

# PubPol/Econ 541

Class 6

## **International Transactions and the Trade Balance**

by

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2022

# Pause for News

# Announcements

- Papers
  - Yesterday was the drop/add deadline, so I'll be doing the paper assignments soon
  - Group assignments will be in Canvas: Files / Paper Assignments
  - Assignments will also be there, and on website under Paper Assignments
  - First paper is due Thu, Oct 6, 8:30 AM on Canvas
  - The groups will be set in Canvas; turn in once per group

# Quiz Scores

	Q1	Q2
Mean	8.62	6.69
Median	9	6.5
Max	10	10
Min	5.5	2.5
S.D.	1.27	2.08

# Outline

- A Bit of Macroeconomics
- The Balance of Payments Accounts
- Surpluses and Deficits
- They Add to Zero
- What a Deficit Means
- The Assumption of Balanced Trade

# A Bit of Macroeconomics

- From KOM:

$$Y = C + I + G + (X - M)$$

– Where

- $Y = \text{GDP} = \text{Gross Domestic Product}$
- $C = \text{Consumption}$
- $I = \text{Investment}$
- $G = \text{Government purchases}$
- $X = \text{Exports}$
- $M = \text{Imports}$

# A Bit of Macroeconomics

- GDP measures
  - The economy's output of goods and services
  - Essentially the same as National Income
  - GDP is positively related to, but not the same as
    - Employment
    - Welfare
    - Happiness
  - And there are problems even with measuring output. E.g., it misses all that we produce in our homes

# Pause for Discussion



# Questions on KOM

- What's the difference between GNP and GDP?
- Why does GNP (or GDP) only include consumption of final goods, not firms' purchases of intermediate inputs?
- Why are imports subtracted from  $C+I+G+X-M$  in calculating GDP? Is it because imports cause unemployment?

# More Questions on KOM

- What distinguishes credits and debits in the balance of payments?
- What distinguishes the current account from the financial account?
- For which categories of transactions did credits exceed debits for the United States in 2015 (the year reported in KOM)?
  - Trade in goods
  - Trade in services
  - Investment (i.e., “primary income”)
  - Transfer payments (i.e., “secondary income”)
  - Changes in asset holdings

# The Balance of Payments Accounts

- Recording International Transactions
  - Credits versus debits
    - Credits correspond to payments that would flow into the country
      - Exports
      - Borrowing from foreigners
      - Collection of interest and dividends from foreigners
    - Debits correspond to payments that would flow out of the country
      - Imports, etc.

This use of the words “credit” and “debit” is specific to the international accounts. It is **NOT** the same as their use in accounting or in other contexts.

# The Balance of Payments Accounts

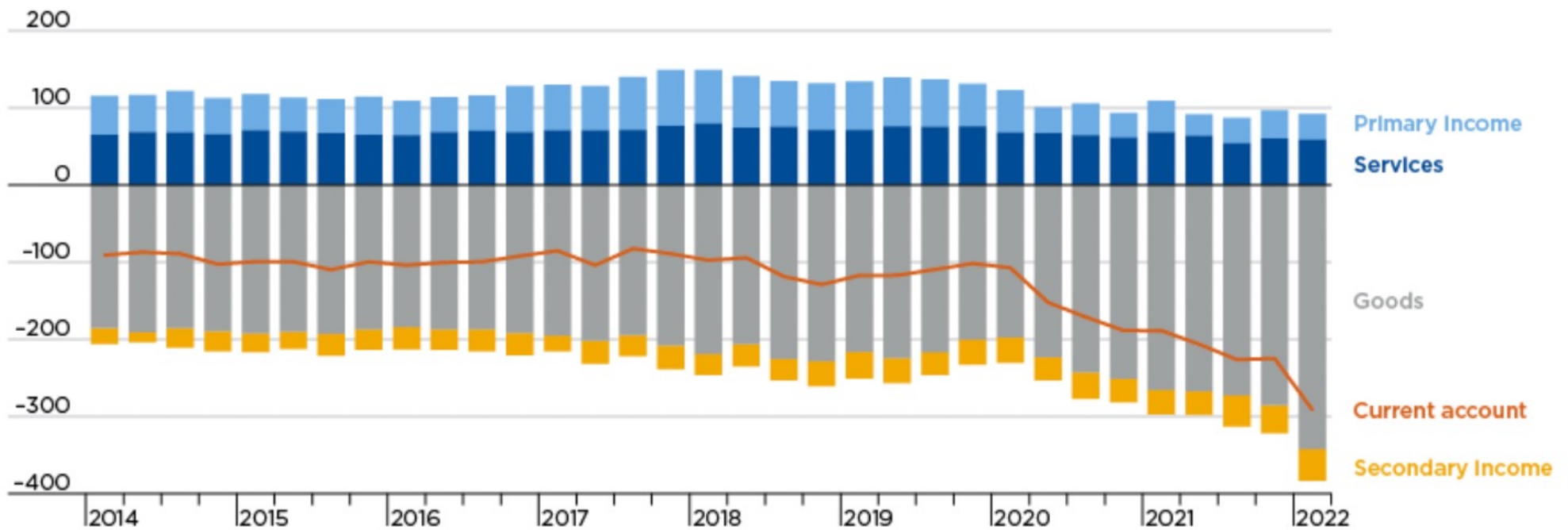
- Recording International Transactions
  - Current versus Financial Accounts
    - Financial account is (only) changes in holding of assets by one country in another
    - Current account is everything else
      - Trade (both goods and services)
      - Income payments (wages, interest, & dividends)
      - Transfers (Gifts, remittances, and foreign aid)

# The Balance of Payments Accounts

Accounts		Credits	Debits
Current Account			
	Exports	+	
	Goods		
	Services (including investment income rcvd)		
	Imports		-
	Goods		
	Services (including investment income paid)		
	Transfers	+ (in)	- (out)
<b>Balance on Current Account:</b>		<b>Credits minus Debits</b>	
Financial Account			
	<u>Change in</u> US assets held abroad		-
	<u>Change in</u> foreign holdings of assets in US	+	
<b>Balance on Financial Account:</b>		<b>Credits minus Debits</b>	

## Chart 1. U.S. Current-Account Balance and Its Components

Billions of dollars, seasonally adjusted



U.S. Bureau of Economic Analysis

# Table 13.2 U.S. Balance of Payments Accounts for 2019 (Billions of Dollars) (1 of 2)

<b>Current Account</b>		
(1)	Exports and current transfer receipts	<b>3,805.94</b>
	Of which:	
	Goods	1,652.44
	Services	875.83
	Income receipts (primary income)	1,135.69
	Current transfer receipts (secondary income)	141.98
(2)	Imports and current transfer payments	4,286.16
	Of which:	
	Goods	2,516.77
	Services	588.36
	Income receipts (primary income)	899.35
	Current transfer receipts (secondary income)	281.69
	<b>Balance on current account [(1)–(2)]</b>	<b>–480.22</b>
(3)	<b>Capital Account</b>	<b>–6.24</b>

**Source:** U.S. Department of Commerce, Bureau of Economic Analysis, June 196, 2020, release. Totals may differ from sums because of rounding.

# Table 13.2 U.S. Balance of Payments Accounts for 2019 (Billions of Dollars) (2 of 2)

<b>Financial Account</b>		
(4)	Net U.S. acquisition of financial assets, excluding financial derivatives	<b>440.75</b>
	Of which:	
-	Official reserve assets	4.66
-	Other assets	436.09
(5)	Net U.S. incurrence of liabilities, excluding financial derivatives	<b>797.96</b>
	Of which:	
-	Official reserve assets	61.63
-	Other assets	736.33
(6)	Financial derivatives, other than reserves, net	-38.34
	<b>Net financial flows [(4)-(5)-(6)]</b>	<b>-395.54</b>
	<b>Statistical Discrepancy</b>	<b>90.92</b>
	[Net financial flows less sum of current and capital accounts]	-

**Source:** U.S. Department of Commerce, Bureau of Economic Analysis, June 196, 2020, release. Totals may differ from sums because of rounding.



**Table A. U.S. International Transactions**  
[Millions of dollars, seasonally adjusted]

Note that Bal on CA is  $-206,402 = 929,394 - 1,135,795$

These are all debits  
and therefore negative.

Ignore this. It's small.  
These are also debits  
and therefore negative.

Really, errors and  
omissions

	2021		2022		Change 2021:Q4 to 2022:Q1
	III <sup>†</sup>	IV <sup>†</sup>	I <sup>P</sup>		
<b>Current account</b>					
<b>Exports of goods and services and income receipts (credits)</b>	<b>929,394</b>	<b>52,285</b>	<b>1,001,171</b>	<b>1,026,911</b>	<b>25,740</b>
Exports of goods and services	630,247	641,582	686,479	704,642	18,163
Goods	435,556	441,893	473,521	487,422	13,901
Services	194,691	199,688	212,959	217,220	4,261
Primary income receipts	256,960	267,976	271,520	278,624	7,104
Secondary income (current transfer) receipts	42,187	42,727	43,173	43,645	472
<b>Imports of goods and services and income payments (debits)</b>	<b>1,135,795</b>	<b>1,078,660</b>	<b>1,226,009</b>	<b>1,318,329</b>	<b>92,320</b>
Imports of goods and services	833,962	860,724	911,479	988,412	76,933
Goods	702,985	714,472	758,540	829,669	71,129
Services	130,977	146,251	152,939	158,743	5,804
Primary income payments	228,932	234,408	234,527	245,227	10,700
Secondary income (current transfer) payments	72,901	83,528	80,003	84,690	4,687
<b>Capital account</b>					
Capital transfer receipts and other credits	9	3,819	13	28	15
Capital transfer payments and other debits	890	828	1,857	2,074	217
<b>Financial account</b>					
<b>Net U.S. acquisition of financial assets excluding financial derivatives (net increase in assets / financial outflow (+))</b>	<b>296,073</b>	<b>466,485</b>	<b>49,404</b>	<b>343,108</b>	<b>293,704</b>
Direct investment assets	180,545	87,710	64,912	115,200	50,288
Portfolio investment assets	173,874	305,649	-106,715	203,116	309,831
Other investment assets	-58,823	-39,476	88,194	23,859	-64,335
Reserve assets	477	112,603	3,013	932	-2,081
<b>Net U.S. incurrence of liabilities excluding financial derivatives (net increase in liabilities / financial inflow (+))</b>	<b>428,362</b>	<b>676,601</b>	<b>230,257</b>	<b>626,362</b>	<b>396,105</b>
Direct investment liabilities	116,823	161,484	97,255	93,543	-3,712
Portfolio investment liabilities	146,867	200,804	-61,631	239,004	300,635
Other investment liabilities	164,672	314,312	194,633	293,815	99,182
Financial derivatives other than reserves, net transactions	-8,611	-7,980	-23,095	5,762	28,857
<b>Statistical discrepancy</b>					
Statistical discrepancy <sup>1</sup>	66,382	5,289	22,734	15,972	-6,762
<b>Balances</b>					
<b>Balance on current account</b>	<b>-206,402</b>	<b>-226,375</b>	<b>-224,837</b>	<b>-291,418</b>	<b>-66,581</b>
Balance on goods and services	-203,715	-219,142	-225,000	-283,770	-58,770
Balance on goods	-267,429	-272,579	-285,019	-342,247	-57,228
Balance on services	63,714	53,437	60,020	58,477	-1,543
Balance on primary income	28,027	33,568	36,993	33,397	-3,596
Balance on secondary income	-30,714	-40,800	-36,831	-41,045	-4,214
<b>Balance on capital account</b>	<b>-881</b>	<b>2,990</b>	<b>-1,844</b>	<b>-2,046</b>	<b>-202</b>
<b>Net lending (+) or net borrowing (-) from current- and capital-account transactions<sup>2</sup></b>	<b>-207,282</b>	<b>-223,384</b>	<b>-226,681</b>	<b>-293,464</b>	<b>-66,783</b>
<b>Net lending (+) or net borrowing (-) from financial-account transactions<sup>3</sup></b>	<b>-140,900</b>	<b>-218,096</b>	<b>-203,948</b>	<b>-277,492</b>	<b>-73,544</b>

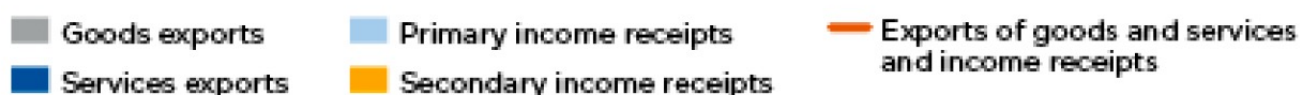
## Chart 2. Current-Account Transactions

Billions of dollars, seasonally adjusted

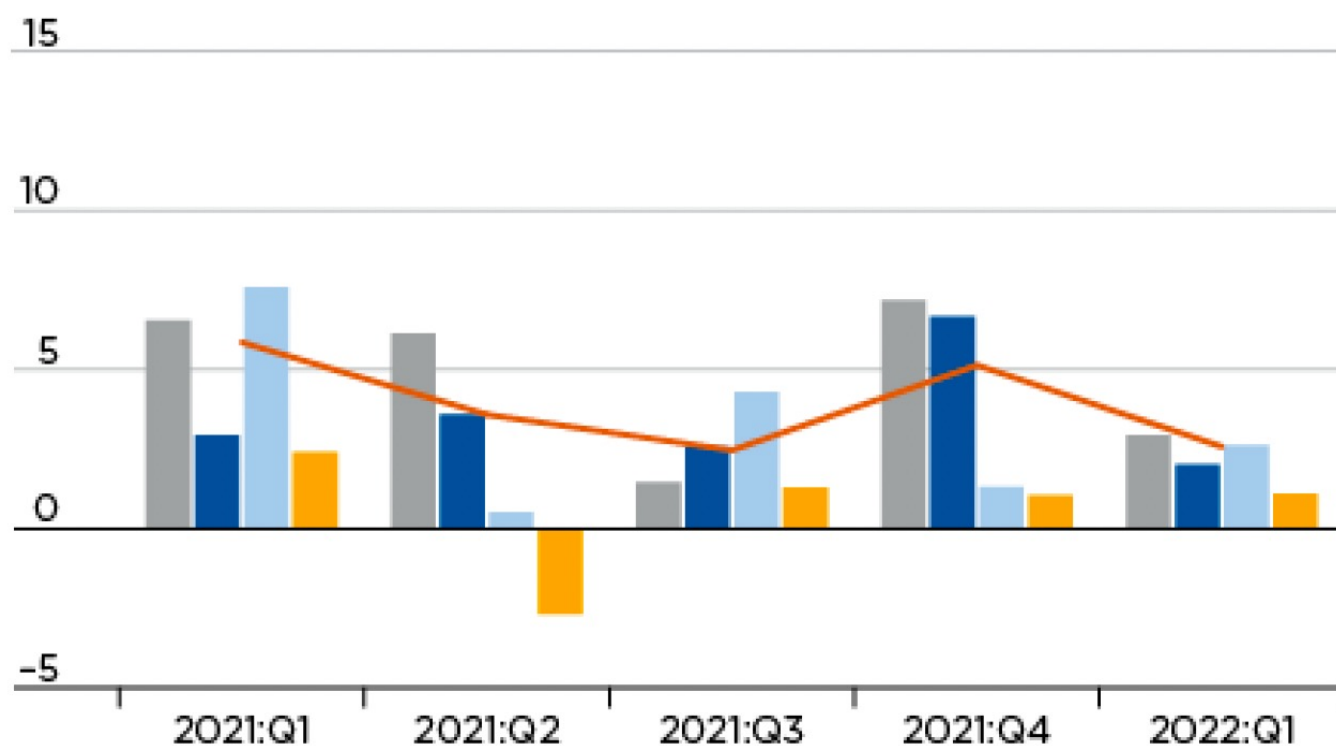


U.S. Bureau of Economic Analysis

### Chart 3. Percent Change in Exports of Goods and Services and Income Receipts



Percent change from the preceding quarter, seasonally adjusted



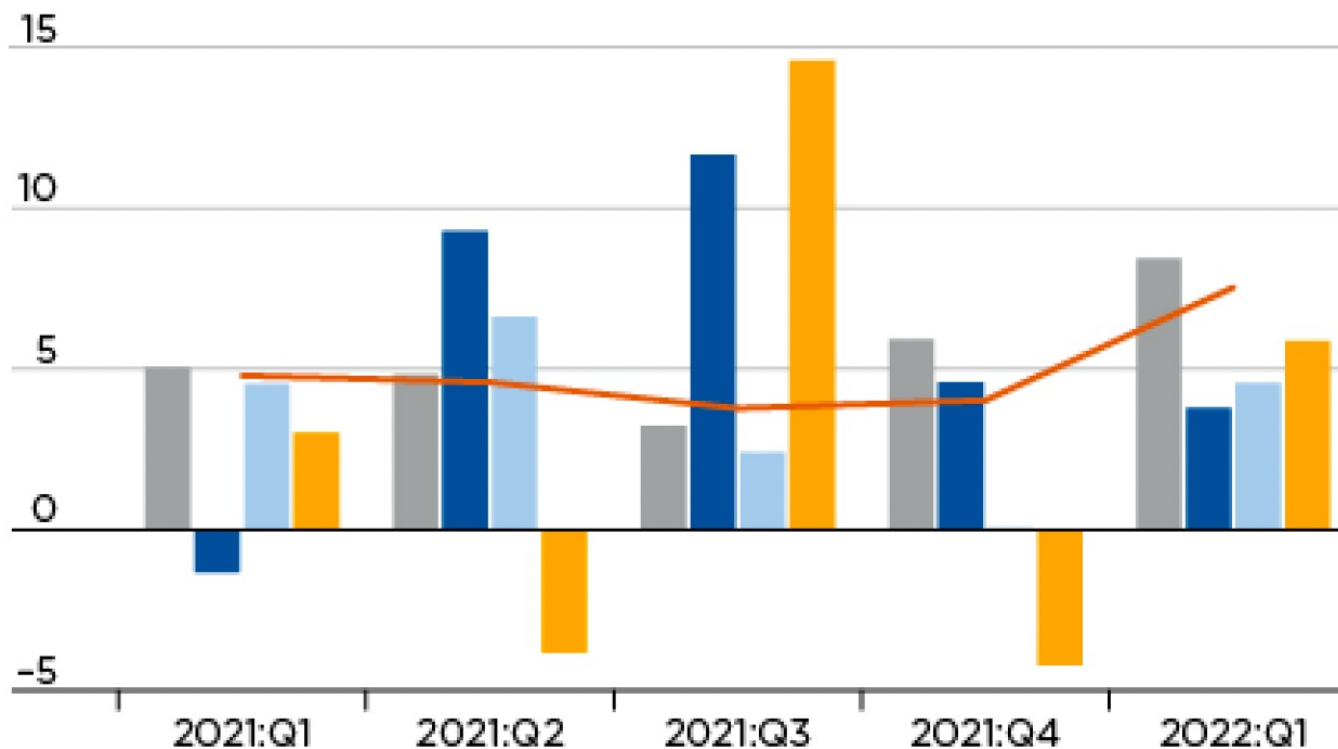
U.S. Bureau of Economic Analysis

## Chart 4. Percent Change in Imports of Goods and Services and Income Payments

Goods imports
  Primary income payments
  Imports of goods and services and income payments

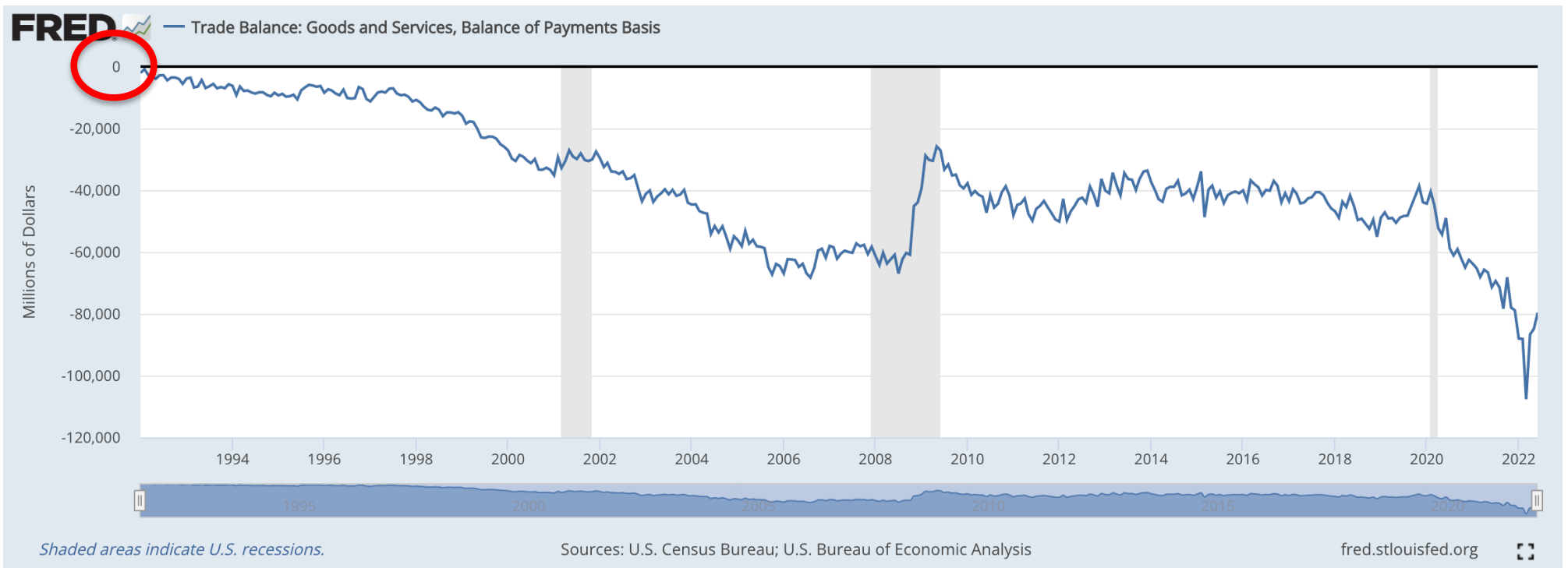
Services imports
  Secondary income payments

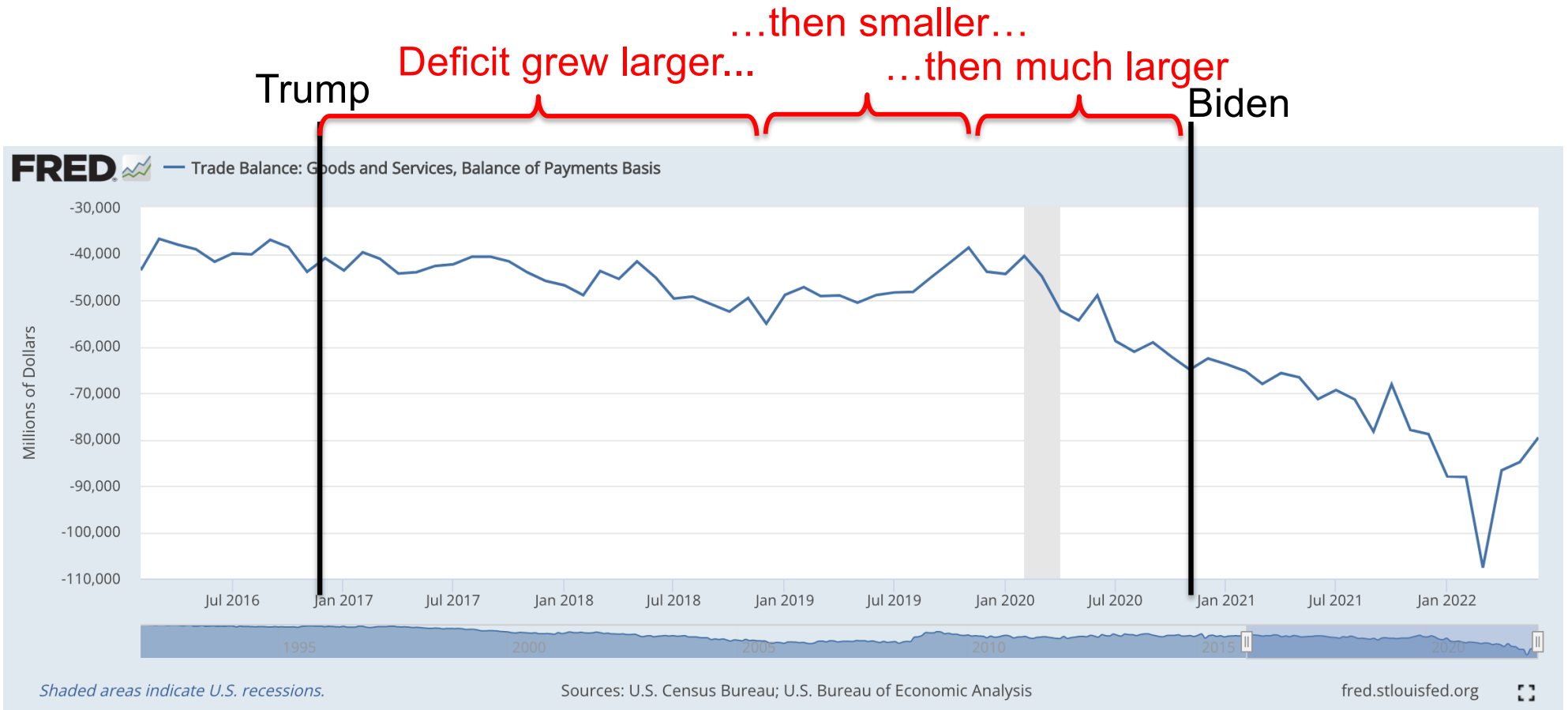
Percent change from the preceding quarter, seasonally adjusted



U.S. Bureau of Economic Analysis

Note the zero. This whole thing is negative – a deficit!





# The US Trade Deficit

- Grew from about \$2 billion in 1992 to almost \$70 billion in 2006
- Shrank in the recessions of 2001 & 2008, but not 2020
- Grew for Trump's first two years, then fell until 2020
- Grew to past the 2006 level in 2020
- And even more in 2021-2022

# Pause for Discussion



# Questions on Survey of Current Business

- What mostly happened to current account transactions in Q1 of 2021 compared to Q4 of 2020? (the most recent change in the BEA table, in its far-right column)
- What happened to financial transactions?

# Surpluses and Deficits

- For any subset of transactions
  - “Surplus” is credits  $>$  debits
  - “Deficit” is debits  $>$  credits
- Common “balances”:
  - Balance of Merchandise Trade (i.e., goods)
  - Balance on Goods and Services
  - Balance on Current Account
  - Balance on Financial Account

=Capital inflows minus capital outflows

# They Add to Zero

- If all transactions were captured perfectly, then all would add to zero

$$\sum \text{credits} = \sum \text{debits}$$

- Thus

Balance on Current Account

+

Balance on Financial Account

= 0

- (If they don't, there must be errors, hence "statistical discrepancy")

# They Add to Zero

- Why?
  - Every actual transaction has two parts, and these cancel each other
    - Example: I buy a book for \$10 from the UK
      - That's a US debit of \$10
      - If the seller keeps the \$10 cash, it's an increase in that foreigner's holdings of US assets (the \$10 bill), a US credit
      - They may do many other things with the \$10, but each of them would result in either a \$10 US credit or reversing a \$10 US debit

# They Add to Zero

- Implication
  - A trade (or current account) deficit must be accompanied by
    - Financial account surplus
    - Thus net capital inflow
- How does it happen?
  - Credits correspond to supply of foreign exchange
  - Debits correspond to demand for foreign exchange
  - So exchange-market equilibrium
    - Implies supply = demand
    - Implies credits = debits

# What a Deficit Means

- Recall (from macroeconomics) the definition of GDP

- $GDP = Y = C + I + G + (X - M)$

- $(C + I + G)$  equals expenditure,  $E$
- $(X - M)$  equals trade surplus

- So:

$$X - M = Y - E$$

- Trade surplus equals

Income minus expenditure

# What a Deficit Means

- Interpretations of a trade deficit
  - (as the US has had for decades)
  - We are spending more than our income
  - We are consuming (and investing in) more goods that we are producing
  - We are borrowing from (or selling assets to) foreigners

# What a Deficit Means

- Another Interpretation

- With  $T$  = net taxes, then  $Y - T$  is “disposable income”
- Rearrange:  $Y = C + I + G + (X - M)$
- $Y - C - G - I = (X - M)$
- $(Y - T - C) + (T - G) - I = (X - M)$
- Private savings + Government saving  $- I = (X - M)$
- Total Saving  $- Investment = (X - M)$
- Thus

$$X - M = S - I$$



# What a Deficit **Does Not** Mean

- That foreign trade barriers are hurting our exports
- That other countries are engaged in unfair trade
- That our firms are not competitive
- That we are losing jobs to other countries
- That we need to restrict trade
- (But note that many disagree, including Trump and two of the optional readings: Scott and Mokhiber, and Buffet)

# Pause for Discussion

# More Questions on KOM

- Why must credits and debits exactly offset if measured accurately?
- KOM defines a country's current account surplus as its exports minus its imports. Why is this also said to equal "net foreign investment"?
- What are, and what are not, the implications of a trade deficit? Jobs? Debt? Trade barriers? Competitiveness?

# What a Deficit Means

- Is a trade (or current account) deficit good or bad?
  - It depends

# Pause for Discussion

# Questions from Obstfeld

- Is a country with a trade deficit losing from trade?
- What determines a country's bilateral deficits and surpluses?
- Why does the fact that the US was at full employment matter for the discussion in Obstfeld?

# What a Deficit Means

- Many trade sceptics, such as Scott, associate trade deficits with lost jobs.
  - In other work (not assigned) Scott "measures" the lost jobs by comparing
    - The jobs producing US exports  
to
    - The jobs the US would need to produce US imports here
  - By this measure, "jobs lost" are sometimes more than the unemployed

# Questions from ~Scott

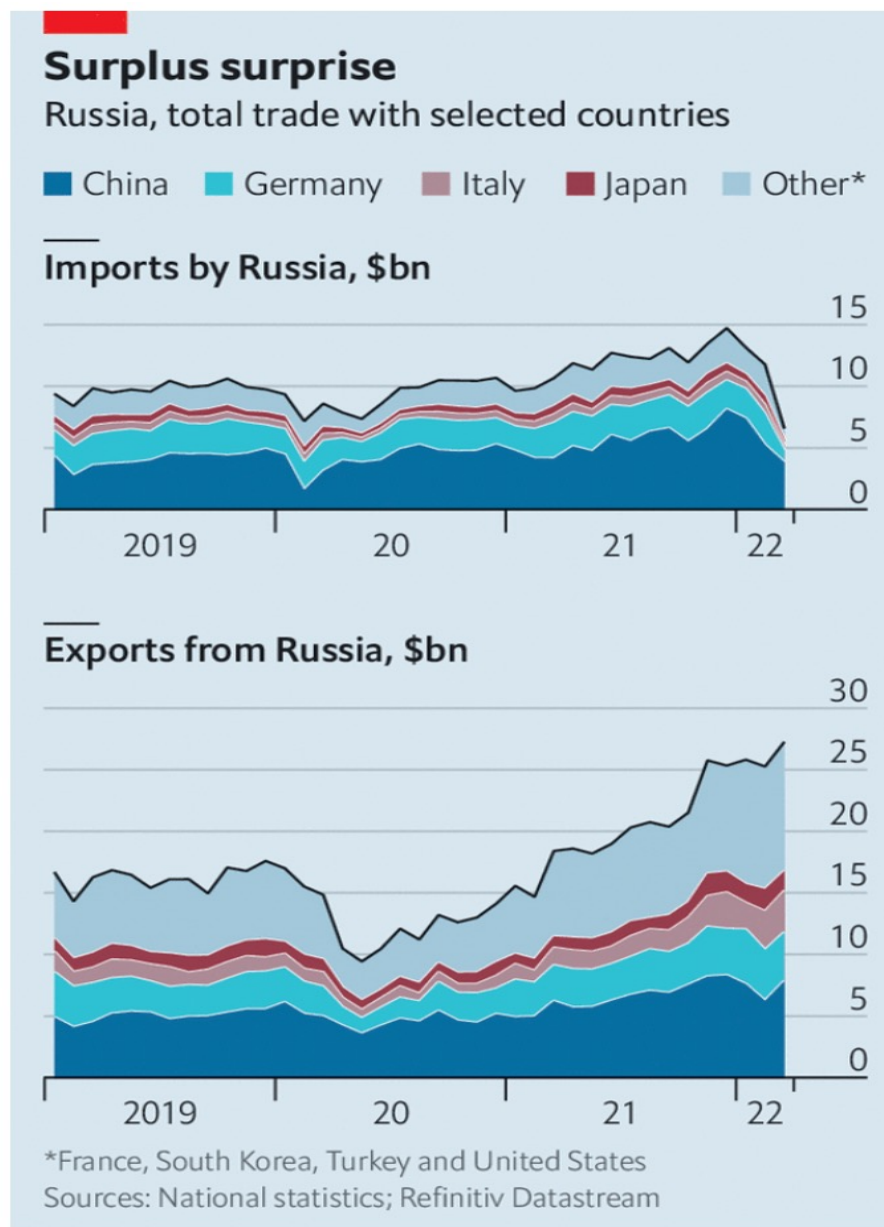
- Which has risen most, the US trade deficit in goods or in manufacturing? Why is this important, according to Scott?
- What does Scott blame for the high and rising US trade deficits?
- What US policy changes does he call for?



# Balanced Trade

- In this course we will assume either
  - Trade is balanced, or
  - The trade imbalance does not change
- Why?
  - Because the trade imbalance depends
    - On macroeconomic factors, such as monetary and fiscal policies
    - Not on the trade policies will are studying

Economist,  
“Russia is on  
track for a  
record trade  
surplus,” May  
13, 2022.



The Economist

# Russia's Surprising Economic Headache: Strong Ruble

Wall Street  
Journal  
June 29,  
2022





# RUSSIAN RUBLE TO US DOLLAR GRAPH CONVERTER

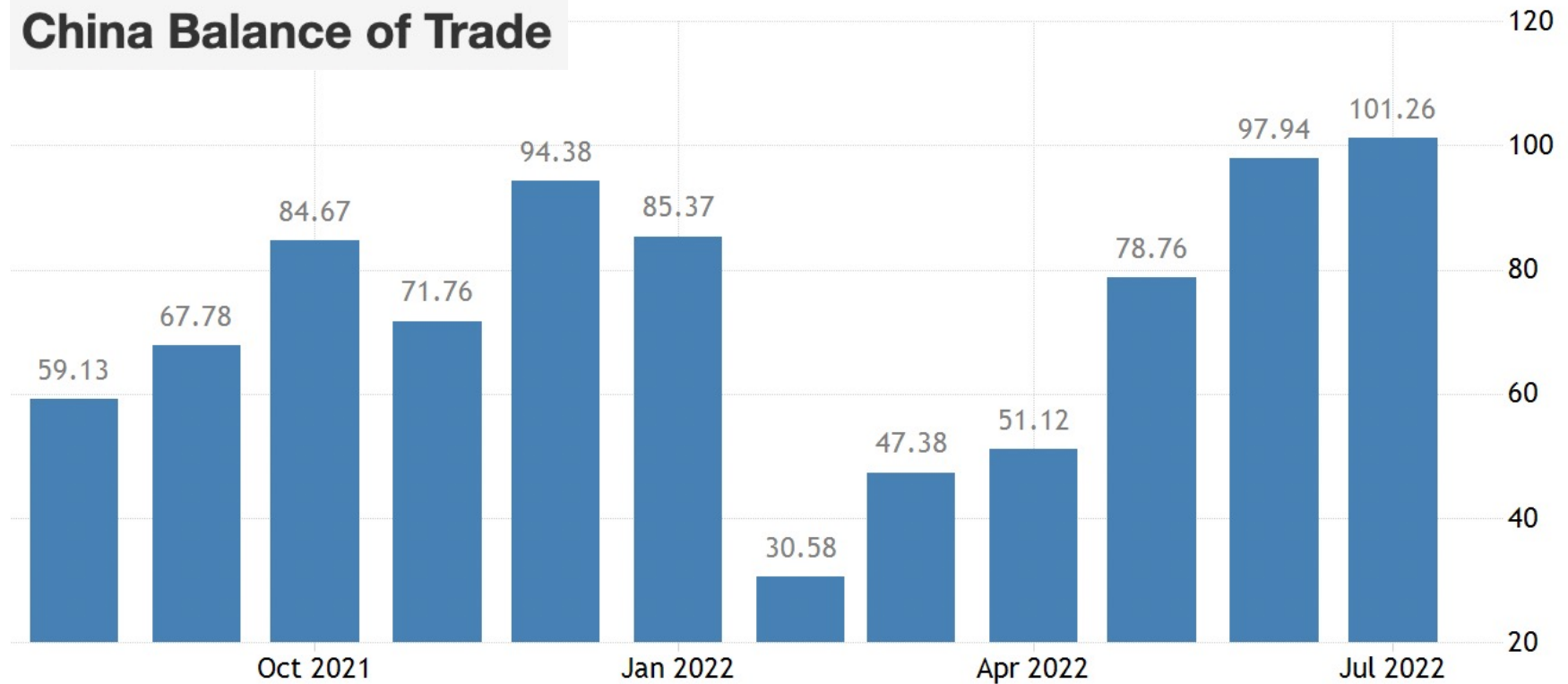
8 Sep 2021 00:00 UTC - 6 Sep 2022 21:00 UTC



# TRADING ECONOMICS

## China Balance of Trade

\$ billion





# CHINESE YUAN RENMINBI TO US DOLLAR GRAPH

## CONVERTER

6 Sep 2021 00:00 UTC - 6 Sep 2022 22:05 UTC



# Questions from Krugman

- What does Krugman say is the source of Russia's trade surplus?
- What does he say is the source of China's trade surplus?
- Why does he say that the surpluses are good for other countries?
- Why (according to him) are dictators more likely to have these problems?