

Global Demand for GPUs

driven by Rapid Advancement of AI

An Analysis of Recent Trade Trends in Key Markets

Introduction

The rapid advancement of artificial intelligence (AI) is inextricably linked to the evolution of Graphics Processing Units (GPUs), which are specialized processors designed for parallel computing tasks. GPUs are a cornerstone for powering cutting-edge technologies such as machine learning, deep learning, neural networks, and natural language processing. Without GPUs, the continued development and implementation of these transformative technologies would be unfeasible. As a result, global demand for GPUs remains robust and continues to rise.

GPUs are primarily classified under the HS Code 8473.30.1180. However, due to the fact that not all countries report trade statistics using the 10-digit HS Code, the analysis presented in this report is based on data derived from the 6-digit HS Code 847330.

This report provides an overview of key trends in international trade flows for GPUs and related products (classified under HS Code 847330), focusing on the top-10 markets that together account for more than 80% of global imports. The countries included in this analysis are the United States, Hong Kong, China, Mexico, Taiwan, Singapore, Germany, the Netherlands, Thailand, and Viet Nam.

The findings presented in this report are based on data sourced from the "Tariffline" dataset provided by UN Comtrade. Direct import statistics from individual countries were used in all cases, with the exception of Taiwan and Viet Nam. For these two markets, which either do not report to UN Comtrade or do so infrequently, "mirror" data from trade partners has been utilized.

For more in-depth, country-specific reports on this product, the GTAIC service can be accessed at <https://gtaic.ai/>. The GTAIC service conducts its own analyses using datasets acquired through a licensing agreement with UN Comtrade, which is the authoritative source for export-import data at the country level, covering over 200 countries. In addition to UN Comtrade, the GTAIC service also incorporates data from other reputable sources, including the World Trade Organization (WTO), the World Bank, the Organisation for Economic Co-operation and Development (OECD), and the United Nations Conference on Trade and Development (UNCTAD).

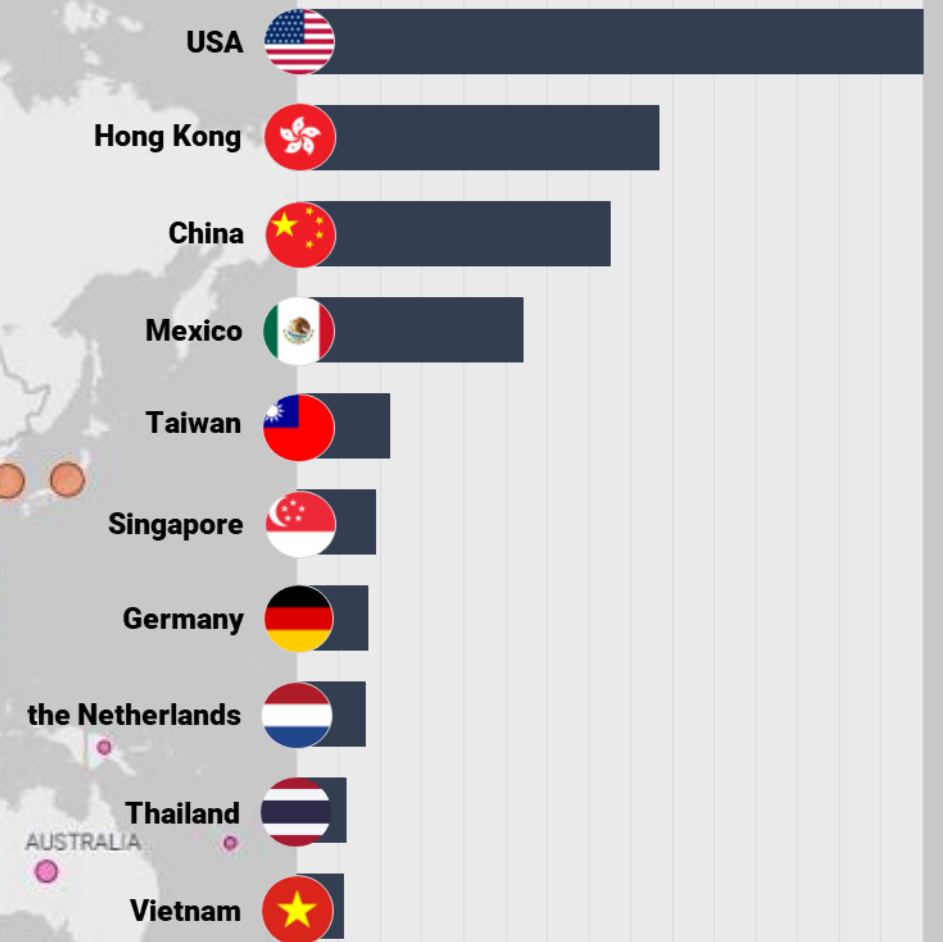
2023

>94 B\$

Total Imports by TOP-10 countries

Top-10 importers of GPU

■ b USD in 2023



0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30



USA

2023

31.9 B\$
Imports

-5%
Growth Rate

8M
2024

33.7 B\$
Imports

+73%
Growth Rate

Major Suppliers:



Taiwan, >50% in total imports in 8M 2024

Fastest Growing Suppliers:



Viet Nam, + 180% in 8M 2024



Malaysia, + 135% in 8M 2024



Taiwan, + 99% in 8M 2024

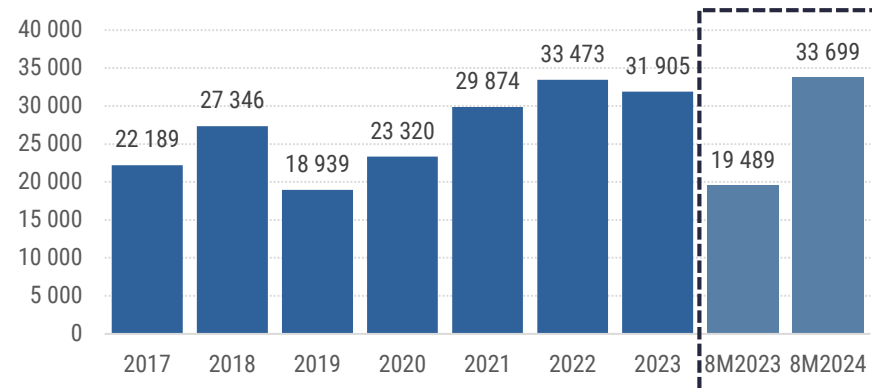


Thailand, + 96% in 8M 2024

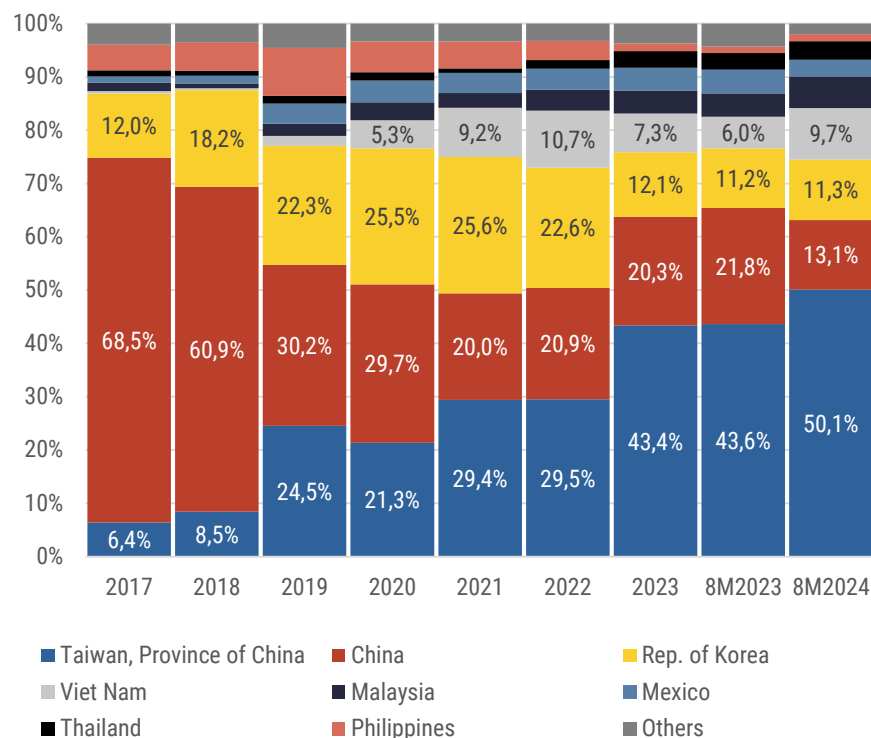


Philippines, + 89% in 8M 2024

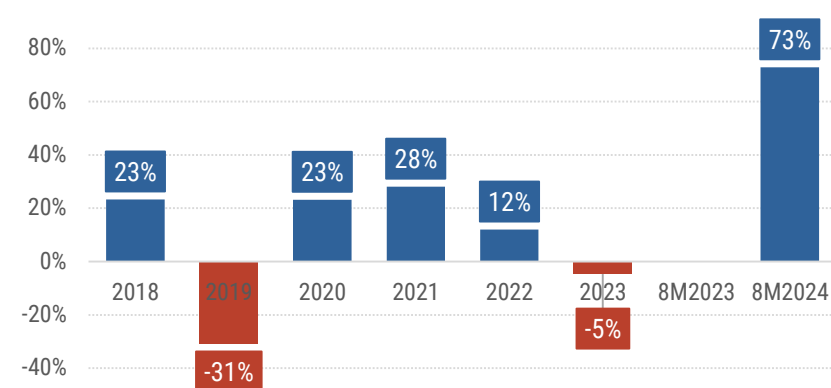
Total Imports by USA, M\$



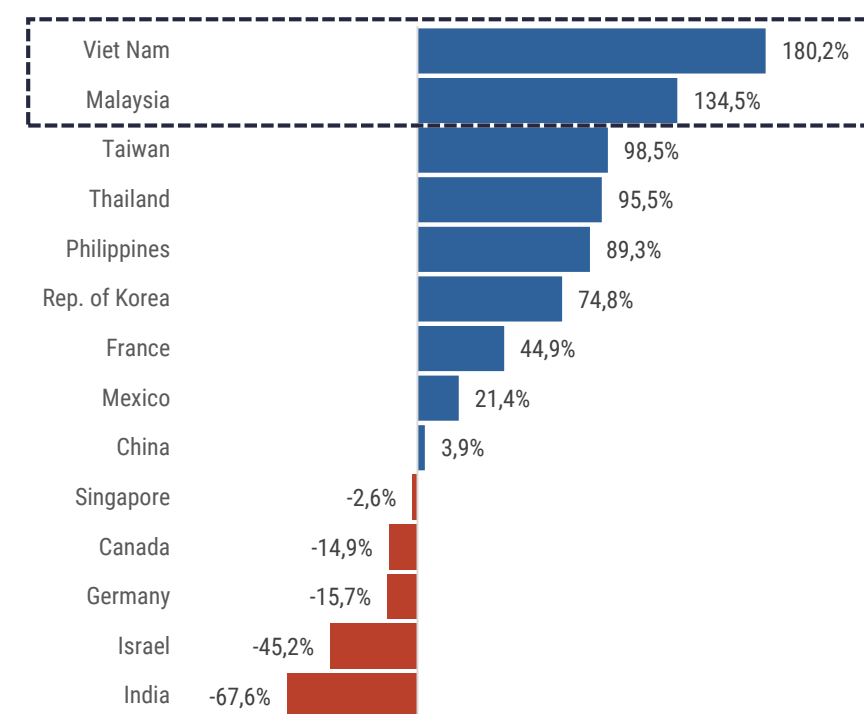
USA's Largest Suppliers, %



Y-o-Y Imports Growth, %



Growth Rate of Imports in Jan-Aug 2024 vs Jan-Aug 2023, %





Hong Kong

2023

17.3 B\$
Imports

-31%
Growth Rate

8M
2024

9.9 B\$
Imports

-4.5%
Growth Rate

Major Suppliers:



China, 48% in total imports in 8M 2024

Fastest Growing Suppliers:

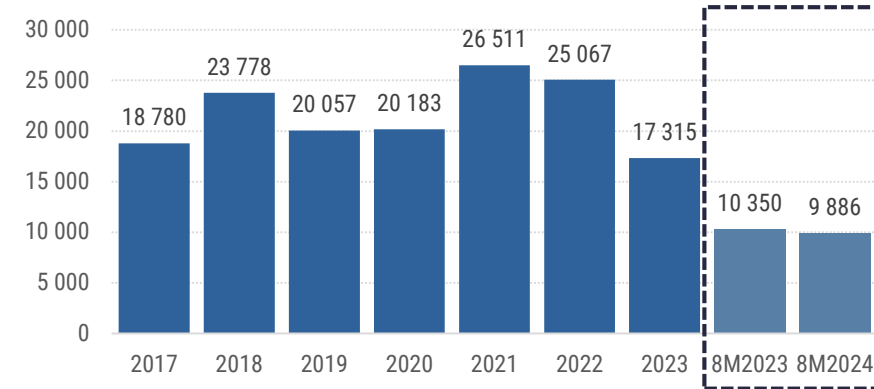


Philippines, + 235% in 8M 2024

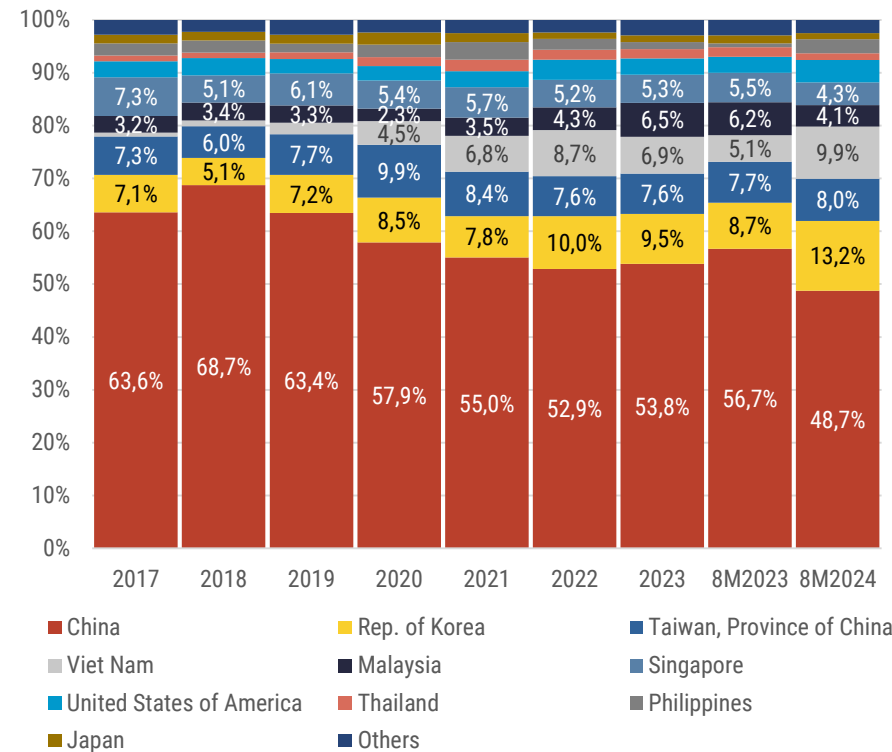


Viet Nam, + 86% in 8M 2024

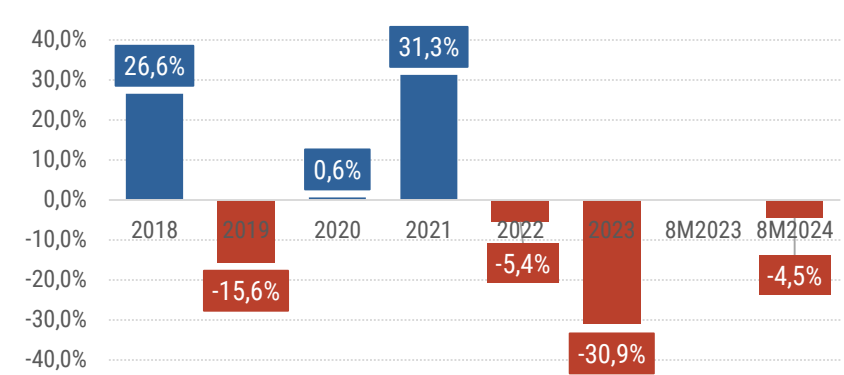
Total Imports by Hong Kong, M\$



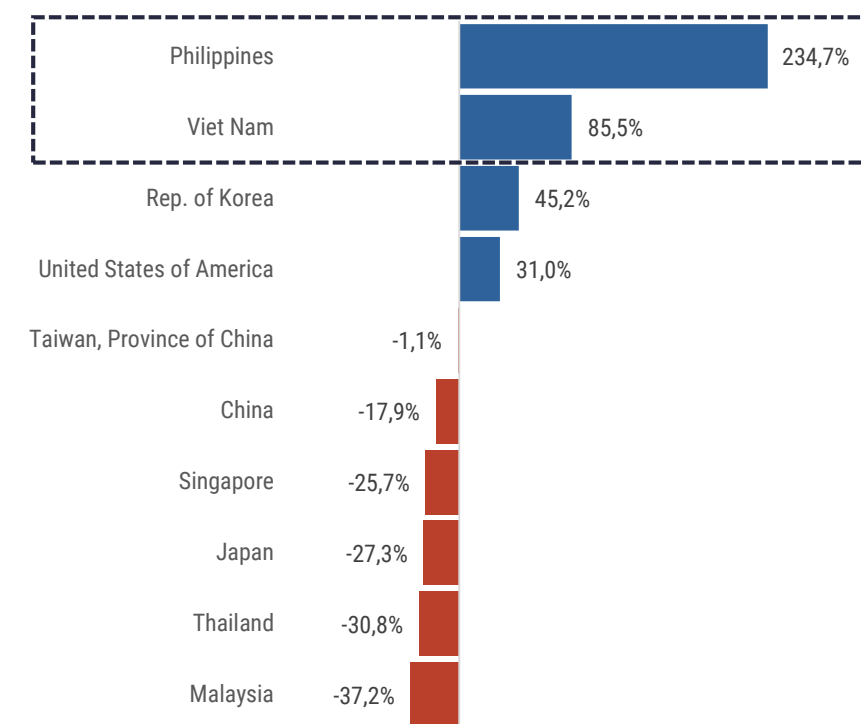
Hong Kong's Largest Suppliers, %



Y-o-Y Imports Growth, %



Growth Rate of Imports in Jan-Aug 2024 vs Jan-Aug 2023, %





China

2023

15.0 B\$
Imports

-31%
Growth Rate

8M
2024

N/a

* not reported

N/a

* not reported

Major Suppliers:



China, 25% in total imports in 2023



Viet Nam, 21% in total imports in 2023



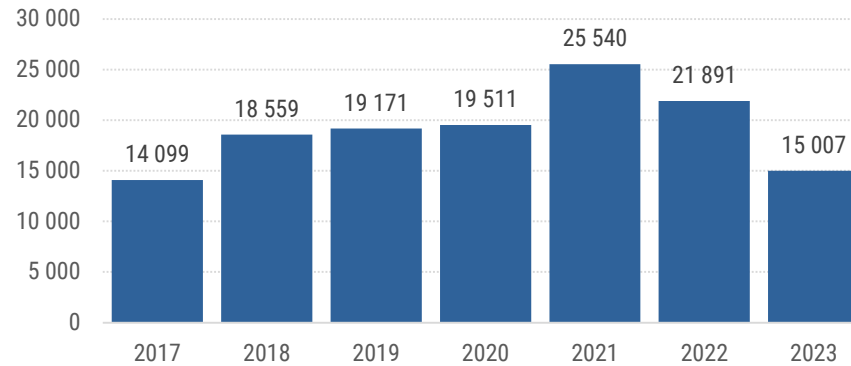
Rep of Korea, 20% in total imports in 2023

Fastest Growing Suppliers:

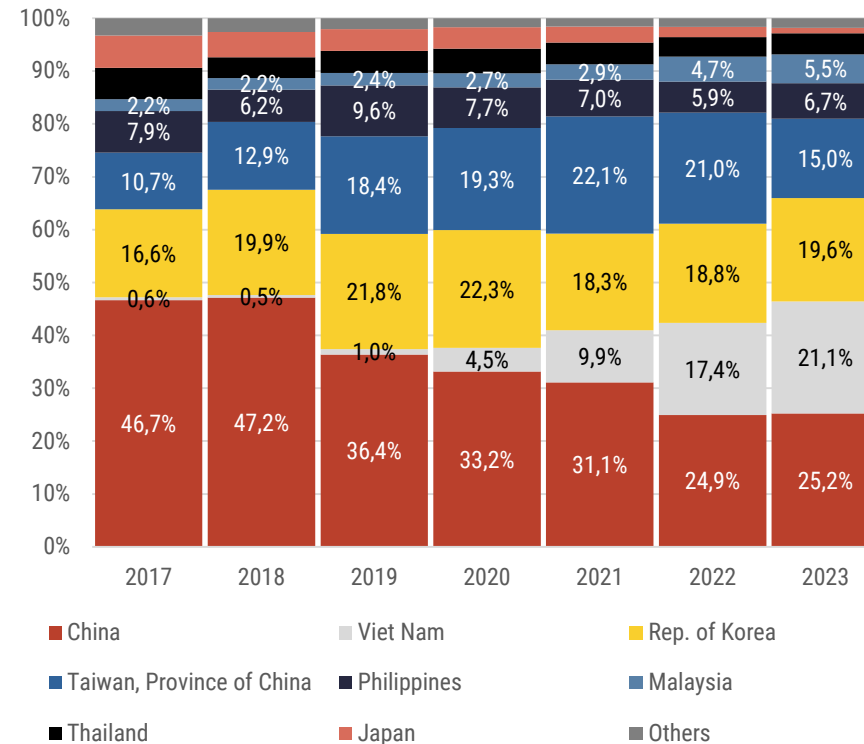


Germany, + 7% in 2023

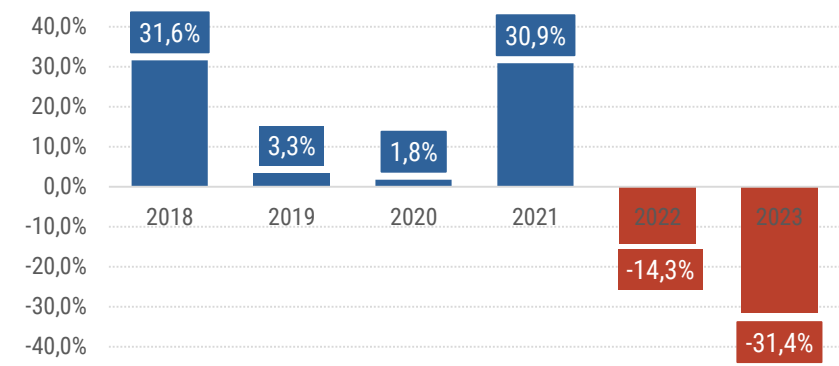
Total Imports by China, M\$



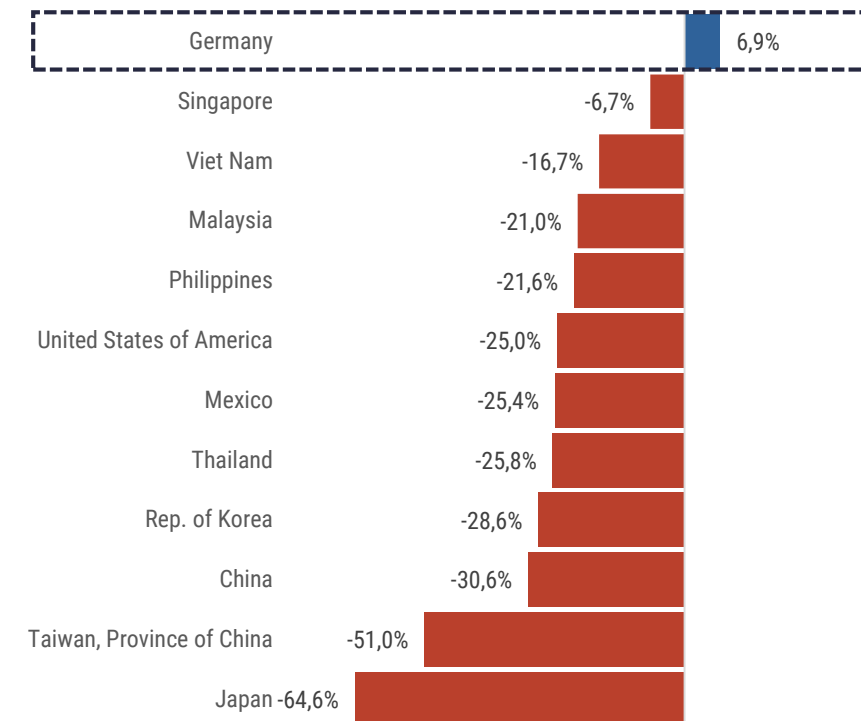
China's Largest Suppliers, %



Y-o-Y Imports Growth, %



Growth Rate of Imports in 2023 vs 2022, %





Mexico

2023

10.8 B\$
Imports

-22%
Growth Rate

7M
2024

8.2 B\$
Imports

+35%
Growth Rate

Major Suppliers:



China, 36% in total imports in 7M 2024



Taiwan, 23% in total imports in 7M 2024

Fastest Growing Suppliers:

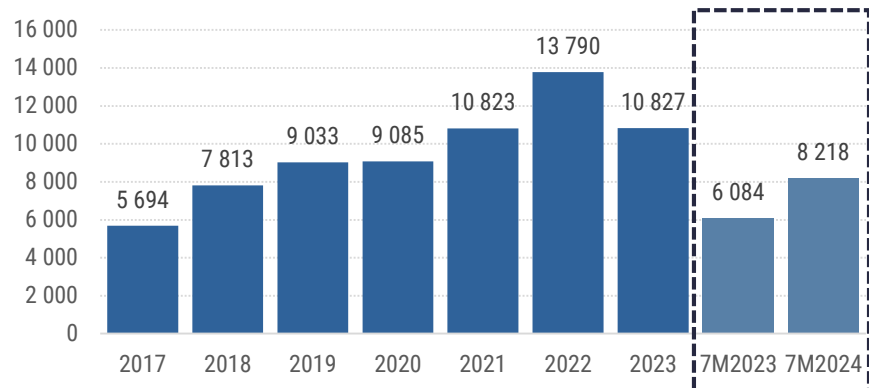


Viet Nam, + 264% in 7M 2024

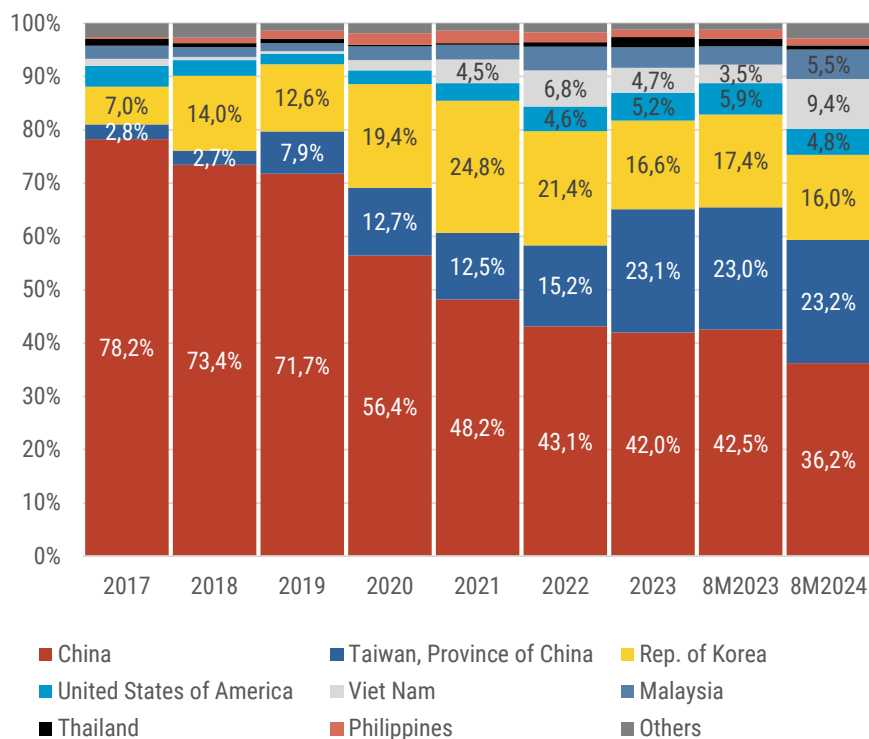


Malaysia, + 117% in 7M 2024

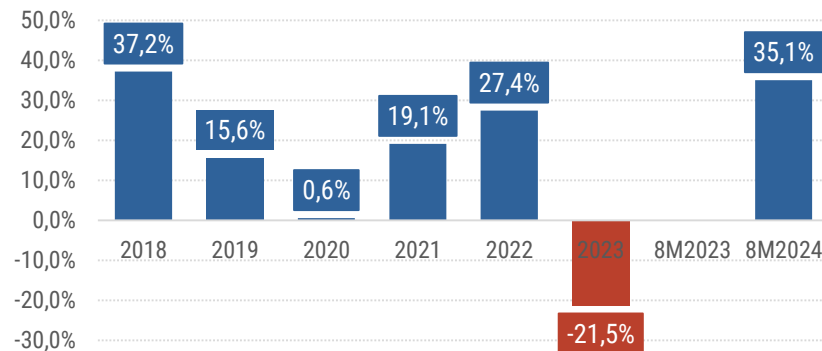
Total Imports by Mexico, M\$



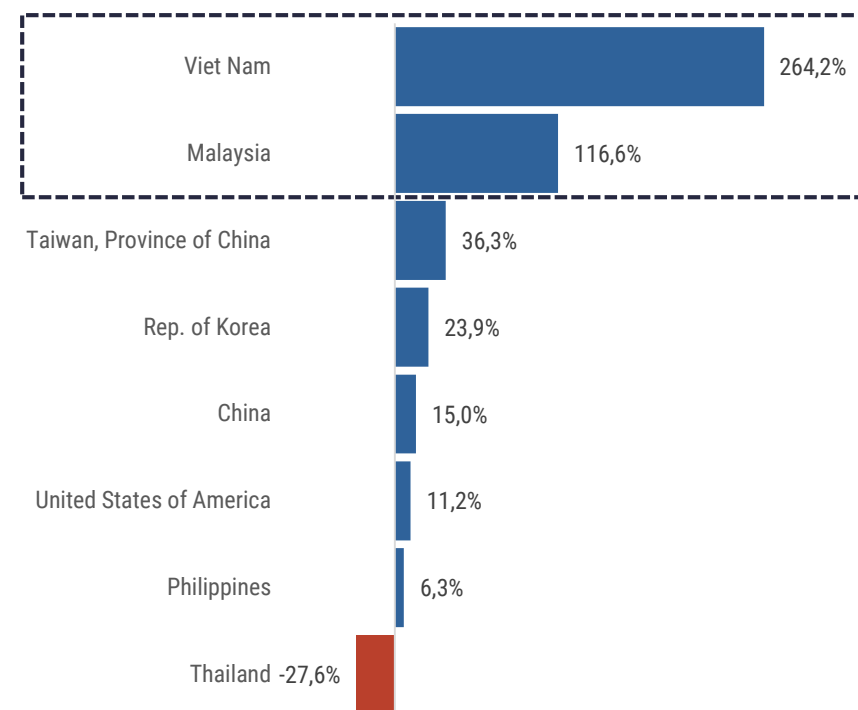
Mexico's Largest Suppliers, %



Y-o-Y Imports Growth, %



Growth Rate of Imports in Jan-Jul 2024 vs Jan-Jul 2023, %





Taiwan

Based on trade statistics provided by trade partners

2023

4.4 B\$
Imports

-23%
Growth Rate

8M
2024

N/a

* not reported

N/a

* not reported

Major Suppliers:



China, 45% in total imports in 2023



USA, 23% in total imports in 2023



Hong Kong, 23% in total imports in 2023

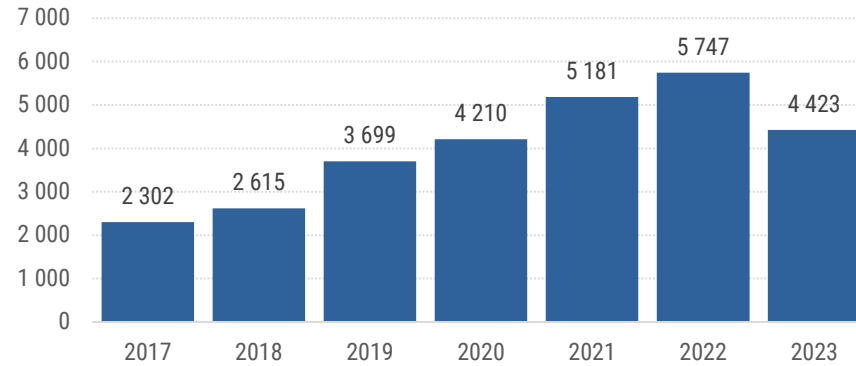
Fastest Growing Suppliers:



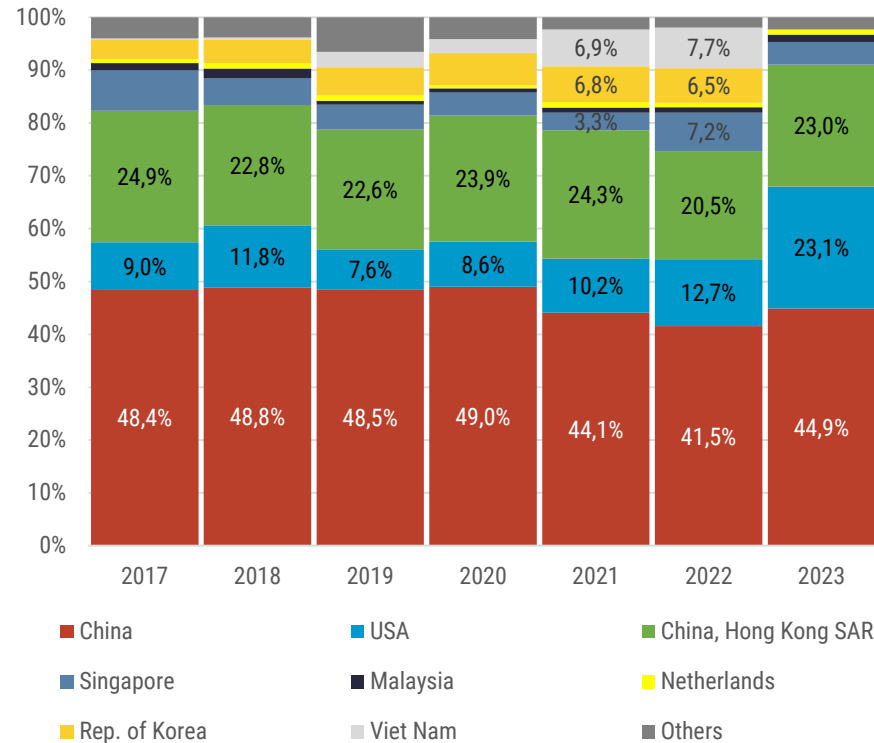
USA, + 40% in 2023

Note: Data on trade with Viet Nam and Rep of Korea for 2023 not available.

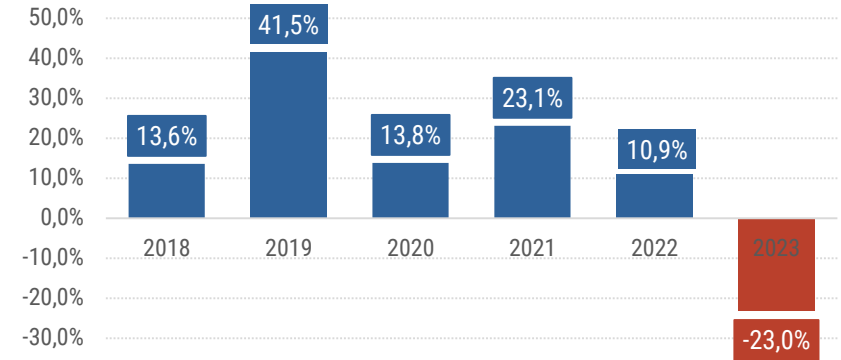
Total Imports by Taiwan, M\$



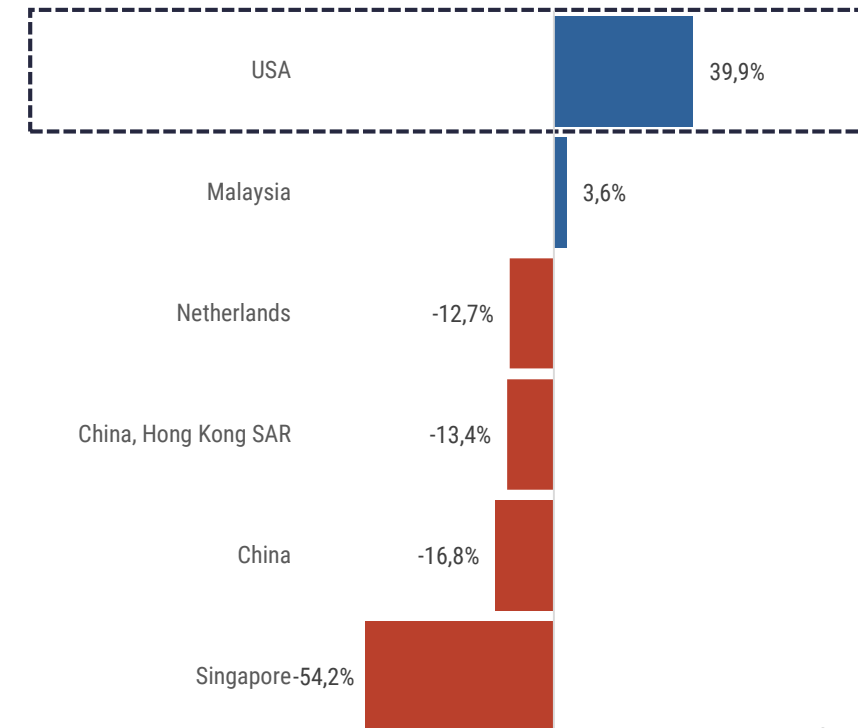
Taiwan's Largest Suppliers, %



Y-o-Y Imports Growth, %



Growth Rate of Imports in 2023 vs 2022, %





Singapore

2023

3.7 B\$
Imports

-12%
Growth Rate

**3M
2024**

0.9 B\$
Imports

+10%
Growth Rate

Major Suppliers:



China, 33% in total imports in 3M 2024



Taiwan, 18% in total imports in 3M 2024



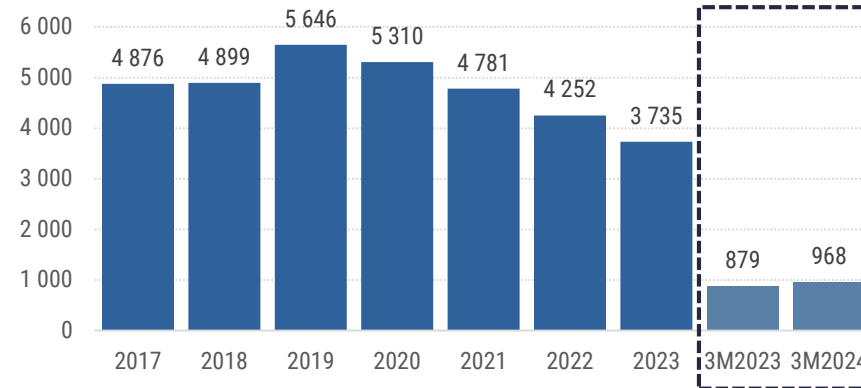
Malaysia, 18% in total imports in 3M 2024

Fastest Growing Suppliers:

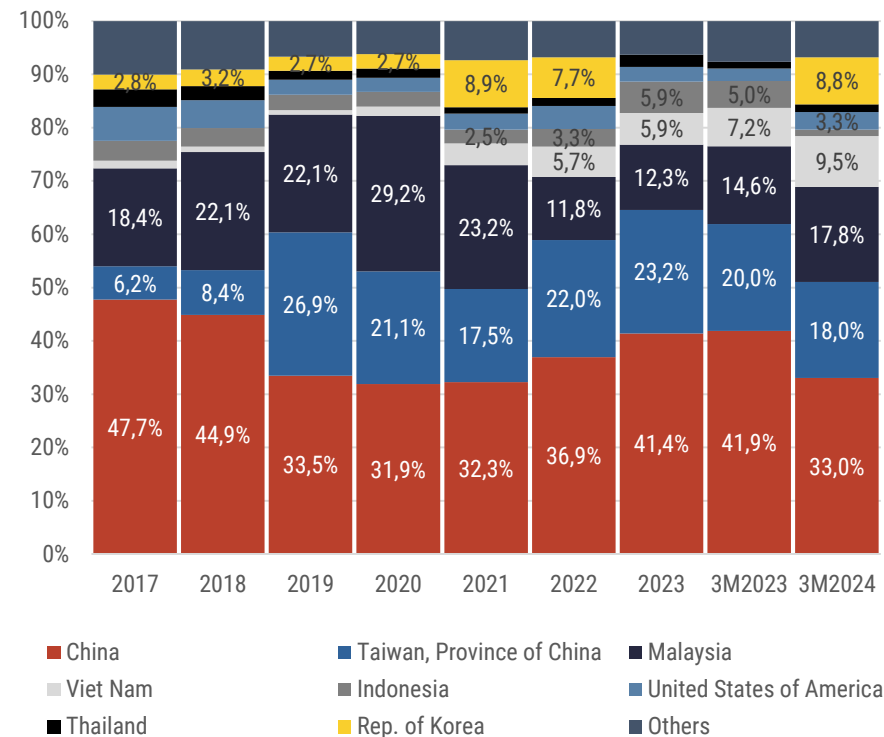


Mexico, + 468% in 3M 2024

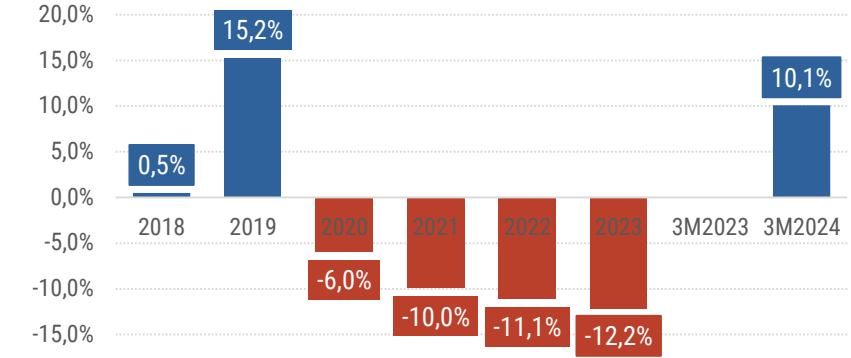
Total Imports by Singapore, M\$



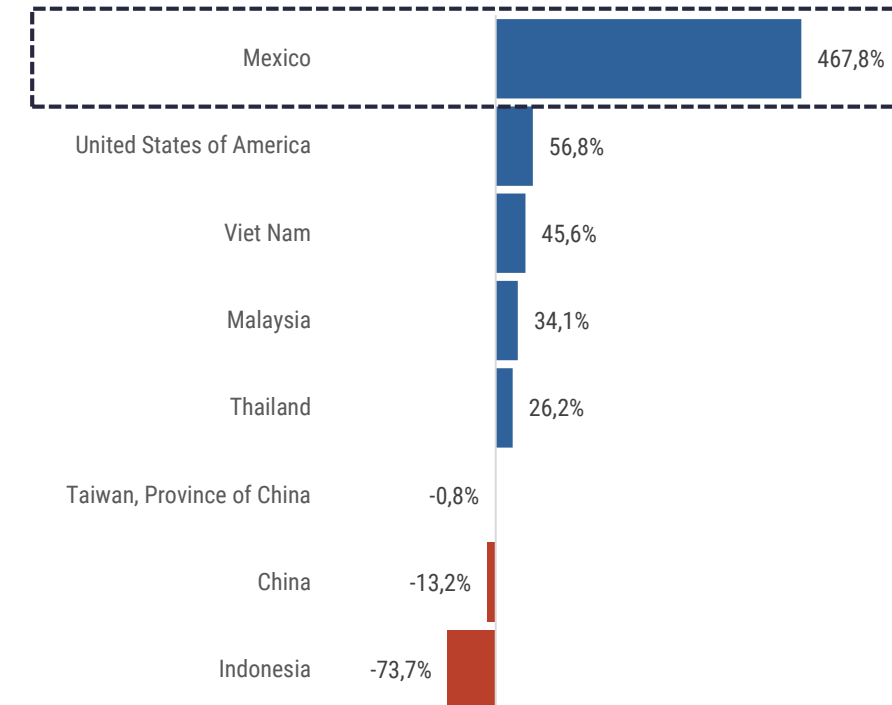
Singapore's Largest Suppliers, %



Y-o-Y Imports Growth, %



Growth Rate of Imports in Jan-Mar 2024 vs Jan-Mar 2023, %





Germany

2023

3.4 B\$
Imports

-27%
Growth Rate

8M
2024

2.3 B\$
Imports

+6%
Growth Rate

Major Suppliers:



China, 36% in total imports in 8M 2024



Rep of Korea, 21% in total imports in 8M 2024



Taiwan, 12% in total imports in 8M 2024

Fastest Growing Suppliers:

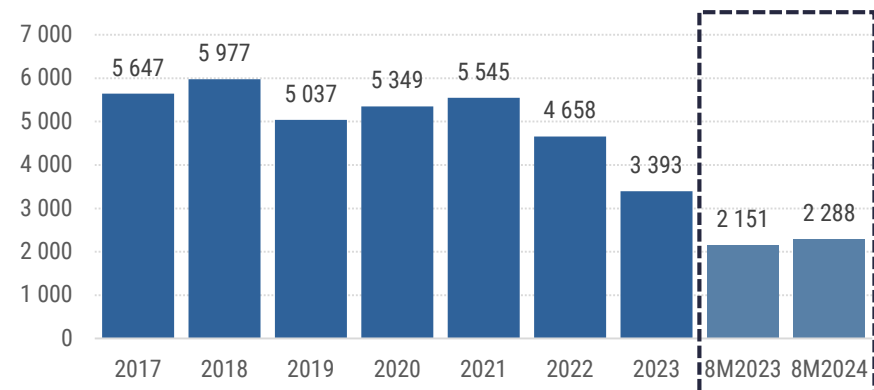


Rep of Korea, + 168% in 8M 2024

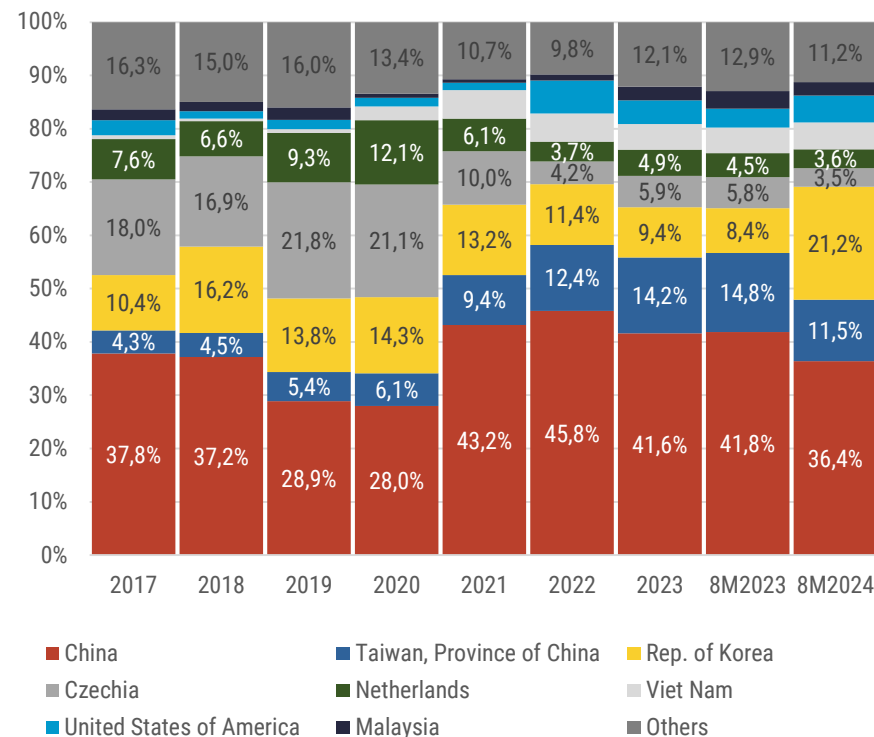


Mexico, + 153% in 8M 2024

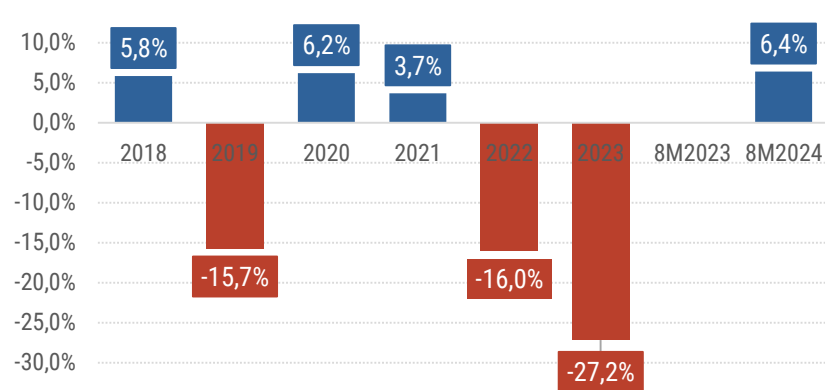
Total Imports by Germany, M\$



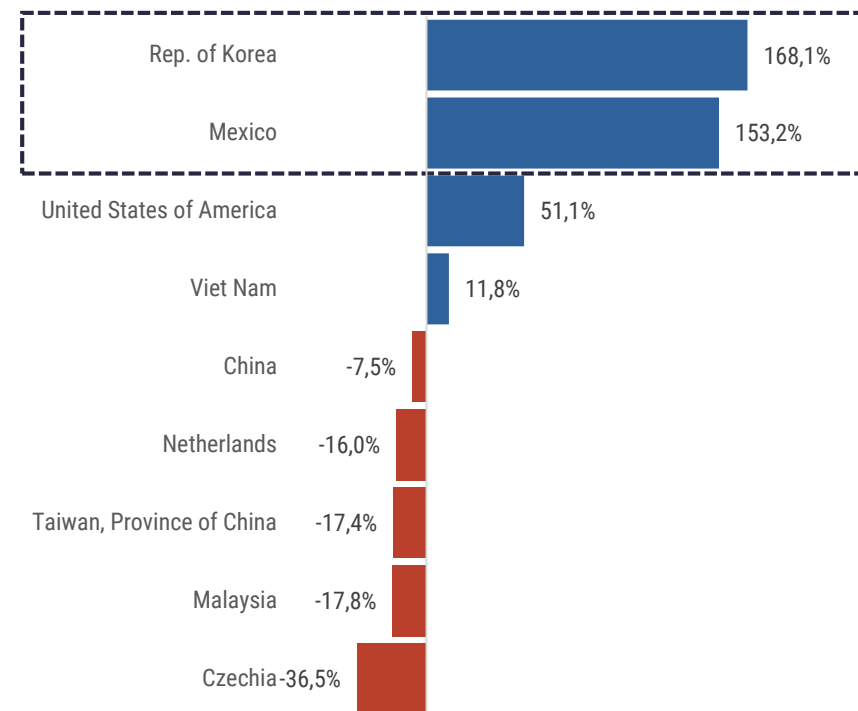
Germany's Largest Suppliers, %



Y-o-Y Imports Growth, %



Growth Rate of Imports in Jan-Aug 2024 vs Jan-Aug 2023, %



Netherlands

2023

3.3 B\$
Imports

-6%
Growth Rate

**8M
2024**

3.0 B\$
Imports

+46%
Growth Rate

Major Suppliers:



Taiwan, 26% in total imports in 8M 2024



USA, 18% in total imports in 2023



China, 12% in total imports in 8M 2024

Fastest Growing Suppliers:

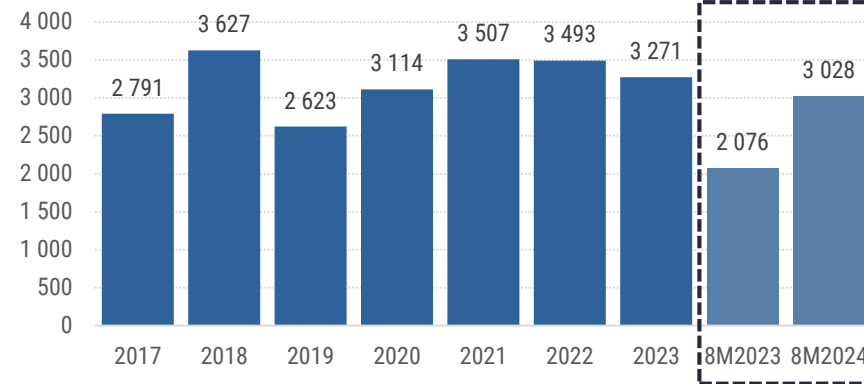


Thailand, + 2 579% in 8M 2024

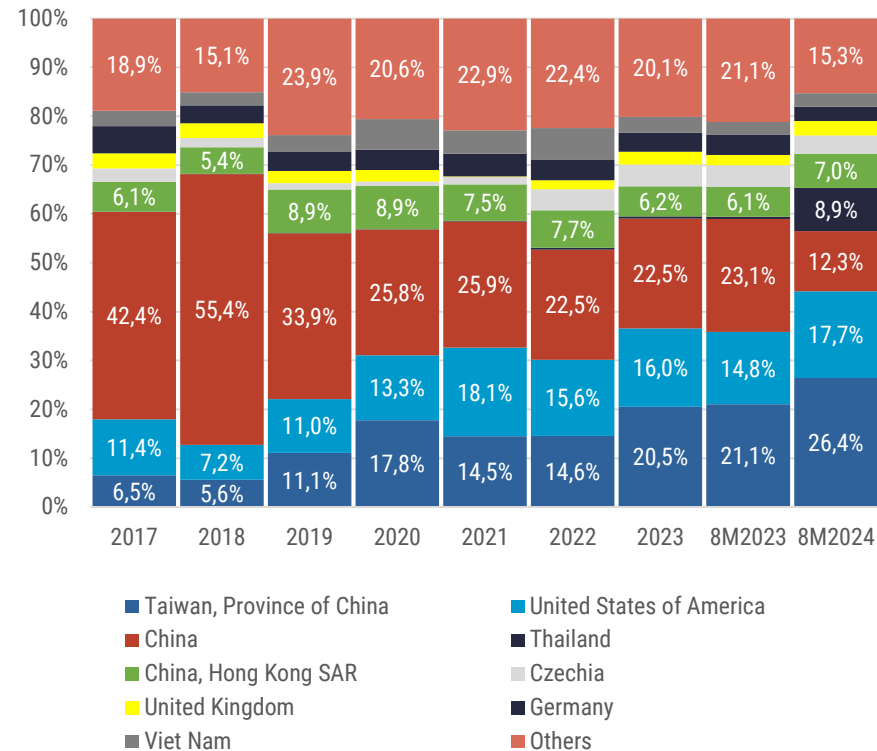


Mexico, + 1 739% in 8M 2024

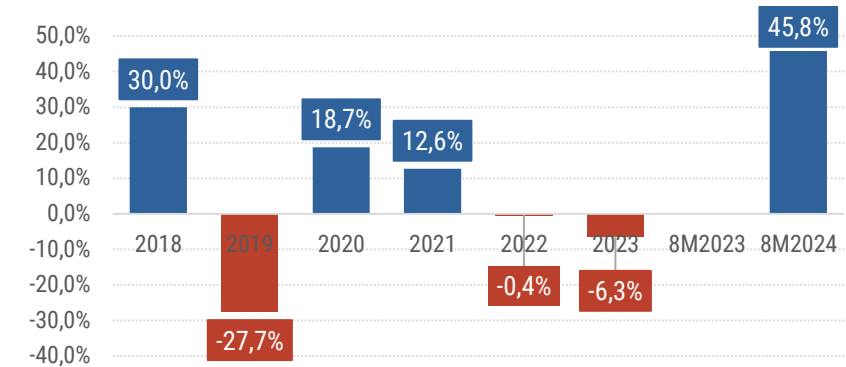
Total Imports by the Netherlands, M\$



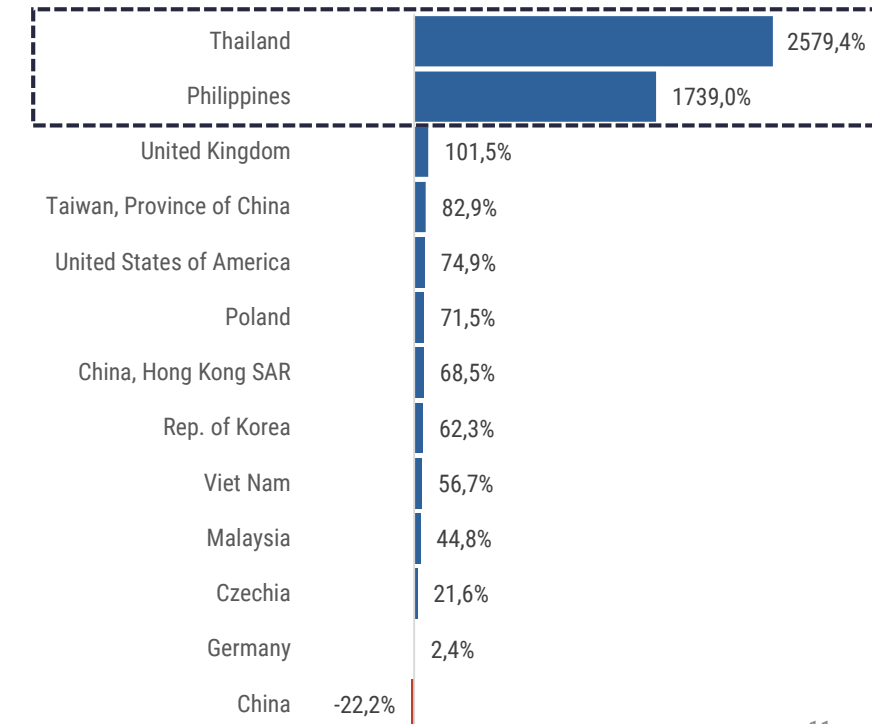
The Netherlands' Largest Suppliers, %



Y-o-Y Imports Growth, %



Growth Rate of Imports in Jan-Aug 2024 vs Jan-Aug 2023, %





Thailand

2023

2.4 B\$
Imports

-5%
Growth Rate

**7M
2024**

1.4 B\$
Imports

-8.5%
Growth Rate

Major Suppliers:



China, 31% in total imports in 7M 2024



Philippines, 31% in total imports in 7M 2024



Taiwan, 42% in total imports in 2023

Fastest Growing Suppliers:

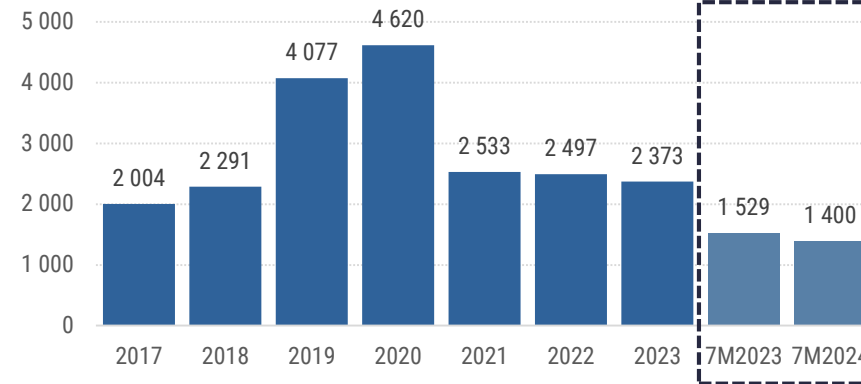


Viet Nam, + 194% in 7M 2024

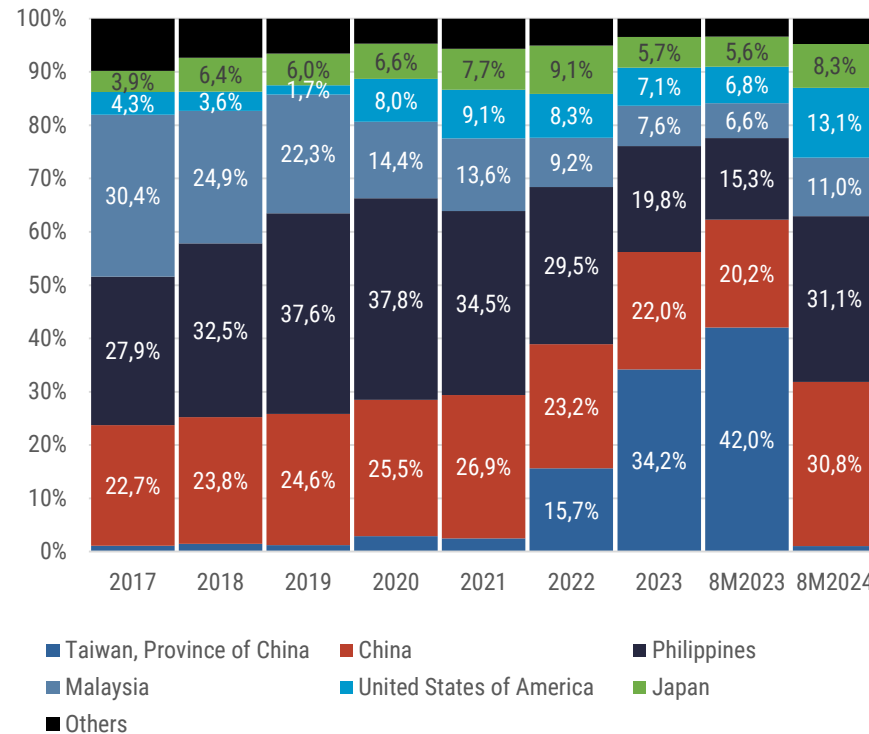


Rep of Korea, + 116% in 7M 2024

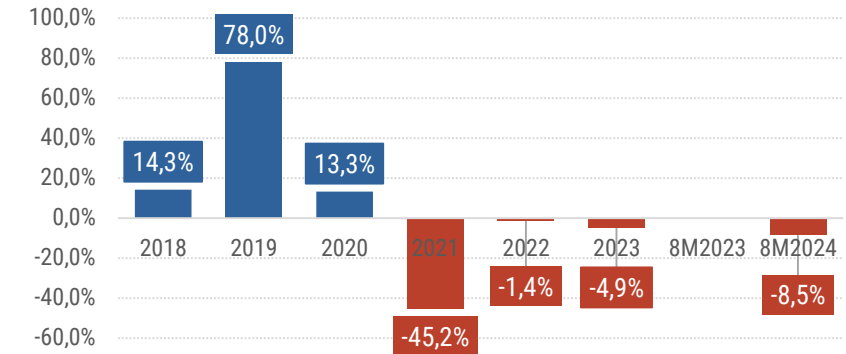
Total Imports by Thailand, M\$



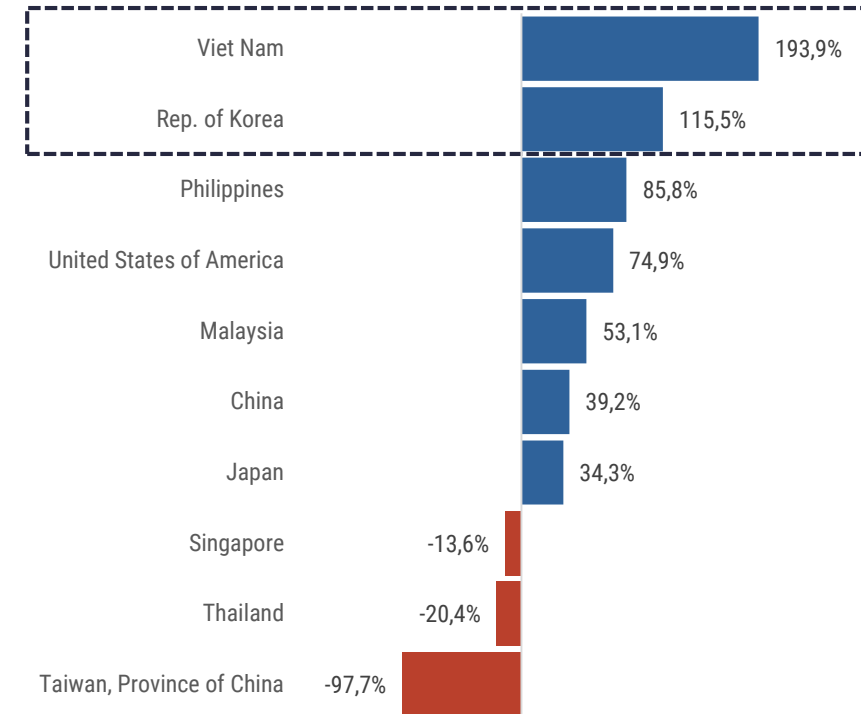
Thailand's Largest Suppliers, %



Y-o-Y Imports Growth, %



Growth Rate of Imports in Jan-Jul 2024 vs Jan-Jul 2023, %





Viet Nam

Based on trade statistics provided by trade partners

2023

2.2 B\$
Imports

+52%
Growth Rate

8M
2024

N/a

* not reported

N/a

* not reported

Major Suppliers:



China, 73% in total imports in 2023



Hong Kong, 18% in total imports in 2023

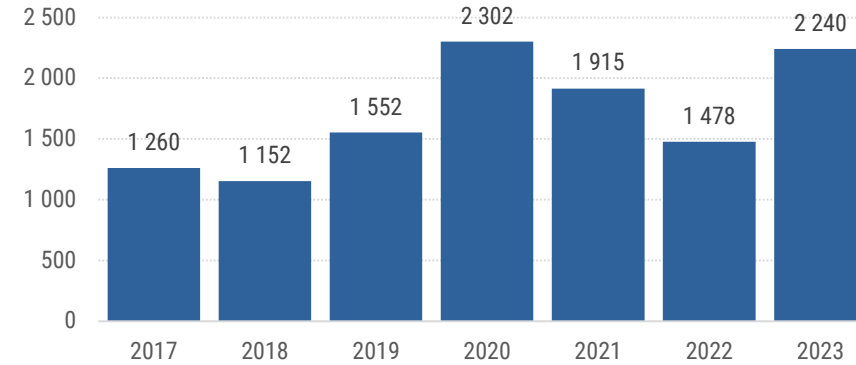
Fastest Growing Suppliers:



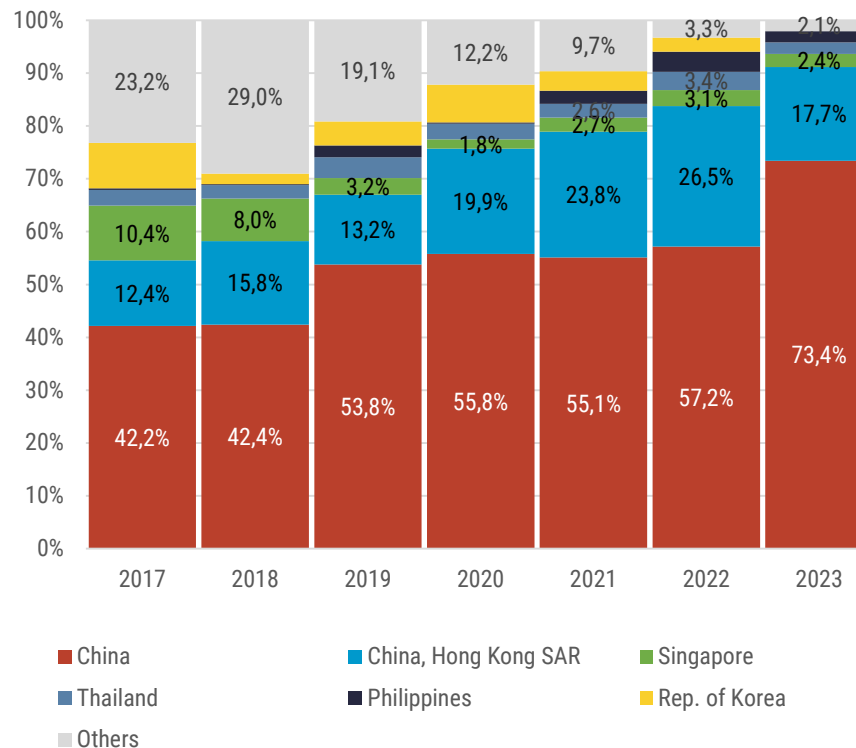
The Netherlands, + 382% in 2023

Note: Data on trade with Rep of Korea for 2023 not available.

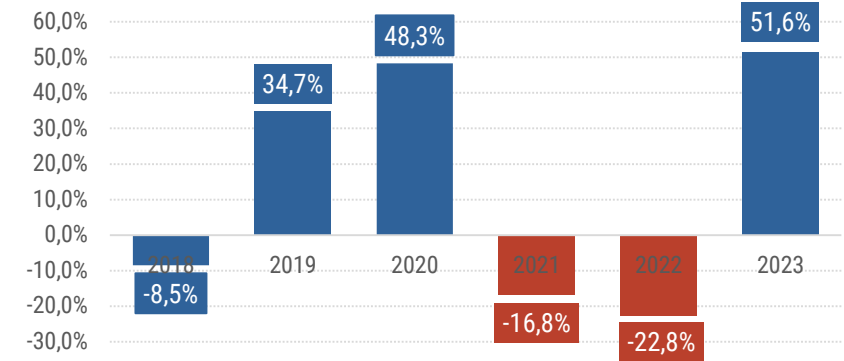
Total Imports by Viet Nam, M\$



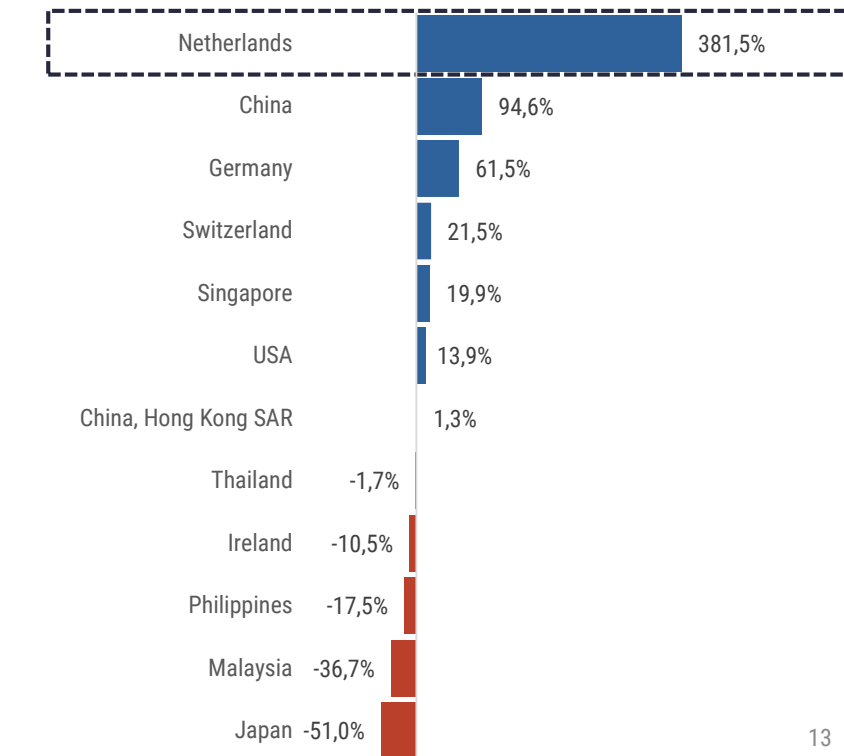
Viet Nam's Largest Suppliers, %



Y-o-Y Imports Growth, %



Growth Rate of Imports in 2023 vs 2022, %

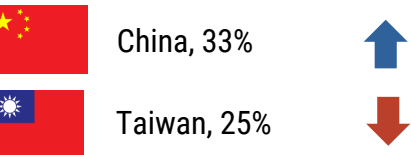


Largest Suppliers

2023
~ 100
Unique suppliers of HS 847330

2023
>80%
Share of TOP-5 suppliers

Major Suppliers in 2023:

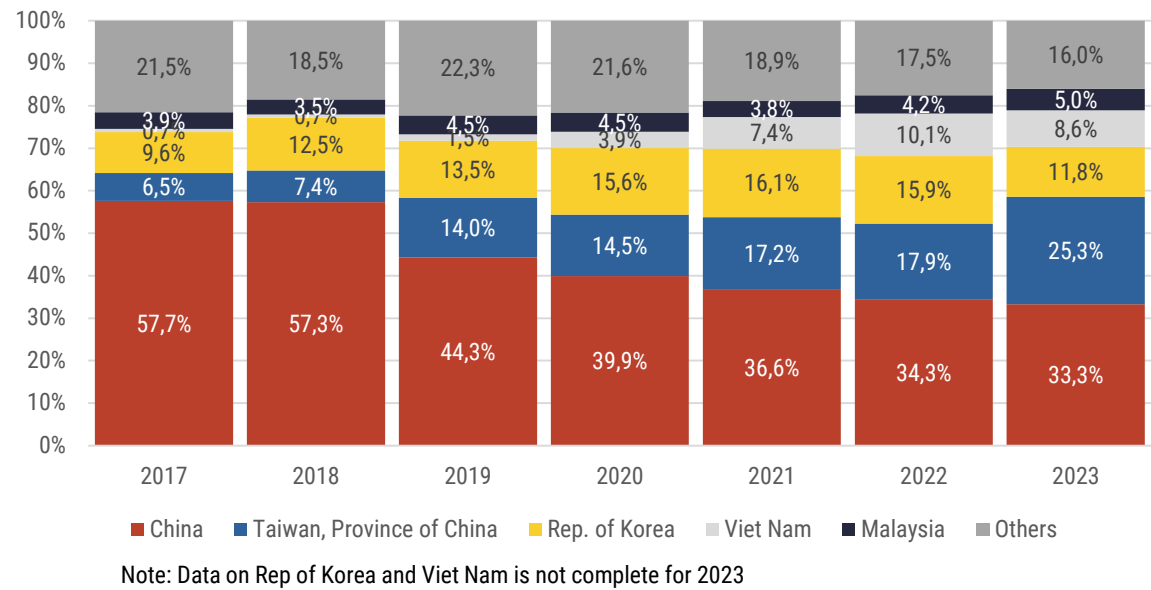


Major Suppliers in 2024:

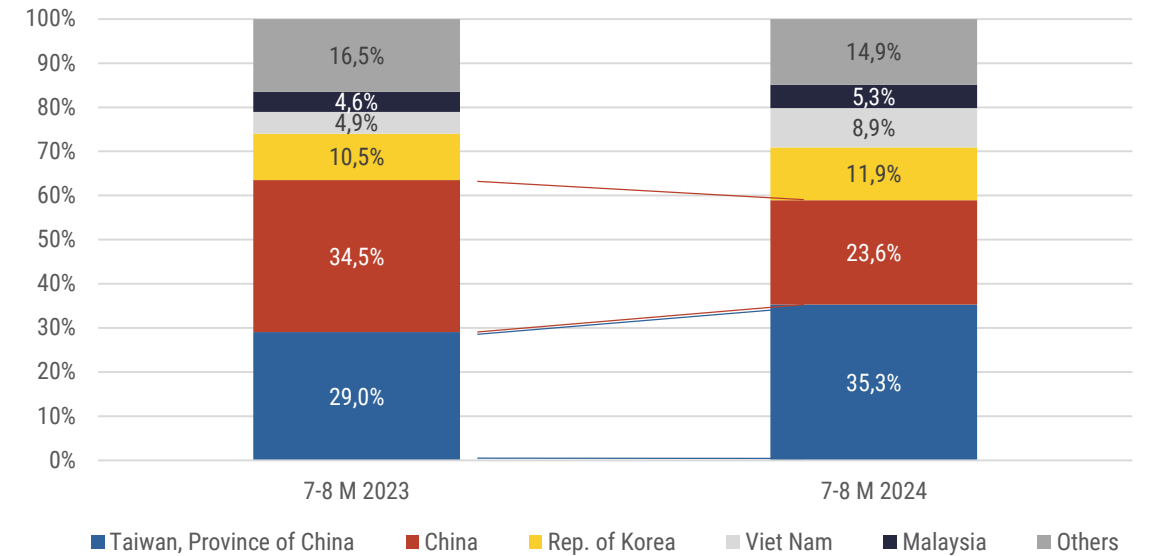


Note: Based on data for 7 or 8 moths of 2024, provided by USA, Hong Kong, Germany, Netherlands, Mexico, and Thailand

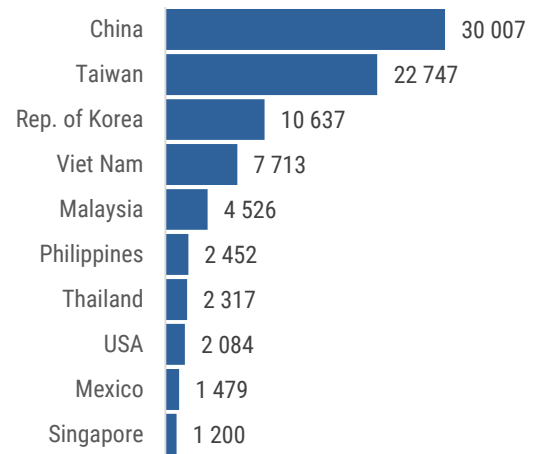
Change of Shares of Top-5 Suppliers to Top-10 Markets in 2017-2023



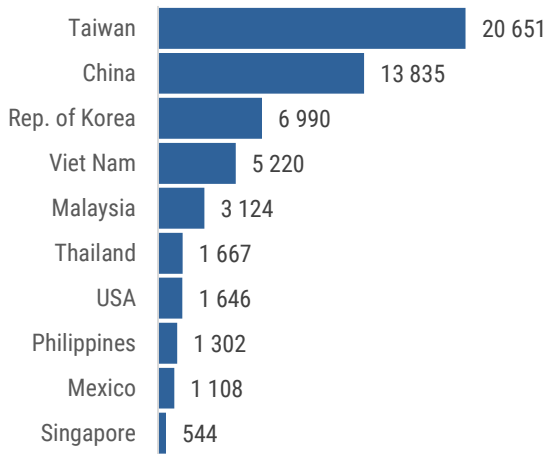
Change of Shares of Top-5 Suppliers to Top-6 Markets in 2024



Imports Reported by Partners in 2023, M\$



Imports Reported by Partners in 7-8 months of 2024, M\$



Export Hunter, UAB

Konstitucijos pr.15-69A
Vilnius, Lithuania

www.gtaic.ai

E-mail us at sales@gtaic.ai

Follow us on LinkedIn 