

# PubPol/Econ 541

Class 6

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

by

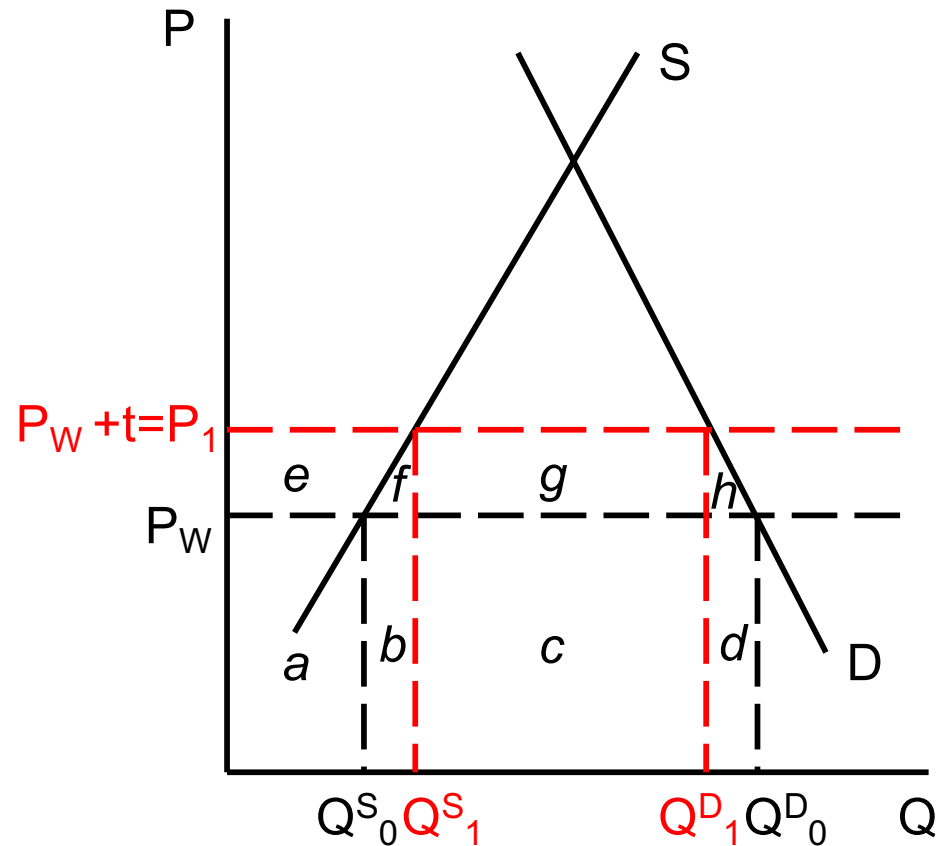
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2020

# Announcements

- Quiz 2
  - Missing figure (fixed for most of you)
  - My mistake in question 4 (should have been “small” country) (gave credit to all)
- Papers
  - Group assignments in Canvas: Files / Paper Assignments
  - Assignments are on website under Paper Assignments
  - First paper is due Thu, Oct 8, 8:30 AM on Canvas
  - Groups are set in Canvas; turn in once per group
- Questions
  - At a request from one of you, I now put answer to the class discussion questions in Canvas, after the class where they may have been used.

# Announcements

- Quiz 2, Question 9  
Increased revenue of suppliers is  $e+f+b$   
Almost all answered  
only  $e$



# 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

- 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?

# 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.

# The Balance of Payments Accounts

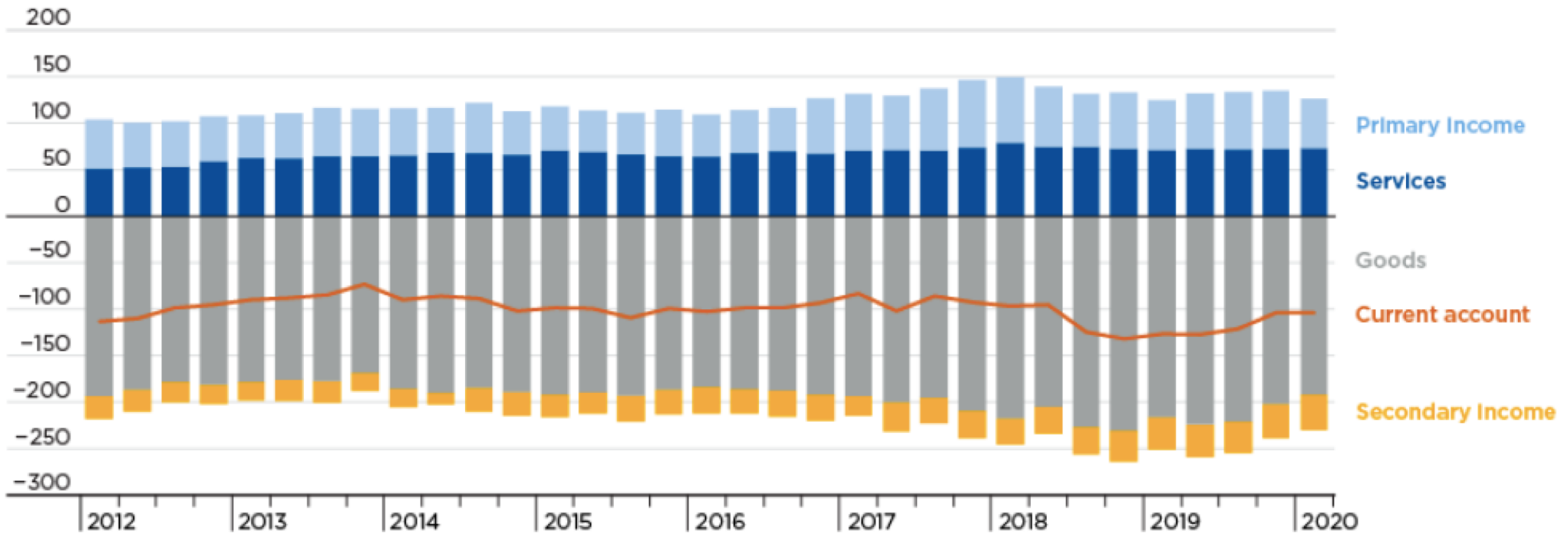
- Recording International Transactions
  - Current versus Financial Accounts
    - Financial account is (only) changes in holding of assets by one country in another
    - Current account is everything else
      - Trade (both goods and services)
      - Income payments (wages, interest, & dividends)
      - 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)
Balance on Current Account:		Credits minus Debits	
Financial Account			
	<u>Change in</u> US assets held abroad		-
	<u>Change in</u> foreign holdings of assets in US	+	
Balance on Financial Account:		Credits minus Debits	

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

Billions of dollars, seasonally adjusted



U.S. Bureau of Economic Analysis



Table A. U.S. International Transactions

[Millions of dollars, seasonally adjusted]

Note that Bal on CA is  $-127,691 \cong 953,927 - 1,081,619 (= -127,692)$

Current account					
Exports of goods and services and income receipts (credits)	953,927	954,446	949,848	902,303	-47,545
Exports of goods and services	831,374	630,189	632,469	612,382	-20,087
Goods	411,069	410,930	411,390	402,960	-8,430
Services	220,326	219,259	221,079	209,422	-11,657
Primary income receipts	287,535	286,761	282,943	255,139	-27,804
Secondary income (current transfer) receipts	24,997	37,496	34,435	34,781	346
Imports of goods and services and income payments (debits)	1,081,619	1,076,040	1,054,172	1,006,507	-47,665
Imports of goods and services	783,805	779,847	762,228	731,437	-30,791
Goods	635,641	632,059	613,887	595,291	-18,596
Services	147,964	147,788	148,341	136,146	-12,195
Primary income payments	228,069	225,140	220,985	202,652	-18,333
Secondary income (current transfer) payments	69,945	71,053	70,959	72,419	1,460
Capital account					
Capital transfer receipts and other credits	4	15	6	6	0
Capital transfer payments and other debits	852	850	2,026	2,968	942
Financial account					
Net U.S. acquisition of financial assets excluding financial derivatives (net increase in assets / financial outflow (+))	158,966	142,221	55,067	722,712	667,645
Direct investment assets	115,561	25,574	59,180	-36,326	-95,506
Portfolio investment assets	45,025	20,460	21,806	144,705	122,899
Other investment assets	-3,980	94,305	-26,128	614,578	640,706
Reserve assets	2,359	1,882	210	-245	-455
Net U.S. incurrence of liabilities excluding financial derivatives (net increase in liabilities / financial inflow (+))	317,227	238,964	83,479	901,987	818,508
Direct investment liabilities	99,461	78,119	56,506	47,790	-8,716
Portfolio investment liabilities	146,049	105,660	-53,160	21,312	74,472
Other investment liabilities	71,717	55,185	80,133	832,885	752,752
Financial derivatives other than reserves, net transactions	-9,642	-6,382	-933	-21,830	-20,897
Statistical discrepancy					
Statistical discrepancy <sup>1</sup>	-39,364	19,303	76,998	-93,939	-170,937
Balances					
Balance on current account	-127,691	-121,594	-104,324	-104,204	120
Balance on goods and services	-152,210	-149,658	-129,759	-119,055	10,704
Balance on goods	-224,572	-221,129	-202,497	-192,332	10,165
Balance on services	72,362	71,471	72,738	73,277	539
Balance on primary income	59,467	61,621	61,958	52,488	-9,470
Balance on secondary income	-34,948	-33,556	-36,524	-37,637	-1,113
Balance on capital account	-848	-835	-2,019	-2,962	-943
Net lending (+) or net borrowing (-) from current- and capital-account transactions <sup>2</sup>	-128,539	-122,429	-106,344	-107,166	-822
Net lending (+) or net borrowing (-) from financial-account transactions <sup>3</sup>	-167,903	-103,125	-29,345	-201,105	-171,760

These are all debits and therefore negative.

Ignore this. It's small.

These are also debits and therefore negative.

Really, errors and omissions

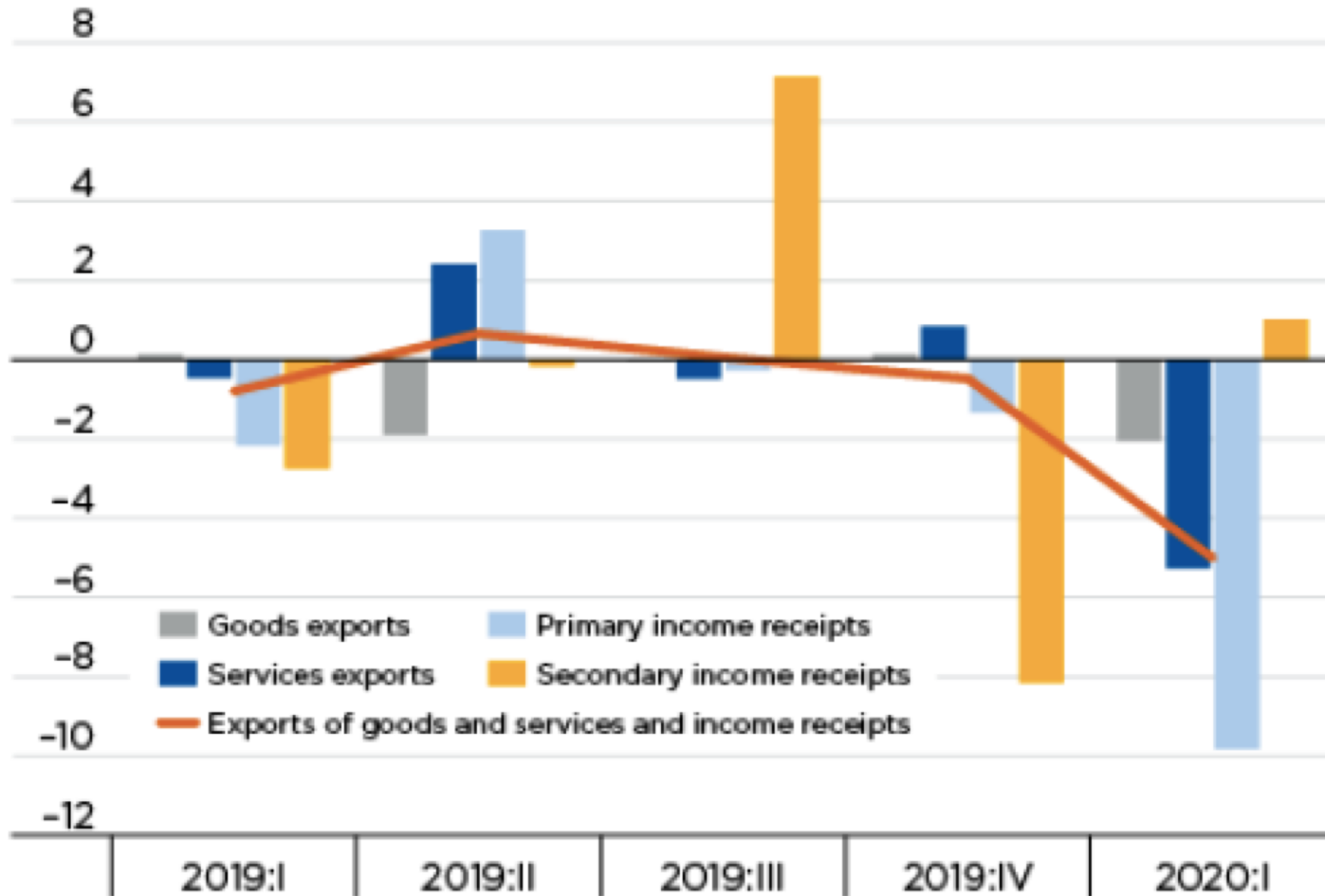
## Chart 2. Current-Account Transactions



U.S. Bureau of Economic Analysis

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

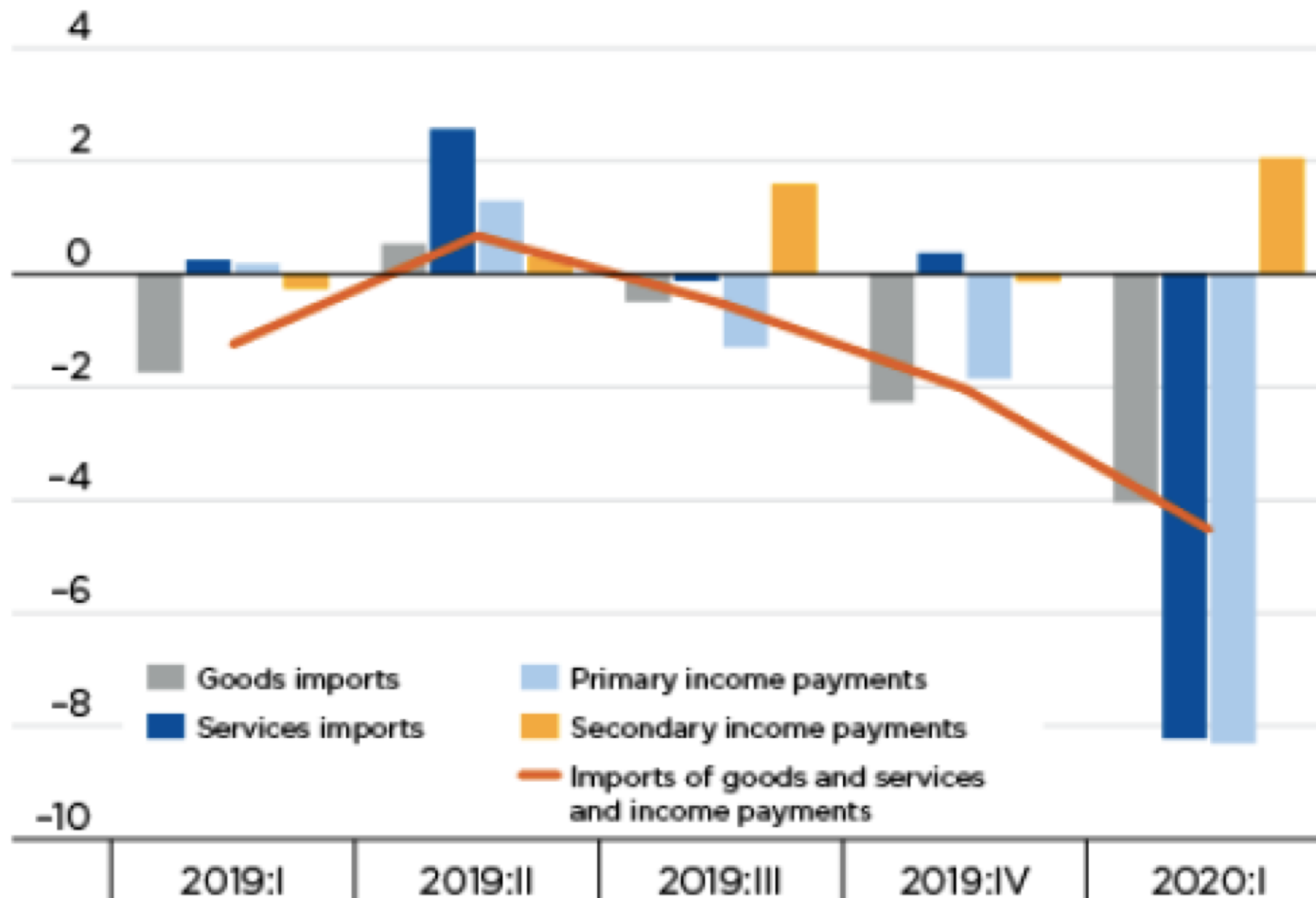
Percent change from the preceding quarter, seasonally adjusted



U.S. Bureau of Economic Analysis

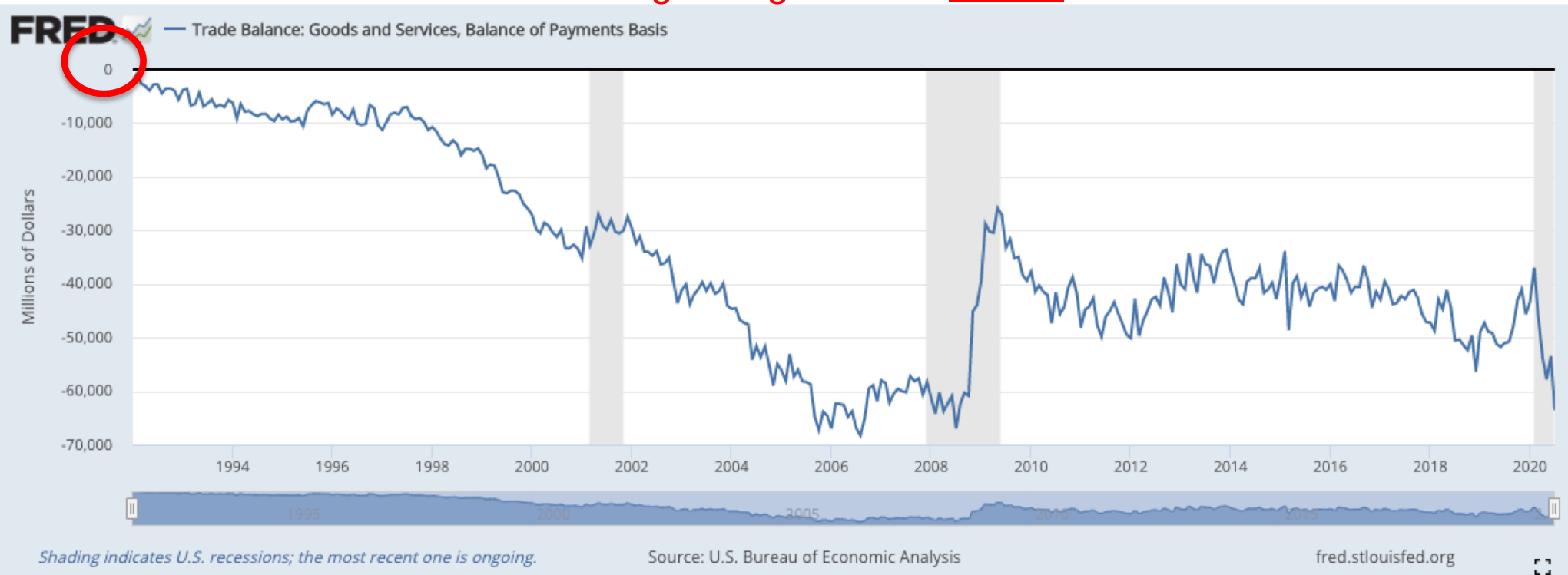
## Chart 4. Percent Change in Imports of Goods and Services and Income Payments

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
- Has grown to almost the 2006 level in 2020

# Pause for Discussion



# Questions

- What distinguishes credits and debits in the balance of payments?
- For which categories of transactions did credits exceed debits for the United States in 2009 (the year reported in KOM)? Trade in goods? Trade in services? Primary income? Secondary income? Changes in asset holdings?
- What mostly happened to current account transactions in Q1 of 2020 compared to Q1 of 2019?

# 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 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:  $Y = C + I + G + (X - M)$
- $(Y - T - C) + (T - G) = (X - M)$
- Private savings + Government saving =  $(X - M)$
- 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

# Questions

- 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?

# 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

