

# 2022 Data Derby

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SOO SEO, SAUD ALOTAIBI

# Data Cleaning and Transformations

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- Union All Countries Data

- Deal with missing Values

- Checking the Data

Then we also added two new columns Net-Export, Net-import and balance

Where  $\text{Net-export} = \text{exports} - \text{Re-exports}$

And  $\text{Net-import} = \text{import} - \text{re-imports}$

$\text{Trade balance} = \text{Net-export} - \text{Net-imports}$

As from Wikipedia,

#### Definition of re-export [\[ edit \]](#)

Re-exports consist of foreign goods exported in the same state as previously imported, from the free circulation area, premises for inward processing or industrial free zones, directly to the rest of the world and from premises for customs warehousing or commercial free zones, to the rest of the world.

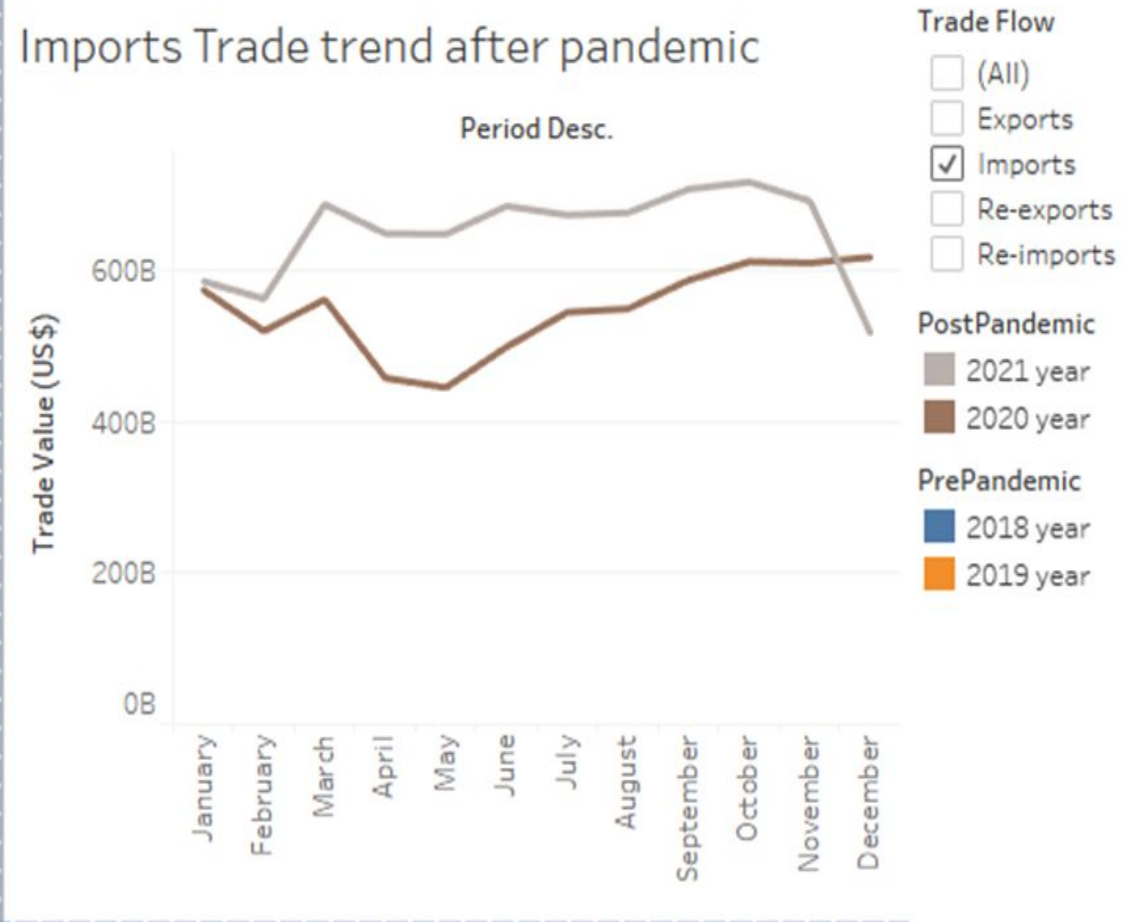
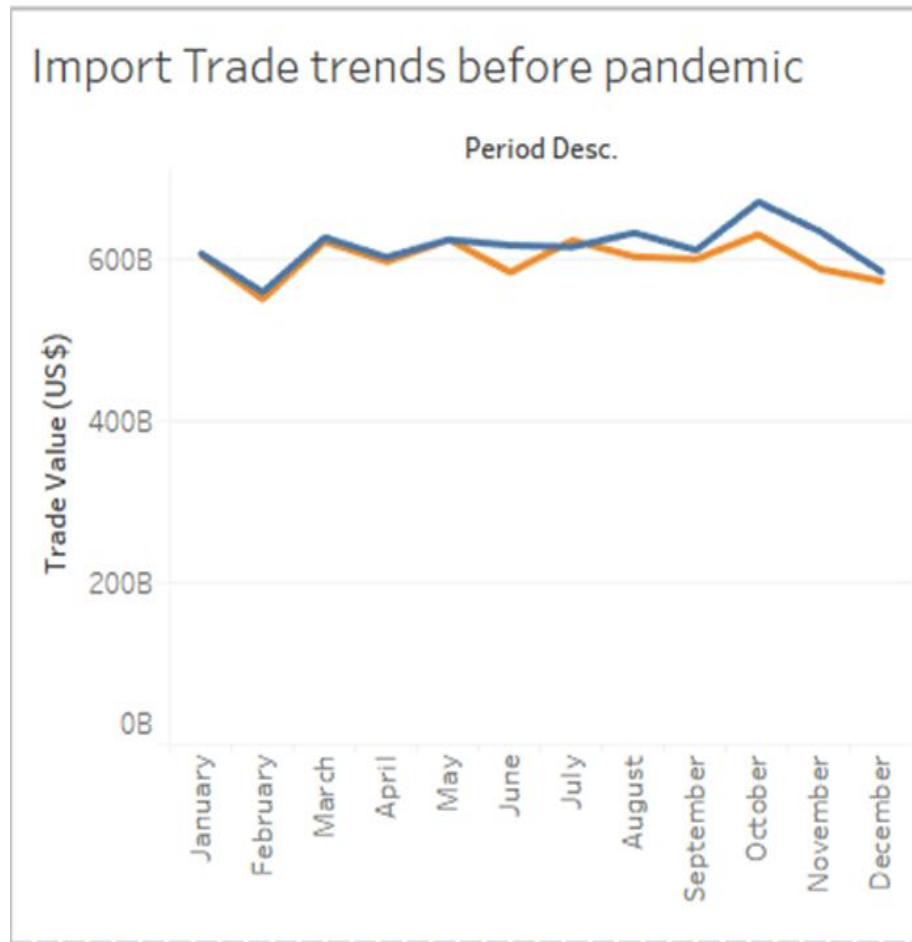
When dealing with trade data, it is essential to subtract re-exports from normal exports to arrive at the final value of exports. This is necessary because re-exports do not undergo any value-added processes, so cannot be counted towards a nation's exports.

#### Examples [\[ edit \]](#)

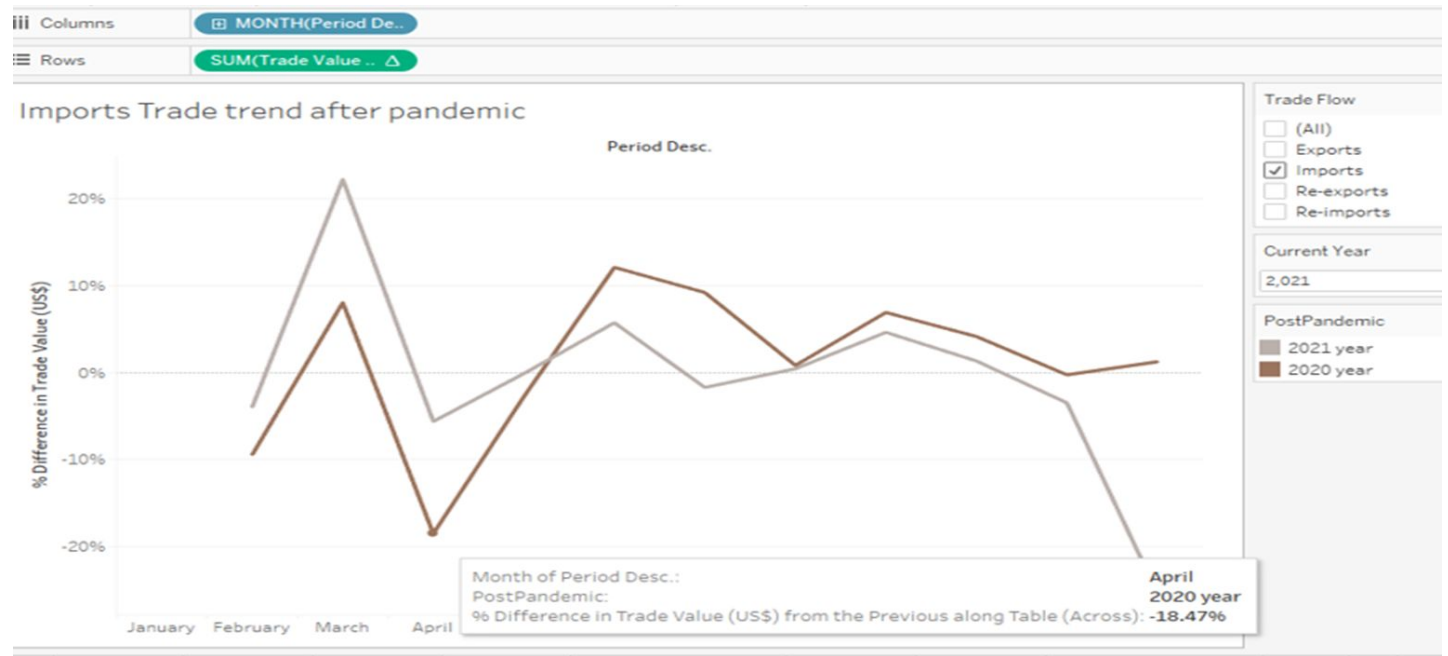
A	B	C	D	E	F	G	H	I	
e	Countries	Exports	Imports	Re-exports	Re-imports	Net-export	Net-Import	Balance	
/1/2018	Canada	36420094675	35288408928	2659323418	3287202	33760771257	35285121726	-1524350469	
/1/2018	China, Hong Kong SAR	48363874872	52121335032			48363874872	52121335032	-3757460160	
/1/2018	Germany	1.31099E+11	1.10317E+11			1.31099E+11	1.10317E+11	20781264596	
/1/2018	India	24577121477	40571442235			24577121477	40571442235	-15994320758	
/1/2018	Japan	54940108402	63640781829			54940108402	63640781829	-8700673427	
/1/2018	Mexico	30718514028	35140482936			30718514028	35140482936	-4421968908	
/1/2018	United Kingdom	42072915195	59560529798	89912680	379884916	41983002515	59180644882	-17197642367	
/1/2018	United States of America	1.24906E+11	2.09018E+11	20361165831		1.04544E+11	2.09018E+11	-1.04473E+11	
/1/2018	Canada	33602352480	35243908125	2521929545	3274812	31080422935	35240633313	-4160210378	
/2/2018	China, Hong Kong SAR	33689385717	38735038667			33689385717	38735038667	-5045652950	
/3/2018	Germany	1.2974E+11	1.07153E+11			1.2974E+11	1.07153E+11	22587557791	
/4/2018	India	25369645638	37745962911			25369645638	37745962911	-12376317273	
/5/2018	Japan	59895838646	60024244138			59895838646	60024244138	-128405492	
/6/2018	Mexico	35092668007	34149865188			35092668007	34149865188	942802819	
/7/2018	United Kingdom	39990626931	52435578827	67348976	343998452	39923277955	52091580375	-12168302420	
/8/2018	United States of America	1.28132E+11	1.92345E+11	19766186266		1.08366E+11	1.92345E+11	-83979093805	
/2/2018	Canada	38400069687	40715465140	3020076278	4937890	35379993409	40710527250	-5330533841	
/3/2018	China, Hong Kong SAR	48666205277	54610278277			48666205277	54610278277	-5944073000	
/4/2018	Germany	1.43726E+11	1.13479E+11			1.43726E+11	1.13479E+11	30246226409	
/5/2018	India	29196437612	42827895492			29196437612	42827895492	-13631457880	
/6/2018	Japan	69642113605	62244027711			69642113605	62244027711	7398085894	
/7/2018	Mexico	39480471783	37734620466			39480471783	37734620466	1745851217	



# Import trends



# Import trends after pandemic



← → ↻ brookings.edu/research/the-future-of-global-supply-chains-what-are-the-implications-for-international-trade/

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## B The future of global supply chains: What are the implications for international trade?


*better in a post-COVID-19 world, a collection of 12 essays presenting new ideas to guide policies and shape debates in a post-COVID-19 world.*

**DOWNLOAD** ⬇

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### THE ISSUE

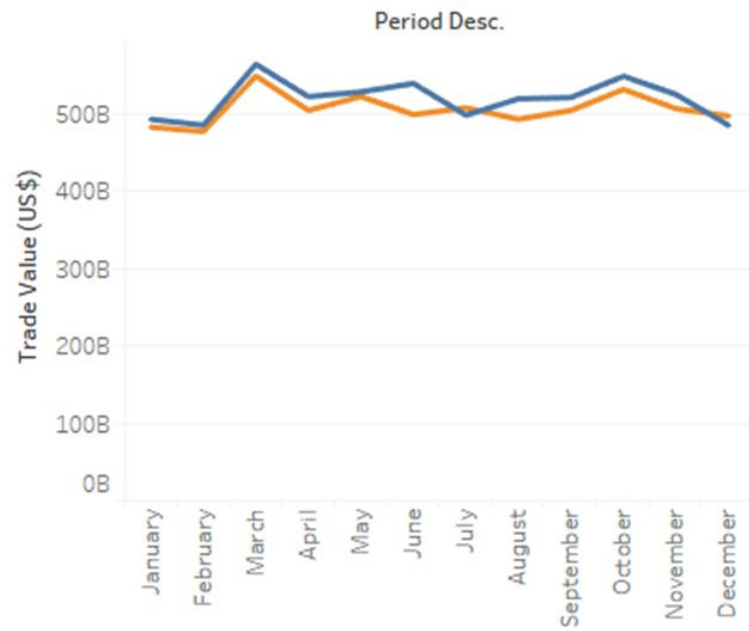
**T**he COVID-19 pandemic and associated global recession have had a devastating effect on international trade. In the second quarter of 2020, global trade was down 18.5 percent, a far sharper drop than was seen for GDP.<sup>[1]</sup> Much of the economic activity that continues in a pandemic—health services, housing services, utilities—is not traded internationally, while the widely traded goods such as cars, electronics, and tourism are cut back as people face an uncertain future. The COVID-19 pandemic comes on top of other issues that were already affecting trade, notably Industry 4.0—the current trend of



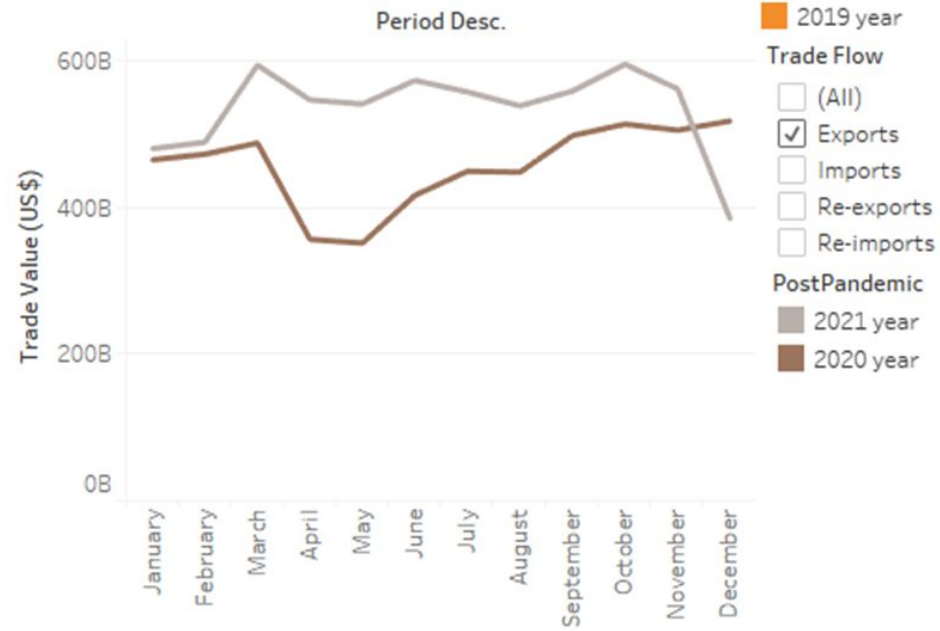
# Reference

<https://www.brookings.edu/research/the-future-of-global-supply-chains-what-are-the-implications-for-international-trade/>

Exports Trade trends before pandemic

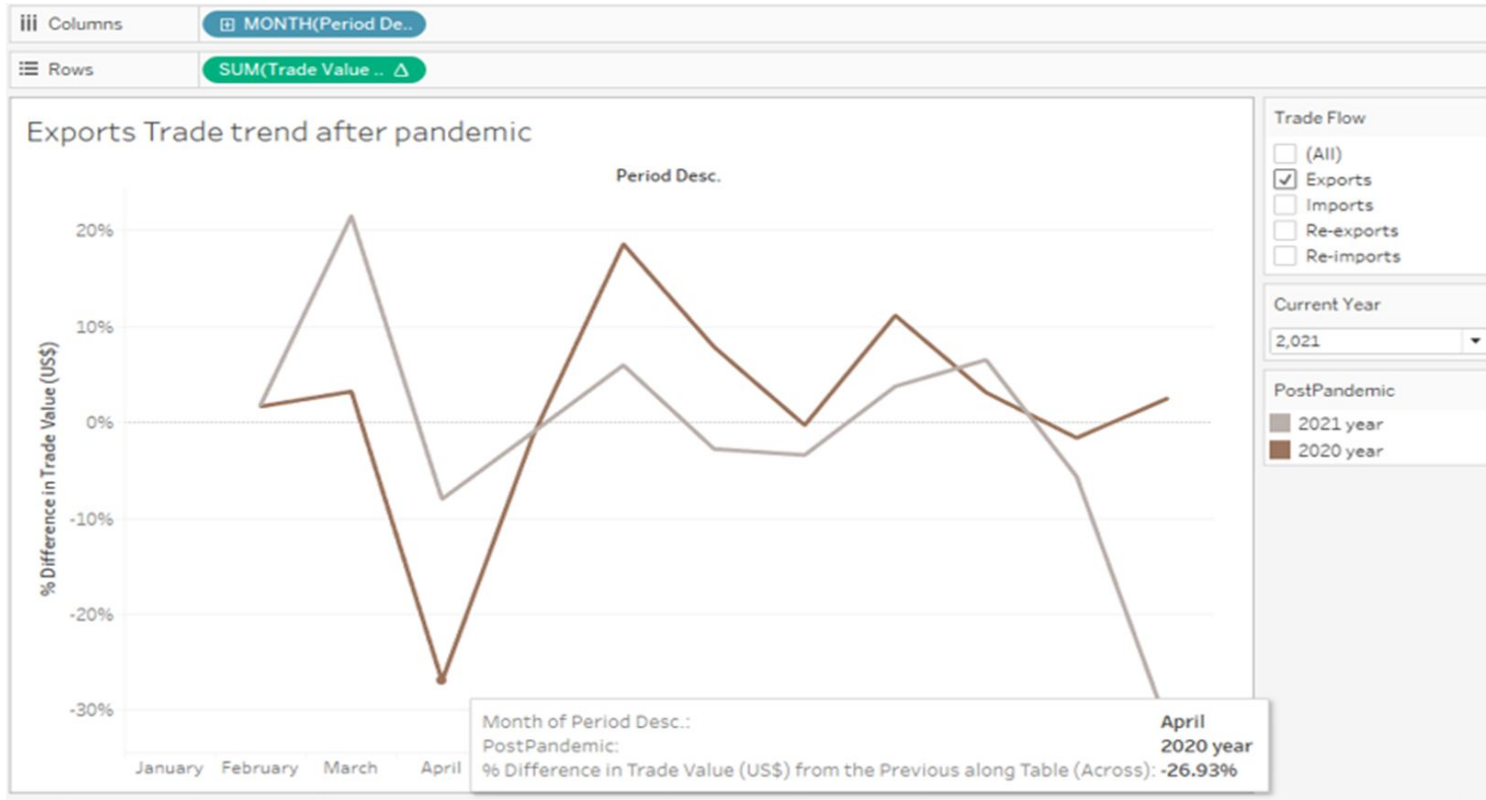


Exports Trade trend after pandemic



Export trends





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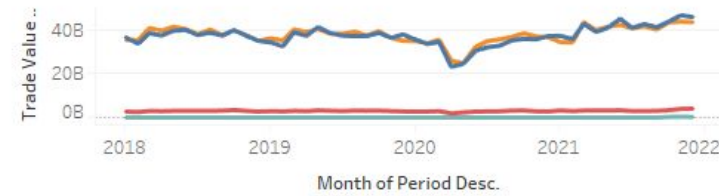
Export trends after pandemic

2. Study the trading trend of the eight countries (areas). Graph the trends over years. Describe if there is any trading trend difference among the eight countries.

Trading Trend of all 8 countries  
(For all types of Trades (Import, Export, Re-import, Re-export))

### Trading Trend For all Reporters

#### Trading trend of Canada



#### Trading Trend for India



#### Trading Trend for Japan



#### Trading Trend for Mexico



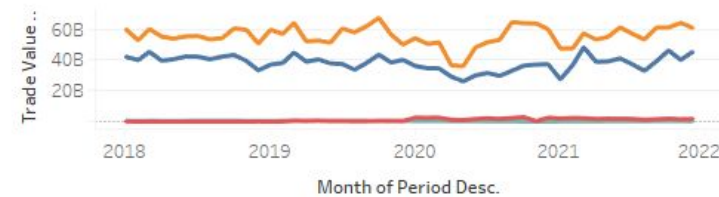
#### Trading trend of China, Hong Kong SAR



#### Trading Trend for Germany



#### Trading Trend for UK



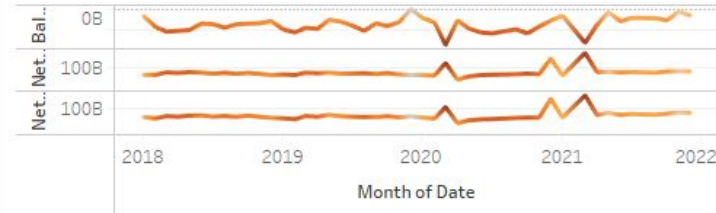
#### Trading Trend for US



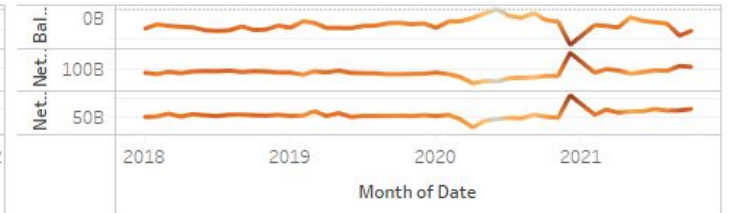
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Net Trading Trend of all 8 countries (For all types of Trades (Import, Export) and their Net balance of their Trades)

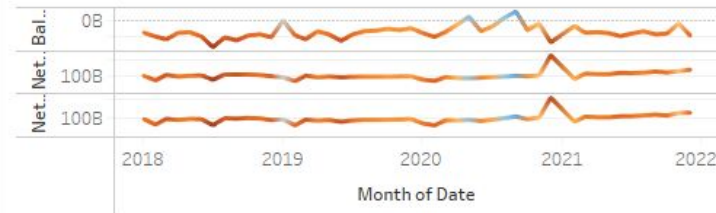
Net Trading Trend For Canada



Net Trading Trend for India



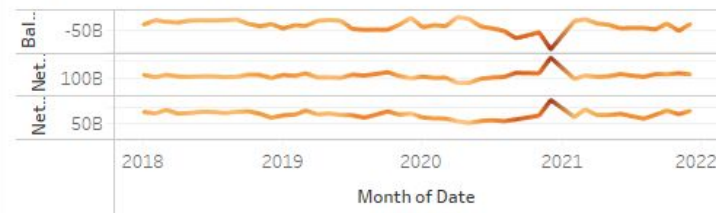
Net Trading Trend for China, Hong Kong SAR



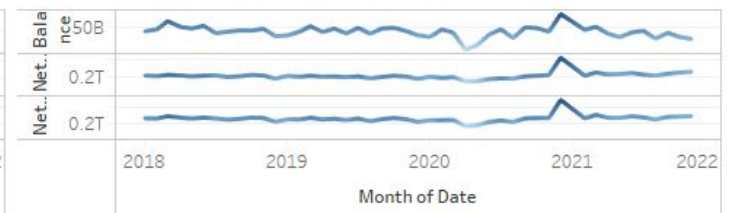
Net Trading Trend for Japan



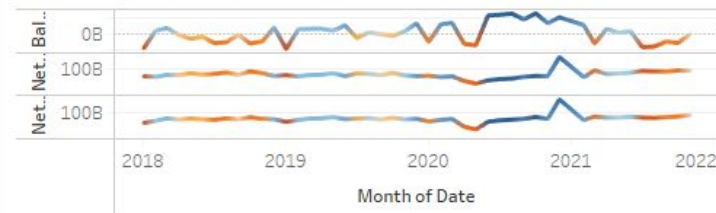
Net Trading Trend for UK



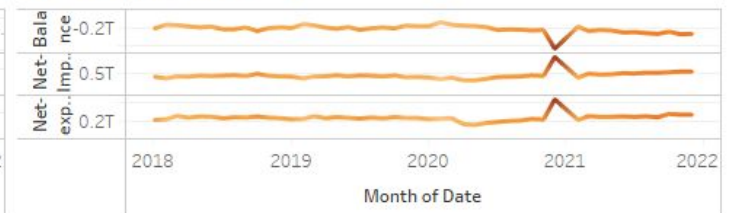
Net Trading Trend for Germany



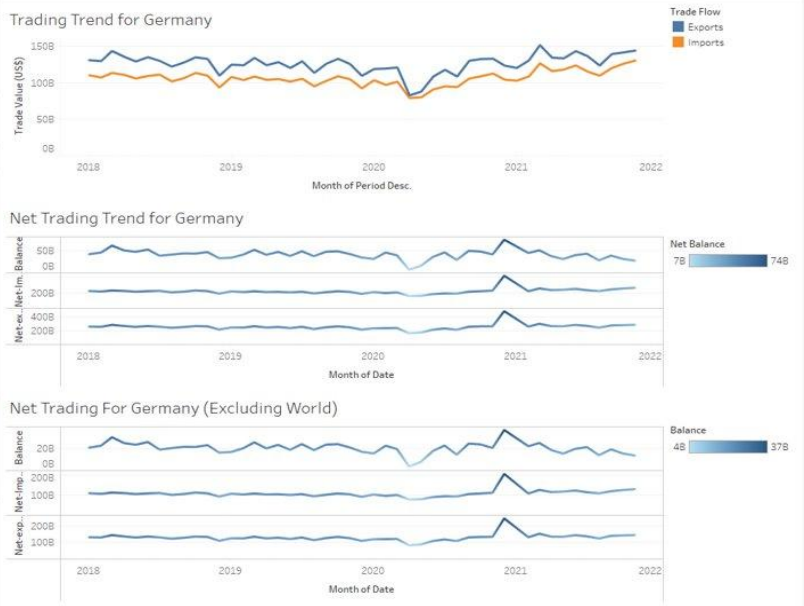
Net Trading Trend for Mexico



Net Trading Trend for US



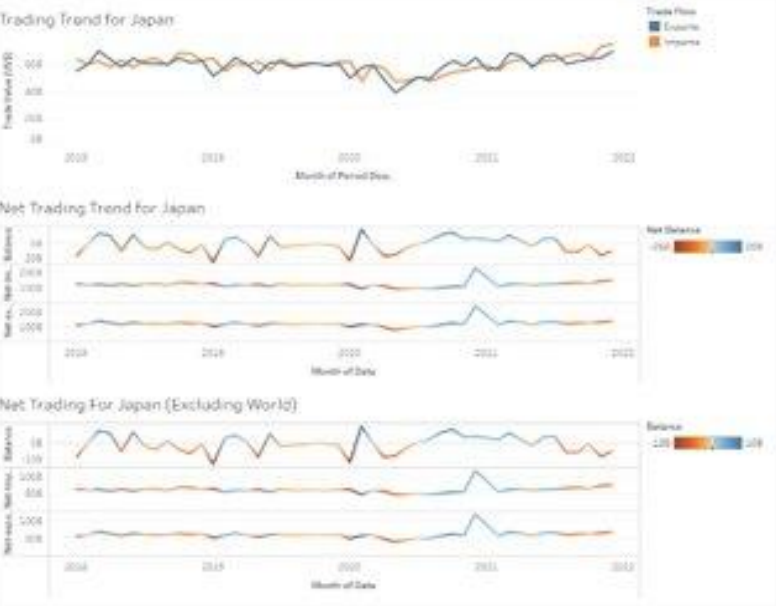
Trading Trend of Germany



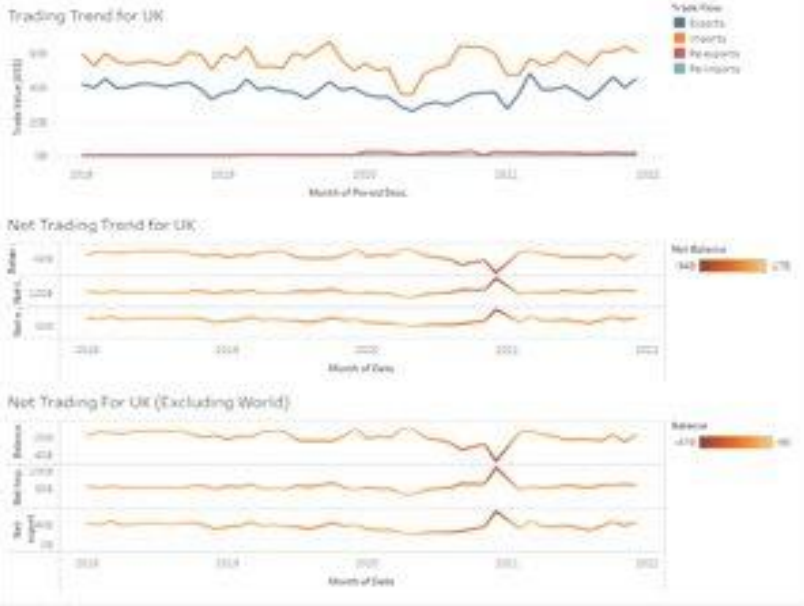
Trading Trend of Mexico



Trading Trend of Japan



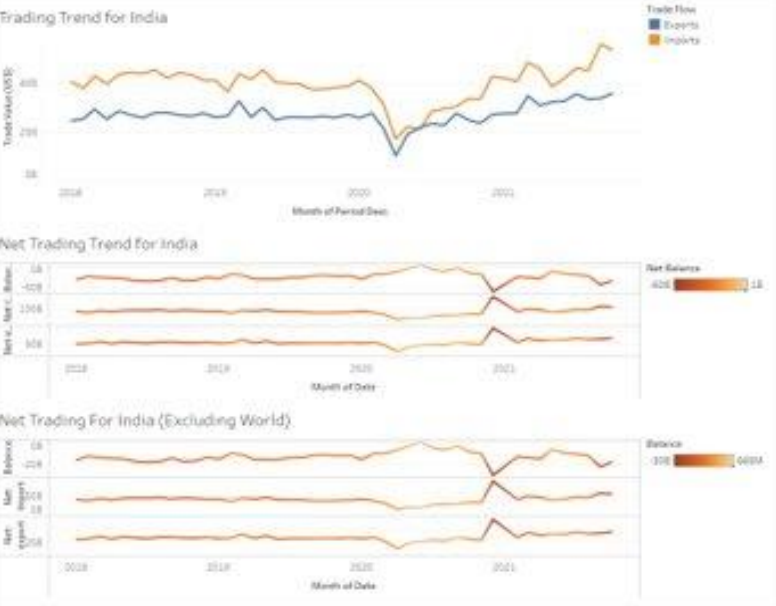
Trading Trend of UK



Trading Trend of US



Trading Trend of India



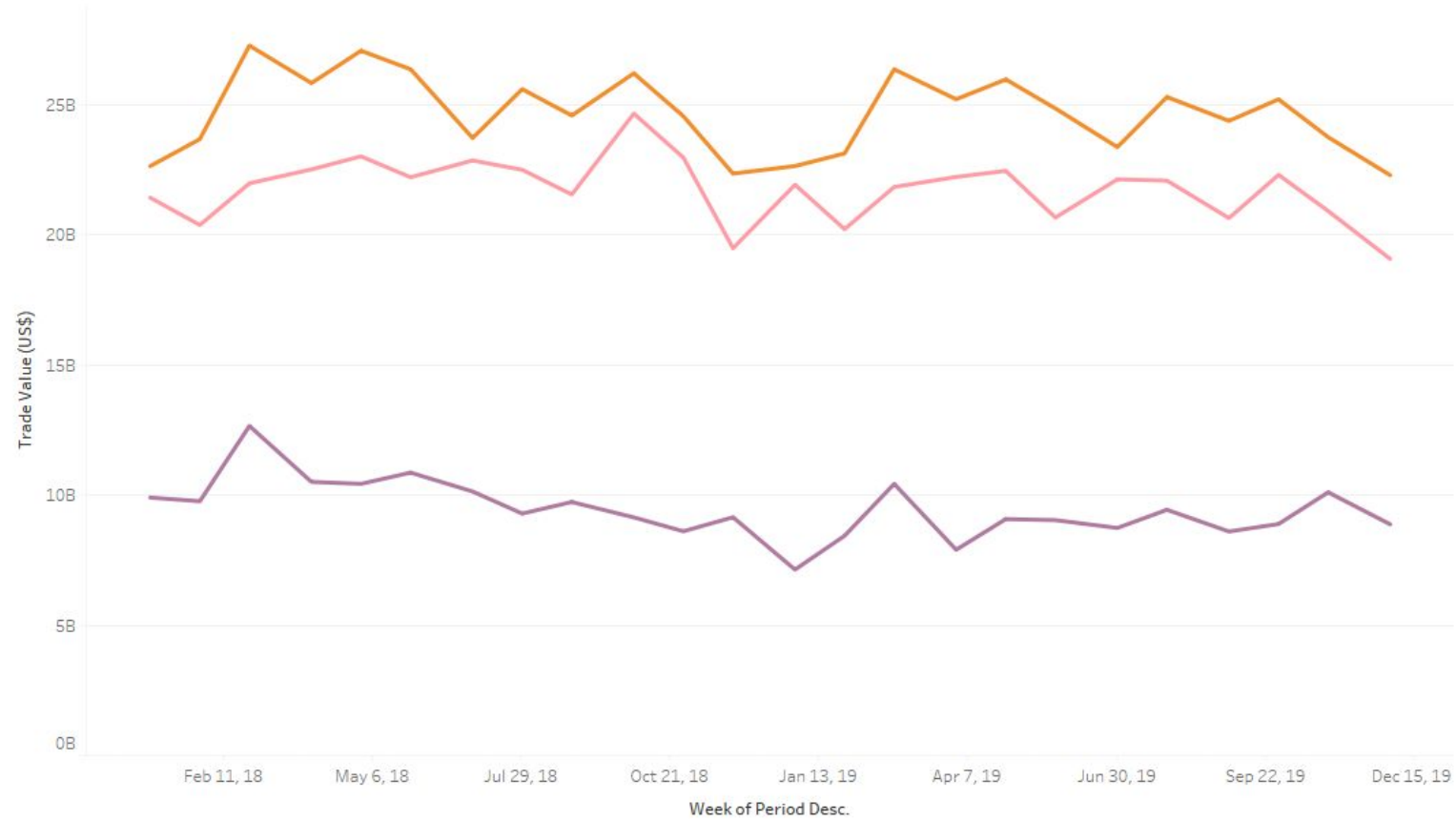


+  
◦ • Who were the top  
three trading  
countries with the  
United States?





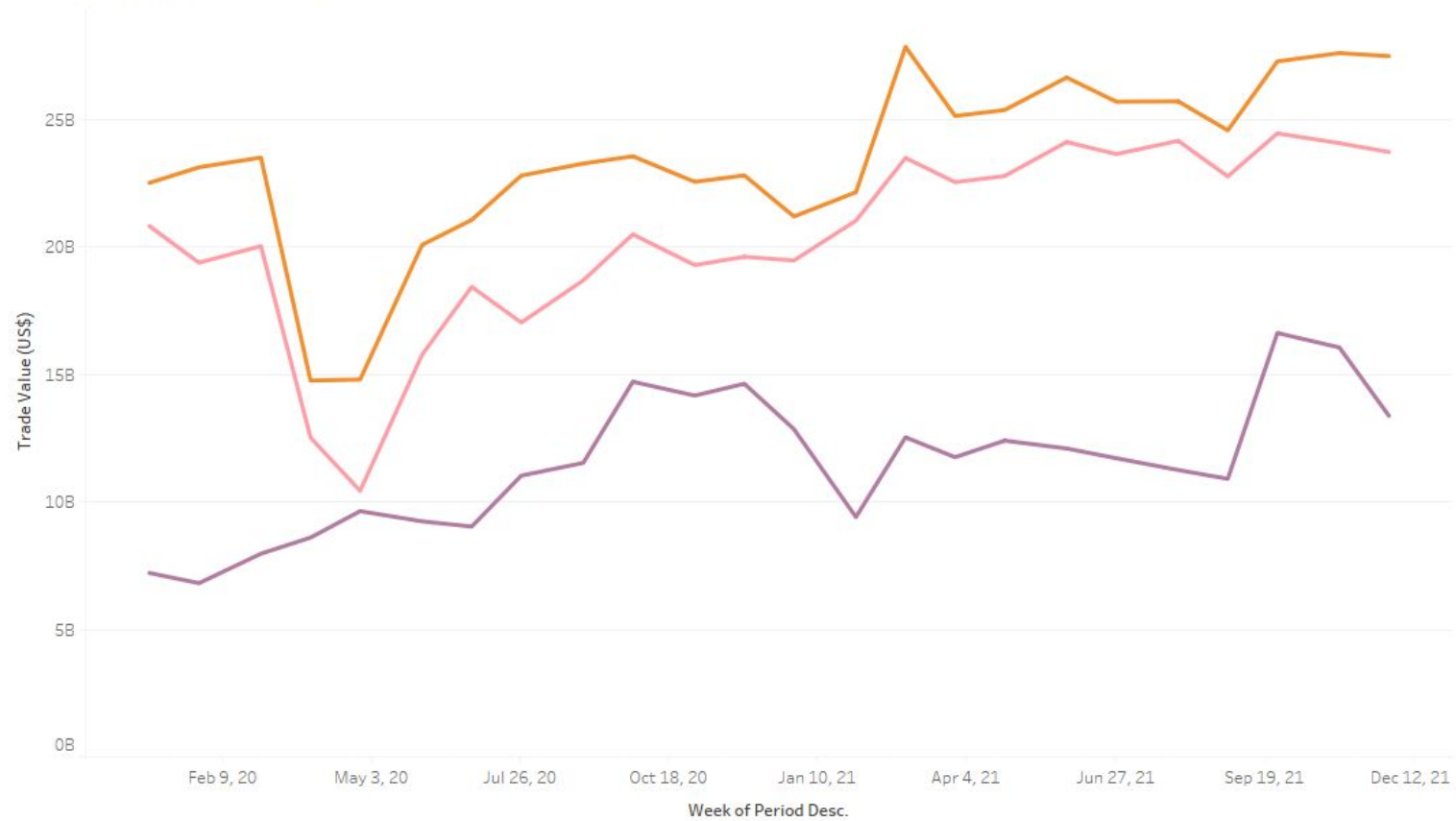
<TOP 3 Export Countries>



(2018 ~ 2019)  
Before Pandemic  
Export



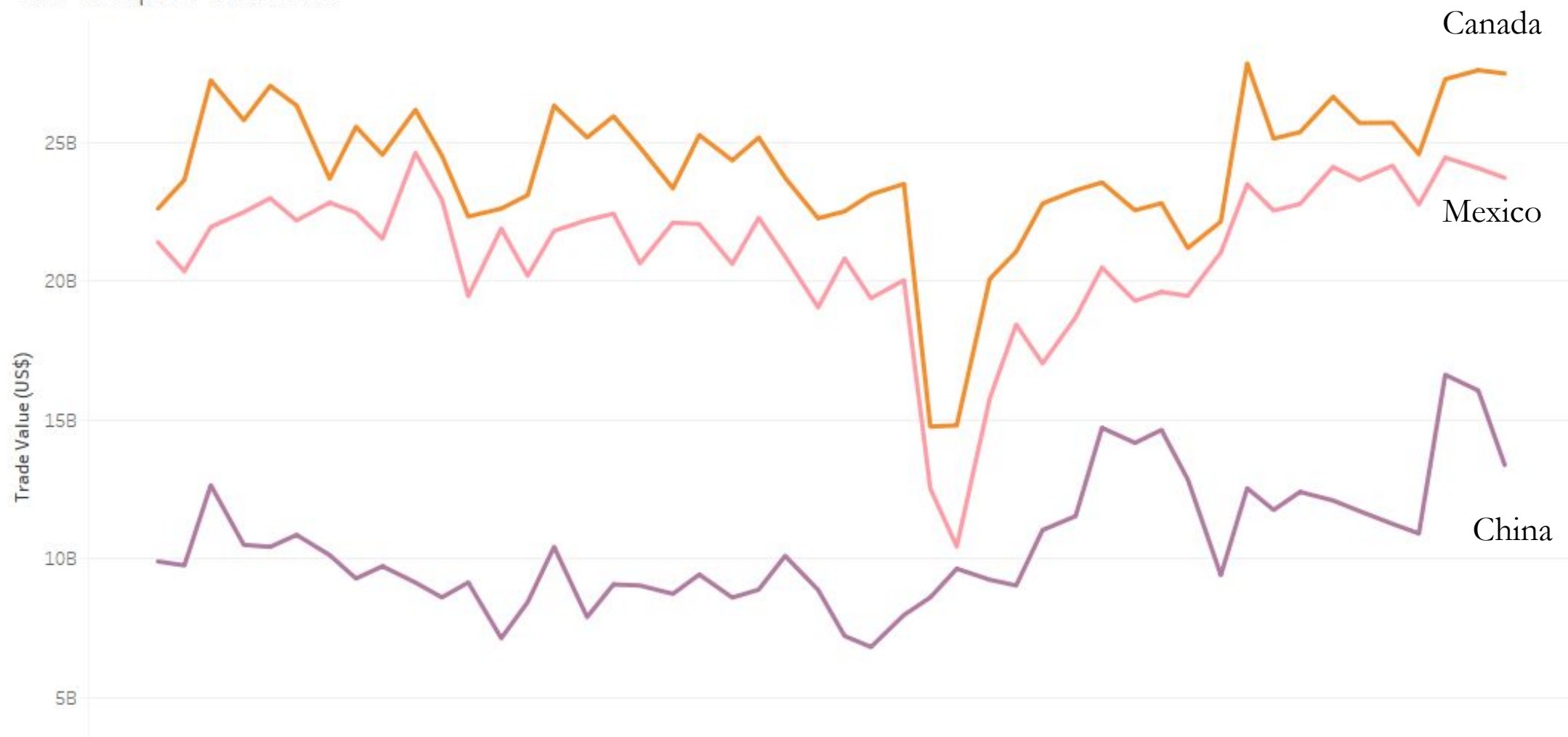
<TOP 3 Export Countries>

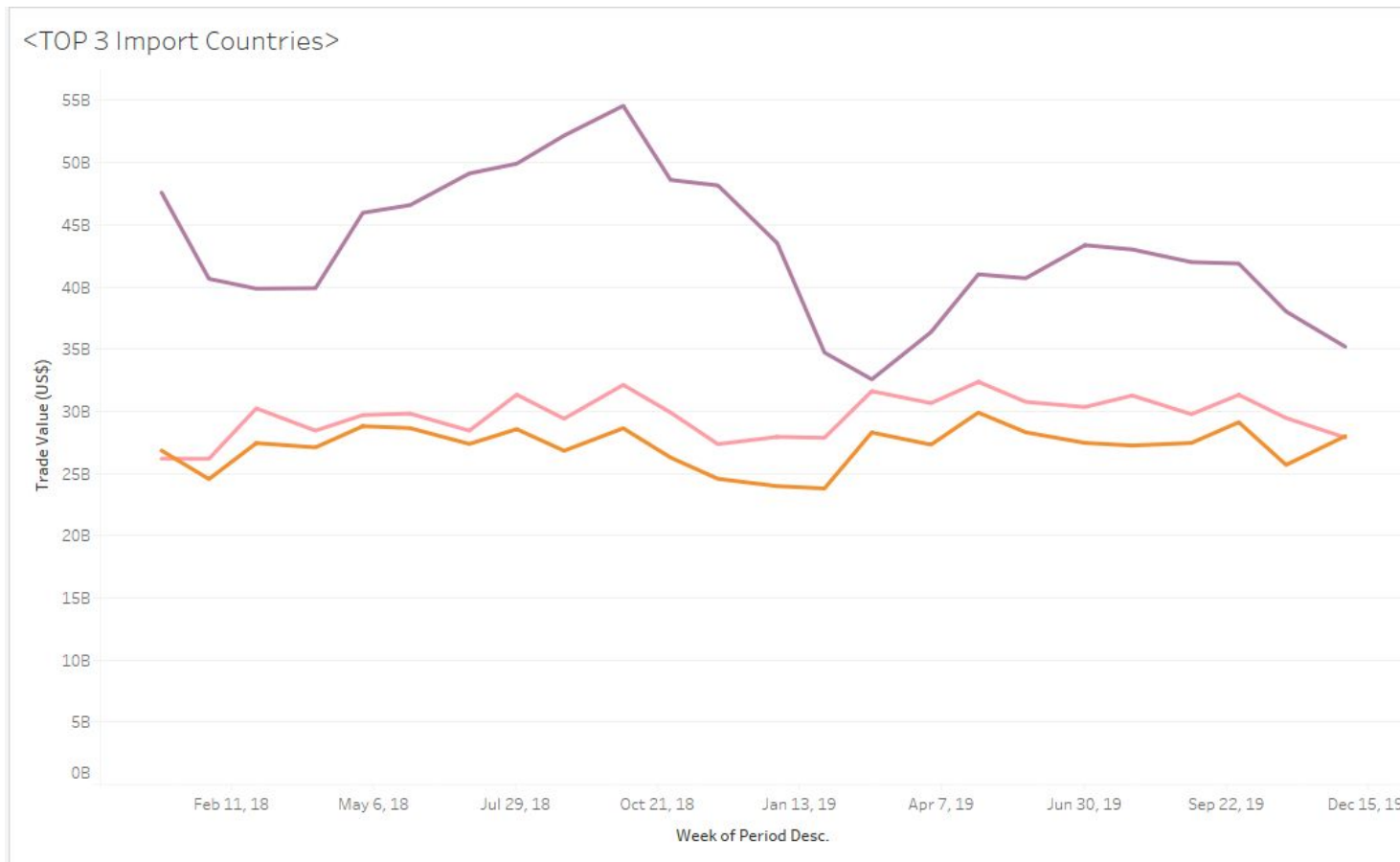


(2020~2021)  
After Pandemic  
Export



<TOP 3 Export Countries>

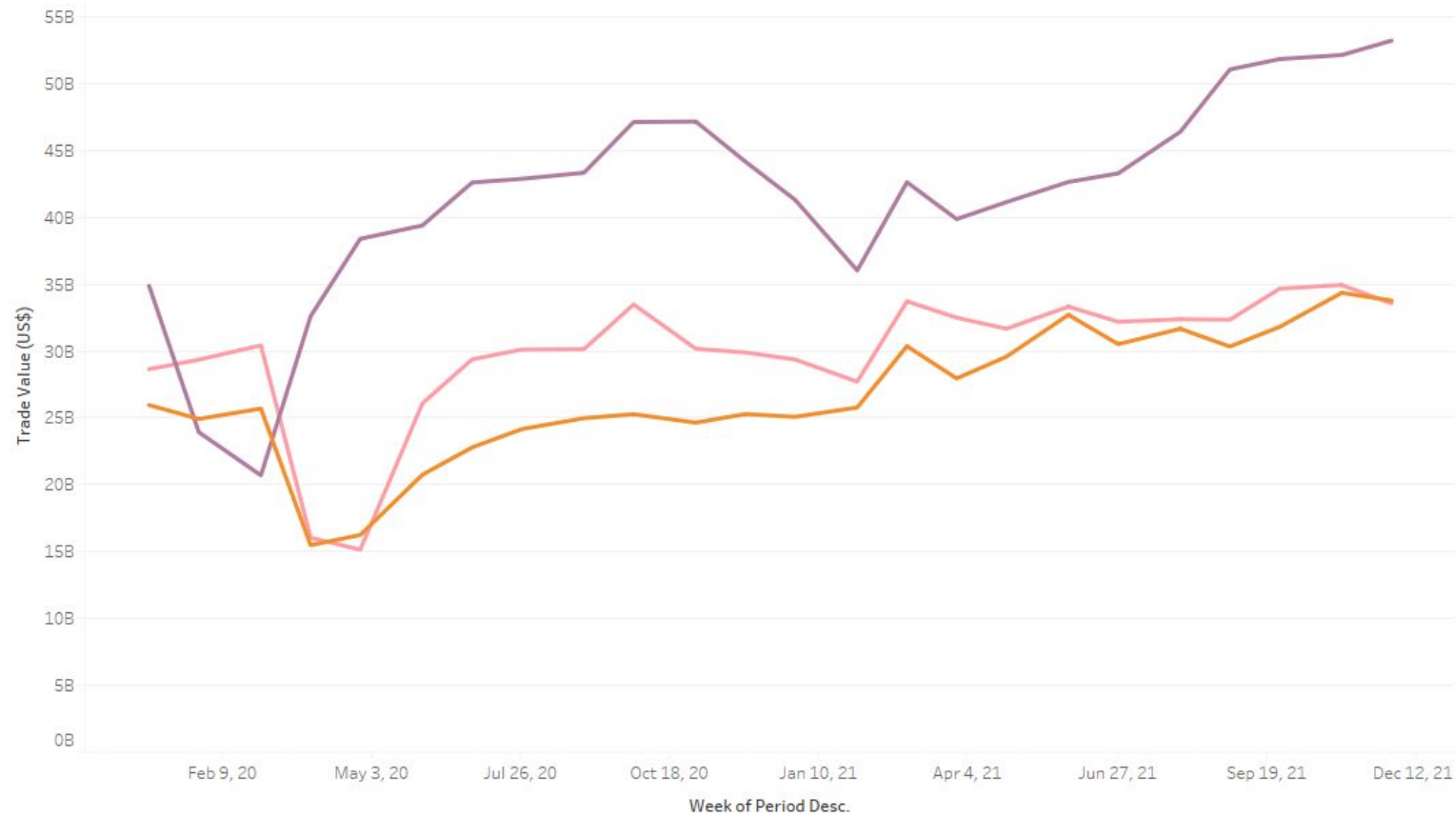




(2018 ~ 2019)  
Before Pandemic  
Import



<TOP 3 Import Countries>

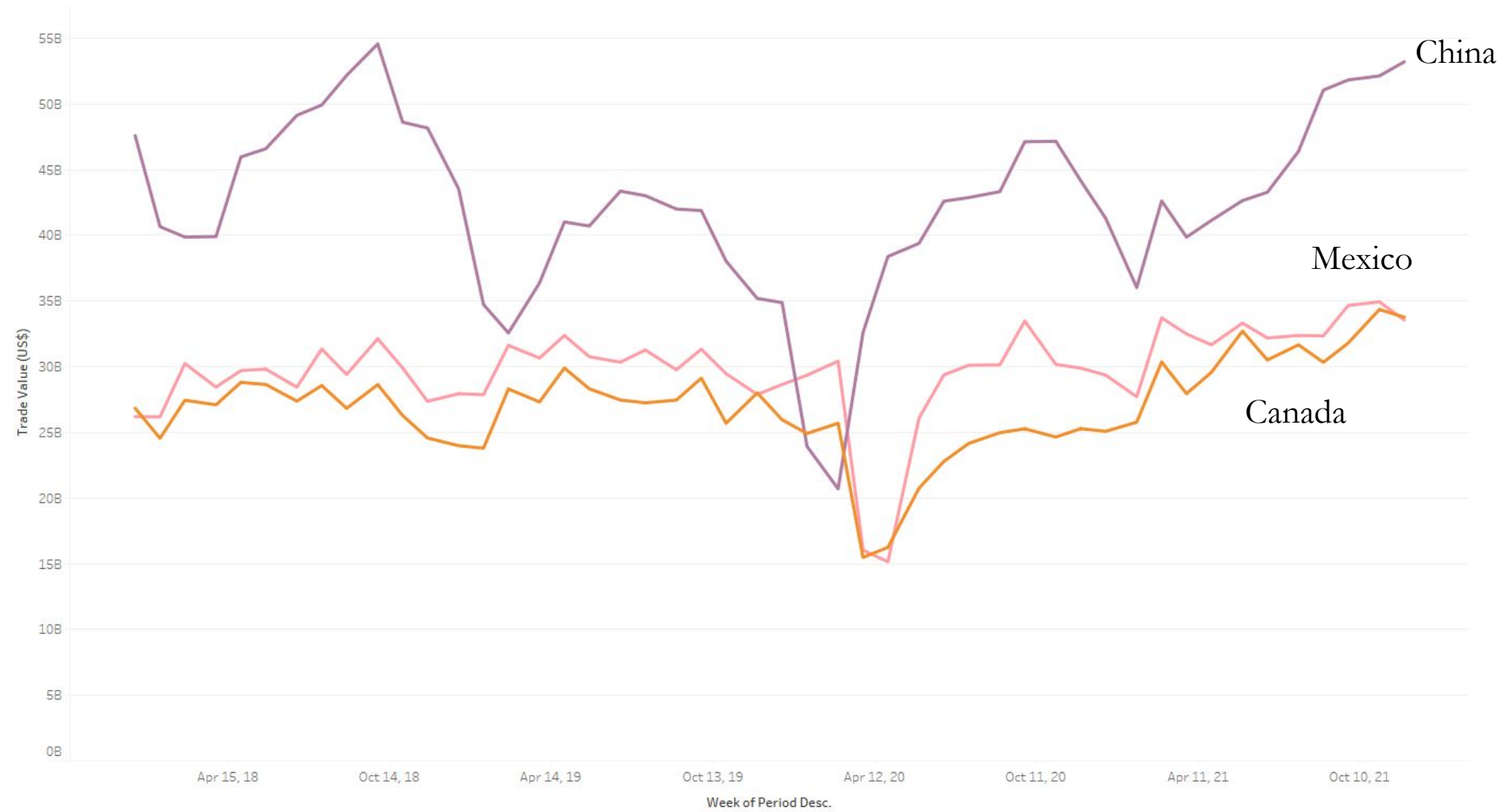


(2020~2021)  
After Pandemic  
Import





<TOP 3 Import Countries>





## United States-Mexico-Canada Agreement

### Free Trade Agreements

[Australian FTA](#)[Bahrain FTA](#)[CAFTA-DR \(Dominican Republic-Central America FTA\)](#)[Chile FTA](#)[Colombia TPA](#)[Israel FTA](#)[Jordan FTA](#)[KORUS FTA](#)[Morocco FTA](#)[Oman FTA](#)[Panama TPA](#)[Peru TPA](#)[Singapore FTA](#)[United States-Mexico-Canada Agreement](#)

The United States-Mexico-Canada Agreement (USMCA) entered into force on July 1, 2020. The USMCA, which substituted the North America Free Trade Agreement (NAFTA) is a mutually beneficial win for North American workers, farmers, ranchers, and businesses. The Agreement creates more balanced, reciprocal trade supporting high-paying jobs for Americans and grow the North American economy.

Agreement highlights include:

- Creating a more level playing field for American workers, including improved rules of origin for automobiles, trucks, other products, and disciplines on currency manipulation.
- Benefiting American farmers, ranchers, and agribusinesses by modernizing and strengthening food and agriculture trade in North America.
- Supporting a 21st Century economy through new protections for U.S. intellectual property, and ensuring opportunities for trade in U.S. services.
- New chapters covering Digital Trade, Anticorruption, and Good Regulatory Practices, as well as a chapter devoted to ensuring that Small and Medium Sized Enterprises benefit from the Agreement.

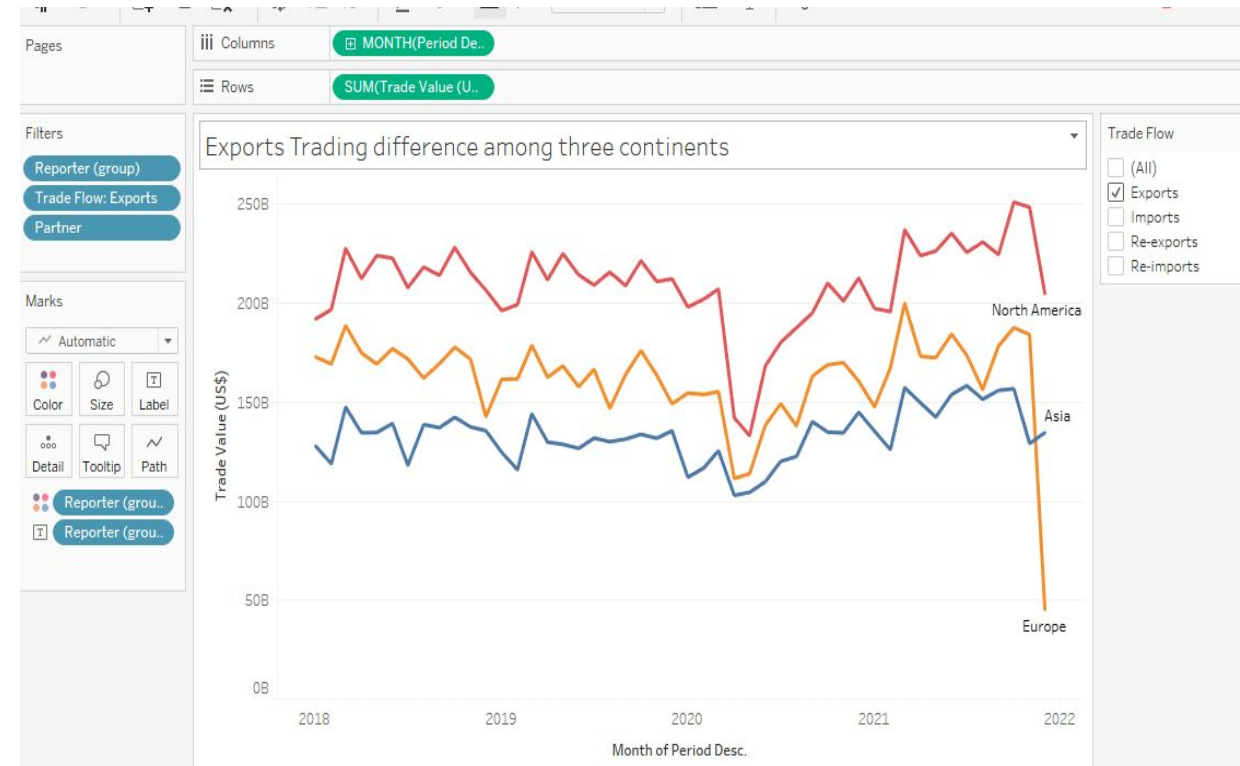
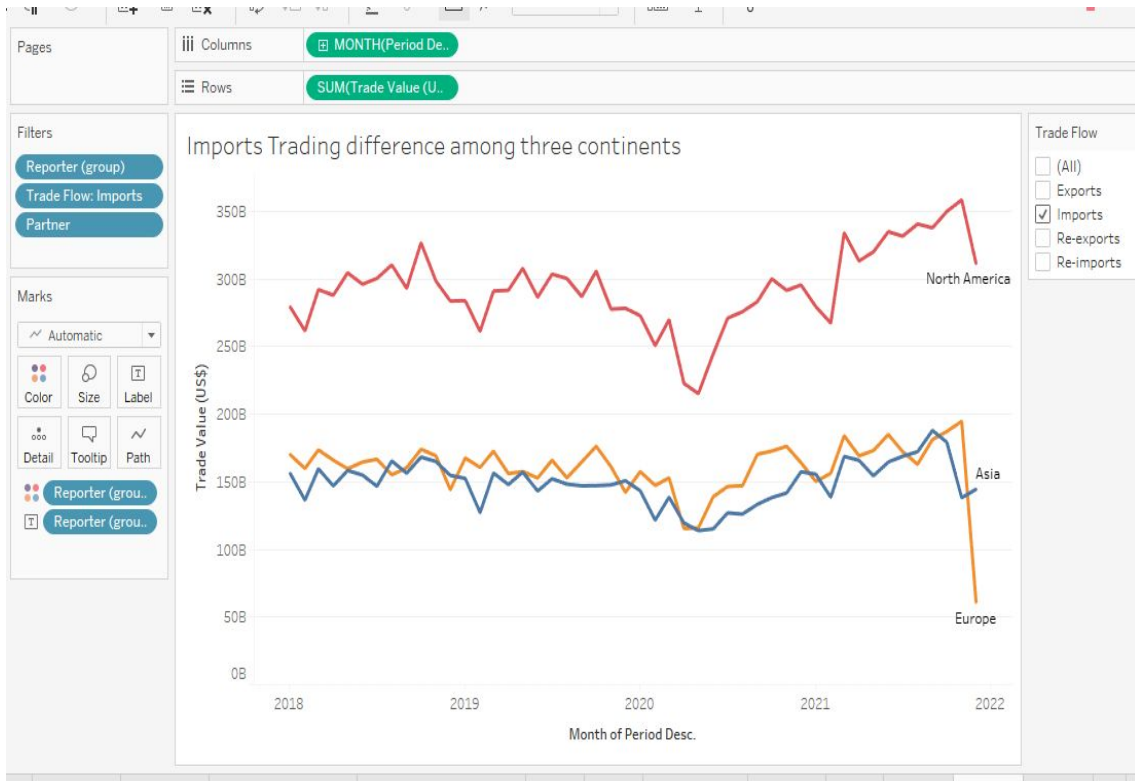
To view the full text of the agreement between the United States, Mexico and Canada, click [here](#).

To view the main USMCA webpage, click [here](#).

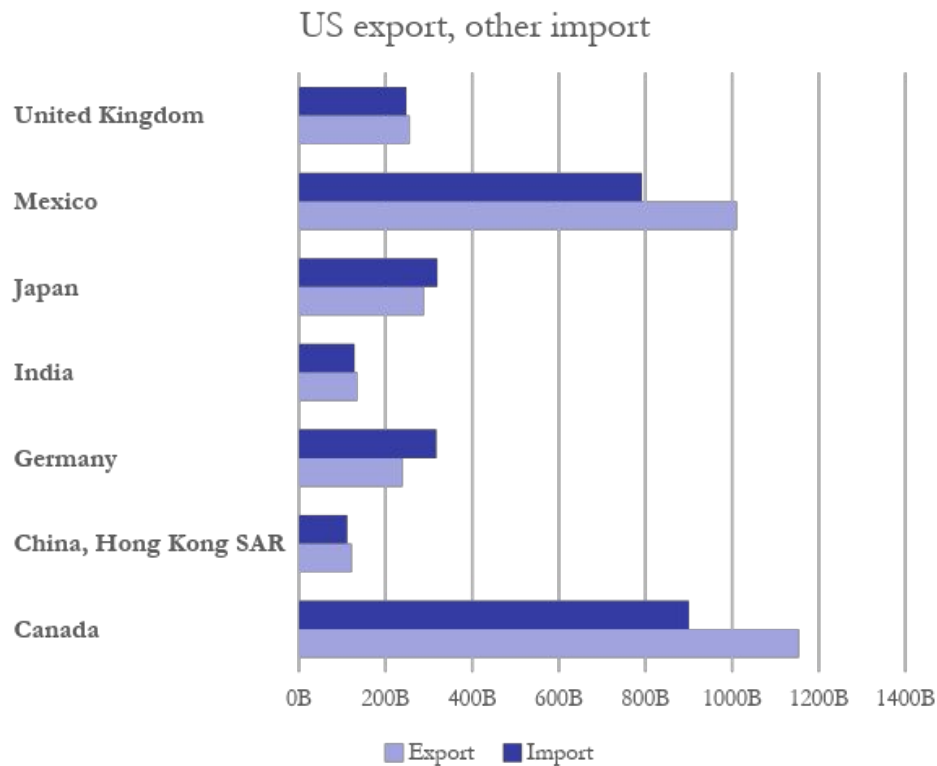
## Reference

<https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement>

# The difference between the trading behavior of those three continents?

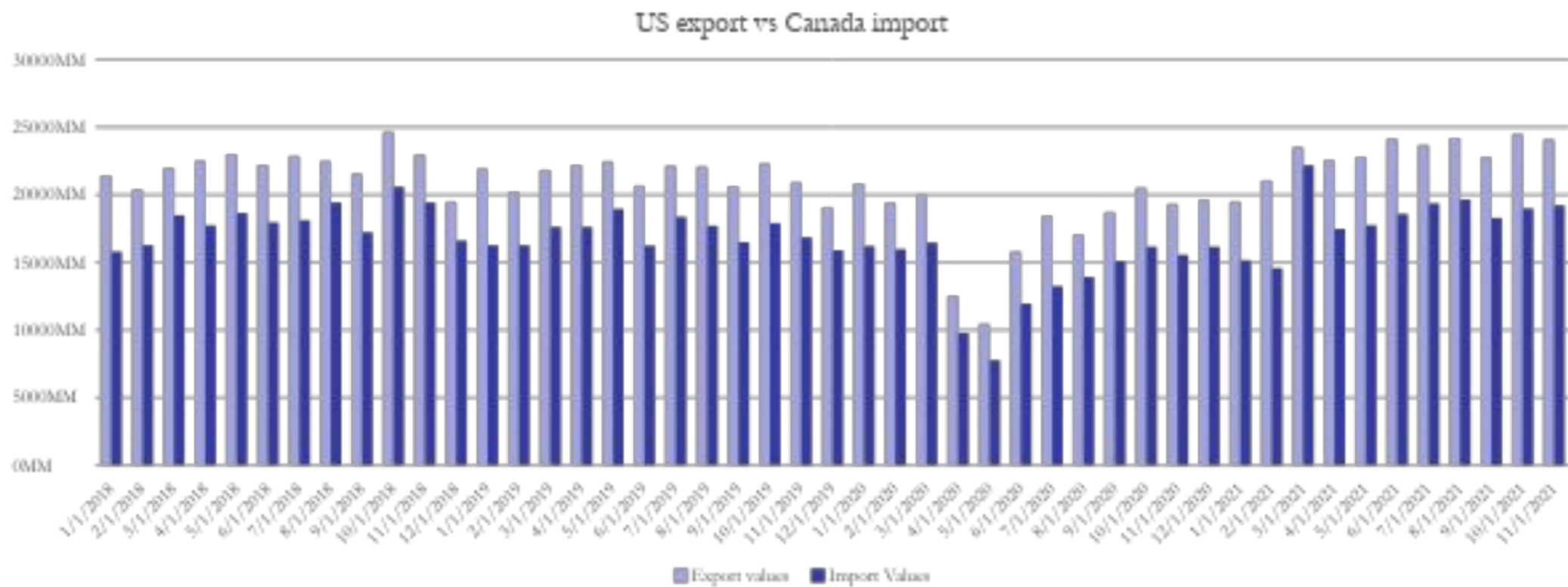


# US Export, Other Import



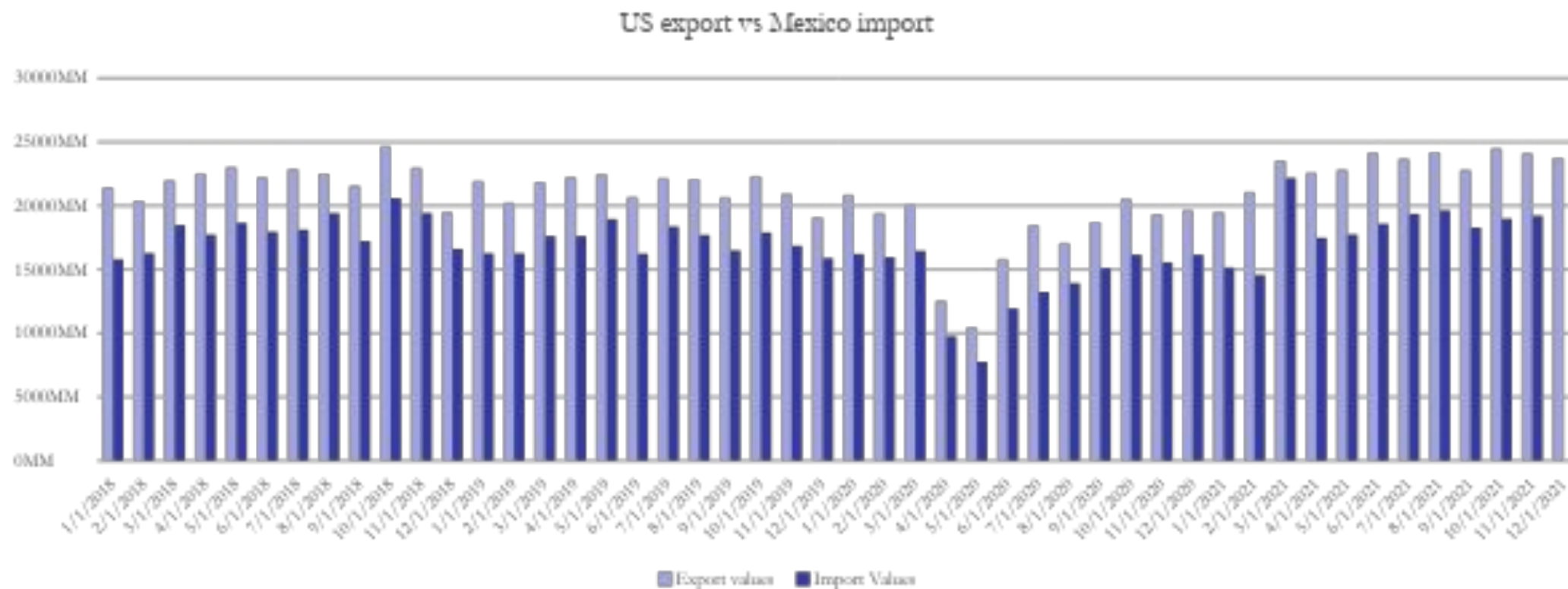
Partner	Export	Import
Canada	1154B	900B
China, Hong Kong SAR	122B	112B
Germany	239B	317B
India	135B	128B
Japan	289B	319B
Mexico	1011B	792B
United Kingdom	256B	248B

# US vs Canada





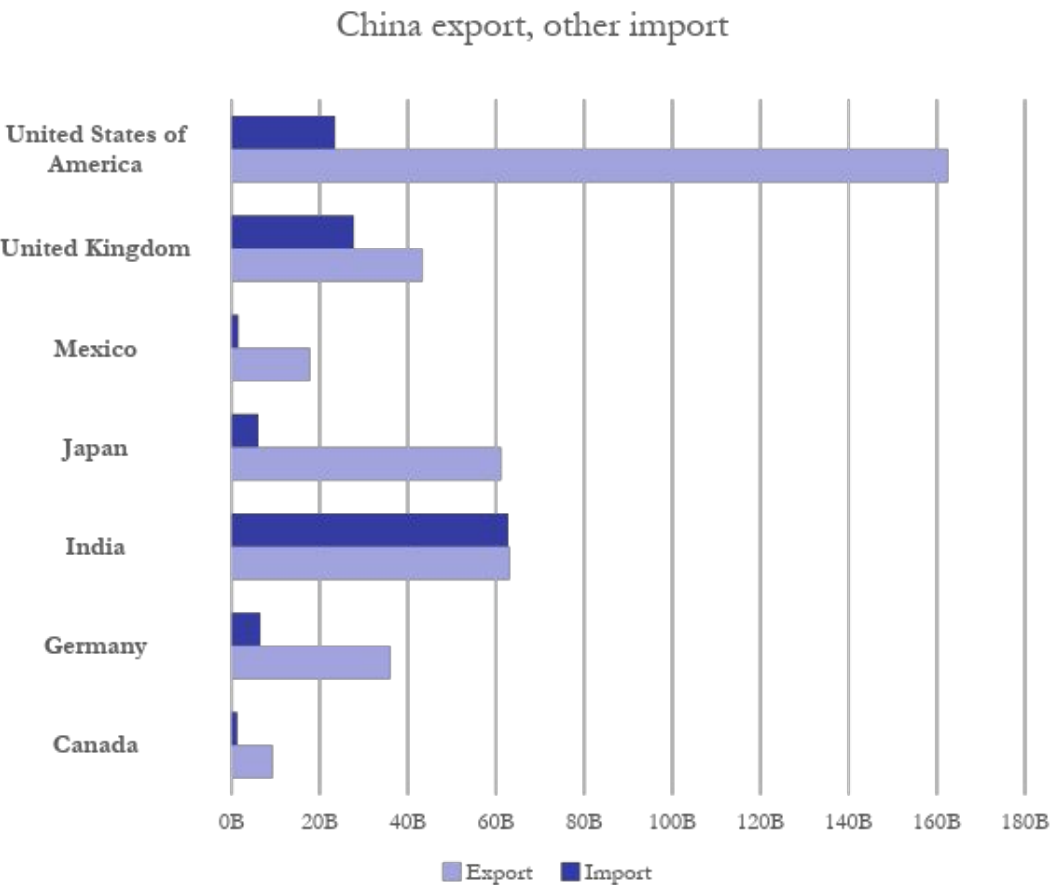
# US vs Mexico



Reason of  
Discrepancy  
of trade  
value in US

- Exchange Rate
- Different Measurement
- Missing Data

# China (Hongkong) Export, Others Import



Partner	Export	Import
Canada	9B	1B
Germany	36B	7B
India	63B	63B
Japan	61B	6B
Mexico	18B	2B
United Kingdom	43B	28B
United States of America	163B	23B

# China, HK vs US

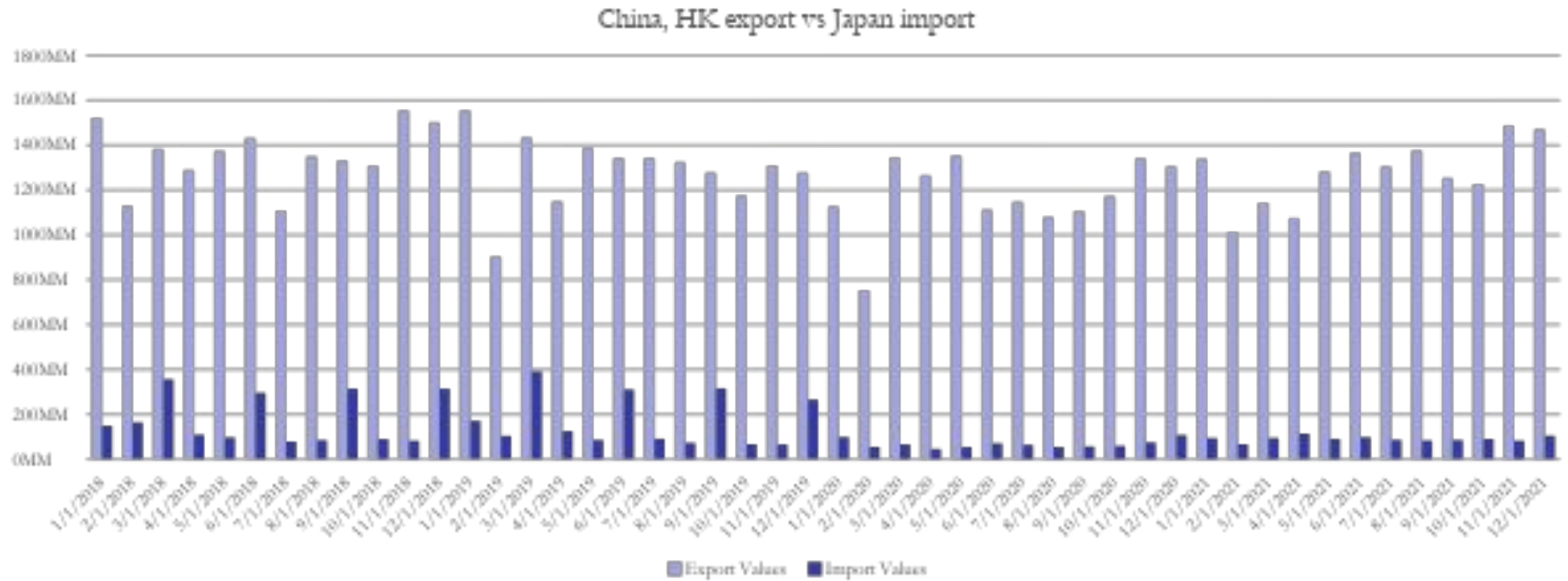


# China, HK vs Canada

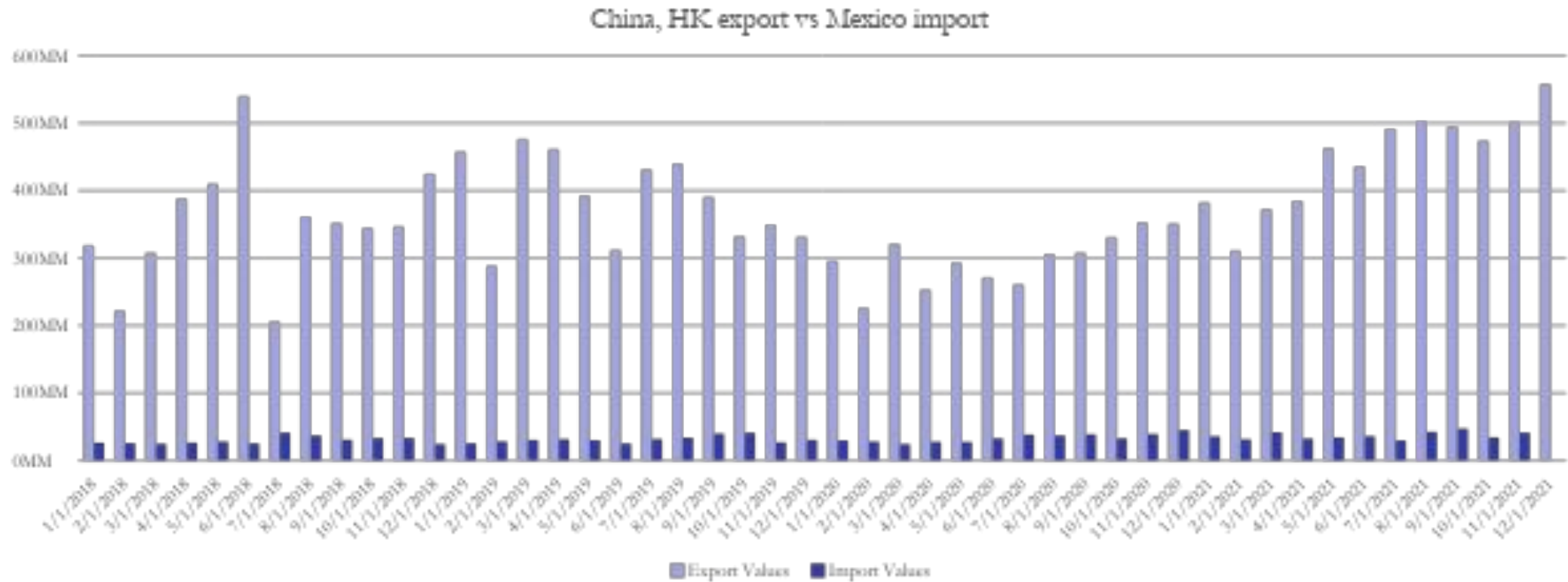




# China, HK vs Japan



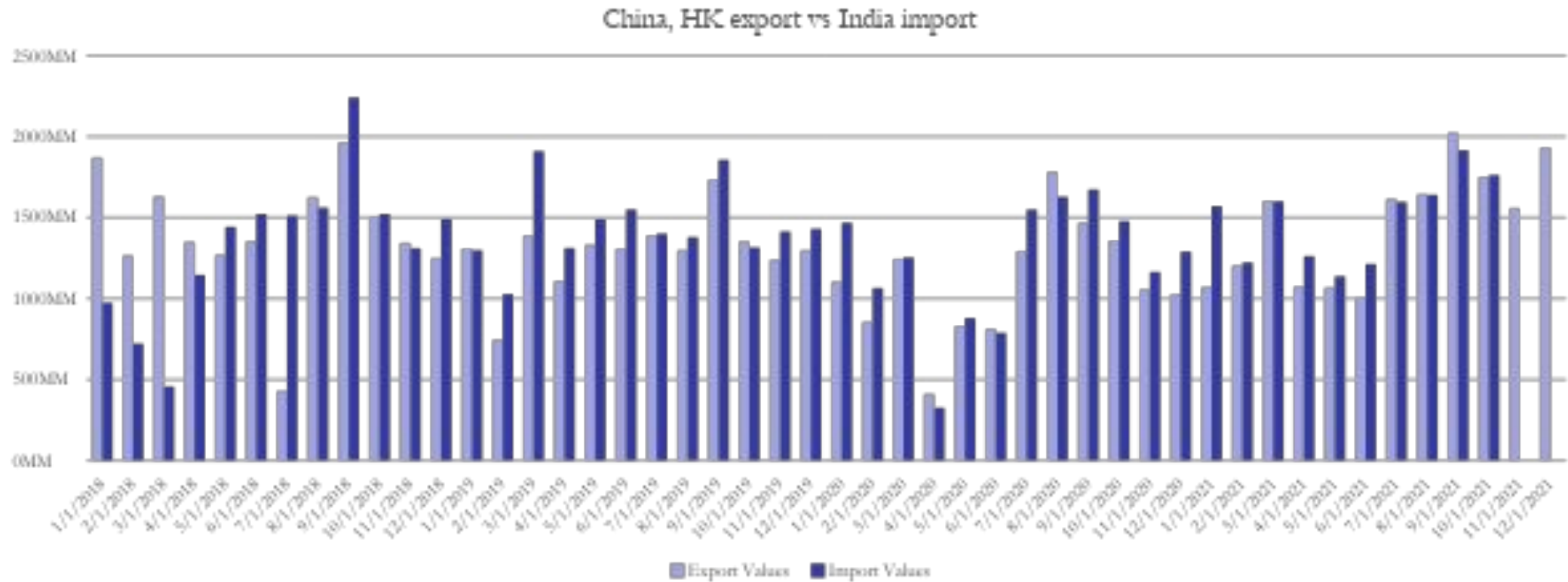
# China, HK vs Mexico



# China, HK vs Germany



# China, HK vs India



Reason of  
Discrepancy  
of trade  
value in  
China, HK

- Missing data
- Wrong record





Thankyou

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Q&A

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