



Building Global Business

Defense Industry Overview

Taiwan October 2023



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01 Executive Summary



Executive Summary

- The defense industry is one of the heavily invested industries in Taiwan. The defense budget has increased by 10% CAGR from 2019 to 2024 and the defense budget as a percentage of GDP has risen from 2 to 2.5% over the last 6 years.
- The United States is the major arms exporter to Taiwan. The amount of U.S. arms sales notified to Congress was US\$ 2.14bn in 2022 and US\$ 1.56bn as of Oct. 2023.
- Strengthening fundamental and asymmetric capabilities is the primary focus of Taiwan's recent armed force buildup, such as upgrading and purchasing tanks, fighter jets, vessels, unmanned aerial vehicles, etc.
- Primary entry route for major arms U.S. companies is via Foreign Military Sales (FMS) track, i.e., Government-to-Government sales channel.
- Selling arms directly to the Taiwan military and indirectly through the U.S. Government and partnering with local companies are the suggested market entry routes for SMEs.

Taiwan Defense Market At a Glance

US\$18.96bn

Taiwan 2024 Defense Budget

+ 10%

CAGR of Defense Budget from
2019 to 2024

>4%

Expected Budget Growth from
2024 to 2028

US\$2.14bn

Taiwan's Arms Procurement
from the U.S. in 2022 Notified
to US Congress

Top 3 Largest Sectors of the Defense Market

- Military fixed-wing aircraft
- Missiles and missile defense systems
- Naval vessels and surface combatants

15th

Global ranking -
Ease of Doing Business
(2019)

6th

Global ranking -
Most Competitive Economy
(2023)

3rd

Global ranking -
Safest Country
(2022)

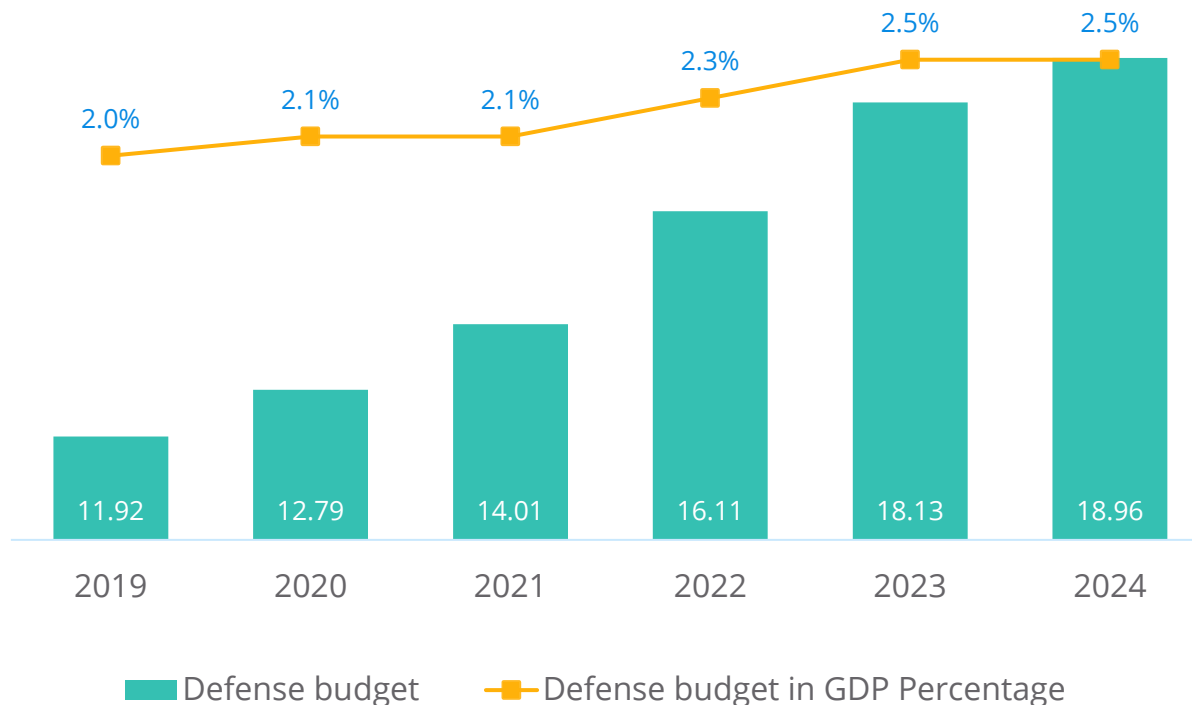


02

Defense Budget Assessment

Taiwan Defense Budget Assessment

Defense Budget from FY 2019 to FY 2024 Unit: US\$ bn / %



- 2024 defense budget: US\$18.96bn
- Defense budget grew by 10% CAGR from 2019 to 2024
- Heightened threat from China is the major driver of the continuous budget increase
- Budget/GDP: Risen from 2% to 2.5% from 2019 to 2024
- Budget/GDP is expected to rise to 3% upon request from the U.S. Government

Source: Ministry of National Defense R.O.C., 2023

03 Drivers of Expenditure

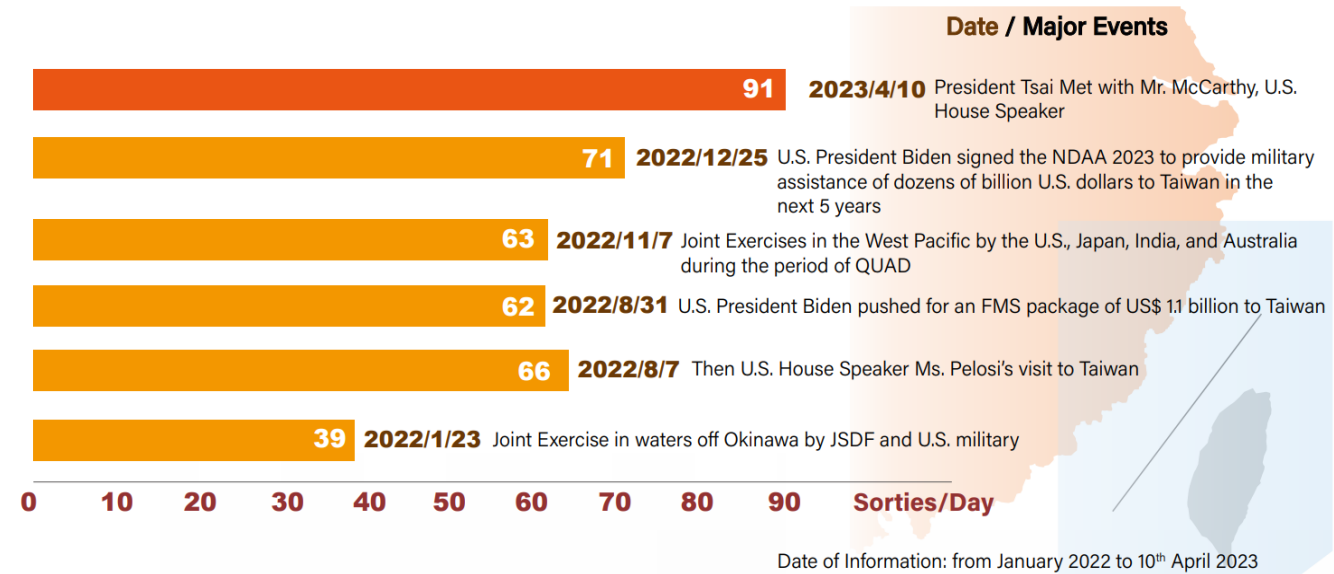


China-Taiwan Dispute

Overview

- Disagreement between Beijing & Taipei over sovereignty of Taiwan is the point of conflict
 - Beijing holds the “One China Principle,” while Taipei currently claims that Taiwan and China are not affiliated with each other
- People’s Republic of China (PRC) commits to taking military action as the last resort
- PRC has increased the scale, frequency, and intensity of the drills and exercises against Taiwan

【 Recent PLA's Aircraft Incursions and Related Major Events 】

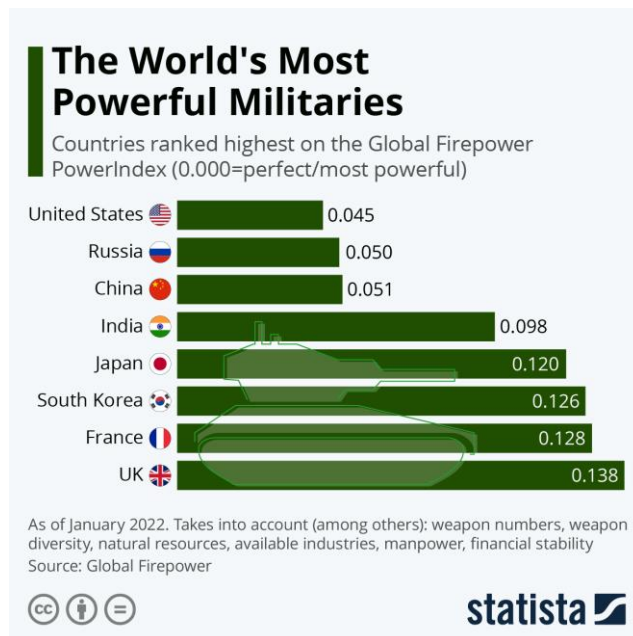


Source: Ministry of National Defense R.O.C., 2023

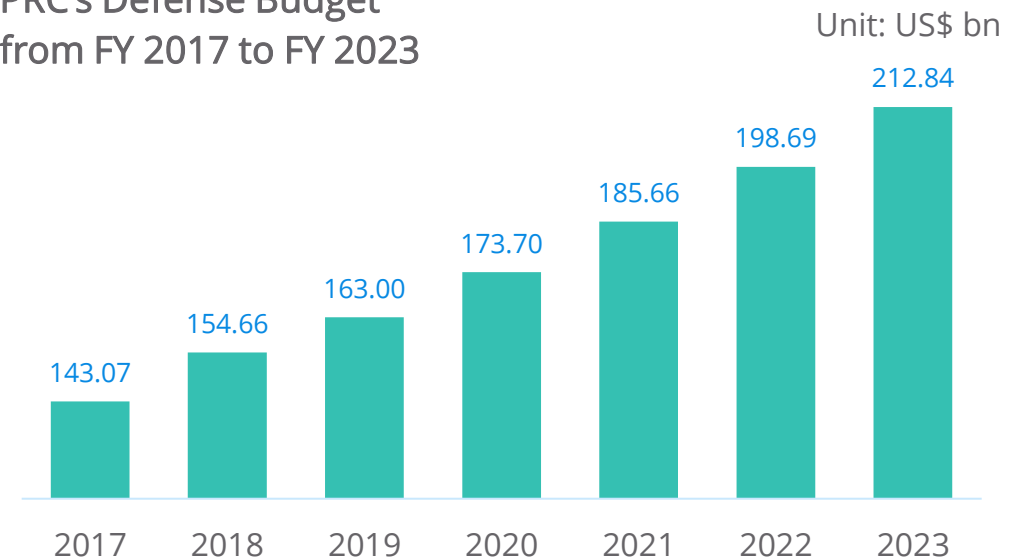
China-Taiwan Dispute

Development of China's Military Capabilities

- PRC defense budget ranked 1st in Asia and 2nd in the world in FY 2023 estimated 1.7% of GDP at US\$230 bn
- China's comprehensive goal of military development: Development of mechanization, informatization, and intelligent army by 2027, basic completion of modernization by 2035, transformation to world-class forces by the mid-21 century



PRC's Defense Budget from FY 2017 to FY 2023



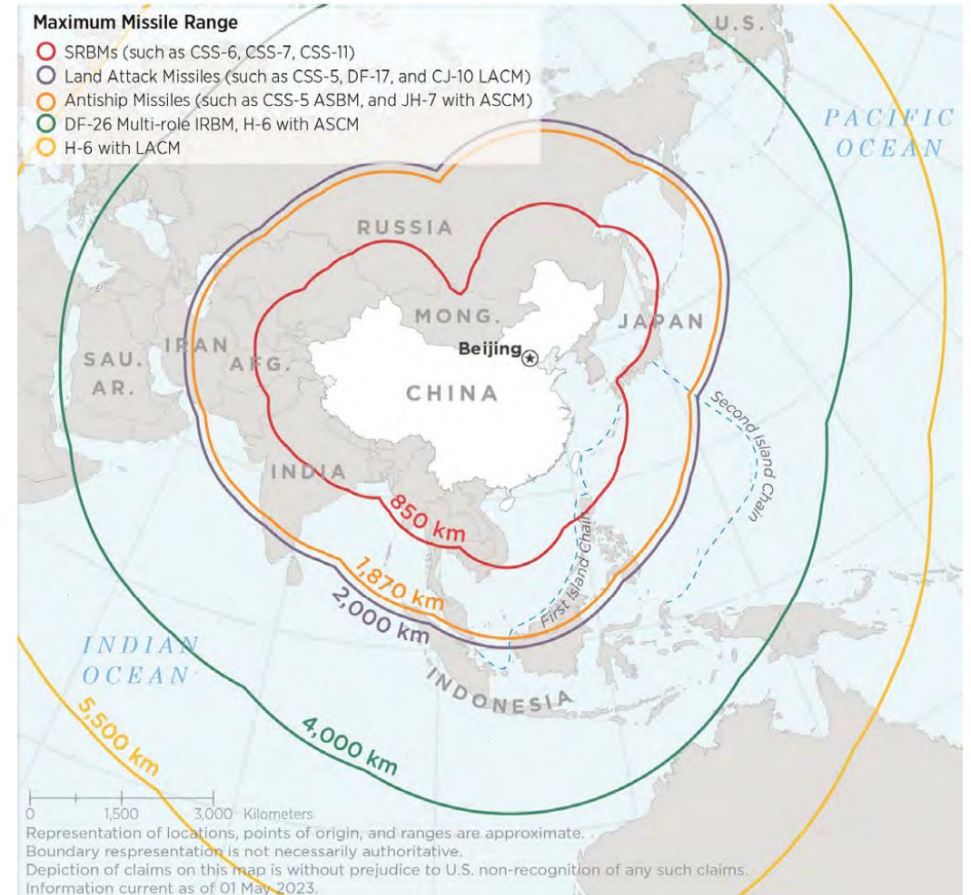
Source: Ministry of National Defense R.O.C., 2023

China-Taiwan Dispute

Missiles Targeting Taiwan and its Allies

- China upgraded installations of medium-range ballistic missile systems along its southeastern coast, aimed at Taiwan and nations friendly to it
 - The upgraded DF-17 missile systems suppresses its trajectory and accelerates to reach speeds of Mach 5 or greater, enabling it to avoid enemy radar and ballistic-missile defense systems
 - Use of the DF-17s would reduce the time Taiwan would have to receive early warning of an attack, and they would likely be used to take out air defense facilities
- U.S. upgraded Taiwan weapons package with newer patriot missiles in Dec. 2022

China Fielded Conventional Strike Range



Source: *Military and Security Developments Involving the People's Republic of China 2023*

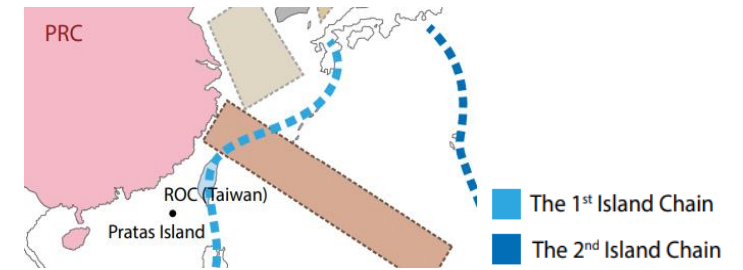
Key Geostrategic Location

Taiwan is at a critical geostrategic location

- The midpoint of “the 1st Island Chain of defense”
- Hub of international ocean shipping and aviation
- Proximity to the South China Sea, where serious clashes frequently occur over disputed islets sovereignty

Given this, multiple regional countries are taking action to maintain the status quo in the Taiwan Straits and the South China Sea and strengthen Taiwan’s military capabilities

- The Quadrilateral Security Dialogue (QUAD), involving Japan, Australia, India, and the U.S., is viewed to counteract for China’s economic and military expansion in the Indo-Pacific. The 1st formal summit was held in 2021
- U.S. Taiwan Enhanced Resilience Act (TERA) was designed to refine support in various areas to Taiwan in 2023



Source: Ministry of National Defense R.O.C., 2023



Source: UNCLOS, CIA, 2022

Military Modernization

- Taiwan's Executive Yuan allocates 2024 special defense budget totaling US\$3bn, used for purchasing new models of fighter jets and upgrading anti-air and anti-surface capabilities
- Previous deals related to modernizing military equipment include
 - A US\$100mn Patriot missile support deal in February 2022
 - Upgrade Taiwan's fleet of M60A3 Main Battle Tanks from 2022 onwards, which will be manufactured by General Dynamics
 - A US\$500mn deal of infrared search and track (IRST) systems for F-16 fighter jets in 2023





04 Emerging Opportunities

Defense Market Overview

2023 Top 3 Largest Sectors in the Taiwanese Defense Market

- Military fixed-wing aircraft
- Missiles and missile defense systems
- Naval vessels and surface combatants

Examples of Export Opportunities Available to U.S. Companies

- Advanced aviation manufacturing technologies and equipment
- Composite material technologies
- Maintenance, repair and overhaul and base operation
- Aviation schools
- Unmanned aerial vehicle development and manufacturing
- Innovative applications and services; Training

Recent Focus of the Armed Forces' Buildup

- Developing fundamental & asymmetric capabilities is the key focus of the Taiwan's armed forces' buildup

Long-range strike	<ul style="list-style-type: none">• Air-launched missiles with highly extended range• Stand-off attack weapon systems
Integrated air defense	<ul style="list-style-type: none">• New fighter jets• Long-range air defense and anti-missile defense systems
Joint sea control	<ul style="list-style-type: none">• Upgrade battleships• Shore-based, shipborne, and air-launched anti-ship missiles• New naval mines• Strengthen coastal mobile asymmetric anti-ship capabilities
Joint homeland defense	<ul style="list-style-type: none">• New tanks• Upgrade the existing tanks in service
ICE & cyber warfare	<ul style="list-style-type: none">• Information/ electronic warfare & cyber defense and surveillance & countermeasure capabilities• Next-generation tactical area communications
Joint C2 and ISR	<ul style="list-style-type: none">• All Coast Guard Administration (CGA) Intelligence, Surveillance, and Reconnaissance assets and electronic surveillance platforms are integrated with the Armed Forces

- ❖ ICE: Information, Communication, and Electronic
- ❖ Joint C2 and ISR: Joint Command, Control, Intelligence, Surveillance, and Reconnaissance

Recent Acquisitions from the U.S.

Long-range strike	<ul style="list-style-type: none">• M142 High Mobility Artillery Rocket System (HIMARS) Missile Launchers, Support, and Equipment• 100 AGM-88B High-speed Anti-Radiation Missile (HARM), 200 AIM-120C-8 Advanced Medium-Range Air-to-Air Missile (AMRAAM), training missiles, guidance sections, launchers, and related equipment and support
Integrated air defense	<ul style="list-style-type: none">• F-16 Infrared Search and Track (IRST)• F-16C/D Block 70 Aircraft and Related Equipment and Support
Joint sea control	<ul style="list-style-type: none">• Mobile Coastal Defense Systems with RGM-84L-4 Harpoon Block II Missiles
Joint homeland defense	<ul style="list-style-type: none">• 40 155mm M109A6 Paladin Medium Self-Propelled Howitzer Systems• Stinger Missiles and Related Equipment and Support
ICE & cyber warfare	<ul style="list-style-type: none">• Field Information Communications System (FICS)
Joint C2 and ISR	<ul style="list-style-type: none">• MS-110 Reconnaissance Pod System
US Military assistance July 2023	<ul style="list-style-type: none">• Man-portable air defense systems, or MANPADS• Intelligence and surveillance capabilities, firearms, and missiles• Could include services such as training and education

Other Opportunities

- **Industrial Cooperation**

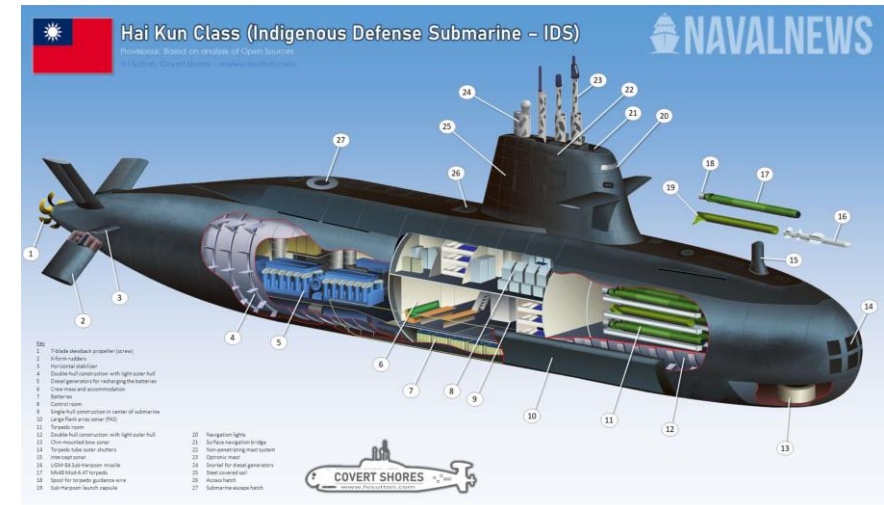
- Taiwan-U.S. Defense Industry Forum May 2023
- Sep. 2023 - Biden Admin. announced Taiwan inclusion in 'Foreign Military Financing Program' starts at US\$ 80Mn can reach US\$ 2Bn
- U.S.-Taiwan Defense Industry Conference Oct. 2023



Source: US-Taiwan Business Council, 2023

- **Demand from local production Projects**

- Approximately 60% of the components of Narwhal, the 1st self-made submarine, were produced by foreign companies. Most of the key systems of the vessel were from the U.S.
- Narwhal production project was under the Taiwan's Indigenous Defense Submarine (IDS) program, which included plans to produce eight vessels in total over the next decade



Source: Naval News, 2023

05 Market Entry Strategy



Defense Sectors Prohibited/Restricted for Foreign Investment

Prohibited Sectors

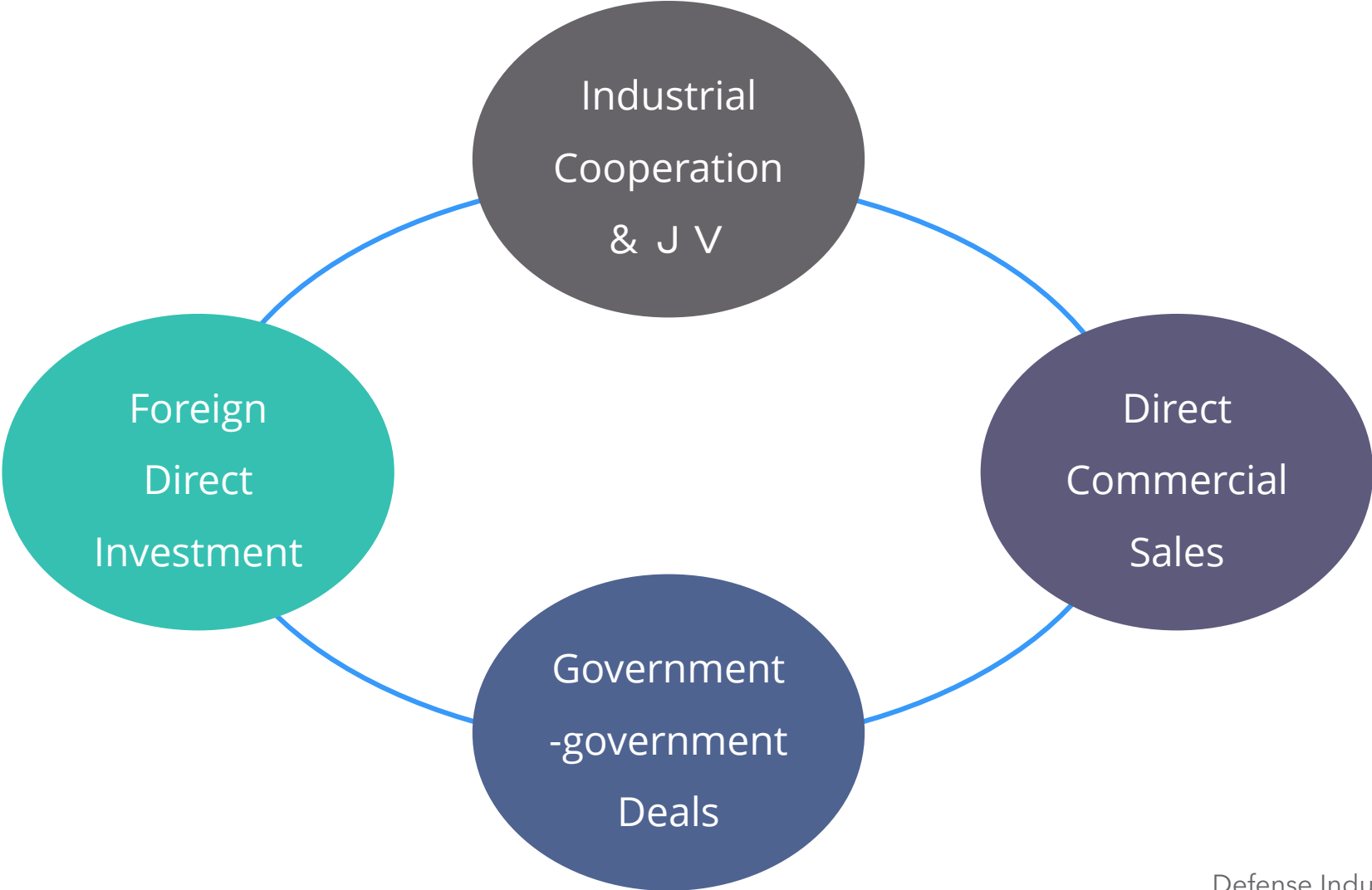
- Manufacturing of nitroglycerin for military use (nitroglycerin used in explosive pillars involving public safety)
- A category of chemical products in accordance with the prohibition of chemical weapons of the United Nations
- Gun powder fuse, agents of fire and fulminating mercury
- Firearms, weapons manufacturing, arms repair, ammunition, fire-control (exclusive of military aircraft), high-energy weapons systems (such as laser weapons, microwave weapons, and electromagnetic railguns) and other hi-tech weapons systems

Restricted Sectors

- Nitroglycerin manufacturing (not used in gun powder and explosive pillars involving public safety)
- Military instrument and equipment
- Manufacture, repair and assemble of military aircraft

- *Investment in restricted industries requires permission from authorities and shareholding ratios may subject to limitation*

Market Entry Routes



Foreign Direct Investment

Major U.S. Defense Contractors Presence in Taiwan



- AMS Group opened a branch in Taiwan in 2019 to grab a piece of the domestic weapon compartment market

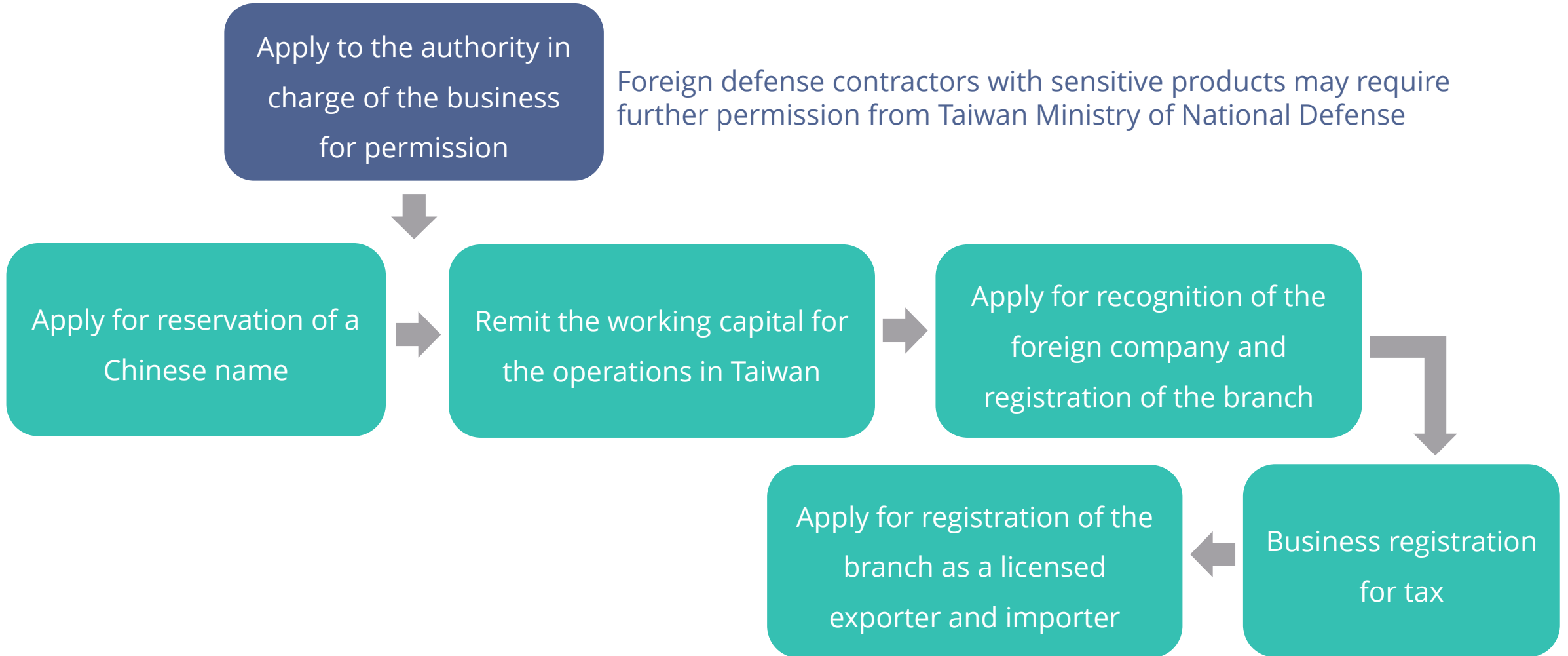


- Lockheed Martin set up the Taiwan branch in 1997, aiming to obtain business opportunities in the military aircraft maintenance market



- Raytheon established its Taiwan branch in 1993

Procedure for Setting Up a Branch in Taiwan



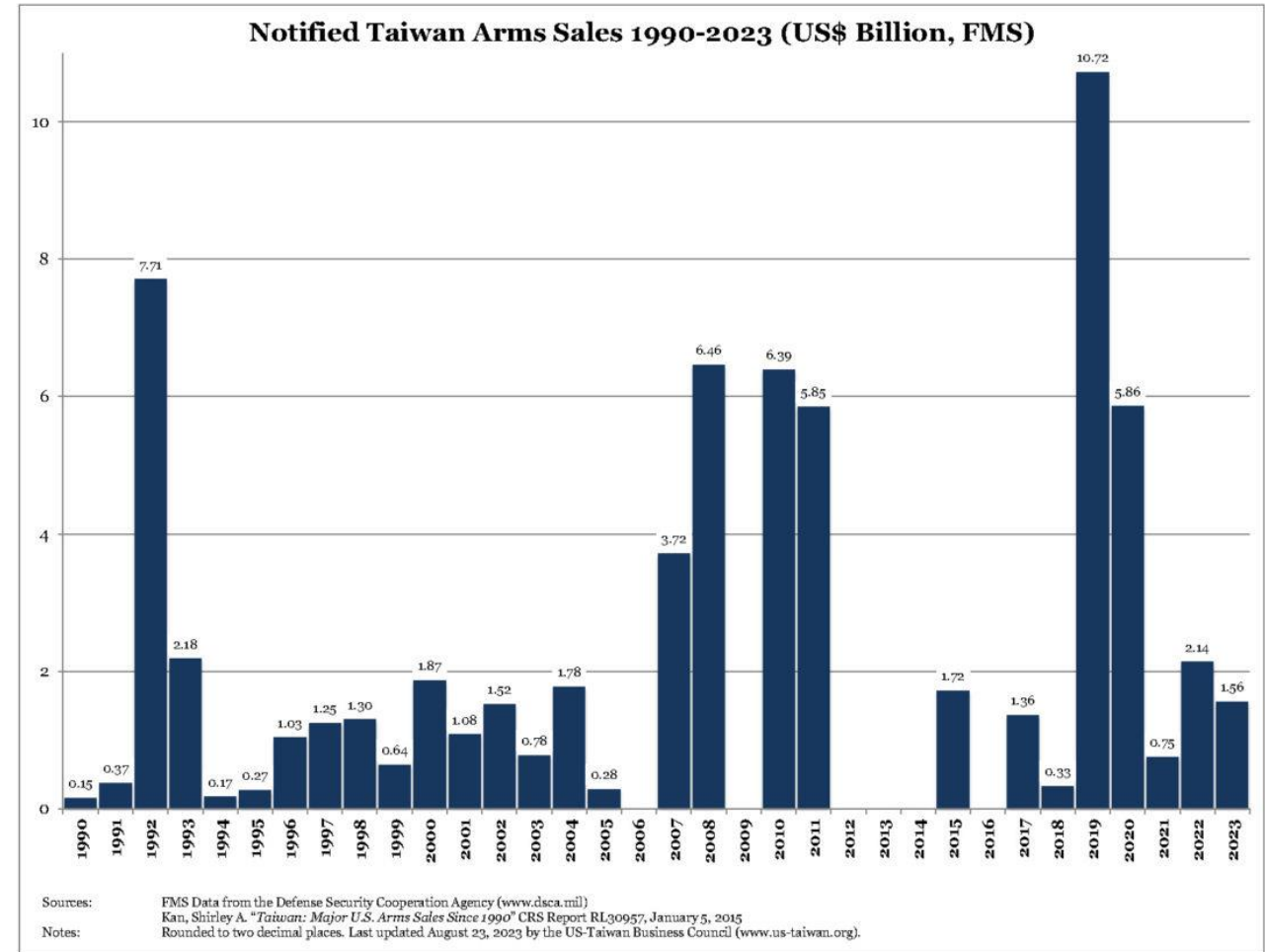
Government-to-Government Deals

Foreign Military Sales (FMS)

- Pursuant to the U.S. Taiwan Relations Act
- A sale to Department of Defense (DoD) procurement system
- The primary way for Taiwanese military to purchase arms from the U.S.
- U.S. companies are exempt from export licensing process when exporting through FMS

Military Aid

- Pursuant to the U.S. Taiwan Enhanced Resilience Act
- *Example:* In July 2023, President Biden authorized up to US\$345mn in defense articles and services using Presidential Drawdown Authority



Source: US-Taiwan Business Council, 2023

Direct Commercial Sales (DCS)

- To directly negotiate with or sell to customers, U.S. companies should obtain commercial export licenses from the Department of State
- Some military articles can only be sold through FMS

Tender

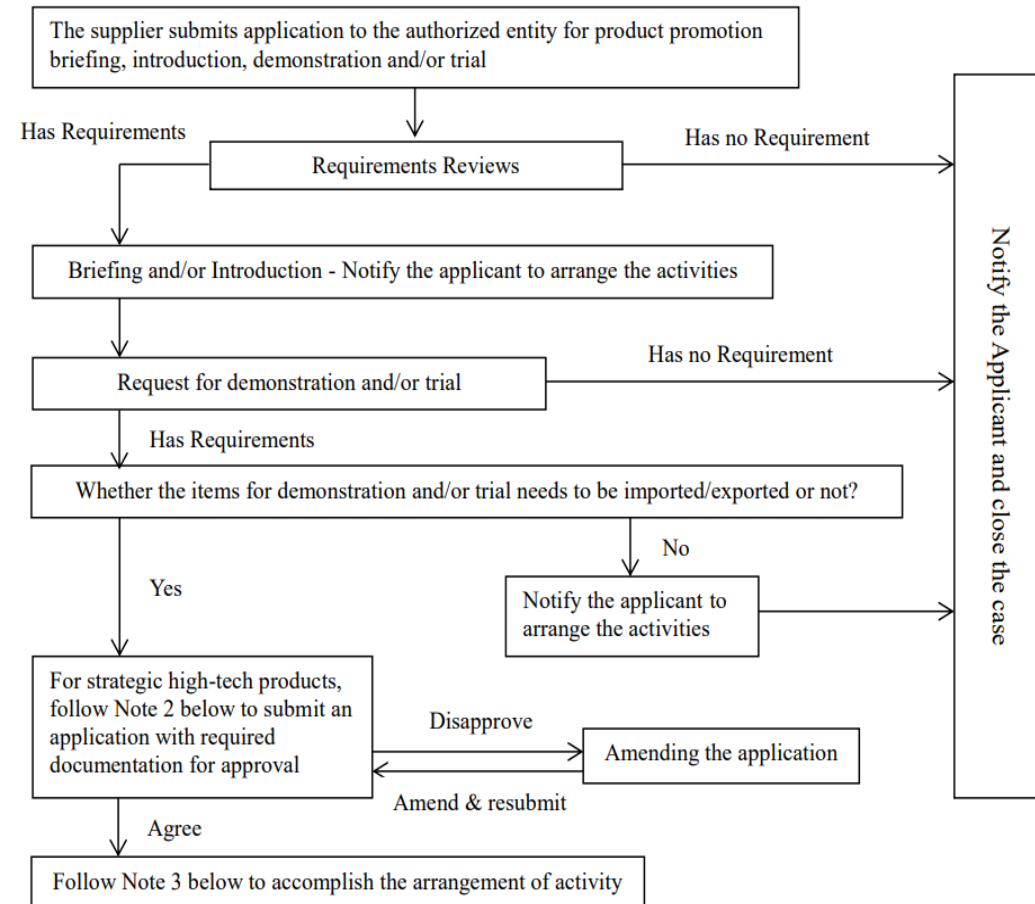
- Include open, selective, and limited tenders
- Companies qualified for U.S. Government Advocacy Policy can seek assistance from the Advocacy Center
- *Example:* Gavron Ltd. won a bid to provide technical advice on the domestic submarine production project in 2017

Promote & Introduce Products and Services

- Requires employing of domestic Agents/Reps; Starts with registration with the National Defense Procurement Office (NDPO, MND) [link](#)
- Partial agents and dealers [list](#)

Taipei Aerospace & Defense Tech. Show (TADTE 2025)

Guidelines for Promoting and Introducing Products and Services



Source: Ministry of National Defense R.O.C.

Industrial Cooperation & JV

- American defense industry delegation aiming to build partnerships with Taiwan counterparts headed by U.S.-Taiwan Business Council visited Taiwan in May 2023.

AeroVironment, AEVEX Aerospace, the American Institute in Taiwan, BAE Systems, Cubic Corporation, Elbit Systems of America, General Atomics, General Electric, LKD Aerospace, Maritime Tactical Systems, Northrop Grumman Corporation, Pacific Rim Defense, Persistent Systems, Planate Management Group, Project 2049, Raytheon Technologies, Tactical Air Support, Teledyne FLIR LLC, The Rehfeldt Group, U.S.-Taiwan Business Council, Lockheed Martin Corporation, L3Harris, Sierra Nevada Corporation, Kratos Defense & Security Solutions, and SNC Corporation.

- Taiwan aims to become more self-reliant in defense which opens the market of key components and control systems
- Taiwan's National Defense Act encourages industrial cooperation between domestic and foreign firms
- *Example:* Lockheed Martin and AIDC, a Taiwanese corporation, signed a strategic alliance agreement in 2019, with the former helping to train the latter to upgrade F-16 fighter jets to F-16V
- *Example:* Lockheed Martin agreed to transfer technology and technical know-how related to the Patriot Advanced Capability-3 (PAC-3) upgrade package in 2018



Source: Taiwan News, 2023



Source: AIDC, 2019





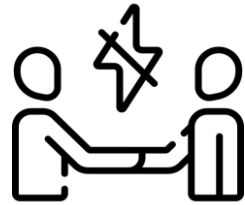
06 Key Challenges

Key Challenges



Regulation

Foreign investment in the defense industry is subject to tight regulations in Taiwan



China's Threat

Selling arms to Taiwan may incur sanctions from China



Security Risk

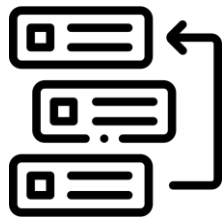
Information leakage and Chinese government infiltration

CMMC 2.0 will help mitigate this risk



Lack of Information

Information is less readily available in Taiwan and thus is not as transparent as in the U.S.



US Arms Sales Backlog

US\$ Multibillion worth of Arms are backlogged

07 Recommendations



Entry points



- ✓ Participate in Government-to-Government arms sale via U.S. DoD's acquisition system is the most straight-forward approach
- ✓ Direct sell to Taiwan MND via tender and/or self-promoting products via Agent/Rep can establish your reputation in Taiwan
- ✓ Partner with local companies to co-produce, transfer technologies, etc.
- ✓ Consider establishing business operations in Taiwan after having sufficient local sales experiences



08 Appendix

Appendix

Defense Market at a Glance - Slide 5

Sources:

- Global Data <Taiwan Defense Market Size, Trends, Budget Allocation, Regulations, Acquisitions, Competitive Landscape and Forecast to 2028>
<https://www.globaldata.com/store/report/taiwan-defense-market-analysis/>
- The World Bank <Ease of Doing Business rankings>
<https://archive.doingbusiness.org/en/rankings?region=east-asia-and-pacific>
- Taiwan News <Taiwan rises to 6th in IMD world competitiveness rankings>
<https://www.taiwannews.com.tw/en/news/4923576#:~:text=Taiwan%20also%20rated%20as%20nd%20most%20competitive%20economy%20in%20Asia&text=In%20the%202023%20IMD%20World,its%20best%20performance%20since%202012>
- Taipei Times <Does Taiwan have a justified reputation for safety?>
<https://www.taipetimes.com/News/feat/archives/2023/04/21/2003798336#:~:text=As%20with%20last%20year%2C%20Taiwan,was%20ninth%20out%20of%20128>

Taiwan Defense Budget Assessment - Slide 7

- **Why do we expect defense budget/ GDP to rise?**
When former US Secretary of Defense Mark Esper visited Taiwan in July 2022, he once again suggested that Taiwan should increase its defense budget to 3% ~ 3.5% of GDP to respond to the threats. Many Taiwanese politicians, including former president Mr. Ma, also followed this standard and made "the defense budget accounts for 3% of GDP" as a campaign promise or governance goal.
- **2024 defense budget breakdown**
 - Annual expenditure: NT\$ 440.6bn (73%)
 - Special budget: NT\$ 94.3bn (16%)
 - Non-operating special fund: NT\$ 71.9 bn (12%)
 - 2024 special budget is for purchasing new models of fighter jet and upgrading anti-air and anti-surface capabilities

Sources:

- Ministry of National Defense R.O.C. <ROC National Defense Report 2023>
<https://www.ustaiwandefense.com/tdnswp/wp-content/uploads/2023/09/Taiwan-National-Defense-Report-2023.pdf>
- Central News Agency <The defense budget in 2024 is 606.8 billion, reaching a new high. Graphical illustration of changes in the proportion of defense budget and GDP>
<https://news.pts.org.tw/article/653306>
- ROC Executive Yuan <Central Government General Budget 2024>

Appendix

China-Taiwan Dispute - Slide 9

- **History**
 - In 1949, the leader of Kuomintang (KMT), Chiang Kai-shek, fled with his supporters to Taiwan and dominated Taiwan's politics for many years, separating it from the People's Republic of China. Taiwan has since acted as an independently governed nation.
- **Dispute over sovereignty of Taiwan**
 - Taipei and Beijing strongly disagree over the island's status. The PRC's One-China policy states that there is only one sovereign state under the name China, despite there being two states whose official names incorporate "China": the Republic of China (ROC) and the People's Republic of China (PRC). The PRC exclusively uses the term "One China Principle" in its official communications. President Tsai Ing-wen made it clear in the 2022 National Day speech that she firmly rejected "one country, two systems", which was claimed by the PRC.
- **PRC's threat of using military force**
 - On May 29, 2020, while speaking at Beijing's Great Hall of the People at the 15th anniversary of the Anti-Secession Law, Li Zuocheng, chief of the Joint Staff Department and a member of the Central Military Commission, said "If the possibility for peaceful reunification is lost, the people's armed forces will, with the whole nation, including the people of Taiwan, take all necessary steps to resolutely smash any separatist plots or actions". He also added: "we do not promise to abandon the use of force, and reserve the option to take all necessary measures, to stabilize and control the situation in the Taiwan Strait."
- **Recent military exercises conducted by PRC**
 - On the pretext of the U.S. House Speaker Ms. Pelosi's visit to Taiwan, the PRC set up no-fly and no-sail zones along neighboring areas to Taiwan to conduct joint operations and realistic combat training in early August 2022.
 - During President Tsai's foreign visit and her meeting with the U.S. House Speaker, Mr. McCarthy, in April 2023, the PLA conducted military exercises around Taiwan from April 8th to 10th of that year to sharpen its joint command and operations efficiency of the Theater Command (TC) and launched missile tests with simulated blockades over Taiwan's outbound communication routes.

Appendix

China-Taiwan Dispute - Slide 9 cont'd

- PRC realigning force deployment of confronting airfields
 - The PRC has been completing the construction of airfields along the coastline of its East and South TCs and realigning new fighters and UAVs to station there permanently to form a superior air power, put pressure on air defense, and seize air superiority in the event of war across the Taiwan Strait.
- **The circumstances under which the PRC has historically indicted it would consider the use of force**
 1. Formal declaration of Taiwan's independence
 2. Undefined moves toward Taiwan independence
 3. Internal unrest in Taiwan
 4. Taiwan's acquisition of nuclear weapons
 5. Indefinite delays in the resumption of cross-strait dialogue on unification
 6. Foreign military intervention in Taiwan's internal affairs

Sources:

- Ministry of National Defense R.O.C. <ROC National Defense Report 2023>
<https://www.ustaiwandefense.com/tdnswp/wp-content/uploads/2023/09/Taiwan-National-Defense-Report-2023.pdf>
- Global Data <Taiwan Defense Market Budget Assessment and Drivers 2022>
<https://www.globaldata.com/reports/taiwan-defense-market---budget-assessment-and-drivers-2022/>
- U.S. Department of Defense <Military and Security Developments Involving the People's Republic of China 2023>
<https://media.defense.gov/2023/Oct/19/2003323409/-1/-1/1/2023-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF>

Appendix

China-Taiwan Dispute - Slide 10

- PRC's weaponry R&D goal

The report of the 20th National Congress of the CCP stresses that the PRC will intensify troop training, enhance combat readiness across the board, establish a strong strategic deterrence, speed up the development of unmanned and intelligent combat capabilities, and coordinate the development of the network information system. Moreover, the PRC continues to commission new artillery pieces, conduct R&D for missiles, and integrate unmanned and manned combat platforms to modernize its hardware and strengthen its long-range strike and A2/AD capabilities.

Sources:

- SIPRI Military Expenditure Database
<https://milex.sipri.org/sipri>
- Ministry of National Defense R.O.C. <ROC National Defense Report 2023>
<https://www.ustaiwandefense.com/tdnswp/wp-content/uploads/2023/09/Taiwan-National-Defense-Report-2023.pdf>
- Statista <The World's Most Powerful Militaries>

China-Taiwan Dispute - Slide 11

Sources:

- Taipei Times: China is upgrading missile systems targeting Taiwan
<https://www.taipeitimes.com/News/taiwan/archives/2023/07/25/2003803718>
- Bloomberg: US Upgrades Taiwan Weapons Package With Newer Patriot Missiles
<https://www.bloomberg.com/news/articles/2022-12-05/us-upgrades-taiwan-weapons-package-with-newer-patriot-missiles#xj4y7vzkg>
- U.S DoD <Military and Security Developments Involving the People's Republic of China 2023>
<https://media.defense.gov/2023/Oct/19/2003323409/-1/-1/1/2023-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF>

Appendix

Key Geostrategic Strategic Location - Slide 12

- **The 1st and 2nd Island Chains**
 - Island Chain Strategy
 - China's maritime strategy, or the "Island Chain Strategy," is a geographical security concept crafted by the United States in the 1940s to deter China and the Soviet Union's maritime ambitions. Two island chains in the Western Pacific are noteworthy. The first comprises the Kuril Islands, the main Japanese archipelago, Okinawa, the northern part of the Philippine archipelagos, the Malay Peninsula, and Taiwan. The second chain consists of the islands of Japan stretching to Guam and the islands of Micronesia. China has managed to establish a firm presence through its grey zone operations in the first island chain. However, China has yet to establish a permanent presence in Taiwan to take hold of the first island chain completely.
 - Taiwan's geographic significance
 - Taiwan is located at a key node of geostrategic importance on the first island chain of the Indo-Pacific, linking together sea lines of communication (SLOC) between the Western Pacific, the South China Sea, and the Indian Ocean. The Bashi Channel in its south and the Miyako Strait in its north are major strategic waterways for the PRC to pass through the first island chain.
- **Regional cooperation to jointly defend threat of China**
 - FOIP: The Biden administration of the U.S. continues realizing the concept of a Free and Open Indo-Pacific (FOIP), viewing the PRC as its major competitor and challenge and thereby deepening security cooperation with countries in the region.
 - QUAD: Known as the 'Quadrilateral Security Dialogue' (QSD), the Quad is an informal strategic forum comprising four nations, namely -- United States of America (USA), India, Australia and Japan. One of the primary objectives of the Quad is to work for a free, open, prosperous and inclusive Indo-Pacific region.
 - Both Japan and Australia are worried about China's expanding military influence in the Indo-Pacific region and the possibility of a Chinese strike to seize control of Taiwan. Japan announced on Thursday that it had extended an invitation to Australia to take part in two ongoing joint military drills with the United States. (October 19, 2023)
- **Taiwan as a hub of international ocean shipping and airlines**
 - About 50% of all freighters in the world must sail through the Taiwan Strait annually. The Taipei Flight Information Region (FIR) is a hub for travelers in Southeast Asian countries heading to and from Northeast Asia and North America, with 18 international flight routes.

Appendix

Key Strategic Locations - Slide 12 cont'd

- **South China Sea Dispute**

- Overview

- The South China Sea contains large amounts of crude oil and natural gas and is located at the crossroads of the Pacific and Indian Oceans. It has important military and economic strategic value. However, in recent years, disputes over the sovereignty of the South China Sea have continued, and various opinions have emerged. Lots of countries have claimed sovereignty over some or even all of the islands and reefs. The situation in the South China Sea has become more complex, and international political and military conflicts have become more frequent.

- China's activities in South China Sea

- President Xi Jinping's rise to power in 2013 has fueled Beijing's more assertive diplomatic efforts and military posture. China's forces are becoming more of a tool of the Chinese Communist Party's political interests, which now dictate increased naval presence and militarization of several islands in the South China Sea. Beijing has also made greater use of security forces, such as its Coast Guard and maritime militia, for surveillance and harassment. Since the Coast Guard and civilian-operated maritime vessels are not generally considered part of the military, their use has allowed Beijing to assert its interests without generating a reciprocal military response by American or other forces in the region.

- **Support for Taiwan from democratic countries**

- With the ever-growing scale and intensity of PRC's intimidation against Taiwan, the international community is gradually becoming aware that peace and stability across the Taiwan Strait are necessary factors to maintain international security and global economic development, and security across the Taiwan Strait has thus become a global issue. Democratic countries, like the U.S., continue using multiple means, including deploying military force, making diplomatic statements, imposing policy restrictions, and improving substantive relations with Taiwan to curb PRC's intent to alter the status quo across the Taiwan Strait.

- Support from the US: <Taiwan Enhanced Resilience Act>

- On December 29 last year, U.S. President Joe Biden signed into law the Taiwan Enhanced Resilience Act (TERA) as part of the 2023 National Defense Authorization Act (NDAA). TERA had received broad bipartisan support in the U.S. House of Representatives, where it passed in July by 329 yes votes, with 101 no votes. Until December, TERA was called the Taiwan Policy Act (TPA) and was a standalone law intended to significantly update U.S. policy on Taiwan.
- Notably, it allocates US\$10 billion in grants and loans to provide military equipment to Taiwan over the next five years, aimed at deterring aggressive actions from China. Additionally, TERA expresses support for including Taiwan in the Rim of the Pacific Exercise, a biennial naval exercise involving the U.S. and many of its significant allies.
- Examples:
 - U.S. President Biden announced on July 28, 2023, that he would provide US\$345 million in military assistance to Taiwan. This special military assistance was under TERA.
 - The Biden administration has approved funding for the first-ever transfer of US military equipment to Taiwan in August 2023. The package – which is part of the State Department's foreign military financing (FMF) program – totals \$80 million and will be paid for by US taxpayers.

Appendix

Key Strategic Locations - Slide 12 cont'd

- Australian Institute of International Affairs <The Taiwan Frontier and the Chinese Dominance for the Second Island Chain>
<https://www.internationalaffairs.org.au/australianoutlook/taiwan-frontier-chinese-dominance-for-second-island-chain/>
- Business Standard <What is Quad?>
<https://www.business-standard.com/about/what-is-quad>
- Guardian <What is the Quad, and how did it come about?>
<https://www.theguardian.com/world/2022/may/24/what-is-the-quad-and-how-did-it-come-about>
- Reuters <Japan invites Australia to join two military exercises for first time>
<https://www.reuters.com/world/asia-pacific/japan-invites-australia-join-two-military-exercises-first-time-2023-10-19/>
- Taiwan Business TOPICS <What is the Taiwan Enhanced Resilience Act?>
<https://topics.amcham.com.tw/2023/04/what-is-the-taiwan-enhanced-resilience-act/>
- BBC <Biden used "presidential drawdown authority" for the first time to assist Taiwan. Has Taiwan enjoyed the treatment of Ukraine?>
<https://www.bbc.com/zhongwen/trad/world-66369372>
- CNN <US approves first-ever military aid to Taiwan through program typically used for sovereign nations>
<https://edition.cnn.com/2023/08/30/politics/us-taiwan-foreign-military-financing-program/index.html>
- Ministry of National Defense R.O.C. <The CCP's South China Sea Strategy and my country's Response>
- BBC <South China Sea: Philippines resupplies Spratlys shoal troops>
<https://www.bbc.com/news/world-asia-66579853>
- Ministry of National Defense R.O.C. <ROC National Defense Report 2023>
<https://www.ustaiwandefense.com/tdnswp/wp-content/uploads/2023/09/Taiwan-National-Defense-Report-2023.pdf>

Appendix

Military Modernization - Slide 13

The rapid modernization of the Chinese People's Liberation Army and Taiwan's obsolete equipment have forced the Taiwanese government to enhance its defense capabilities and develop a robust defense industry.

Taiwan has signed the following major deals:

- In February 2022, the US State Department approved a \$100 million Patriot missile support deal.
 - a possible \$100 million sale of equipment and services to Taiwan to "sustain, maintain, and improve" its Patriot missile defense system
 - The Patriot missile defense system consists of six major components: a 1) missile, 2) launcher, 3) radar set, 4) control station, 5) power generator unit, and 6) high-frequency antenna mast.
- The US State Department approved Taiwan's request to upgrade Taiwan's fleet of M60A3 Main Battle Tanks from 2022 onwards, which will be manufactured by General Dynamics.
- In October 2021, Taiwan started to build the second Tuo Chiang-class corvette. The contract was awarded to shipbuilder Lung Teh Shipbuilding and the National ChungShan Institute of Science and Technology.
- In October 2020, the US State Department approved Taiwan's request for Lockheed Martin HIMRAS rocket launchers, Boeing AGM-84H SLAM-ER missiles, and Raytheon MS-110 sensor pods, worth \$1.8 billion in total.
- In October 2020, the US also approved another Foreign Military Sale (FMS) of 400 Harpoon RGM-84L-4 Block II Surface Launched Missiles (SLM), as well as 100 Harpoon coastal defense systems to Taiwan, worth \$2.4 billion.

The Taiwanese government is also focusing on the modernization of the naval forces. In 2016, the Taiwanese government announced 12 new shipbuilding and force modernization programs, with an estimated value of \$14.7 billion. These modernization programs enable the government to procure submarines, frigates, high-speed minelayers, stealthy Tuo Jiang-class missile corvette catamarans, landing platform docks, and multi-purpose transport helicopters. It also offers opportunities for global firms to supply weapon systems, sensors, advanced manufacturing technology and tooling, critical components, engineering, and program management services. Taiwan aims to procure MH-60R Seahawk anti-submarine warfare helicopters from the US to replace the navy's MD Defender 500 aircraft helicopters.

Sources:

- ROC Executive Yuan <Central Government General Budget 2024>
- Global Data <Taiwan Defense Market Budget Assessment and Drivers 2022>
<https://www.globaldata.com/reports/taiwan-defense-market--budget-assessment-and-drivers-2022/>
- Reuters <U.S. approves \$100 million sale for Taiwan missile upgrades>
<https://www.reuters.com/markets/us/us-approves-100-million-sale-taiwan-missile-upgrades-2022-02-07/>
- Focus Taiwan <U.S. announces sale of F-16 search and track systems to Taiwan>
<https://focustaiwan.tw/politics/202308240001>

Appendix

Defense Market Overview - Slide 15

Leading Sub-Sectors for U.S. suppliers:

- Aircraft
 - Aircraft engines and parts
 - Aircraft precision parts and components
- Aircraft Cabin equipment
 - Avionics systems, including communication, navigation, identification and safety
 - Cybersecurity
 - Missiles and space vehicle parts
 - Parts and components for maintenance, repair and overhaul
 - Radar devices
 - Unmanned Aerial Vehicles and counter UAV

Sources:

- Research and Markets <Taiwan Defense Market Size and Trends, Budget Allocation, Regulations, Key Acquisitions, Competitive Landscape and Forecast, 2023-2028>
<https://www.researchandmarkets.com/reports/5759100/taiwan-defense-market-size-trends-budget>
- International Trade Administration <Taiwan - Country Commercial Guide: Aerospace and Defense>
<https://www.trade.gov/country-commercial-guides/taiwan-aerospace-and-defense>

Appendix

Recent Focus of the Armed Forces' Buildup - Slide 16

Footnote:

- IW stands for information warfare
- EW stands for electronic warfare
- Joint C2 and ISR stands for Joint Command, Control, Intelligence, Surveillance, and Reconnaissance

Sources:

- Ministry of National Defense R.O.C. <ROC National Defense Report 2023>
<https://www.ustaiwandefense.com/tdnswp/wp-content/uploads/2023/09/Taiwan-National-Defense-Report-2023.pdf>
- Ministry of National Defense R.O.C. <2021
<https://www.ustaiwandefense.com/tdnswp/wp-content/uploads/2021/03/2021-Taiwan-Quadrennial-Defense-Review-QDR.pdf>

Recent Acquisitions from the U.S. - Slide 17

2019-2023 Acquisitions from U.S. Foreign Military Sales: (as of October 2023)

2020:

- 18 MK-48 Mod6 Advanced Technology (AT) Heavy Weight Torpedoes (HWT)
- Repair & Recertification of PAC-3 Missiles
- AGM-84H Standoff Land Attack Missile-Expanded Response (SLAM-ER) Missiles
- MS-110 Recce Pod System
- M142 HIMARS Missile Launchers, Support, and Equipment
- Mobile Coastal Defense Systems with RGM-84L-4 Harpoon Block II Missiles
- 4 Weapons-Ready MQ-9B Remotely Piloted Aircraft
- Field Information Communications System (FICS)

2021:

- 40 155mm M109A6 Paladin Medium Self-Propelled Howitzer Systems

Appendix

Recent Acquisitions from the U.S. - Slide 17 cont'd

2022:

- Participation in the Patriot International Engineering Services Program (IESP) and Field Surveillance Program (FSP) for five years
- Patriot Contractor Technical Assistance
- Ship Spare Parts and Ship System Spare Parts
- Contractor Technical Assistance Support
- Follow-on Contractor Logistics Support (CLS) for the Surveillance Radar Program (SRP) and related equipment and support
- 60 AGM-84L-1 Harpoon Block II Missiles, 4 ATM-84L-1 Harpoon Block II exercise missiles, and related equipment and support
- 100 AIM-9X Block II Sidewinder Missiles, 4 AIM-9X Block II tactical Guidance Units, and related equipment and support
- Aircraft standard spare parts and related equipment
- Aircraft non-standard spare parts and related equipment
- Volcano anti-tank munition-laying systems

2023:

- 100 AGM-88B HARM, 200 AIM-120C-8 AMRAAM, training missiles, guidance sections, launchers, and related equipment and support
- Cooperative Logistics Supply Support Arrangement (CLSSA) Foreign Military Sales Order II (FMSO II)
- 30 mm Ammunition and related equipment
- F-16 Infrared Search and Track (IRST)

Sources:

- US-Taiwan Business Council <Taiwan Arms Sales Notified to Congress 1990-2023>
<https://www.ustaiwandefense.com/taiwan-arms-sales-notified-to-congress-1990-2023/>
- Ministry of National Defense R.O.C. <ROC National Defense Report 2023>
<https://www.ustaiwandefense.com/tdnswp/wp-content/uploads/2023/09/Taiwan-National-Defense-Report-2023.pdf>
- CSIS <A New Mechanism for an Old Policy: The United States Uses Drawdown Authority to Support Taiwan>
<https://www.csis.org/analysis/new-mechanism-old-policy-united-states-uses-drawdown-authority-support-taiwan>

Appendix

Other Opportunities - Slide 18

2022:

- Participation in the Patriot International Engineering Services Program (IESP) and Field Surveillance Program (FSP) for five years
- Patriot Contractor Technical Assistance
- Ship Spare Parts and Ship System Spare Parts
- Contractor Technical Assistance Support
- Follow-on Contractor Logistics Support (CLS) for the Surveillance Radar Program (SRP) and related equipment and support
- 60 AGM-84L-1 Harpoon Block II Missiles, 4 ATM-84L-1 Harpoon Block II exercise missiles, and related equipment and support
- 100 AIM-9X Block II Sidewinder Missiles, 4 AIM-9X Block II tactical Guidance Units, and related equipment and support
- Aircraft standard spare parts and related equipment
- Aircraft non-standard spare parts and related equipment
- Volcano anti-tank munition-laying systems

2023:

- 100 AGM-88B HARM, 200 AIM-120C-8 AMRAAM, training missiles, guidance sections, launchers, and related equipment and support
- Cooperative Logistics Supply Support Arrangement (CLSSA) Foreign Military Sales Order II (FMSO II)
- 30 mm Ammunition and related equipment
- F-16 Infrared Search and Track (IRST)

Sources:

- US-Taiwan Business Council <Taiwan Arms Sales Notified to Congress 1990-2023>
<https://www.ustaiwandefense.com/taiwan-arms-sales-notified-to-congress-1990-2023/>
- Ministry of National Defense R.O.C. <ROC National Defense Report 2023>
<https://www.ustaiwandefense.com/tdnswp/wp-content/uploads/2023/09/Taiwan-National-Defense-Report-2023.pdf>
- CSIS <A New Mechanism for an Old Policy: The United States Uses Drawdown Authority to Support Taiwan>
<https://www.csis.org/analysis/new-mechanism-old-policy-united-states-uses-drawdown-authority-support-taiwan>

Appendix

Other Opportunities - Slide 18 cont'd

- The White House just approved an arms sale to Taiwan under terms typically designed for sovereign countries

Sources:

- Commonwealth Magazine <The story behind the Taiwan visit of US defense contractors>
<https://english.cw.com.tw/article/article.action?id=3428>
- Associated Press <US defense contractors want deeper cooperation with Taiwan>
<https://apnews.com/article/taiwan-us-defense-contractors-56701cc96df33999d1a6b6f524086f47>
- Taipei Times <US official to speak at defense forum>
<https://www.taipeitimes.com/News/taiwan/archives/2023/10/03/2003807144>
- US-Taiwan Business Council <2023 US-Taiwan Business Council Defense Delegation to Taiwan>
<https://www.us-taiwan.org/2023-us-taiwan-business-council-defense-delegation-to-taiwan/>
- Focus Taiwan <Taiwan defense expo returns after 4-year hiatus; U.S. joins for first time>
<https://focustaiwan.tw/politics/202309140007>
- Public Television Service <Taiwan-made submarine prototype "Hai Kun" launched and expected to be delivered by the end of next year>
<https://news.pts.org.tw/article/659284>
- Naval News <America Providing Advanced Systems For Taiwan's New Submarine>
<https://www.navalnews.com/naval-news/2023/10/america-providing-advanced-systems-for-taiwan-new-submarine/#prettyPhoto>
- Global Taiwan Institute <Taiwan's Indigenous Submarine Program Announces Milestone Goals for 2023>
<https://globaltaiwan.org/2023/06/taiwans-indigenous-submarine-program-announces-milestone-goals-for-2023/>
- US-Taiwan Business Council <Keynote Speech: 2023 US-Taiwan Defense Industry Conference>
<https://www.us-taiwan.org/wp-content/uploads/2023/10/2023-USTDIC-Hsu-Heng-Pu-Keynote-English.pdf>
<https://www.defenseone.com/threats/2023/09/the-d-brief-september-01-2023/389937/>

Appendix

Defense Sectors Prohibited/Restricted for Foreign Investment - Slide 20

Definition of Investment:

1. Holding shares issued by an ROC company, or contributing to the capital of an ROC company; (FDI)
2. Establishing a branch office, a proprietary business or a partnership in the territory of the Republic of China;
3. Providing loan(s) to the invested business referred to in the preceding two Paragraphs for a period exceeding one (1) year.

Source:

- Taiwan's <Statute For Investment By Foreign Nationals>
<https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=J0040002>
- Negative List for Investment by Overseas Chinese and Foreign Nationals
<https://law.moea.gov.tw/EngLawContent.aspx?lan=E&id=10107>

Foreign Direct Investment - Major U.S. Defense Contractors Presence in Taiwan - Slide 22

Sources

- Taipei Times
<https://www.taipeitimes.com/News/local/archives/2001/02/23/0000074839>
- Taiwan News
<https://www.taiwannews.com.tw/en/news/3438191>
- Find Company
 - <https://www.findcompany.com.tw/en/RAYTHEON%20SYSTEMS%20SUPPORT%20COMPANY,%20TAIWAN%20BRANCH%20%28U.S.A.%29>
 - <https://www.findcompany.com.tw/en/LOCKHEED%20MARTIN%20GLOBAL,%20INC.%20TAIWAN%20BRANCH%20%28USA%29>
 - <https://www.findcompany.com.tw/en/AMS%20Group,%20Inc.%20Taiwan%20Branch>

Appendix

Procedure for Setting up a Branch in Taiwan - Slide 23

For the processes for opening a subsidiary or a joint venture, please visit the following websites:

- MOEA Department of Investment Review <Overseas Chinese & Foreign Investment> https://dir.moea.gov.tw/businessPub.view?lang=en&op_id_one=1
- Invest Taiwan <https://investtaiwan.nat.gov.tw/>

Source:

- Commerce Industrial Services Portal <Procedures for setting up in the ROC a Branch Office of a Foreign Company> https://gcis.nat.gov.tw/English/Com_Eng_001.doc
- PREMIA TNC <How to Set up a Branch Office in Taiwan> <https://premiatnc.com/tw/blog/how-to-set-up-a-branch-office-in-taiwan/>

Government-to-Government Deals - Slide 24

U.S. <Taiwan Relations Act>

- The 'Taiwan Relations Act', is an important legal basis for regulating the 'non-diplomatic relations' between Taiwan and the U.S. after the U.S. broke off the diplomatic relationship with Taiwan in 1979.
- Taiwan Relations Act declared that the U.S. 'shall provide Taiwan with arms of a defensive character', and that it 'shall make available to Taiwan such defense articles and defense services in such quantity as may be necessary to enable Taiwan to maintain a sufficient self-defense capacity'.
- <https://www.ait.org.tw/taiwan-relations-act-public-law-96-8-22-u-s-c-3301-et-seq/>

U.S. <Taiwan Assurance Act>

- The Taiwan Assurance Act supports the deepening of US-Taiwan ties based on the 1979 Taiwan Relations Act (TRA).
- The 'Taiwan Assurance Act' stated 'The US should conduct regular sales and transfers of defense articles to Taiwan to enhance its self-defense capabilities, particularly its efforts to develop and integrate asymmetric capabilities, including undersea warfare and air defense capabilities, into its military forces'

Foreign Military Sales

- Foreign Military Sales (FMS) is the U.S. Government's program for transferring defense articles, services, and training to our international partners and international organizations.
- Under FMS, the U.S. Government uses DoD's acquisition system to procure defense articles and services on behalf of its partners.
- All sales of defense articles and services are subject to identical technology release reviews and determinations, re-transfer assurances, and congressional reviews (as applicable).

For information related to the Taiwan Enhanced Resilience Act, please refer to the notes on slide 10.

Appendix

Government-to-Government Deals - Slide 24 cont'd

Sources:

- Taipei Times <Trump signs Taiwan Assurance Act>
<https://www.taipeitimes.com/News/front/archives/2020/12/29/2003749564#:~:text=The%20act%20stresses%20that%20it,other%20international%20bodies%2C%20as%20a%20appropriate.>
- Defense Security Cooperation Agency <FOREIGN MILITARY SALES FAQ>
<https://www.dsca.mil/foreign-military-sales-faq>
- Forum on the Arms Trade <U.S. Arms Sales to Taiwan>
<https://www.forumarmstrade.org/ustaiwan.html>
- US-Taiwan Business Council <Taiwan Arms Sales Notified to Congress 1990-2023>
<https://www.ustaiwandefense.com/taiwan-arms-sales-notified-to-congress-1990-2023/>
- Defense Security Cooperation Agency <Foreign Military Sales & Direct Commercial Sales>
https://www.dsca.mil/sites/default/files/final-fms-dcs_30_sep.pdf

Direct Commercial Sales (DCS) - Slide 25

Three categories of tender in Taiwan:

- Open: a public notice is given to invite all interested suppliers to submit their tenders
- Selective: a public notice is given to invite all interested suppliers to submit their qualification documents for pre-qualification evaluation and, after such evaluation, the qualified suppliers are invited to tender
- Limited: no public notice is given, two or more suppliers are invited to compete or only one supplier is invited for tendering

Foreign juridical persons, such as foreign corporations Taiwan branches and offices, should follow the provisions of treaties or agreements between Taiwan and US governments when participating in government procurement projects.

Domestic representatives and agents are usually (1) retired military personnel from the American Institute in Taiwan (AIT) (2) retired military generals in Taiwan (3) Taiwanese companies with good political and business relationships

Appendix

Direct Commercial Sales (DCS) - Slide 25 cont'd

Sources:

- Taiwan's <Regulations for Coverage and Handling of Special Military Procurement>
<https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=F0090016>
- Taiwan's <Government Procurement Act>
<https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=A0030057>
- Ministry of National Defense R.O.C. <The Administrative Guidelines of Applying for Product/Services Promotion/Introduction and Registration Procedures for in-country Agents/Representatives of Foreign Companies>
https://www.mnd.gov.tw/NewUpload/201907/%E5%BB%A0%E5%95%86%E7%94%A2%E5%93%81%E6%8E%A8%E4%BB%8B%E4%BD%9C%E6%A5%AD%E8%A6%81%E9%BB%9E_%E8%8B%B1%E6%96%87_360713.pdf
- Taiwanese government procurement system on which open and selective tenders are published
<https://web.pcc.gov.tw/tps/QueryTender/query/queryEng?mode=>
- International Trade Administration <Taiwan - Country Commercial Guide: Selling to the Public Sector>
<https://www.trade.gov/country-commercial-guides/taiwan-selling-public-sector>
- The Advocacy Center website
<https://www.trade.gov/advocacy>

Industrial Cooperation & JV - Slide 26

- Taiwan's <National Defense Act>
 - Technology transfer is stressed in <National Defense Act> to fulfill the goal of being self-reliant on national defense. 'When it is necessary to pursue outsourcing channels, the acquisition activities shall realize technology transfer policy so as to establish an autonomous national defense infrastructure.'
<https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=F0010030>
- Taiwan-U.S. Defense Industry Forum on Wednesday (May 3).
<https://www.taiwannews.com.tw/en/news/4881012>

Sources:

- Common Wealth Magazine <Can Taiwan, which has modified the largest F-16 fleet in the Asia-Pacific by itself, repair fighter jets and make parts for others?>
<https://www.cw.com.tw/article/5098297?template=transformers>
- Taipei News <US upgrades Patriot missile package>
<https://www.taipeitimes.com/News/front/archives/2022/12/07/2003790257>
- Taiwan's Industrial Cooperation Program website
<https://www.icpo.org.tw/En/Page.aspx?ID=ea2700f8-e422-4282-a39b-5fe2f9966fc8>

Appendix

Key Challenges - Slide 28

Footnotes:

- FDI and JV participation in certain sectors is prohibited/ restricted
- Lockheed and Raytheon were subjected to sanctions by China in 2023 because they have been providing weapons to Taiwan
- Taiwan government has been encouraging companies to acquire Cybersecurity Maturity Mode Certification (CMMC) 2.0 to help mitigate this risk

Cybersecurity Maturity Model Certification (CMMC):

- To safeguard sensitive national security information, the Department of Defense (DoD) launched CMMC 2.0, a comprehensive framework to protect the defense industrial base's (DIB) sensitive unclassified information from frequent and increasingly complex cyberattacks.
- CMMC requirements will appear in all contracts starting in fiscal year 2026, meaning all DoD contractors will need to comply in order to bid on the work.

U.S. Needs to Clear **\$19B** in Arms Sale Backlog to Taiwan, says HASC member

Sources:

- The Associated Press <China reveals new details of Raytheon, Lockheed sanctions>
<https://apnews.com/article/china-sanctions-weapons-sales-taiwan-lockheed-raytheon-e6503f62d8aa8fa8cf9205252e7bff5f>
- Voice of America <US, Taiwan Defense Firms to Explore Weapons Co-Production>
<https://www.voanews.com/a/us-taiwan-defense-firms-to-explore-weapons-co-production/7057885.html>
- National Public Radio <Taiwan's companies make the world's electronics. Now they want to make weapons>
<https://www.npr.org/2023/08/18/1186919198/taiwan-military-weapons-manufacturing-industry>
- Taiwan Defense Industry Development Association <Encouraging industry players to actively invest in the U.S. Cybersecurity Maturity Model Certification (CMMC) is the key to building Taiwan's defense industry with an output value of 100 billion>
https://www.twdida.org.tw/news_view.php?id=121
- Institute of Information Industry <The Ministry of Economic Affairs joins hands with CMMC to lead the way to help Taiwanese industries advance in the U.S. defense supply chain>
https://www.iii.org.tw/Press/NewsDtl.aspx?nsp_sqno=2419&fm_sqno=14
<https://news.usni.org/2022/12/14/u-s-needs-to-clear-19b-in-arms-sale-backlog-to-taiwan-says-hasc-member>