1 (12) The Global Macroeconomy

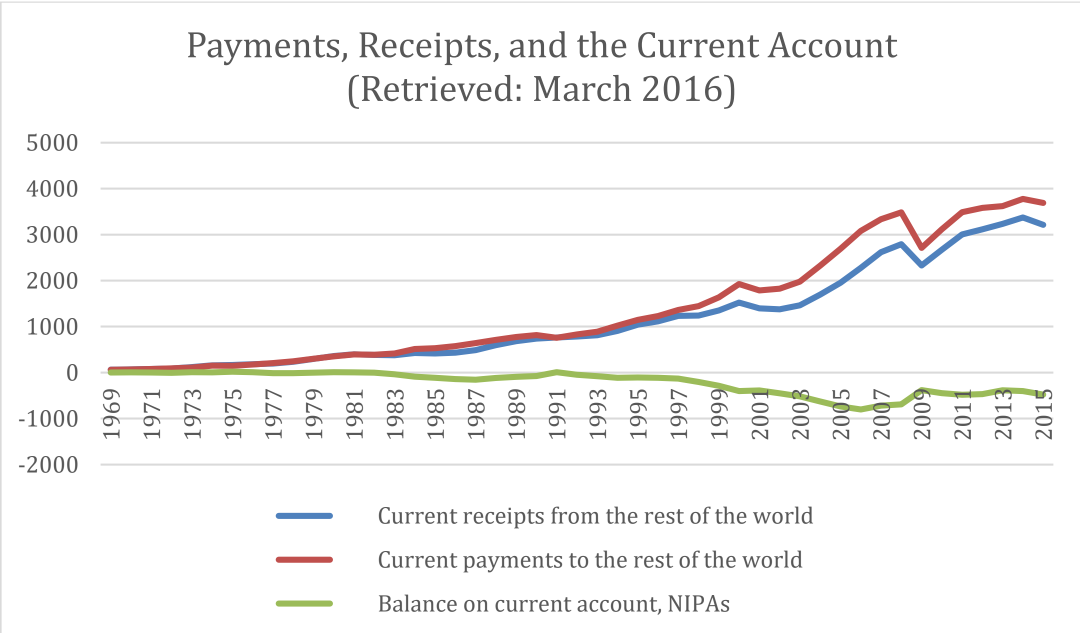
1. Discovering Data In this problem you will use data from the Bureau of Economic Analysis (BEA) to investigate the dependence of the United States on foreign markets over time. Go to the BEA website at www.bea.gov and under the "National" tab open the interactive table for "GDP and the National Income and Product Account (NIPA) Historical Tables." Open Table 4.1 for "Foreign Transactions" and download the data going back to 1969.

a. The current account is the difference between "current payments to the rest of the world" and "current receipts from the rest of the world." What is the latest estimate of the current account?

Answer: After downloading the data for the "Foreign Transactions" table of the BEA National Income and Product Accounts and subtracting "current payments to the rest of the world" from "current receipts from the rest of the world," we see that the current account in the most recent year of available data (2015) is −$477.4 billion. This is a current account deficit, meaning that the United States has a net outflow of payments to the rest of the world.

b. Create a graph that shows: Current receipts, Current payments, and Current account over time.

Answer:



c. In what year was the current account largest? How would you characterize its trend over time? How would you characterize the trends in receipts and payments?

Answer: The current account was largest (in absolute size) in 2006 when it was −$802.2 billion. It hovered close to zero and did not begin a significant downward and negative trend until the early 1990s. Since its peak in 2008, the current account has remained more or less flat around −$450 billion. The trends in receipts and payments has been moving much more steadily upward over the period since the 1970s, with contractions only during recessions.

d. The United States current account deficit grew significantly from the 1990s up until the financial crisis of 2008. In principle, this growth could have occurred because of falling receipts from abroad or increasing payments to foreign countries, or both. Which factor appears to have driven the growth in the current account deficit in this period?
Answer: Over this period both payments to abroad and receipts are rising. Since rising receipts from abroad would lessen the current account deficit, it must be the case that payments to the rest of the world must be rising at a faster rate. This is what has driven the increase in current account deficit over this period.

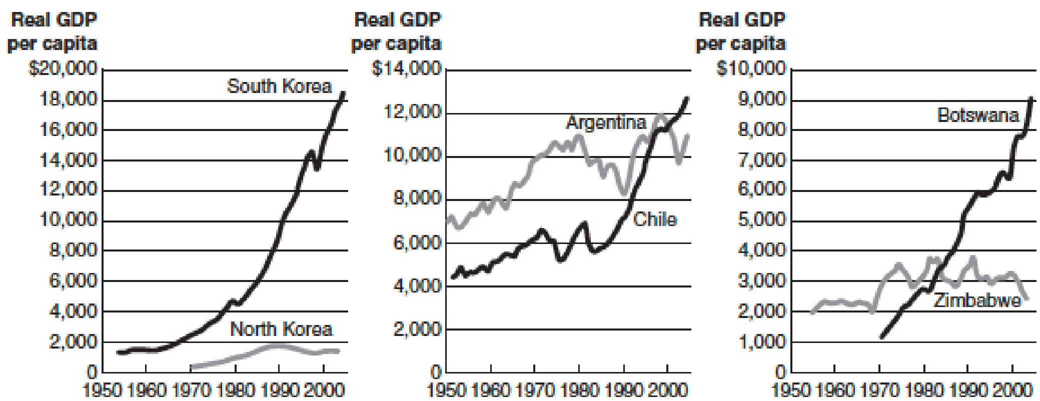
e. What does the evolution of the three trends you plotted in part (b) tell you about the reliance of the United States on foreign markets? Does the country appear to be growing more open or more closed over time?
Answer: These trends indicate a greater reliance of the United States on foreign markets. Even if the current account were balanced (it is not), the steady increase in both receipts from and payments to abroad show a country whose volume of trade with the rest of the world is growing and is becoming more dependent on both foreign goods to consume as well as income received from the foreign consumption of domestically produced goods. To know more accurately how reliant we have become, one would want to look at these trends as a percentage of United States GDP.

2. The data in Figure 1-1(12-1) end in 2015. Visit https://research.stlouisfed.org/fred2/series/DEXCHUS and https://research.stlouisfed.org/fred2/series/DESUSEU (or another site with daily exchange rate data) and download data on the same exchange rates (yuan per dollar and dollar per euro) for the past 12 months. What are the rates today? What were they a year ago? By what percentage amount did the rates change? Do you think the rates are floating or fixed? Why?
Answer: Answers will depend on the latest data update. The yuan per dollar exchange rate is fixed (with only occasional changes in its value), and the euro–dollar exchange rate is floating, as is evident from its wide fluctuations over time.
As of September 2013, the weekly average for yuan per U.S. dollar was about 6.14; In 2014 it was about 6.34. The yuan has appreciated by about 3.2%. On September 22, 2013, the weekly average was 1.34 dollars per euro; in 2014 it was 1.29. Thus, dollar depreciated by about 3.8%.

3. Visit the *Financial Times* website to download data for country risk today. (*Hint:* Try searching for “Data Archive Financial Times” to find the Data Archive web page; then look for “FT500, Fixed incomes, Commodities, Interest rates.”) You may need to download the most recent daily report (pdf) for interest rates, and look for the table containing high-yield emerging market rates. Which three emerging market countries have the highest spreads on their U.S. dollar debt? Which three have the lowest?

Answer: Answers will depend on the latest data update. The spread also depends on the date of maturity for these bonds. In the sample of countries in the *Financial Times* data found at https://markets.ft.com/data/bonds in the "Market rates" table for February 2016, the three highest spreads are Russia (10%), South Africa (6.50%), and India (6.05%). The three lowest spreads are Hong Kong (0.02%), the United Kingdom (0.05%), and Singapore (0.15%). The *Financial Times* has discontinued the original emerging markets table used, so both emerging and developed economies appear in the "Market rates" table. To see a more comprehensive list of sovereign bond spreads, visit https://www.bloomberg.com/markets/rates-bonds.

4. The charts below show the growth of real GDP per capita in three pairs of geographically adjacent countries: North and South Korea, Argentina and Chile, Zimbabwe and Botswana (using data from the Penn World Table).



	Control of Corruption	**Government Effectiveness**	**Political Stability and Absence of Violence**	**Rule of Law**	**Regulatory Quality**	**Voice and Accountability**
South Korea	0.37	0.63	0.49	0.64	0.47	0.76
North Korea	−0.93	−1.10	−0.66	−1.08	−1.70	−2.02
Chile	1.56	1.34	0.85	1.31	1.38	0.56
Argentina	−0.34	0.28	0.48	0.17	0.45	0.44
Botswana	1.02	0.98	0.90	0.67	0.79	0.78
Zimbabwe	−0.87	−1.13	−1.21	−0.74	−1.61	−0.97

a. Which country in each pair experienced faster growth in GDP per capita? Which one is now richest?

Answer: South Korea experienced faster growth than North Korea. Argentina experienced faster growth than Chile between 1970 and 1980, but Chile's growth rate was higher than Argentina's between 1980 and 2000. Botswana has grown faster than Zimbabwe since 1970. As of 2006, the richest countries in each pair are South Korea, Chile, and

Botswana. Of the three, South Korea is the richest.

b. The World Bank's World Governance Indicators for each country in 2000 were as shown in the table (higher is better).Based on these data, do you think institutions can explain the divergent outcomes in these countries? Explain. Why do you think it helps to compare countries that are physically contiguous?
Answer: South Korea has consistently higher governance ratings than North Korea. Similarly, Chile's are higher than Argentina's ratings, and Botswana's are higher than Zimbabwe's. Based on the information for these six countries, it appears as though quality governance is associated with higher economic growth.

5. Visit one of the many websites that list all of the current exchange rates between different currencies around the world. Try a financial newspaper's site such as ft.com (follow the links to "Market Data," and then "Currencies"), or try websites devoted to foreign exchange market data such as oanda.com or xe.com (dig down—don't just look at the major currency tables). According to these lists, how many distinct currencies exist around the world today? Are some currencies used in more than one country?
Answer: Answers will depend on the latest data update. This answer is based on information obtained from the Market Data section in the *Wall Street Journal* for September 2013. The countries are divided into six groups: Africa, Americas, Asia, the Caribbean, Europe, and Oceania. There are 138 countries listed. Many countries in the Caribbean and Americas have adopted the U.S. dollar as their currency. The Eurozone uses the euro, and many countries outside the Eurozone have also adopted the euro as their currency.