

Deglobalization and the Reconfiguration of Global Supply Chain in Asia

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Table of Content

Globalization and Deglobalization	3
Global Supply Chain Disruptions	4
The U.S. - China Trade War	5
Southeast Asia	6
Hypotheses	9
Data and Methodology	10
Results	13
Discussion & Conclusion	15

Globalization and Deglobalization

Globalization

- The flow of trade, investment, and knowledge
- Promotes economic growth, improves standard of living, increases social welfare (evidence from China)

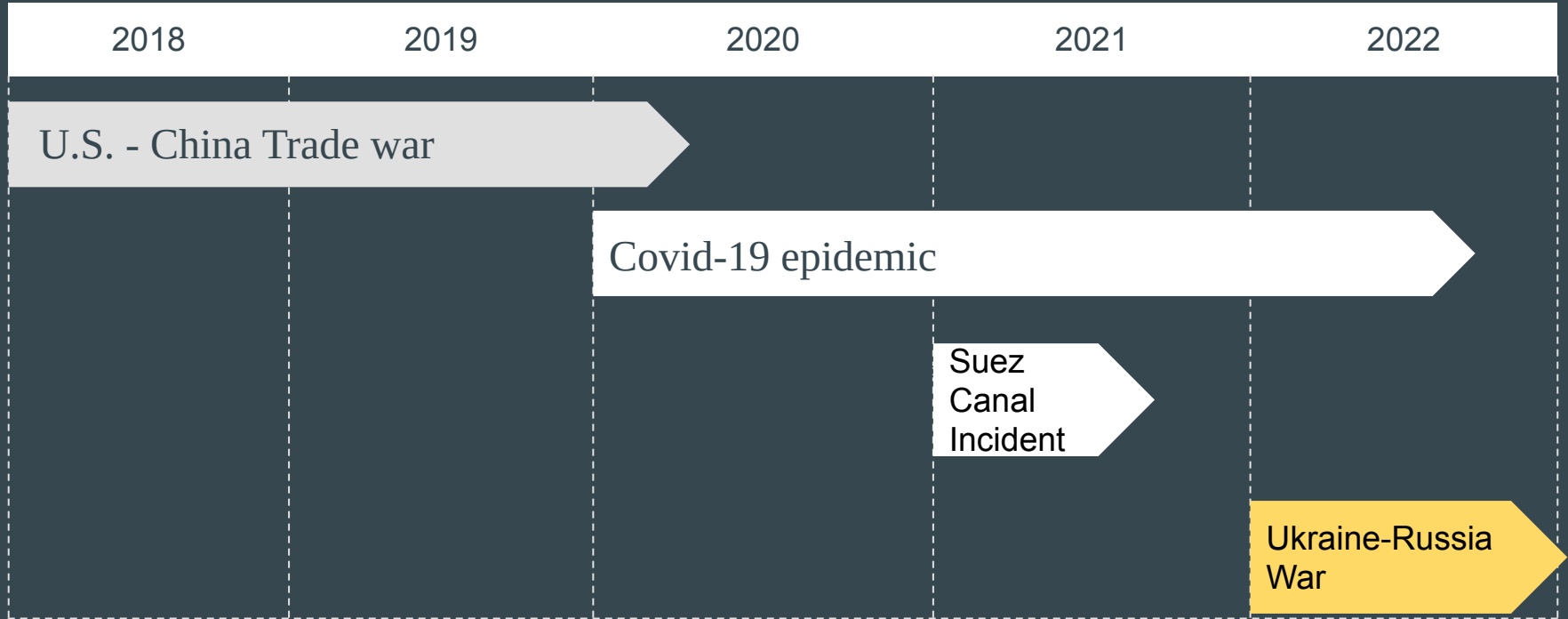
Global supply chain

- Emerged from technology breakthroughs that enable spatial distance between manufacturers and consumers
- Comparative advantages enable countries to compete more efficiently on the global market

Deglobalization

- The stagnation or decline of globalization progress
- Can be due to rising geopolitical uncertainty, natural disasters, and black swan events

Global Supply Chain Disruptions

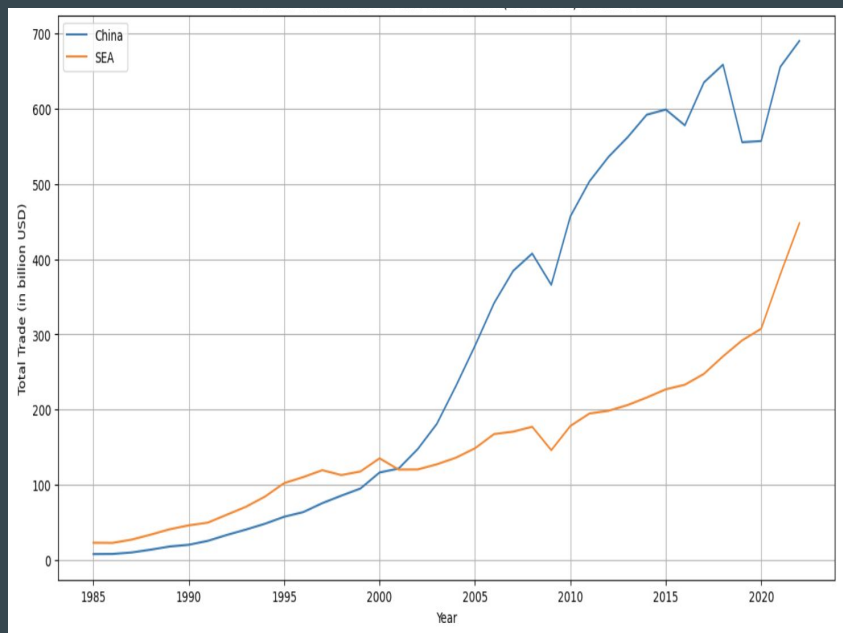


The U.S. - China Trade War

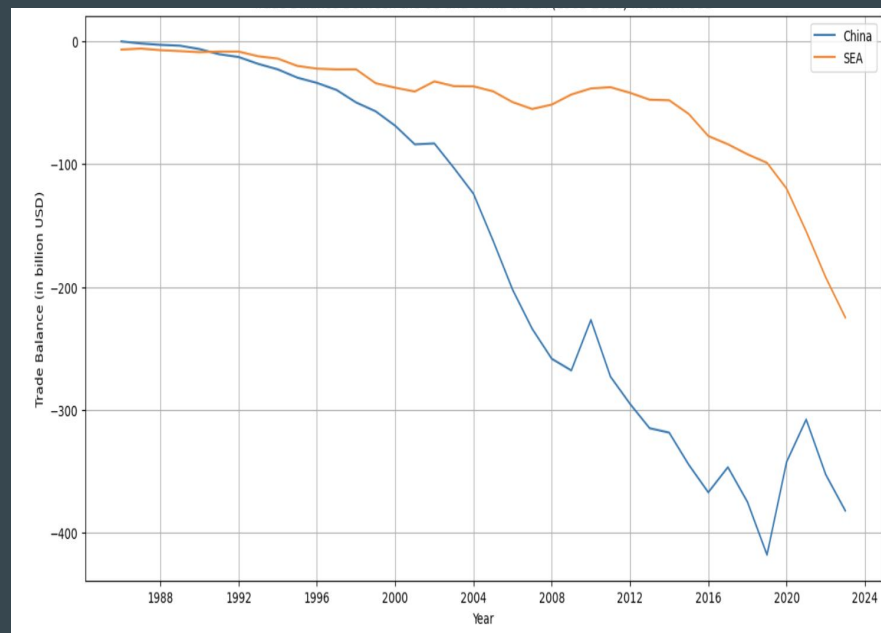
- **The U.S. initiated the trade war over concern of intellectual property theft and unfair practices by China, imposing tariffs and restrictions on over \$500 billion of Chinese goods** (Fishback, 2022; Kwon, 2022; Dang & Tran, 2023)
- **Beggar-thy-neighbor:**
 - **\$245 billion in consumer welfare losses from higher prices in the U.S.** (Fishback, 2022)
 - **Chinese companies lost over \$1.7 trillion in market value, and possibly decrease China's welfare by 1,7%** (Li et al., 2021)
- **Qualitative studies suggested Southeast Asia may have emerged as benefactors of the rising tension between the U.S. and China** (Kwon, 2022; Dang & Tran, 2023; Moeller, 2018; Do, 2018)

Southeast Asia

Total trade value with the US



Trade deficit with the U.S.

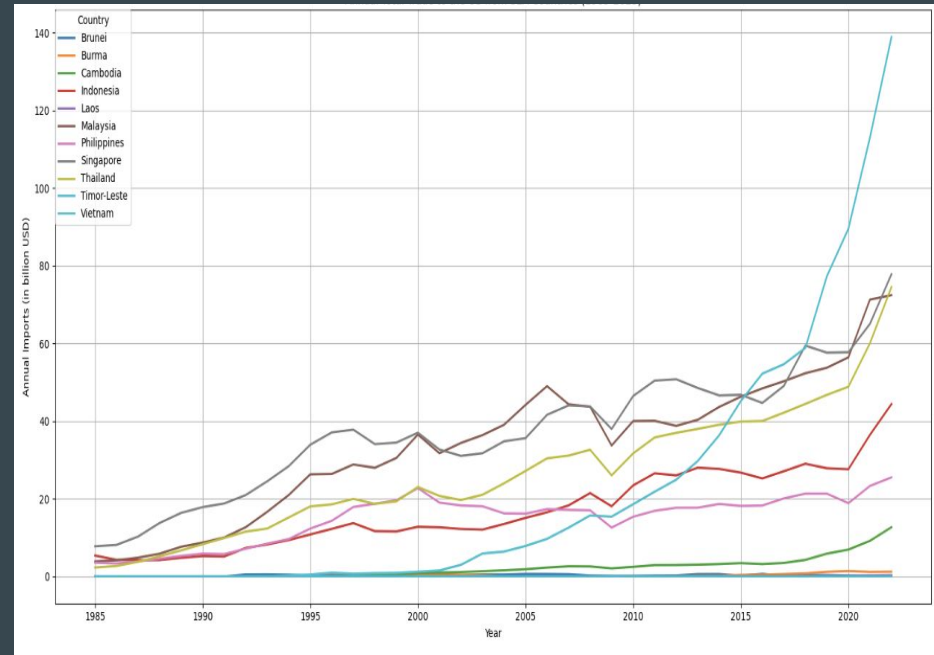


Southeast Asia

Growth of trade with the US

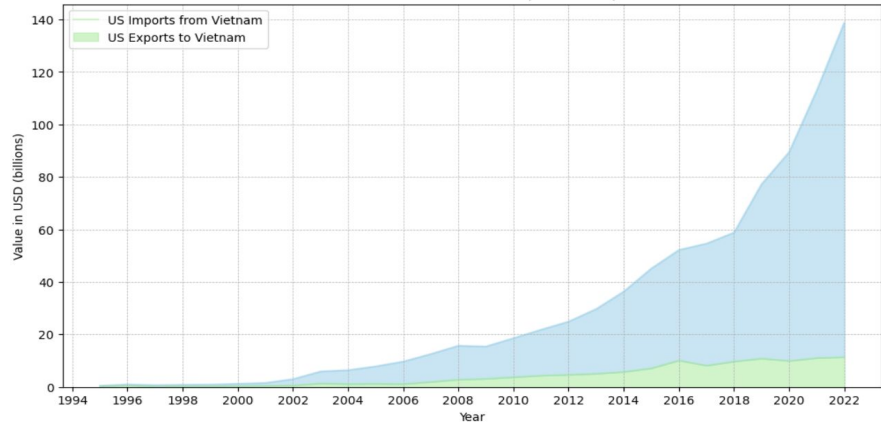


Trade volume by country

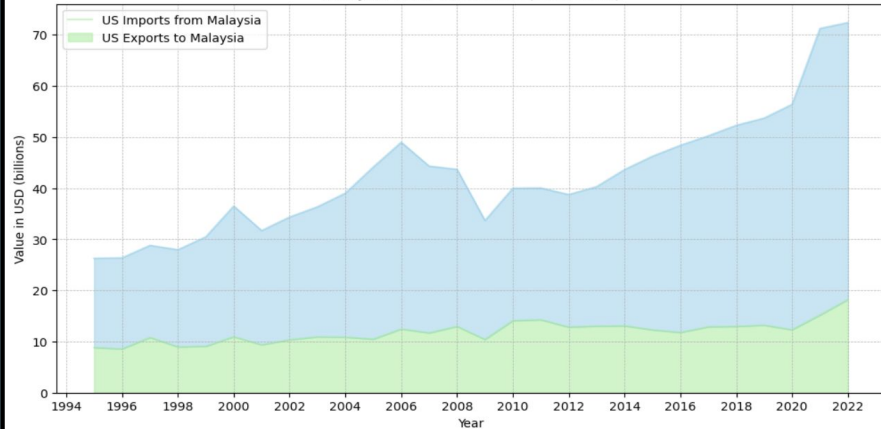


Southeast Asia

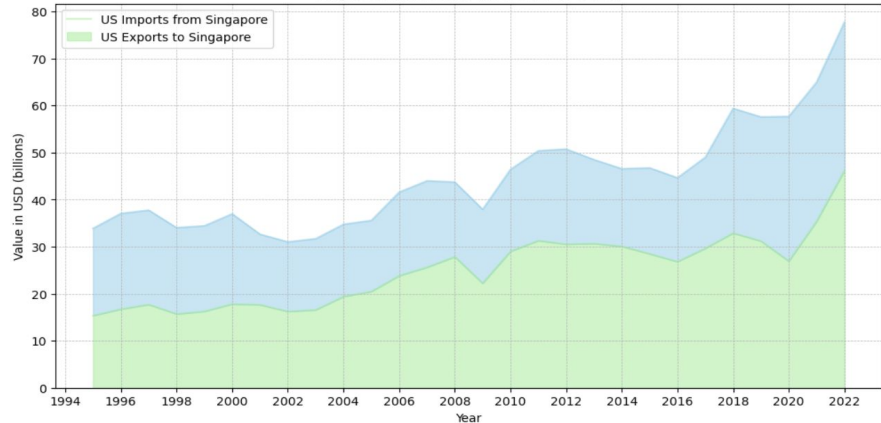
Vietnam Trade with the US (2000-2022)



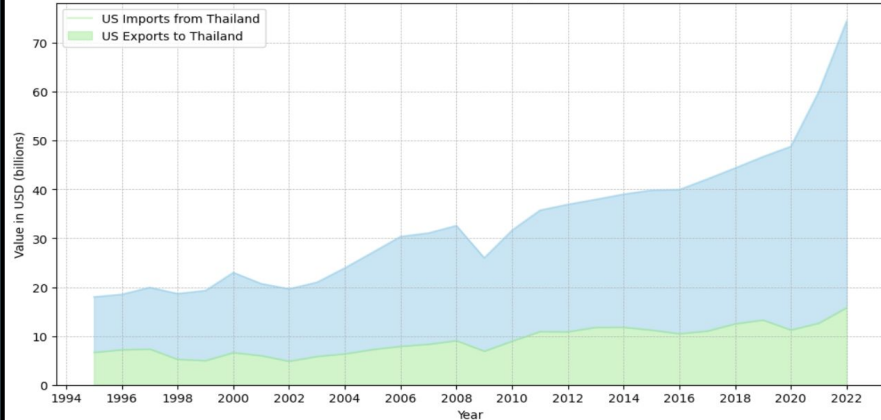
Malaysia Trade with the US (2000-2022)



Singapore Trade with the US (2000-2022)



Thailand Trade with the US (2000-2022)



Hypotheses

Hypothesis 1

Was there trade diversion from China to Southeast Asia by the U.S.?

- Did trade "divert" from a more efficient exporter (China) to a less efficient one (Southeast Asia)

Hypothesis 2

Did Vietnam's increasingly close trade relations with the U.S. affect its trade relations with China?

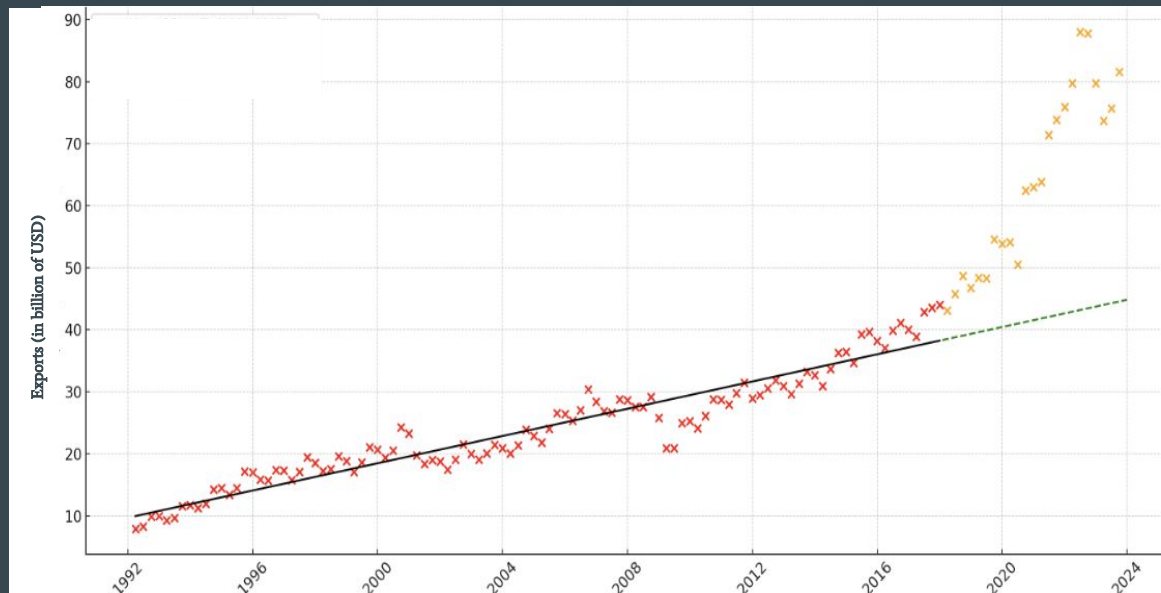
Data and Methodology

Data

- 443 observations of quarterly trade from 1992 to 2022 between U.S. - China, and between U.S. - Southeast Asia
- 96 monthly trade observations from 2015 to 2022 between China and Vietnam

Methodology

- Difference-in-difference method in time series



Regressions - Trade Diversion

1. Total trade by the U.S. = $\beta_0 + \beta_1(\text{Lagged data of total trade}) + \beta_2(\text{time dummy for quarter 1}) + \beta_3(\text{time dummy for quarter 2}) + \beta_4(\text{time dummy for quarter 3}) + \beta_5(\log \text{ of U.S. real GDP}) + \beta_6(\text{country dummy}) + c$
2. Trade balance by the U.S. = $\beta_0 + \beta_1(\text{Lagged data of trade balance}) + \beta_2(\text{time dummy for quarter 1}) + \beta_3(\text{time dummy for quarter 2}) + \beta_4(\text{time dummy for quarter 3}) + \beta_5(\log \text{ of U.S. real GDP}) + \beta_6(\text{country dummy}) + c$

Regressions - Vietnam & China

1. Total trade between China & Vietnam = $\beta_0 + \beta_1(\text{Lagged trade data}) + \beta_2(\text{time dummy for quarter 1}) + \beta_3(\text{time dummy for quarter 2}) + \beta_4(\text{time dummy for quarter 3}) + c$
2. Trade balance between China & Vietnam = $\beta_0 + \beta_1(\text{Lagged balance data}) + \beta_2(\text{time dummy for quarter 1}) + \beta_3(\text{time dummy for quarter 2}) + \beta_4(\text{time dummy for quarter 3}) + c$
3. China Imports from Vietnam = $\beta_0 + \beta_1(\text{Lagged imports data}) + \beta_2(\text{time dummy for quarter 1}) + \beta_3(\text{time dummy for quarter 2}) + \beta_4(\text{time dummy for quarter 3}) + c$

Results - Trade Diversion

Trade Value			Trade Balance	
country	t_statistic	p_value	t_statistic	p_value
Brunei	-0.7892379	0.44024577882	-6.051926843	0.000010134734
Burma	2.6898401	0.01497108080	-6.442738538	0.000004610146
Cambodia	4.6488222	0.00019964557	-5.375469573	0.000041494741
China	-2.1829809	0.04252469206	5.671735515	0.000022226611
Indonesia	0.5516054	0.58800193546	-2.304721704	0.033308207635
Laos	2.0034251	0.06042209512	-1.452947855	0.163449627865
Malaysia	1.6805440	0.11012223732	0.009430366	0.992579502188
Philippines	-0.7436322	0.46669566965	-0.473671049	0.641428823761
SEA	5.9741454	0.00001188332	-3.428182638	0.002998322956
Singapore	2.8060133	0.01168514109	-1.316145884	0.204640479432
Thailand	4.5460235	0.00025027934	-6.072921505	0.000009709849
Timor-Leste	2.8306802	0.01108264564	5.771220237	0.000018066068
Vietnam	3.4716009	0.00272308162	-5.860416278	0.000015018224

- Trade value between the U.S. and China was significantly lower than anticipated ($t = -2.18$), and the U.S.'s trade deficit was narrower ($t = 5.67$)
- Pivoted in trade volume between the U.S. and Southeast Asia (SEA) at $t = 5.97$, and expanding trade surplus for SEA's countries at $t = -3.43$
- Vietnam's trade volume deviated less than SEA area ($t = 4.37$), but it's trade deficit is increasing at a faster rate

Results - Vietnam & China

Trade Value

$t = -6.4578$, $df = 19$, $p\text{-value} = 0.000003444$
alternative hypothesis: true mean is not equal to 0

Trade Balance

$t = 2.5859$, $df = 19$, $p\text{-value} = 0.01812$
alternative hypothesis: true mean is not equal to 0

China's imports from Vietnam

$t = -5.386$, $df = 19$, $p\text{-value} = 0.00003381$
alternative hypothesis: true mean is not equal to 0

- Trade between Vietnam and China was significantly lower than predicted ($t = -6.45$)
- China increased its trade surplus to Vietnam ($t = 2,58$)
- Significantly lower imports by China ($t = -5.38$) may be bad signals for Vietnam's economy

Discussion

- The U.S. reduced its dependence on China's supply chain and redirecting its imports through Southeast Asia
- Increasing trade with the U.S. brings Southeast Asia economic growth, improves domestic industries competitiveness, and provides macroeconomic stability
- On average, Vietnam's trade with the US grew more and its trade surplus is expanding faster than Southeast Asia. However, Vietnam's trade relation with China was lower than expected

Conclusion

- **Need to keep an eye on the elaboration of relationship between the U.S. and China**
- **Great opportunities lie ahead for Southeast Asia**
- **Future study may investigate the effect of BRICS's establishment on trade between its member countries**

Thank you for listening!