manufacturing Renaissance, December 10, 2017, https://docs.wixstatic.com/ugd/a1c52b_3615c085664346c392a030b6d038a4fb.pdf.

16. Swinney, “The Chicago Ownership Conversion Project.”

17. Small and Medium Enterprise Administration, Ministry of Economic Affairs, *2018 White Paper on Small and Medium Enterprises in Taiwan*, 90.

18. Tsung-Che Wei, “The Succession and Business Transformation of Taiwanese SMEs to Reactivate the Entrepreneurial Spirit,” AGI Working Paper Series, Asian Growth Research Institute, 2017-06: 1-26. February 2017, <http://id.nii.ac.jp/1270/00000126/>.

19. Claire Bushey, “When suddenly the kids are in charge of dad’s factory,” *Crain’s Chicago Business*, November 26, 2016, <http://www.chicagobusiness.com/article/20161126/ISSUE01/311269991/when-manufacturers-have-no-succession-plan-for-the-family-business>

20. “Manufacturing Jobs,” Direct Hiring Service Center, Labor Development Agency, Ministry of Labor of Taiwan, https://dhsc.wda.gov.tw/en/qualify_3.html.; Workforce Development Agency, “Work Qualifications and Rules for Foreign Workers,” Ministry of Labor of Taiwan, <https://www.wda.gov.tw/en/NewsFAQ.aspx?n=26470E539B-6FA395&sms=0FCDB188C74F69A0>.

Conclusion

The woes that plague Taiwan's workforce development are found in other developed economies, from the United States to Germany. Where Taiwan differs is the severity of the problem: in a scan of workforce needs of 46 countries, Taiwan's mismatch between supply and demand of talent is projected to be the largest by 2021.²¹ Taiwan's demographic challenges necessitate a new approach to workforce development, one that calls for cultural change and an embrace of innovation and new talent in historically traditional and closed environments. Aligning Taiwan's labor market with the industries that need workers and leaders will take considerable time, but there is an intriguing match to be made between young Taiwanese with entrepreneurial spirit and thousands of SMEs in need of leadership talent to sustain their success into the next generation.

21. Oxford Economics, *Global Talent 2021: How the new geography of talent will transform human resource strategies* (Oxford Economics 2012), <https://www.oxfordeconomics.com/Media/Default/Thought%20Leadership/global-talent-2021.pdf>.

Pursuing Citizen-Centric Transitional Justice

Taiwan Truth and Reconciliation Commission

By Nicole Smolinske

More than three decades have passed since martial law was lifted in Taiwan. Addressing the legacy of the period, one marked by the suppression of rights and freedoms across the island, remains a persistent challenge for Taiwan's leaders. The incomplete reconciliation with the past is evident in various ways. Many of the museums and historical sites that recount the nation's rich heritage often gloss over or omit details pertaining to the "White Terror" that lasted from 1949 to 1987. During this period, the ruling Kuomintang (KMT) maintained martial law and violently suppressed political dissidents. When the White Terror came to an end in 1987, many of the KMT's leaders remained in power.

Chiang Ching-kuo, for instance, served the role of both an authoritarian leader and as an initiator of Taiwan's democratic transition.¹ Although Chiang often acted to support and protect the KMT, many of his policies, such as allowing a free press, put Taiwan on a path towards democracy.² His actions were, in a large part, driven by a desire to maintain political stability during Taiwan's democratic transition, which left issues pertaining to past human rights abuses unresolved.

Nonetheless, Taiwan has in recent years made strides in promoting a productive dialogue regarding the White Terror period. President Tsai Ing-wen has pushed for social justice as part of her core domestic agenda and has advanced several transitional justice initiatives. This essay will assess these measures by examining the politicized nature of the recently established Truth and Reconciliation Commission and will discuss the importance of pursuing a citizen-centric approach towards transitional justice.

1. Naiteh Wu, "Transition without Justice, or Justice without History: Transitional Justice in Taiwan," *Taiwan Journal of Democracy*, July 2005: 77-102, <https://www.ios.sinica.edu.tw/ios/people/personal/wnd/TransitionWithoutJusticeOrJusticeWithoutHistory.pdf>.

2. Yang Hengjun, "Chiang Ching-kuo, China's Democratic Pioneer," *Diplomat*, December 10, 2014, <https://thediplomat.com/2014/12/chiang-ching-kuo-chinas-democratic-pioneer/>.

A New Democratic Progressive Party Majority

For the first time in Taiwan's history, the Democratic Progressive Party (DPP) won both the presidency and a majority in the Legislative Yuan (LY) in January 2016.³ President Tsai Ing-Wen set a tone of reconciliation during her inaugural address. In particular, she emphasized the need for Taiwan to confront past wrongdoings and address them through official mechanisms.⁴ President Tsai stated that “the goal of transitional justice is to pursue true social reconciliation, so that all Taiwanese can take to heart the mistakes of that era” and “discover the truth, heal wounds, and clarify responsibilities.”⁵

To support these goals, the Tsai administration passed transitional justice legislation.⁶ The Office of the President tasked the Transitional Justice Commission with investigating the events from the authoritarian era and publishing an internal investigative report. The nine members of the commission possess the power to investigate past legal cases, recover and declassify political archives, re-channel ill-gotten party assets, and remove authoritarian symbols and reminders while promoting reconciliation.⁷ The primary goal of the commission addresses human rights abuses, and President Tsai hopes that airing historical grievances will “no longer divide Taiwan” but will instead “propel Taiwan forward.”⁸ The commission also will examine the past treatment and ongoing integration of indigenous persons.

Political Party Legacies and Transitional Justice

Both the KMT and the DPP wrestle with the legacy of the authoritarian period, albeit in different ways. The DPP has long called for more robust transitional justice measures, but without a majority in the LY, it had been unable to make substantial progress. Through establishing the commission, the DPP seeks to address the issues inherited from Taiwan's authoritarian past.

Although the DPP's stated goal is to confront the legacy of the White Terror period, their actions have been viewed by some as politically motivated. For example, one of the most controversial pieces of legislation supported by the DPP is the ill-gotten party assets committee, which is charged with reviewing the assets gained by political parties and affiliated organizations before the lifting of martial law. The KMT views the committee as an avenue to target KMT funds whereas the DPP sees it as a way to even the financial playing field so that political parties can compete in free and fair elections.

3. Sean O'Connor and Ethan Meick, “Taiwan Opposition Party Wins Presidency and Legislative Majority in Historic Elections,” U.S.-China Economic and Security Review Commission. January 28, 2016, https://www.uscc.gov/sites/default/files/Research/Taiwan%27s%20Elections%20Issue%20Brief_0.pdf.

4. Office of the President, Republic of China (Taiwan). “Inaugural address of ROC 14th-term President Tsai Ing-wen.” news release, May 20, 2016, <https://english.president.gov.tw/NEWS/4893>.

5. Ibid.

6. In August 2016, the LY passed the Act on Governing the Handling of Illegally Seized Assets by Political Parties and Their Affiliated Organizations and established the Ill-gotten Party Assets Settlement Committee. On December 5, 2017, the LY passed the Act on Promoting Transitional Justice, which established the Truth and Reconciliation Commission.

7. Yi-Li Lee, “A Reflection on The Passage of The Act on Promoting Transitional Justice (Part 3),” *The Global Taiwan Brief* 3, Issue 22, http://globaltaiwan.org/2018/11/vol-3-issue-22/?fbclid=IwAR1iTiNeKQdxDaZGlpwXw49rXiiD-B6GGgEmjLliQVvuR_LKxvBGHwrsU4#Yi-LiLee11142018.

8. Office of the President, Republic of China (Taiwan), “Inaugural address of ROC 14th-term President Tsai Ing-wen.”

The KMT has resisted the efforts of the Truth and Reconciliation Commission. Many from the KMT see the commission as a political vendetta and a tool to diminish the KMT's reputation. The KMT asserts that since the inquiries were commissioned by President Tsai and not initiated via a political process or with a clear public consensus, the commission operate outside the judicial system.

In July 2018, the KMT rejected an invitation to send a representative to the commission meeting and did not recommend a representative to serve as a consultant on the commission, going so far as to suggest the commission itself is unconstitutional.⁹ On December 10, 2018, KMT legislators disrupted a commission meeting by protesting Yang Tsui's appointment as the acting chairwoman.¹⁰ During the 2018 electoral campaign, KMT candidate (and now New Taipei City mayor) Hou You-yi spoke against the commission saying it “. . . became a certain political party's thug” and is “confused about whether it represents the government or the party.”

The Path toward Citizen-Centered Transitional Justice in Taiwan

Strong democratic institutions require active citizen participation. As Taiwan grapples with its authoritarian history and subsequent reconciliatory activities, citizens also must consider the ways truth, justice, and reconciliation can integrate within everyday society and consciousness. When citizens participate in the transitional justice process, they help fortify democratic norms and Taiwanese identity. Whereas the commission may help advance a more unified narrative of Taiwan's past, citizens and survivors must also help shape a collective memory of past political violence.

Globally, the path toward transitional justice is varied. Trials and punishment after periods of authoritarian rule often focus on individuals rather than on the societal and economic forces that shaped events.¹¹ By contrast, truth commissions can enable a more complete story to emerge while keeping the focus squarely on what needs to be done to move society forward.

Citizens must, nevertheless, remain cognizant of how historical legacies and ideas of justice and reconciliation also might conflict with each other. Historical memory can very quickly become politicized by both political and personal perspectives. Even historical monuments and sites can prove contentious. In Taiwan, for instance, some support revising the Chiang Kai-shek Memorial Hall because many of the symbols and content harken back to painful memories of repression.¹² Other sites across Taiwan are similarly being reconsidered in light of addressing past abuses.

Aging survivors are also pushing for answers while they still live. One such group is the Taiwan Association for the Care of the Victims of Political Persecution. Before the passing of transitional justice legislation, the association's secretary-general Shih You-si spoke

9. Shelley Shan, “KMT rejects Transitional Justice Commission invite,” *Taipei Times*, July 24, 2018, <http://www.taipeitimes.com/News/taiwan/archives/2018/07/24/2003697270>

10. Hsieh Chun-lin and Sherry Hsiao, “KMT members disrupt Transitional Justice review,” *Taipei Times*, December 11, 2018. <http://www.taipeitimes.com/News/front/archives/2018/12/11/2003705892>.

11. Jake Tepperman, “Truth and Consequences,” *Foreign Affairs*, March/April Issue 2002.

12. Stacy Hsu, “Chiang's symbols might not go as quickly as hoped,” *Taipei Times*, December 18, 2017, <http://www.taipeitimes.com/News/taiwan/print/2017/12/18/2003684188>.

against the delays in passing laws, raising concern that the “biggest enemy of transitional justice is time,” citing the more than 30 victims of political persecution that had passed away since the DPP took office and promised legislation.¹³

The important role of survivors in transitional justice was demonstrated when the Taiwan-U.S. Policy Program (TUPP) delegation visited the Jing Mei Human Rights and Cultural Park, a former detention center during the White Terror. The park provides a space for survivors to tell their stories and educate the public. While visiting the park, the TUPP delegates were honored to meet with Fred Chin Him-San. Chin left Malaysia in 1967 to attend university in Taiwan. In March 1971, he was accused of involvement in an explosion at the Tainan American News Agency. After days of torture, he penned a false confession of his involvement in the explosion. After 12 years as a political prisoner, he was released in 1983.¹⁴

Chin emphasized that his story is like that of so many others who were wrongfully imprisoned. Civilians tried under the KMT’s military tribunals remain “guilty” under the law and generally have been unsuccessful in overturning these verdicts years after martial law ended. Although many victims have been offered some form of reparations, they often face the indignity of remaining “guilty” under the law.

At one point during the visit, Chin mentioned that he would like to see the documentation supporting his arrest. He noted that to this day he still has not received his complete records from the government. As evidenced in similar cases across the world, the handling of archives pertaining to human rights abuses and kangaroo courts frequently is a challenge for truth commissions. Presenting a just and fair history of past events entails a delicate balance. Victims call for answers, but it is often the civil servants who were once perpetrators of human rights abuses. The issue is not just how victims reconcile the past but in how society—comprising former perpetrators and victims—moves forward. Although survivors may request these documents as a way of confirming past abuses, the archives may compromise the legacy of individuals, families, and political factions. The Transitional Justice Commission has yet to address this challenge, and its answer will be a crucial aspect of the commission’s impact.

The Transitional Justice Commission is not likely the final chapter in addressing the legacy of the White Terror. Since the 1970s, more than 20 truth commissions have been conducted all over the world. Although the mechanisms and functions vary, one common thread has been that these commissions were designed to produce accountability, air grievances, and give a platform to victims. A holistic approach will best position Taiwan to engage citizens in the process of reconciliation.

Truth commissions present an opportunity to restore agency to those who have had their rights stripped away. Transitional justice offers the opportunity to tell stories that have been buried. Through this process, a nation with a contentious past can collectively build a more unified historical memory. If this is to occur in Taiwan, its leaders must work to ensure the success of the Transitional Justice Commission.

13. Chen Wei-han, “Groups protest shelving of transitional justice bill,” *Taipei Times*, November 17, 2017. Taiwan Association for the Care of the Victims of Political Persecution.

14. Fred Chin Him-San, “Fred Chin Him-San’s Story,” Federation of International Human Rights Museums, June 2013, <https://www.fihrm.org/wp-content/uploads/2017/07/FredChinsstory.pdf>.

Taiwan's Role in Global Ocean Governance

By Scott Moore

Among the world's disputed territories, Taiwan stands apart for its economic significance as the world's twenty-third largest economy and one of its leading trading nations. But there is one area where Taiwan is particularly indispensable: global ocean governance. This distinction arises from the fact that Taiwan is the world's sixth-largest fishing nation by volume and possesses the world's second-most important distant-water fishing fleet, after that of mainland China itself.¹ For Taiwan, participation in Regional Fisheries Management Organizations (RFMOs) moreover represents one of its most important forms of international engagement. The point of this article is that Taiwan can realize significant reputational gains while contributing to sustainable development and pursuing a greater role in global ocean governance. It will depend, however, on U.S. support to do so.

Taiwan's Role in Fisheries Management

Taiwan long has been one of the world's most important fishing nations. Beginning in the 1950s, the Taiwanese government started encouraging the growth of the fishing industry by providing subsidized loans and diesel fuel to fishers, increasing the size of Taiwan's fishing fleet from 1,370 powered vessels in 1949 to nearly 16,000 in 1989.² More significant than the size of Taiwan's fishing industry, however, is its specialization in distant-water fishing, especially for tuna, for which it is the world's leading producer. Taiwan's more than 2,000 distant-water fishing vessels operate throughout the world, including in the waters of 26 countries.³ Each year, this vast overseas fleet catches some 700,000 metric tons of fish, more than 80 percent of

1. "The Campaign for Sustainable Fisheries - Taiwan Declares War on Illegal Fishing." Ministry of Foreign Affairs, May 10, 2018, <https://nspp.mofa.gov.tw/nsppe/news.php?post=133905&unit=410> ; Floa Wang, "Taiwan has world's 2nd-largest distant-water fishing fleet." *Focus Taiwan*. February 23, 2018, <http://focustaiwan.tw/news/asoc/201802230023.aspx>.

2. Shu Man Chang, Shiu Tang Wang, Shmuel Yahalom, and Ming-Tao Chou, "The Taiwan Buyback Policy of Off-shore Fishing Vessels," *Eastern Asia Society for Transportation Studies* (2005): 2405-2417.

3. "Fisheries of the Republic of China (Taiwan)" Fisheries Agency, Council of Agriculture, Executive Yuan, October 29, 2015, <https://www.fa.gov.tw/en/FisheriesofROC/content.aspx?id=2&chk=05d9ffd2-651d-4686-a2d1-a44413152366¶m=pn%3D1>.

which is exported to third countries.⁴ Given its prominence both in catching and exporting fish far beyond its shores, it is evident that Taiwanese participation is essential to any effective effort to improve the sustainability of global fisheries. Yet Taiwan's participation is severely constrained by its disputed status within the international system.

Under the guise of being a “fishing entity” rather than a state party, Taiwan has joined eight RFMOs as of 2015, including most of those established for Pacific waters as well as those for tuna in more distant waters. In most cases, Taiwan's participation in these RFMOs is functionally similar to that of state parties.⁵ In the case of the Western and Central Pacific Fisheries Commission, for example, the only difference between Taiwan and state parties is that it cannot serve as chair or vice-chair and cannot vote to determine the Commission's headquarters or to appoint its executive director.⁶ Taiwan has generally been a constructive participant in RFMOs, implementing such measures as lists of authorized fishing vessels within RFMO areas, vessel monitoring systems, observers on Taiwanese fishing vessels to monitor fishing activity, catch documentation, and assent to the High Seas Boarding and Inspection initiative to support compliance through reciprocal inspections with other RFMO members. These measures have put Taiwan in good standing among RFMOs. In 2010, for example, it was one of only five members to avoid sanction by the International Commission for the Conservation of Atlantic Tuna for poor compliance.⁷ However, in 2015, the European Commission issued Taiwan a “yellow card” for failing to enforce regulations to prevent illegal, unreported, and unregulated (IUU) fishing.⁸

Toward the Future: Fisheries Reform and Taiwan's Role in Ocean Mineral and Energy Development

These allegations proved a considerable embarrassment to Taiwan, which in recent years has increasingly attempted to portray itself as a leader in sustainable development and environmental protection. They have also provided considerable impetus for reform. Since 2016, Taiwan's Fisheries Agency has issued some 17 major regulations, including restricting investment in foreign-flagged fishing vessels, employment of foreign nations, and the issuance of catch certificates to prevent IUU fishing.⁹ These steps have pushed Taiwan to the forefront of efforts to promote more sustainable fisheries management, especially by reducing IUU fishing. Going forward, it is clear that there is considerable scope for Taiwan to contribute to other dimensions of global ocean governance beyond fisheries. Taiwan's Voluntary National Review of Implementation of the United Nations

4. “Fisheries Policy,” Fisheries Agency, Council of Agriculture, Executive Yuan, June 27, 2018, <https://www.fa.gov.tw/en/FisheriesPolicy/index.aspx>.

5. Dustin Kuan-Hsiung Wang, “Taiwan's Participation in Regional Fisheries Management Organizations and the Conceptual Revolution on Fishing Entity: The Case of the IATTC,” *Ocean Development and International Law* 37, no. 2 (2006): 209-219.

6. Kimberly Hsu, *Taiwan's Global Fisheries Modestly Advance its “International Space”* (Washington, DC: U.S.-China Economic and Security Review Commission, 2015).

7. “Information of Deep Sea Fisheries,” Fisheries Agency, Council on Agriculture, Executive Yuan, May 4, 2012, <https://www.fa.gov.tw/en/DeepSeaInfo/index.aspx>.

8. Trevor Sutton and Avery Siciliano, “Making Reform a Priority for Taiwan's Fishing Fleet,” Center for American Progress, January 8, 2018, <https://www.americanprogress.org/issues/security/reports/2018/01/08/444622/making-reform-priority-taiwans-fishing-fleet/>.

9. “Fisheries Policy.”

Sustainable Development Goals, for example, notes a number of other pressing issues concerning the oceans, including plastic pollution.¹⁰

More exotic facets of ocean policy and governance may be of even greater relevance to Taiwan. A distinctive characteristic of the island's geography is the extreme depth of its surrounding waters, which can plunge to 500 meters just a few kilometers offshore. This vertical profile could provide Taiwan with an advantage in the emerging deep-ocean water industry, which exploits the mineral-rich waters found at depth to improve industrial processes and manufacture new consumer products, including cosmetics.¹¹ In addition, Taiwan's coastal geography is favorable for both tidal and offshore wind energy development, creating the possibility for Taiwan to be a world leader in ocean renewable energy development.¹² Because of its geography, Taiwan would seem to be a natural leader in developing the global policy and governance framework to support these emerging ocean resource issues.

However, the experience of Taiwan's participation in global fisheries management indicates that it will require assistance to assume a leadership role. Taiwan's accession to regional fisheries agreements and its participation in RFMOs have generally been possible only because of support from its diplomatic allies and the United Nations. Its involvement in the Western and Central Pacific Fisheries Commission and the Inter-American Tropical Tuna Commission, for example, relied on the support of its diplomatic allies in the Pacific and Latin America, respectively.¹³ The United States also supports Taiwan's participation in regional fisheries agreements and RFMOs under a Memorandum of Understanding (MOU) on fisheries and agriculture which obliges it to help Taiwan "participate equitably in global, regional and sub-regional fisheries organizations."¹⁴ Taiwan's unique status in the international system nonetheless has made it difficult for it to join new regional fisheries agreements, and sometimes to enhance its participation in existing ones.¹⁵ Without continued support from its partners, especially the United States, Taiwan is unlikely to be able to expand its role in global ocean governance.

Conclusion

As one of the world's most important fishing nations, Taiwan has attempted to participate in regional fisheries agreements and organizations as a means of enhancing its own legitimacy, while also taking significant steps to make its fisheries more sustainable. Yet prospects for Taiwan to enhance its role in global ocean governance remain constrained by its disputed international status. At the same time, Taiwan's geography makes it a

10. "Taiwan's Voluntary National Review: Implementation of the UN Sustainable Development Goals," Executive Yuan, September 2017, <http://www.roc-taiwan.org/%2Fuploads%2Fsites%2F104%2F2017%2F09%2FTaiwan-VNR.pdf>.

11. Ta-Kang Liu, Hwung-Hweng Hwung, Jin-Li Yu, and Ruey-Chy Kao, "Managing deep ocean water development in Taiwan: Experiences and future challenges," *Ocean & Coastal Management* 51, no. 2 (2008): 126-140.

12. Yu-Hsien Lin and Ming-Chung Fang, "The assessment of ocean wave energy along the coasts of Taiwan," *China Ocean Engineering* 26, no. 3 (2012): 413-430; Hsin-Fa Fang, "Wind energy potential assessment for the offshore areas of Taiwan west coast and Penghu Archipelago" *Renewable Energy* 67 (2012): 237-241.

13. Hsu, *Taiwan's Participation*.

14. "Memorandum of Understanding," American Institute in Taiwan, June 6, 2013, <http://www.ait.org.tw/%2Fwp-content%2Fuploads%2Fsites%2F269%2F2016%2F12%2F20130618-mou-cooperation-in-fisheries-and-aquaculture.pdf>

15. Zoe Scanlon, "Incorporating Taiwan in International Fisheries Management: The Southern Indian Ocean Fisheries Agreement Experience," *Ocean Development & International Law* 48, no. 1 (2017): 35-51.

natural leader in developing ocean resources apart from fisheries, and if it can sustain the support of the United States and other partners, presents it with a compelling path to bolster its standing in the international community while further contributing to global sustainable development.

To realize this promise, Taiwan should take a number of steps. First, it should continue to strengthen its national legislation to become an undisputed leader in tackling issues like IUU fishing, marine plastics pollution, and the creation of Marine Protected Areas (MPAs). Second, drawing on this progress, Taiwan and the United States should initiate a dialogue on ocean governance that could seek to broaden the existing MOU to include ocean minerals and energy development, engaging other like-minded countries as appropriate. Third, and perhaps most importantly, Taiwan should highlight its efforts to promote responsible and sustainable ocean governance through increased public diplomacy, including advertising campaigns and through partnerships with international non-governmental organizations. Given that territorial disputes threaten the environment in both the South China Sea and Sea of Japan, such efforts might eventually present an alternative to conflict, thereby bolstering the security of all claimants.

The views and opinions expressed in this article are solely those of the author.

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