Econ 340

Lecture 12
The Balance of Trade and International Transactions

Outline: The Balance of Trade and International Transactions

- What Is the Balance of Trade?
- What the Balance of Trade Does **Not** Mean
- International Transactions
  - Current Account
  - Financial Account
- What the Balance of Trade **Does** Mean
  - From Balance of Payments Accounting
  - From National Income Accounting

What Is It?

- Definition: Balance of Trade
  = Exports minus Imports
  - Defined for
    - Merchandise (i.e., goods)
      = "Balance on Merchandise Trade"
    - Merchandise plus services
      = "Balance on Goods and Services"
  - "Trade Surplus" = Bal of Trade > 0
  - "Trade Deficit" = Bal of Trade < 0

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What It Does Not Mean

- Common Misinterpretations
  - That a deficit means we are "losing money"
    - This was sort of true when
      - » All money was gold (the Gold Standard), and
      - » There were no international capital flows
    - Then imports > exports meant you were spending more gold than you were earning; gold was flowing out
    - Today there are capital flows
      - A country with imports > exports can
        - » Borrow
        - » Sell assets to foreigners

What It Does Not Mean

- Common Misinterpretations
  - That a deficit means we are "losing jobs"
    - It is true that
      - Imports are goods we don't produce, and
      - Exports are goods we do produce
    - But whether an increase in imports means a loss of jobs depends on why imports went up
      - Often it is because more people are working, earning income, and buying more from abroad

What It Does **Not** Mean

- Common Misinterpretations
  - That a deficit means we are "losing jobs"
    - Scott draws a direct connection from exports to jobs gained and from imports to jobs lost
      - He assumes that imports somehow replace domestic production.
      - That is sometimes true, but mostly it is not
    - Griswold points out that the US economy has done best when the trade deficit was growing!
      - True, but that doesn't mean that the trade deficit caused us to do well
      - Instead, high incomes led to higher imports

What It Does **Not** Mean

- Common Misinterpretations
  - That a deficit means other countries are misbehaving
    - Not at all, as we'll see.

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International Transactions

- To understand the trade balance, it is necessary to consider all international transactions
  - Trade
  - Financial flows

  also
  - Transfer payments, i.e. gifts

    (this is small for U.S. but large for some developing countries: e.g., foreign aid and remittances)

International Transactions

- Transactions are divided into two* parts, called
  - Current Account
  - Financial Account

*There are also two other small items, not part of these two accounts, called
- Capital Account
- Statistical Discrepancy

We'll mostly ignore these in this course

International Transactions

- Current Account
  - Trade in goods
  - Trade in services
  - Investment income
  - Unilateral transfers (i.e, gifts, foreign aid)
- Financial Account
  - Includes only changes in asset holdings

    (Let Δ mean "change in")
  - Δ US ownership of assets abroad
  - Δ foreign ownership of assets in US

International Transactions

- All transactions are recorded as either
  - Credits (+)
    - If they correspond to payment into the country
      - E.g., exports, capital inflows

  or
  - Debits (−)
    - If they correspond to payment out of the country
      - E.g., imports, capital outflows

International Transactions

- Balances
  - Balance of Trade
    = credits minus debits on trade transactions (merchandise only, or goods and services)
  - Balance on Current Account
    = credits minus debits on trade, investment income, and transfers
  - Balance on Financial Account
    = Also called net "capital inflows"

TABLE 9.3 The U.S. Balance of Payments, 2011
(Gerber 6th ed.)

- Balance of payments = current account + capital account + financial account

	Billions of Dollars
Current Account	
1. Goods and services	
Exports	2,105
Imports	–2,665
2. Investment income	
Investment income received	739
Investment income paid	–518
3. Net unilateral transfers	–135
Capital Account	
4. Capital account transactions, net	–2
Financial Account	
5. Net change in U.S. assets abroad (increase/outflow (–))	–396
6. Net change in foreign assets in the United States (increase/inflow (+))	784
7. Net change in financial derivatives	7
Statistical Discrepancy	80
Memoranda	
Balance on current account (1 + 2 + 3)	–473
Balance on capital and financial accounts (4 + 5 + 6 + 7)	393

The financial and capital accounts measure capital inflows and outflows and are equal to the current account, with the signs reversed. The statistical discrepancy measures the amount by which our measurements are off and is calculated as the sum of the three accounts, with the sign reversed.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, http://www.bea.gov/.

TABLE 9.2 The U.S. Current Account Balance, 2011

	Billions of Dollars
1. Goods and services	
Exports of goods	1,497
Exports of services	608
Imports of goods	−2,236
Imports of services	−429
2. Investment income	
Investment income received	739
Investment income paid	−517
3. Net unilateral transfers	−135
Memoranda	
Goods and services balance	−560
Current Account Balance	−473

The U.S. current account deficit in 2011 was $473 billion. The deficit is largely the result of merchandise goods imports exceeding exports. The United States has surpluses in services and investment income.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, http://www.bea.gov/.

(Textbook Data)

- The slides above, with data from 2011, are from Gerber 6th edition
- I also have Gerber's 7th edition, with data from 2014 – the next 2 slides
- But they are reported differently and much harder to understand (in my opinion)
- So I will go back to the 2011 data after the next two slides

TABLE 9.3 The U.S. Balance of Payments, 2014

- Balance of payments = current account + capital account + financial account

U.S. Balance of Payments, 2014	Billions of dollars
1. Current account balance	-390
2. Capital account balance	0
3. Financial account	
3a. Net acquisition of financial assets	792
3b. Net incurrence of financial assets	977
3c. Net change in financial derivatives	-54
4. Statistical discrepancy	151
5. Memoranda	
5a. Balance on current and capital accounts (1+2)	-390
5b. Balance on financial account (3a-3b+3c)	-239

The Current Account (5 of 6)

United States Current Account, 2014	Billions of dollars, 2014
1. Goods and services exports (credit) (1a + 1b)	2,343
1a. Goods exports	1,633
1b. Services exports	711
2. Primary income receipts (credit) (2a + 2b)	823
2a. Investment income received	816
2b. Compensation of employees received	7
3 . Secondary income receipts (credit)	140
4. Goods and services imports (debit) (4a + 4b)	2,852
4a. Goods imports	2,374
4b. Services imports	477
5. Primary income paid (debit) (5a + 5b)	585
5a. Investment income paid	569
5b. Compensation of employees paid	16
6 . Secondary income payments (debit)	259
7. Current account balance (1+2+3-4-5-6)	-390

TABLE 9.4 Components of the U.S. Financial Account, 2011

	Billions of Dollars
1. Net change in U.S. assets abroad (increase/outflow (−))	−396
A. U.S. official reserve assets	−16
B. U.S. government assets, other than official reserve assets	−102
C. U.S. private assets	−278
2. Net change in foreign assets in the United States (increase/inflow (+))	784
A. Foreign official assets in the United States	165
B. Other foreign assets in the United States	619
3. Net change in financial derivatives	7

There are six main categories of financial flows. Each of these categories can be further subdivided.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, http://www.bea.gov/.

TABLE 9.5 Private Flows in the U.S. Financial Account, 2011

	Billions of Dollars
1. U.S. private assets abroad, net (increase/outflow (−))	−278
Subcomponents:	
A. Direct investment	−406
B. Foreign securities	−93
C. Loans to foreign firms, including banks	221
2. Foreign-owned assets in the United States, other than official assets, net (increase/inflow(+))	619
Subcomponents:	
A. Direct investment	228
B. U.S. securities and currency	120
C. Loans to U.S. firms, including banks	271
3. Net change in financial derivatives	7

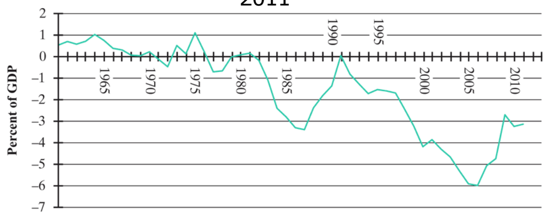
FDI

Private assets flows are the largest part of the financial account. Both private outflows and inflows are usefully divided into three symmetrical subcomponents. The net change in the value of financial derivatives comprises the other major category of private flows.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, http://www.bea.gov/.

FIGURE 9.1 U.S. Current Account Balances, 1960-2011

Gerber 6th ed.



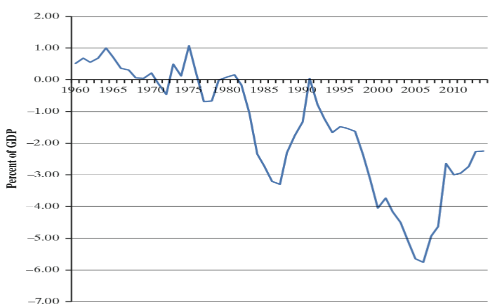
There are two periods of large current account deficits in the United States. The first lasted through most of the 1980s, while the second began in the early 1990s and continues today.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, http://www.bea.gov/.

Current Account is mostly the Trade Balance, which deteriorated greatly from 1990 until 2005

Gerber 7th ed.

The Current Account (6 of 6)

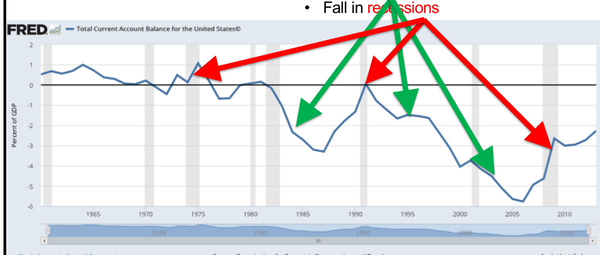


International Transactions: Data

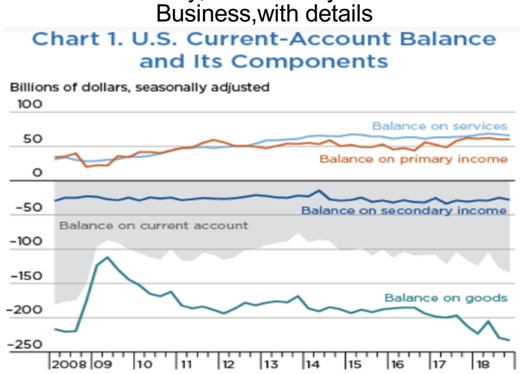
From OECD via FRED

Grey shaded strips are recessions.
Note that deficits tend to:

- Rise in booms
- Fall in recessions

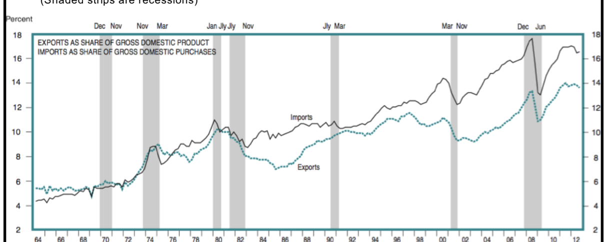


More recently, from Survey of Current Business,with details



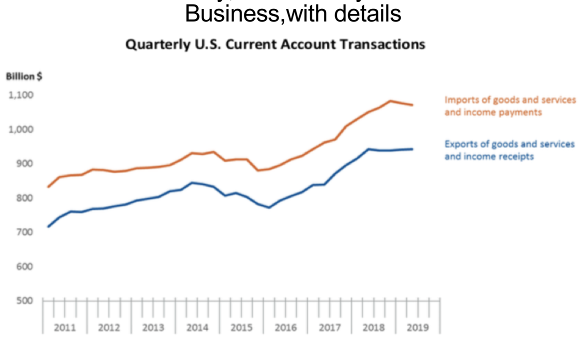
International Transactions: Data

US Export and Import Shares Since 1962
(Shaded strips are recessions)



Source: Survey of Current Business February 2013

More recently, from Survey of Current Business,with details



Survey of Current Business

April 2019

$m.

U.S. International Transactions
Current Account

Line		2017	2018
	Current account		
1	Exports of goods and services and income receipts (credits)	3,433,239	3,701,694
2	Exports of goods and services	2,351,072	2,500,756
3	Goods	1,553,383	1,672,331
4	Services	797,690	828,425
5	Primary income receipts	928,118	1,060,362
6	Investment income	921,816	1,053,931
7	Compensation of employees	6,302	6,431
8	Secondary income (current transfer) receipts /1/	154,049	140,576
9	Imports of goods and services and income payments (debits)	3,882,380	4,190,166
10	Imports of goods and services	2,903,349	3,122,862
11	Goods	2,360,878	2,563,651
12	Services	542,471	559,211
13	Primary income payments	706,386	816,066
14	Investment income	686,699	795,820
15	Compensation of employees	19,687	20,246
16	Secondary income (current transfer) payments /1/	272,645	251,237

Survey of Current Business

April 2019

$m.

U.S. International Transactions
Financial Account

Line		2017	2018
	Financial account		
19	Net U.S. acquisition of financial assets excluding financial derivatives (net increase in assets / financial outflow (+))	1,182,749	301,618
20	Direct investment assets	379,222	-50,633
21	Portfolio investment assets	586,695	210,330
22	Other investment assets	218,522	136,932
23	Reserve assets	-1,690	4,989
24	Net U.S. incurrence of liabilities excluding financial derivatives (net increase in liabilities / financial inflow (+))	1,537,683	800,913
25	Direct investment liabilities	354,829	267,081
26	Portfolio investment liabilities	799,182	320,006
27	Other investment liabilities	383,671	213,826
28	Financial derivatives other than reserves, net transactions / 2/	23,074	-20,261

Survey of Current Business

April 2019

$m.

U.S. International Transactions
Balances

Line		2017	2018
	Balances		
30	Balance on current account (line 1 less line 9) / 4/	-449,142	-488,472
31	Balance on goods and services (line 2 less line 10)	-552,277	-622,106
32	Balance on goods (line 3 less line 11)	-807,495	-891,320
33	Balance on services (line 4 less line 12)	255,219	269,214
34	Balance on primary income (line 5 less line 13)	221,731	244,295
35	Balance on secondary income (line 8 less line 16)	-118,597	-110,661

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What the Trade Balance **Does** Mean

- From Balance of Payments Accounting
  - It must be true that credits and debits add up to zero
    - Reason: Every transaction, if known completely, involves two offsetting entries
      - Example 1: I import a book (US debit) from a London bookstore which deposits my payment into its NY bank account (US credit)
      - Example 2: Donald Trump (an American) borrows euros from a German (US credit) and exchanges them for dollars with an Italian who has sold stock in a US corporation (US debit)

    These are only samples; many other possibilities exist, but each must add to zero

What Does the Trade Balance **Really** Mean?

- From Balance of Payments Accounting
  - It must be true that credits and debits add up to zero
  - Therefore (ignoring the small “capital account” and "Statistical Discrepancy”),

Current Account Surplus
\+ Financial Account Surplus
=0

What Does the Trade Balance **Really** Mean?

- From Balance of Payments Accounting
  - It follows that

    A current account deficit

    Implies ↓

    A financial account surplus

    (and vice versa)

What Does the Trade Balance **Really** Mean?

- From Balance of Payments Accounting
  - Thus, a Trade Deficit

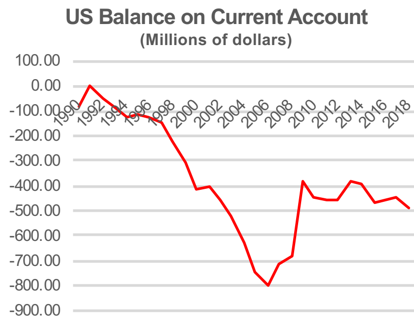
    (if it is not financed by investment income and transfers, which are also parts of the current account)

    implies that we are either
    - Borrowing from foreigners, or
    - Selling assets to foreigners

    Financial Account Surplus

What Does the Trade Balance **Really** Mean?

- Thus the large (and usually growing) current account deficit of the US, which we saw earlier, means that the US is selling off its assets and/or borrowing from foreigners
- Sure enough, look at the data…



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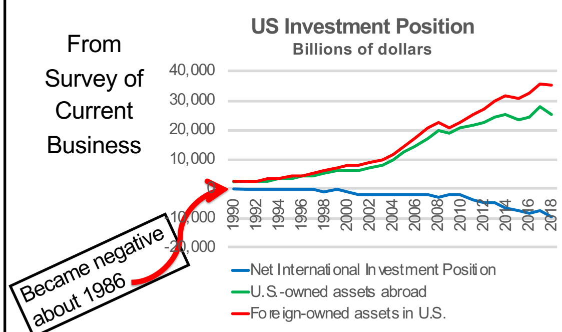
From Survey of Current Business



What Does the Trade Balance **Really** Mean?

- Put this in perspective
  - US current account deficit reached about $700 b. per year. US population is about 300 m. So US was selling assets and/or borrowing about $2,300 per year per person. (Less now.)
  - US net investment position is over $9 trillion. So our net debt to foreigners is over $30,000 per person.
  - $9 trillion is about 45% of US GDP; so on average each of us owes over 5 months income to foreigners.
    - And it's growing.
  - (A student points out, correctly, that much of this debt is private, and therefore is not the responsibility of most of the population. Only the portion that is government debt deserves to be spoken of as I do in this slide. And much of that is held by Americans.)

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What Does the Trade Balance **Really** Mean?

- From National Income Accounting

  (I'll do this first without government)
  - Recall from Econ 102

    GDP = Output = Income = Y
  - Output:

    $Y = C + I + (X - M)$
  - Income:

    $Y = C + S$
  - Therefore

    $\boxed{X - M = S - I}$

- Where
  - C = Consumption
  - I = Investment
  - X = Exports
  - M = Imports
  - S = Savings

What Does the Trade Balance **Really** Mean?

- From National Income Accounting
  - Thus, since $X - M = S - I$
    - Trade surplus ⇒ savings > investment
    - Trade deficit ⇒ savings < investment
  - If we are not saving enough to finance investment, how do we pay for it?
    - By borrowing from abroad, or
    - By selling assets

What Does the Trade Balance **Really** Mean?

- From National Income Accounting

  (This time with government)

  – Even more simply

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

  – implies

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

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What Does the Trade Balance **Really** Mean?

- From National Income Accounting

  $$\underbrace{(X - M)}_{\text{Trade Surplus}} = \underbrace{Y}_{\text{Income}} - \underbrace{(C + I + G)}_{\text{Expenditure}}$$

  – So a trade deficit

  $(X - M) < 0$

  means that we are spending

  $(C + I + G)$

  more than our income Y

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What Does the Trade Balance **Really** Mean?

- Therefore, in spite of its name, and it's definition, the trade balance
  - Is not really about trade, which is just the symptom
  - It is about whether we are living within our means
  - As Porter explains, a trade deficit means that we are consuming and investing more than we earn
- When is a trade deficit good?
  - When the country (like a young person) is investing for the future (like a successfully developing country)
  - Not when it is going into debt just to finance current consumption (like the US)

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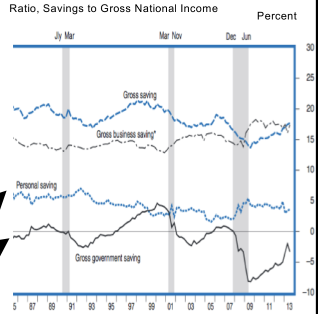
Sample Trade Surpluses & Deficits

(Exports − Imports) / GDP		
	2007	2015
Brazil	+1.5%	+0.8%
Canada		–0.8%
China	+8.8%	+6.1%
Costa Rica	−4.8%	−10.7%
Germany	+7.1%	+9.2%
Greece	−12.0%	−11.2%
India	−4.1%	−6.9%
Japan	+1.7%	−0.03%
Saudi Arabia	+27.0%	+10.4%
United States	−5.1%	−4.2%

Source: 2007, IMF; 2015, CIA World Fact Book (est)

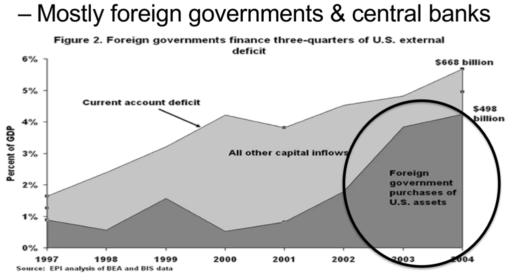
Implications of the US Trade Deficit

- Who, in the US, is doing this?
  - Partly it has been the US government, running a deficit due to
    - Tax cuts
    - War
    - Stimulus
  - But it is also due to falling private saving



Implications of the US Trade Deficit

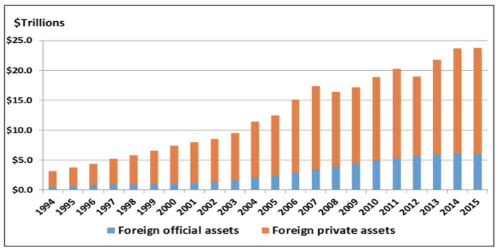
- Who, abroad, is (or was) financing this?
  - Mostly foreign governments & central banks



Implications of the US Trade Deficit

- Who, abroad, has been financing this?

Figure 5. Foreign Official and Private Investment Positions in the United States, 1994-2015



Source: Department of Commerce.

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Implications of the US Trade Deficit

- Is the U.S. Deficit Sustainable?
  - Buffett (in 2003) says NO, as others will cease to be willing to lend to us
  - Some say this is sustainable:
    - This is a “balance” between US dis-saving and rest of world saving
    - US has comparative advantage in "providing wealth storage facilities"

Implications of the US Trade Deficit

- Is the U.S. deficit a problem?
  - Mankiw says no.
    - It’s a reflection of
      - The attractiveness of the US as a destination for investment
      - Strength of the US economy
    - Trump’s policies of deregulation, tax cuts, and spending will increase it (and that’s OK, he says)
    - An increase in import tariffs would just cause
      - The US dollar to appreciate, and
      - Exports to fall

Implications of the US Trade Deficit

- Can trade policy reduce the trade deficit?
  - Obstfeld (was Director of IMF Research) says no
    - Attempts to reduce it are like a game of "whack-a-mole"
      - If we reduce imports of one thing or from one place, imports of or from another will rise, and/or exports will fall
      - Example: Tariff to reduce imports of aluminum will reduce our exports of aircraft
    - Since US is at full employment, even if we hire more labor in one sector, we'll have to employ less in another

Global Imbalances

- This refers to
  - Large current account deficits by US and others

  together with
  - Large current account surpluses by China and others

Global Imbalances

- What can be done to change these imbalances?
  - US tariffs? No.
    - These won't change spending
    - See Mankiw
  - What's needed is for both
    - US to spend less, and
    - China to spend more
  - Porter argues for an international agreement to reduce the value of the US dollar
    - This was done in the "Plaza Accord" of 1985, and it worked
    - It's not clear that it would work today

Next Lecture

- Exchange Rates
  - What they are
  - What determines them
  - Simple theories of exchange rates