# "Trade Disruptions and Global Banking"

Discussion by Valentina Bruno

5<sup>th</sup> BIS workshop on "Research on global financial stability: the use of BIS international banking and financial statistics"

## Synopsis

- Larger exposure to Covid-related restrictions is associated with weaker import flows
- Effect is driven by the import of intermediate goods
- Contraction is alleviated by the presence of global banks because they have privileged access to FX funding abroad
  - Global banks= those with a significant activity outside Brazil via the presence of related entities in the US
- Message: positive interaction between real and financial integration

## Global banks during crises/stress: credit supply contraction

- Amiti and Weinstein (2011): Japanese financial crises
- Paravisini et al (2015): GFC
- Schnabl (2012): 1998 Russian default
- Love, Preve, Sarria-Allende (2007): Asian crisis
- Hale, Kapan and Minoiu (2020): Bank crises
- Correa, di Giovanni, Goldberg, and Minoiu (2023): Trade war

• Bruno and Shin (2023): financial conditions tightening

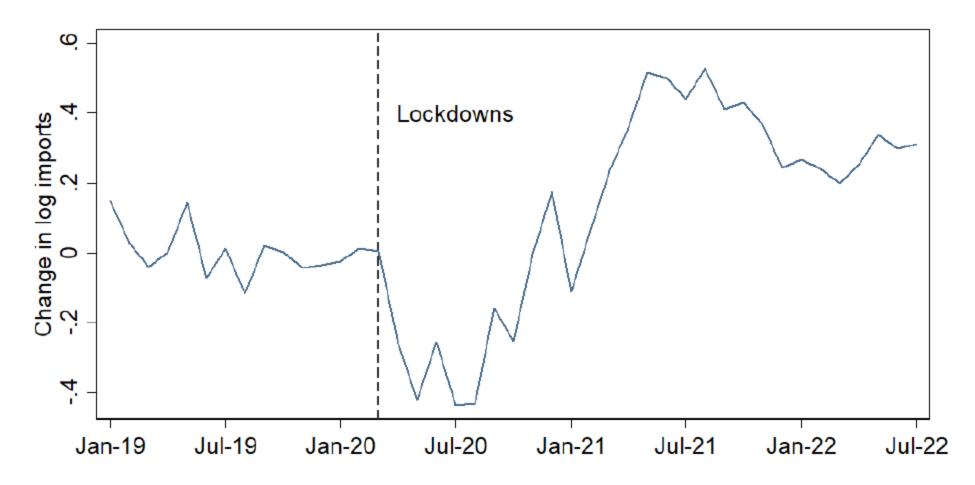
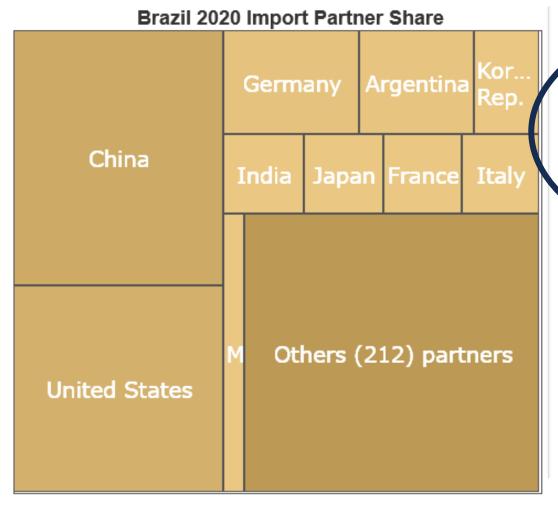


Figure 2 Brazil's imports during the pandemic

1. Larger exposure to Covid-related restrictions is associated with weaker import flows



Source: WITS



(i)		
Partner Name	Import (US\$ In $\Rightarrow$ Im	port Partner Share 🧓
China	36,737,797.59	22.09
United States	29,722,494.77	17.87
Germany	9,682,977.75	5.82
Argentina	8,218,063.65	4.94
Korea, Nep.	4,656,443.39	2.80
India	1,050,417.33	2.62
Japan	4,323,313.63	2.60
France	4,263,293.23	2.56
Italy	4,222,776.08	2.54
Mexico	3,999,598.36	2.40

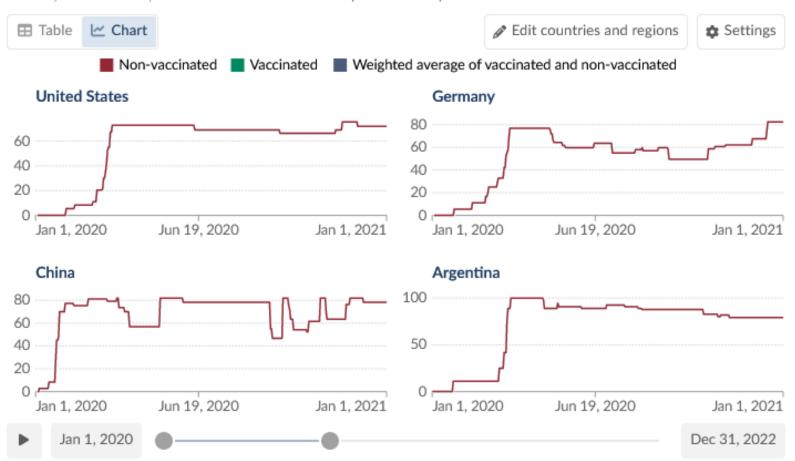
**Brazil 2021 Import Partner Share** Argentina Germany India Korea, Japan China Russi... Italy Feder... Others (207) partners **United States** 

Doube on Nov	(US\$ Th(1) In	nport Portner -
Partner Name	import (o o o m	iiporti uii
China	53,464,016.77	22.78
① United States	41,502,926.65	17.68
(i) Argentina	12,412,751.64	5.29
Germany	11,921,301.84	5.08
(i) India	7,233,947.62	3.08
(1) Russian Federation	6,228,322.61	2.65
(i) Italy	5,749,966.38	2.45
(1) Korea, Rep.	5,458,644.19	2.33
(i) Japan	5,427,931.11	2.31
(i) France	4,988,508.27	2.13
(i) Mexico	4,770,682.63	2.03

#### COVID-19: Stringency Index



The stringency index is a composite measure based on nine response indicators including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100 (100 = strictest).



Data source: Hale, T., Angrist, N., Goldszmidt, R. et al. A global panel database of pandemic policies (Oxford COVID-19 Government Response Tracker). Nat Hum Behav 5, 529–538 (2021). <a href="https://doi.org/10.1038/s41562-021-01079-8">https://doi.org/10.1038/s41562-021-01079-8</a> – <a href="Learn more about this data">Learn more about this data</a>

Country or region $\uparrow \downarrow$	↑↓ Jan 1, 2020	↑ Jan 1, 2021	$\uparrow\downarrow$ Absolute Change
Germany	0.00	82.41	+82.41
Italy	0.00	82.41	+82.41
Argentina	0.00	79.17	+79.17
China	0.00	78.24	+78.24
Mexico	0.00	71.76	+71.76
United States	0.00	71.76	+71.76
France	3 0.00	63.89	+63.89
South Korea	0.00	60.65	+60.65
Japan Jan 1, 2020	Jan 1, 2	2021 48.15	+48.15

Country/area ↑↓	↑↓ Jan 1, 2020	↑↓ Jan 2, 2021	↓ Absolute Change
Tanzania	0.00	6.48	+6.48
Nicaragua	0.00	8.33	+8.33
Taiwan	8.33	19.44	+11.11
Afghanistan	0.00	12.04	+12.04
Burundi	0.00	14.81	+14.81
Central African Republic	© 0.00	16.67	+16.67

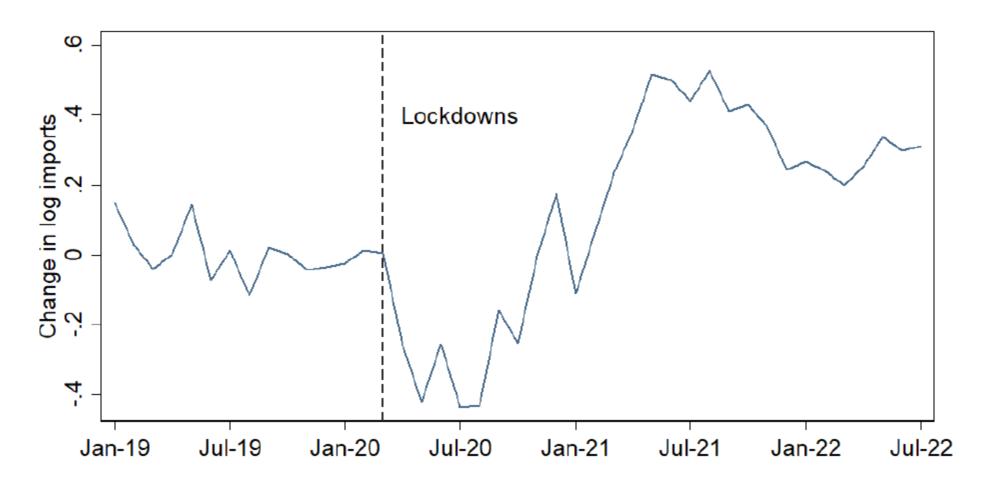


Figure 2 Brazil's imports during the pandemic

Effect on imports lasts for two quarters, restrictions in place for longer

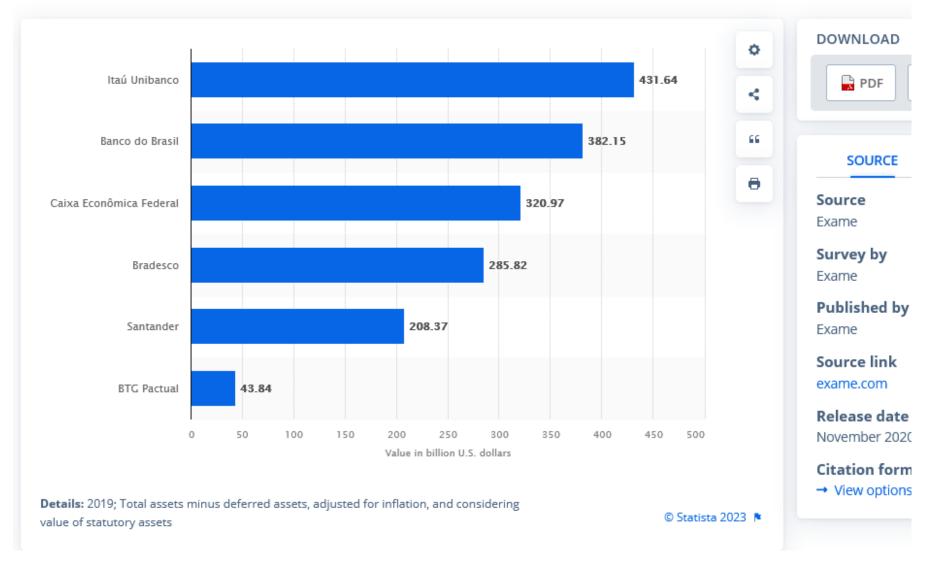
2. Contraction is alleviated by the presence of global banks because they have privileged access to FX funding abroad

#### Global variable definition

- Global = ex-ante market share of global banks between Jan 2019 and Feb 2020 for each municipality
- Market share is computed as the ratio of global bank's assets to total bank assets per municipality
- Global banks = banking institutions with a related entity within the same banking group in the US (could be Brazilian bank, too)
- Sample of 296 banks, 41 are globally integrated (36 are foreignowned)

#### Leading banks based on adjusted value of total assets in Brazil in 2019

(in billion U.S. dollars)



**Banco Itaú Unibanco S.A.** is a Brazilian financial services company headquartered in São Paulo, Brazil. Itaú Unibanco was formed through the merger of Banco Itaú and Unibanco in 2008. It is the largest banking institution in Brazil, as well as the largest in Latin America, [2] and the seventy-third largest bank in the world. The bank is listed on the B3 in São Paulo and in NYSE in New York.

Itaú Unibanco has operations in Brazil, Chile, Colombia, Panama, Paraguay, United States and Uruguay in the Americas, as well as in Luxembourg, Portugal, Switzerland and the United Kingdom in Europe; China, Hong Kong, Japan and United Arab Emirates in Asia. It has over 33,000 service points globally, including 4,335 branches in Brazil and 55 million customers globally.

Itaúsa, a large Brazilian conglomerate ranking among Fortune magazine's top 500 corporations in the world, serves as the parent company. Outside Brazil, Itaú Unibanco has offices in Asunción, Buenos Aires, Cayman Islands, Dubai, Hong Kong, Lisbon, London, Luxembourg, Montevideo, Nassau, New York, Miami, Santiago, Shanghai, Tokyo, and Zurich.

- Banco do Brasil, Caixa: stated owned
- Bradesco: several acquisitions over the period
- Santander: different business model, less relying on dollar funding (BIS, 2010, Funding patterns and liquidity management of internationally active banks. CGFS Papers)

## Definition of Global bank/Exposure to US dollar

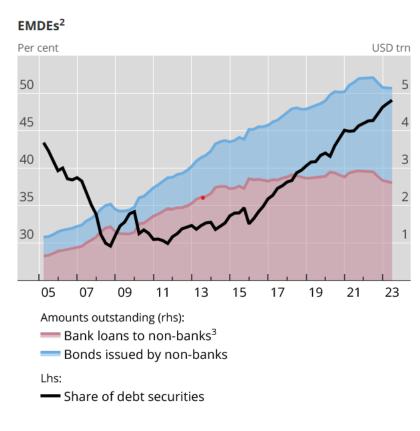
- Market share is computed as the ratio of a global bank's assets to total bank assets per municipality
  - Global bank assets = assets of a bank operating in Brazil that also has an entity in the US
- Ratio of foreign interbank liabilities held abroad in foreign currency by Brazilian banks

OR

- % market share in the US
- Exposure to dollar funding in the US
- Ratio of US interbank liabilities

## Credit supply

- Do such "global banks" reduce supply of credit?
- Do such "global banks" reduce interbank credit?
- US dollar credit to non-banks



## Credit supply

- Do global banks reduce supply of credit?
- Do global banks reduce interbank credit?
- US dollar credit to non-banks
- Imports are exports from other firms, who may face financial constraints and working capital issues when exporting (Bruno, Kim, Shin 2018; Kim and Shin, 2023).
- Firms can temporarily extend trade credit (receivables/payables, Love, Preve, Sarria-Allende, 2007)

## Access to US dollar funding

Table 8 Horse race results - bank characteristics

	(1)	(2)	(3)	(4
			$\Delta Im_j$	ports
$Stringency \times Post \times Global^A$	0.0335*** (2.8100)	0.0323** (2.4237)	0.0344*** (2.8785)	0.032
$Stringency \times Post \times Foreign^A$	(2.8100)	0.0057 (0.2521)	(2.0703)	(2.48
$Stringency \times Post \times US^A$			-0.1957 (-0.6733)	
$Stringency \times Post \times European^A$			(0.0100)	0.00
$Stringency \times Post \times Close^A$				(0.17
$Stringency \times Post \times Latam^A$				
Observations	1.976,675	1.976.675	1,976,675	1.976
R-squared	0.0337	0.0337	0.0337	0.02

## Access to US dollar funding

**Table 8** Horse race results - bank characteristics

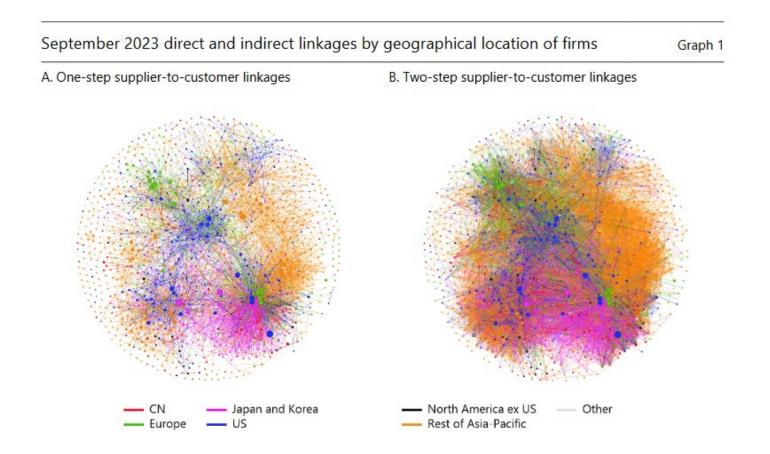
(3)(1)(2) $\Delta Imports$  $Stringency \times Post \times Global^A$ 0.0335\*\*\*\*0.0323\*\*0.0344\*\*\*\*0.032(2.8100)(2.4237)(2.8785)(2.45) $Stringency \times Post \times Foreign^A$ 0.0057(0.2521) $Stringency \times Post \times US^{A}$ -0.1957(-0.6733) $Stringency \times Post \times European^A$ 0.00(0.15) $Stringency \times Post \times Close^A$  $Stringency \times Post \times Latam^{A}$ Observations 1,976,675 1,976,675 1,976,675 1.9760.03370.0337R-squared 0.03370.03

share of US banks at the municipality level

US = market

## Wrapping up: What the BIS tells us

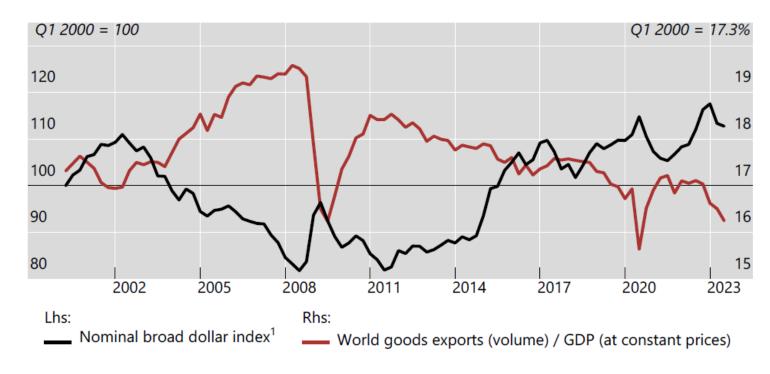
#### Fear of fragmentation is exaggerated



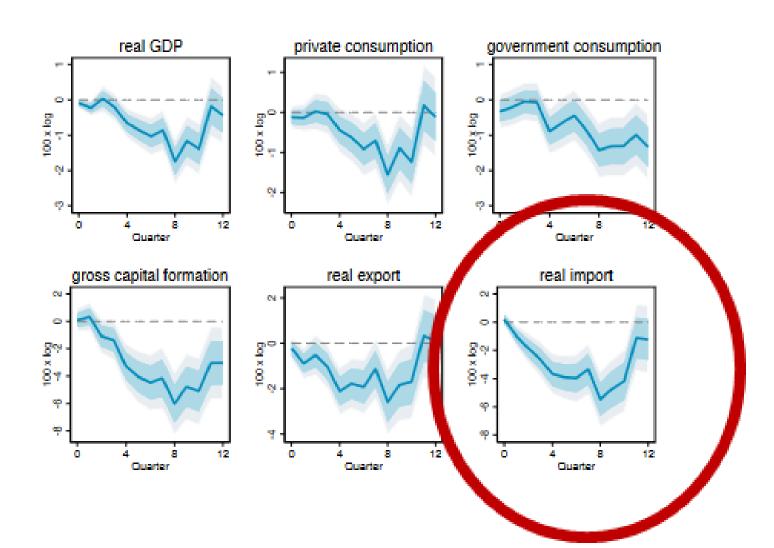
Source: BIS Bulletin 78

#### What the BIS tell us

Global trade relative to GDP has fluctuated with financial conditions, as measured by the broad dollar index



## I.R. from dollar appreciation (Obstfeld and Zhou, 2023)



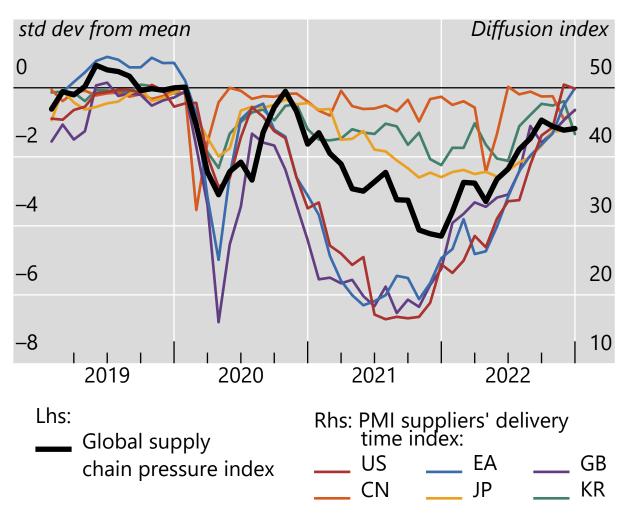
### See also

Ma and Tim Schmidt-Eisenlohr (2023) > dollar appreciation increases import prices and decreases import quantities

and

Niepmann and Tim Schmidt-Eisenlohr (2023) > when the dollar appreciates by 1 percent, U.S. banks' corporate loan originations fall by 4.5 percent

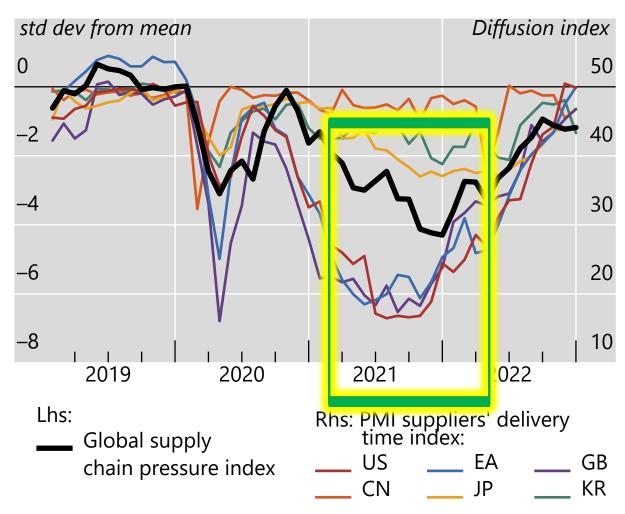
## Supply chain indicators



For global supply chain pressure index, negative figures indicate higher supply constraints. For PMI suppliers' delivery time index, a value below 50 indicates delivery times lengthening.

Sources: Federal Reserve Bank of New York; IHS Markit; BIS.

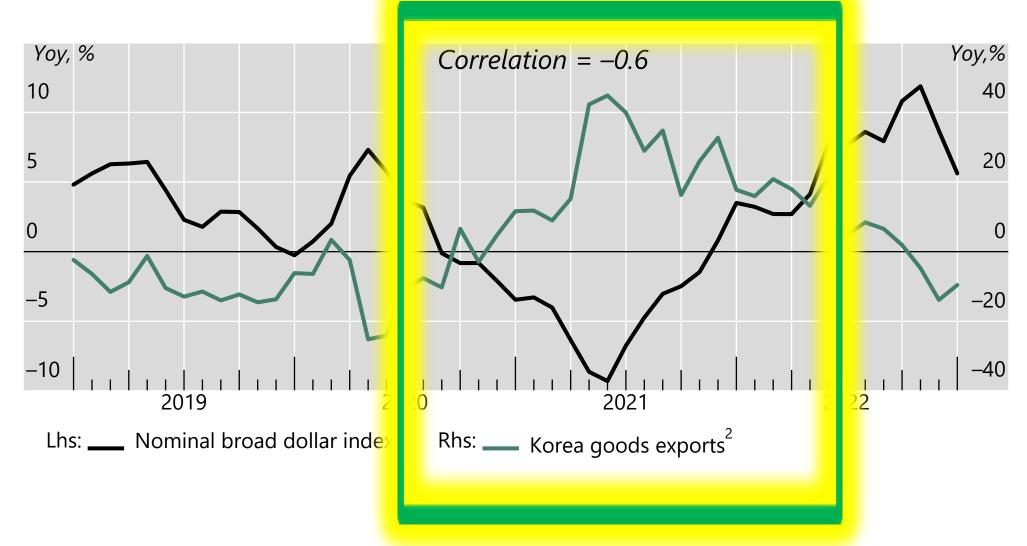
## Supply chain indicators



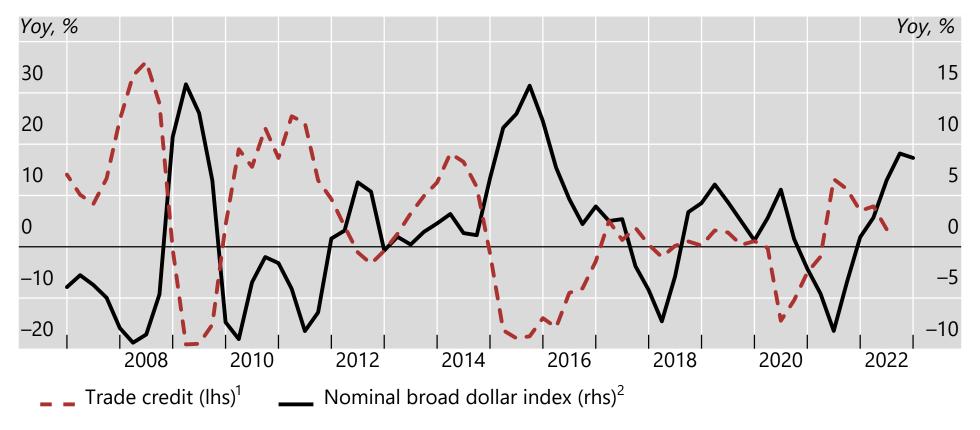
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Sources: Federal Reserve Bank of New York; IHS Markit; BIS.

Case of Korean exports: booming in 2021, when the dollar was weak and despite bottlenecks



## Annual growth of trade finance from banks follows closely the movements in the broad dollar index



<sup>&</sup>lt;sup>1</sup> Total trade finance volume reported to the BIS by nine central banks. <sup>2</sup> Federal Reserve Board trade-weighted nominal dollar index, broad group of major trading partners of the US ("broad"), based on trade in goods and services. An increase indicates appreciation of the US dollar.

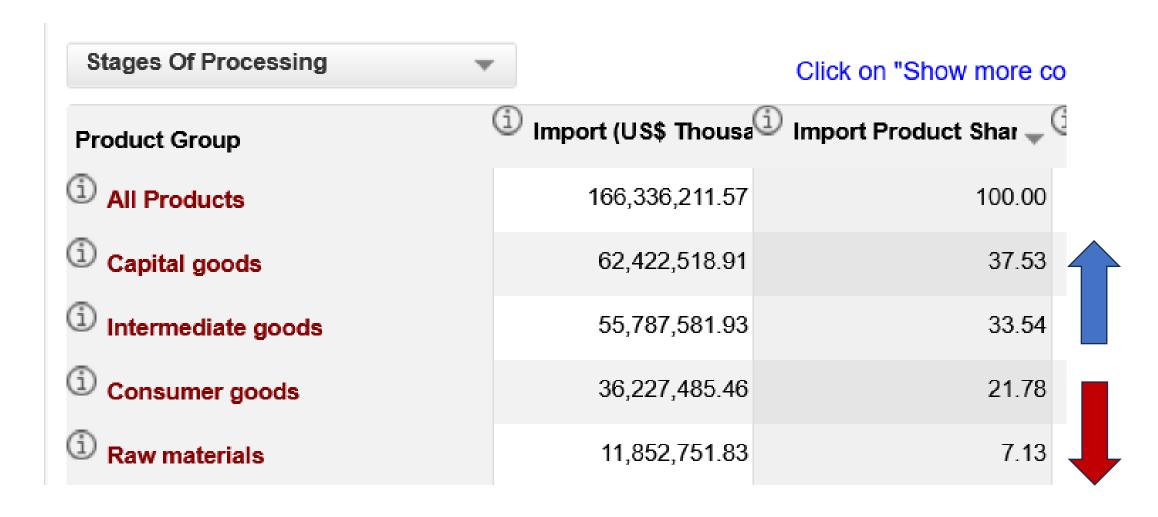
### Quibbles

- Provide details on the 41 "global banks" and RFX
- Trade finance is mostly short-term dollar funded
- Seasonality effect: year-to-year month% better than month-on-month
- Valuation or price effects: volumes better than values
- Imports of intermediate goods

## 

Stages Of Processing		Click on "Show more co
Product Group	(US\$ Thousa	(1) Import Product Shar 🐷
(1) All Products	193,162,004.04	100.00
(1) Capital goods	69,507,867.79	35.98
(1) Intermediate goods	60,388,137.83	31.26
(1) Consumer goods	46,903,208.37	24.28
(1) Raw materials	16,333,606.52	8.46

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•	Click on "Show more co
(US\$ Thousa	import Product Shar 🔷 🤇
234,690,442.20	100.00
86,094,802.76	36.68
76,699,666.20	32.68
54,528,527.31	23.23
17,289,704.29	7.37
	234,690,442.20 86,094,802.76 76,699,666.20 54,528,527.31