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Significant errata changes have raised the page count to 637 from 631.

Updates to Chapter 27: Money and Banking

Summary: To address the changes in the ways banks create money, several changes were made in section 27.3 and 27.4 to specify bank behavior with regard to limited reserves. Details are below.

Section 27.3

- On page 347 of the book, page 361 of the PDF, in the second full paragraph above the Link It Up, after the sentence that ends with “...influence bank behavior.)” add the following sentence:
 - Prior to the Financial Crisis of 2007 – 2009, also known as the Great Recession, banks received no interest on the reserves they kept with their regional Federal Reserve bank. This represented an opportunity cost – the foregone interest earned for keeping any excess reserves. Therefore, banks tended to keep only the minimum amount of required reserves. If banks are choosing to keep only the minimum amount of required reserves (or slightly more than that minimum), in other words banks are at or slightly above their reserve requirement, we call this limited reserves. If banks are choosing to keep significantly more than their reserve requirement, they have a large amount of excess reserves, we call this ample reserves.

Section 27.4

- The learning objectives were revised:
 - “Utilize the money multiplier formula to determine how banks create money in an environment of limited reserves.”

Chapter 28 Updates:

Summary: Section 28.3 was significantly revised to address monetary policy changes. The revisions include moving several figures to appendices and expanding the coverage, with particular additions related to monetary policy with ample reserves.

- Section 28.3, new Learning Objectives added
 - Distinguish between monetary policy in an environment of limited reserves, and monetary policy in an environment of ample reserves.
- Above the section Open Market Operations, add the following:
 - As noted, these monetary policy tools are used in an environment of limited reserves. However, since the Financial Crisis of 2007 – 2009, also known as the Great Recession, banks have kept what we defined earlier as ample reserves. As such, the FOMC no longer utilizes the limited reserves tools. But, there is nothing that says that banks will not return to keeping limited reserves, so understanding how these tools work is still important.

- On page 364 of the book, 378 of the PDF, under the Link It Up, the section that starts with “To understand how...” change to:
 - To understand how open market operations affect the money supply in a limited reserves environment, assume that Happy Bank starts with \$460 million in assets, divided among reserves, bonds and loans, and \$400 million in liabilities in the form of deposits, with a net worth of \$60 million. When the central bank purchases \$20 million in bonds from Happy Bank, the bond holdings of Happy Bank fall by \$20 million and the bank’s reserves rise by \$20 million. However, Happy Bank only wants to hold \$40 million in reserves so the bank decides to loan out the extra \$20 million in reserves and its loans rise by \$20 million. The central bank's open market operation causes Happy Bank to make loans instead of holding its assets in the form of government bonds, which expands the money supply. As the new loans are deposited in banks throughout the economy, these banks will, in turn, loan out some of the deposits they receive, triggering the money multiplier that we discussed in [Money and Banking](#). To see the impact on Happy Bank’s balance sheet, refer to Appendix 15.1.

 - Previous Figure 15.5/28.5 and Figure 15.6/28.6 have been moved to the new Appendix. The following text should be included with the Figure:
 - [Figure 15.5](#). [Figure 15.5](#) (a) shows that Happy Bank starts with \$460 million in assets, divided among reserves, bonds and loans, and \$400 million in liabilities in the form of deposits, with a net worth of \$60 million. When the central bank purchases \$20 million in bonds from Happy Bank, the bond holdings of Happy Bank fall by \$20 million and the bank’s reserves rise by \$20 million, as [Figure 15.5](#) (b) shows. However, Happy Bank only wants to hold \$40 million in reserves (the quantity of reserves with which it started in [Figure 15.5](#) (a)), so the bank decides to loan out the extra \$20 million in reserves and its loans rise by \$20 million, as [Figure 15.5\(c\)](#) shows.

- The portion of the text related to open market operations has been changed to.

- Open market operations can also reduce the quantity of money and loans in an economy. When Happy Bank purchases \$30 million in bonds, Happy Bank sends \$30 million of its reserves to the central bank, but now holds an additional \$30 million in bonds. However, Happy Bank wants to hold \$40 million in reserves, as in our previous example, so it will adjust down the quantity of its loans by \$30 million, to bring its reserves back to the desired level. In practical terms, a bank can easily reduce its quantity of loans. At any given time, a bank is receiving payments on loans that it made previously and also making new loans. If the bank just slows down or briefly halts making new loans, and instead adds those funds to its reserves, then its overall quantity of loans will decrease. A decrease in the quantity of loans also means fewer deposits in other banks, and other banks reducing their lending as well, as the money multiplier that we discussed in [Money and Banking](#) takes effect. To see the impact on Happy Bank's balance sheet, refer to Appendix 15.1. What about all those bonds? How do they affect the money supply? Read the following Clear It Up feature for the answer.

At the very end of section 28.3, we have added a new subsection on interest on excess reserves is used as a monetary policy tool.

Monetary Policy and Ample Reserves

As we noted previously, banks in the U.S. have historically had very little reason to keep more than their minimum required reserves, because their regional Federal Reserve bank did not pay any interest on those reserves. This behavior changed dramatically during the 2007 – 2009 Financial Crisis.

During this period of time, 389 banks failed. The banks that survived responded to the Financial Crisis by increasing their reserves well beyond their required minimum. Combined with the measures undertaken by the FOMC and the U.S. government to respond to the Financial Crisis, banks' reserves increased from around \$15 billion in 2007, to \$2.7 trillion by late 2014. While reserves did decrease to around \$1.7 trillion by 2017, this was no longer an environment of limited reserves, but an environment of ample reserves. In fact, in 2019, the FOMC issued a statement indicating that monetary policy would be based on ample reserves.

While it may be a good decision for banks to keep ample reserves, as we know, the banking system facilitates both short-term and long-term economic activity when it makes loans, loans which are used to finance consumption, for business investment and expansion, and to help fund and support innovation, among many other possibilities. In a sense, loans allow for the economy to ultimately become more productive, causing an increase in long-run economic growth. The point is that we need the banking system to be willing to make loans and not just keep ample excess reserves. However, when banks are keeping a trillion or more dollars as excess reserves, these are funds that they are choosing not to lend out, potentially causing the economy to grow at a slower rate than it otherwise might.

How then can the FOMC incentivize banks to lend out these excess reserves? This is where the Interest on Reserve Balances (IORB) comes in. The IORB is the interest rate paid to banks for their holdings of excess reserves. Congress granted the Federal Reserve the ability to

pay this interest in 2006. The policy was originally slated to begin in 2011, but the Financial Crisis accelerated its start date to 2008. (For a few years there were two separate rates, the Interest on Required Reserves and the Interest on Excess Reserves, but these two were combined into the IORB in 2021.) The FOMC controls the IORB directly. It sets the IORB at whatever rate it chooses, based on macroeconomic conditions and forecasts.

We can now explore how the IORB may affect banks' decisions to hold more or fewer excess reserves. As we noted in our discussion of open market operations, the federal funds rate (FFR) is the specific interest rate targeted by the FOMC. The federal funds market is where banks borrow and lend their excess reserves from one another, over a very short period of time, often described as overnight. It is a market, as we explained in Chapter 3, with supply, demand, and a price. In the federal funds market, you can think of the FFR as the price a bank gets paid for lending (or selling) excess reserves in the federal funds market, and you can think of the FFR as the price a bank pays for borrowing (or buying) those excess reserves.

The FFR is targeted by the FOMC, because as the FFR increases and decreases, most other interest rates eventually increase or decrease too. In section 15.4, we'll show how changes in interest rates affect the macroeconomy.

To illustrate how changes in the IORB can affect the FFR, assume that the IORB is 2%, which means that a bank can earn 2% on its excess reserves, free of risk. Because the federal funds market is very short-term lending, it is also nearly risk-free, and so most banks view the FFR as a very close alternative to the IORB. If the FFR also pays 2% interest, generally, a bank will be indifferent to where it keeps its excess reserves.

Let's say that macroeconomic conditions convince the FOMC to lower the FFR. To do this, it will lower the IORB. Let's see why. If the IORB decreases to 1.75%, banks will generally choose to reduce their excess reserves holdings at their regional Federal Reserve bank, and instead lend those excess reserves in the federal funds market, in order to earn the currently higher FFR of 2%. But, this increase in the supply of excess reserves in the federal funds market will act to lower the price in the federal funds market, which is the FFR.

When the FOMC lowers the IORB, it also tends to lower the discount rate at the same time. Some banks could then engage in arbitrage, which is the simultaneous (or near-simultaneous) purchase and sale of a good to profit from a difference in the price of that good across markets. In our example, if the discount rate also decreases from 2% to 1.75%, a bank could borrow excess reserves from the Federal Reserve at the 1.75% discount rate, and then lend those same excess reserves in the federal funds market at 2%, earning \$0.0025 on every \$1.00 borrowed. (This may not seem like much, but multiply this by \$1 million or \$10 million, and it adds up quickly.) But this arbitrage activity also ensures that the FFR will decrease as desired by the FOMC, because the increase in the supply of excess reserves will cause the FFR to decrease, and as banks leave the federal funds market to borrow from the Federal Reserve, the decrease in the demand for excess reserves will cause the FFR to decrease too.

Alternatively, let's say that macroeconomic conditions convince the FOMC to raise the FFR. If the FOMC now increases the IORB to 2.25%, banks will now choose to keep more excess reserves at their regional Federal Reserve bank and earn the higher IORB. This decrease in supply in the federal funds market will cause the FFR to increase as well.

Arbitrage will also ensure that the FFR increases. As the IORB increases, banks will borrow more excess reserves in the federal funds market, and deposit them with their regional

Federal Reserve bank, in order to earn a profit on the difference between the IORB and the FFR. This increase in demand will then cause the FFR to increase as well.

- The coverage of Quantitative Easing now follows the new material on Monetary Policy and Ample Reserves section, to keep it together with all the other monetary policy tools.
- Under Key Concepts and Summary, in 15.3 How a Central Bank Executes Monetary Policy, the first sentence, change to:
 - “In a limited reserves environment, the central bank has three traditional tools....”
 - Change the current last sentence to:
 - “In a limited reserves environment, the most...”
- In the same section, add the following after the existing last sentence:
 - Since the Financial Crisis, the U.S. banking system is in an ample reserves environment. The FOMC has moved away from the traditional tools of a limited reserve environment, and now uses changes in the Interest on Reserve Balances as its main monetary policy tool.

Errata:

Below is a table containing submitted errata and the resolutions that OpenStax has provided for this latest text.

Location	Detail	Resolution Notes	Error Type
Chapter 1 Welcome to Economics!: Section 1.1 What Is Economics, and Why Is It Important?	In the sentence, "For more information about how to use FRED, see the variety of videos on YouTube starting with this introduction," the word video is a link to a YouTube video that has been set to private. It would be great to replace it with a link to a working version.	This link will be updated.	Broken link
Chapter 1 Welcome to Economics!: Self-Check Questions	Change "A consultant works for \$200 per hour. She likes to eat vegetables, but is not very good at it." to "A consultant works for \$200 per hour. She likes to eat vegetables, but is not very good at growing them." (the wording in the book).	The solution manual will be updated.	Typo

<p>Chapter 2</p> <p>Choice in a World of Scarcity: Introduction to Choice in a World of Scarcity</p>	<p>The text states that having a master's degree yields "almost double that of a high school diploma." That math is way off. If a master's degree on average yields 153,452 and a high school diploma yields 34,528 then having a master's degree is more around quadruple the amount of earnings.</p>	<p>This issue was addressed in the 3e version of the book.</p>	<p>Other factual inaccuracy in content</p>
<p>Chapter 3</p> <p>Demand and Supply: Section 3.1 Demand, Supply, and Equilibrium in Markets for Goods and Services</p>	<p>I'm writing to request the removal of a parenthetical remark in section 3.1 of the Microeconomics 3e text. The remark in question reads as follows:</p> <p>(Note that this is an exception to the normal rule in mathematics that the independent variable (x) goes on the horizontal axis and the dependent variable (y) goes on the vertical axis. Economics is not math.)</p> <p>I have three reasons for requesting the removal of this comment:</p> <p>1) The comment is confusing. Nowhere in the preceding discussion are the letters x and y used as variables.</p> <p>2) The comment is misleading. There is no need to discuss independent and dependent variables here. There are many situations in mathematics where a plot is used to convey the relationship between two variables, without requiring that one be a function of the other.</p>	<p>Revise "Economics is not math." to "While economists often use math, they are different disciplines."</p>	<p>General/pedagogical suggestion or question</p>

	<p>3) Most importantly, the comment is irritating and insulting to those with mathematical inclinations. There is no need for the ,” Economics is not math” remark. The fields of math and economics should strive for a friendly, symbiotic relationship, rather than an adversarial one.</p> <p>Thank you for considering this feedback.</p>		
<p>Chapter 4</p> <p>Labor and Financial Markets: Section 4.1 Demand and Supply at Work in Labor Markets</p>	<p>I was comparing the new 3e with 2e. This last paragraph for the "below equilibrium" situation still has the numbers from 2e and doesn't match the new Figure 4.2 and Table 4.1. The numbers are \$60,000, 40,000, and 27,000, but should be \$75,000, 34,000, and 47,000 (per the caption on Figure 4.2). Note that the previous paragraph for the "above equilibrium" situation was correctly changed for the 3e edition.</p>	<p>The numbers in this section will be updated.</p>	<p>Typo</p>

<p>Chapter 5</p> <p>Elasticity: Section 5.1 Price Elasticity of Demand and Price Elasticity of Supply</p>	<p>Change "By convention, we always talk about elasticities as positive numbers" to "By convention, we always talk about price elasticities as positive numbers" because later in the chapter, negative income and cross-price elasticities are mentioned.</p>	<p>Revise "By convention, we always talk about elasticities as positive numbers." to "By convention, we always talk about price elasticities of demand as positive numbers."</p>	<p>Other factual inaccuracy in content</p>
<p>Chapter 5</p> <p>Elasticity: Critical Thinking Questions</p>	<p>The question #25 is illogical. I believe the elasticity of an economy flight should be 1.12. This would then make the answer in the instructor's guide make sense.</p>	<p>Revise "0.62" to "0.40" and "0.12" to "0.62".</p>	<p>Other</p>
<p>Chapter 6</p> <p>The Macroeconomic Perspective: Section 6.1 Measuring the Size of the Economy: Gross Domestic Product</p>	<p>A pie chart is not correct, because of the negative values. Use a bar chart.</p>	<p>This figure and caption will be updated.</p>	<p>Other factual inaccuracy in content</p>

<p>Chapter 6</p> <p>The Macroeconomic Perspective: Section 6.2 Adjusting Nominal Values to Real Values</p>	<p>The text states the question as the real GDP growth rate from 1960 to 2012, but the formula has "2020 real GDP" and the number (13,598.5) is actually the 2010 real GDP. The 2e version consistently used the 2010 real GDP in the question and the formula, so this was apparently an update for 3e that was in error. Note that Table 6.6 has no data beyond 2020, so the 2012 and 2020 real GDPs aren't specified.</p> <p>I recommend adding 2015 and 2020 rows to Table 6.6 and then correcting the calculation to use the 1960-to-2020 formula and numbers.</p>	<p>This section will be updated.</p>	<p>Incorrect answer, calculation, or solution</p>
<p>Chapter 7</p> <p>Economic Growth: Section 7.2 Labor Productivity and Economic Growth</p>	<p>This table illustrates exponential growth, but (due to rounding error) the differences of the numbers in the last column are not increasing. This confuses alert students. Adding one more decimal point fixes this problem by changing the values to (1.717, 1.765, 1.814, 1.865, 1.917).</p>	<p>This table and the surrounding text will be updated.</p>	<p>Other</p>

<p>Chapter 7</p> <p>Economic Growth: Section 7.2 Labor Productivity and Economic Growth</p>	<p>The FV example given uses numbers from the previous 2e rather than the newer data in Table 7.4. It starts with \$1.67 trillion instead of \$2.2 trillion and results in an FV of \$1.92 trillion instead of \$2.5 trillion.</p> <p>Also note that Table 7.4 would be less confusing if the GDPs were rounded to more than one decimal position. With the current rounding, the Year-End Amount appears to equal the Starting GDP in years 2 and 5.</p>	<p>This issue was addressed in another report and will be corrected in web view.</p>	<p>Incorrect answer, calculation, or solution</p>
<p>Chapter 7</p> <p>Economic Growth: Section 7.4 Economic Convergence</p>	<p>(1) Table inexplicably does not show data for 2001-2009.</p> <p>(2) Column headings differ, i.e., "Average Growth Rate" and "Growth Rate".</p> <p>(3) Text that refers to the table says low > middle > high, which is correct for 2010-2019 but incorrect for the 1990-2000 data that show middle > low > high (4.7% > 3.8% > 2.7%). Note that this same text was incorrect for *both* columns of Table 7.5 in the second edition (2e), in which the table showed middle > low > high for both periods (1990-2000 and 2000-2008).</p>	<p>This section will be updated.</p>	<p>Other factual inaccuracy in content</p>
<p>Chapter 8</p> <p>Unemployment:</p>	<p>There's no connection between the photo (presumably to illustrate automation replacing jobs) and the caption.</p>	<p>Revise the caption to "Replaced by Robots Robots are replacing the jobs historically done by workers in a bread factory."</p>	<p>General/pedagogical suggestion or question</p>

Introduction to Unemployment			
Chapter 8 Unemployment: Section 8.1 How Economists Define and Compute Unemployment Rate	Text refers to data in Table 8.1 from January 2021, but the calculations use data from January 2017 that were in the earlier 2e Table 8.1. Using the 2021 data (rounded), the calculated labor force participation rate is approximately 61.9%, not 62.9% as stated. The percentage out of the labor force and unemployment rate are similarly incorrect.	This section will be updated.	Incorrect answer, calculation, or solution
Chapter 8 Unemployment: Section 8.2 Patterns of Unemployment	Figure 8.3 lists as the unemployment data source: https://research.stlouisfed.org/fred2/series/LRUN64TTUSA156S0 That link reaches no data, and that series name does not exist on FRED. (Perhaps you want the UNRATE series? But smoothed?)	Revise "(Source: Federal Reserve Economic Data (FRED) https://research.stlouisfed.org/fred2/series/LRUN64TTUSA156S0)" to "(Source: Federal Reserve Economic Data (FRED), Unemployment Rate (UNRATE), https://fred.stlouisfed.org/series/UNRATE)".	Broken link
Chapter 8 Unemployment: Section 8.4 What Causes Changes in Unemployment over the Long Run	This sentence suggests highly observant Muslims revere Saturday, when they actually revere Friday. This should be corrected immediately because such an error can be considered religiously insensitive.	Our reviewers accepted this change, and it will be included in the next print cycle.	Other factual inaccuracy in content

<p>Chapter 8</p> <p>Unemployment: Section 8.4 What Causes Changes in Unemployment over the Long Run</p>	<p>(a) The effect of a productivity slowdown is described as increasing the natural rate. This increase in unemployment because expectations are wrong is not a change in the natural rate. (b) In contrast, the effect of a productivity speed up is correctly described as temporarily reducing unemployment below the natural rate.</p>	<p>Revise "However, the expectations of employers and workers for wage increases do not shift immediately, so wages keep rising as before. However, the demand for labor has not increased, so at wage W_4, unemployment exists where the quantity supplied of labor exceeds the quantity demanded."</p> <p>to</p> <p>"However, there is a delay or lag in the recognition that productivity is no longer increasing. As a result, wages keep rising as before, but the demand for labor is no longer increasing, so at wage W_3 and wage W_4, unemployment exists where the quantity supplied of labor exceeds the quantity demanded."</p>	<p>Other factual inaccuracy in content</p>
<p>Chapter 10</p> <p>The International Trade and Capital Flows: Problems</p>	<p>The identity is misspecified in the solution as $S + (X-M) + (T-G) = I$, but it should be $S + (M-X) + (T-G) = I$. So, the 3% deficit should be a 3% surplus.</p>	<p>Our reviewers accepted this change, and it will be included in the next print cycle.</p>	<p>Incorrect answer, calculation, or solution</p>
<p>Chapter 10</p> <p>The International</p>	<p>The supplier is on the left-hand side instead of on the right-hand side.</p>	<p>This will be updated in the text.</p>	<p>Typo</p>

Trade and Capital Flows: Section 10.4 The National Saving and Investment Identity			
Chapter 12 The Keynesian Perspective: Section 12.2 The Building Blocks of Keynesian Analysis	Change "a change in spending causes a more than proportionate change in GDP" to "a change in spending causes a larger change in GDP". (After this change, it is probably OK in the context of this particular chapter. But even then, it rules out talking about a multiplier less than 1, as found in much empirical work.)	This section will be updated.	Other factual inaccuracy in content
Chapter 12.2 The Keynesian Perspective: Key Terms	Change: "macroeconomic externality occurs when what happens at the macro level is different from and inferior to what happens at the micro level" by striking "and inferior to", since macro externalities can be positive. Also, overall, the discussion of macroeconomic externalities is opaque; be clear about the sense in which it is an externality (i.e., affects those not party to the transactions). A simpler example (like the paradox of thrift) would be very helpful.	The section "The Two Keynesian Assumptions in the AD/AS Model" will be updated, along with the key term definition for macroeconomic externality.	Other factual inaccuracy in content
Chapter 14 Money and Banking: Section 14.1 Defining	Watch this video on the "History of Money." However, the link goes to a broken YouTube link so needs to be updated.	This link will be updated.	Broken link

Money by Its Functions			
Chapter 15 Monetary Policy and Bank Regulation: Introduction to Monetary Policy and Bank Regulation	Delete "work by"	Delete "work by" in the credit line.	Typo
Chapter 15 Monetary Policy and Bank Regulation: Section 15.3 How a Central Bank Executes Monetary Policy	The book will be updated to reflect current monetary policy.	The book will be updated.	General/pedagogical suggestion or question

<p>Chapter 15 Monetary Policy and Bank Regulation: Section 15.3 How a Central Bank Executes Monetary Policy</p>	<p>The monetary policy tools used by The Fed needs to be updated. This semester, I used the PDF (attached below) prepared by The Fed to replace this section in the chapter. The current reserve requirement is zero, so the money-multiplier process needs to be adjusted accordingly, as $1/RR$ (or $1/0$) wouldn't make sense.</p> <p>more here: https://research.stlouisfed.org/publications/page1-econ/2021/09/17/teaching-the-linkage-between-banks-and-the-fed-r-i-p-money-multiplier?utm_source=twitter&utm_medium=SM&utm_content=stlouisfed&utm_campaign=7a051d1e-5d0b-4e98-ac43-8f8de89ffb2d</p>	<p>This issue was addressed in the 3e version of the book.</p>	<p>General/pedagogical suggestion or question</p>
<p>Chapter 16 Exchange Rates and International Capital Flows: Key Concepts and Summary</p>	<p>"In a *floating* exchange rate policy, a government determines its country's exchange rate in the foreign exchange market.</p> <p>Should be "in a fixed exchange rate policy"</p>	<p>Revise "floating" to "fixed".</p>	<p>Typo</p>

<p>Chapter 16</p> <p>Exchange Rates and International Capital Flows: Section 16.1</p> <p>How the Foreign Exchange Market Works</p>	<p>The text describes the exchange rate "since 1980," which is what Figure 16.3 in the 2e edition showed. However, Figure 16.3(a) is now 1984-2020 and Figure 16.3(b) is 1974-2020. The different timescales in the figures also make it harder to see the "mirror image" mentioned in the Figure 16.3 descriptive text under the graphs.</p> <p>I suggest showing the 1980-2020 (or, better, 2022) exchange rates in both graphs for consistency and to match the text.</p>	<p>The figure and caption will be updated.</p>	<p>Typo</p>
<p>Chapter 16</p> <p>Exchange Rates and International Capital Flows: Section 16.4</p> <p>Exchange Rate Policies</p>	<p>The caption says the "figure shows a relatively stable rate between 2011 and 2013," but the graph actually shows a V-shaped dip with a low point in 2011. I retrieved a graph from FRED covering 2000-2022 and it does show more of a flat region in 2011-2012. Not sure why the textbook graph doesn't match the one I retrieved (see uploaded file). If you're going to keep using the existing graph, then the caption should be modified since 2011-2013 is not a flat region.</p>	<p>The figure and caption will be updated.</p>	<p>Other factual inaccuracy in content</p>
<p>Chapter 17</p> <p>Government Budgets and Fiscal Policy: Section 17.3</p>	<p>Caption for Figure 17.9 says the range is 1990-2014 but the figure (updated for 3e) is actually 1990-2020.</p>	<p>Our reviewers accepted this change, and it will be included in the next print cycle.</p>	<p>Typo</p>

Federal Deficits and the National Debt			
<p>Chapter 18</p> <p>The Impacts of Government Borrowing: Section 18.4 Fiscal Policy, Investment, and Economic Growth</p>	<p>This is a resubmission of ID 21829, which was rejected because "Our reviewers determined this was not an error in the most current version of the book's content." I'm attaching a screenshot of the current web textbook showing the error in the text above the figure, which states, "As Figure 18.9 shows, spending **per student**..." (emphasis mine). This is in contrast with the caption, which describes the graph showing "Total Spending for Elementary, Secondary, and Vocational Education."</p> <p>Here's the original submission which still applies: Text says Figure 18.9 shows spending *per student* but the actual figure shows spending in billions of dollars... clearly not per student, but total government spending on education. (It's also not clear whether this is only federal spending or the total of federal, state, and local spending.)</p>	<p>Revise "As Figure 18.9 shows, spending per student for kindergarten through grade 12 (K-12) increased substantially in real dollars..." to "As Figure 18.9 shows, total federal spending in the U.S. for kindergarten through grade 12 (K-12) increased substantially in nominal dollars..."</p>	<p>Typo</p>

<p>Chapter 18</p> <p>The Impacts of Government Borrowing: Section 18.4 Fiscal Policy, Investment, and Economic Growth</p>	<p>Figure 18.9 was changed from 2e to 3e, but the caption was not and clearly doesn't describe the graph, i.e., dramatic increase in 2008 and steady decrease since 2010. The description of Figure 18.9 in the text (above the figure) is correct and should be paraphrased in the caption.</p> <p>Note that the citation in the caption (OMB) <i>might</i> also be incorrect and should be verified. (I was unable to find these data on the OMB website, although I did find some similar data on the Department of Education site: the National Public Education Financial Survey Data.)</p>	<p>The caption will be updated.</p>	<p>Other factual inaccuracy in content</p>
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<p>Chapter 20</p> <p>International Trade: Section 20.1 Absolute and Comparative Advantage</p>	<p>Having a comparative advantage means fewer resources are used in production. Whereas absolute advantage means having more total resources. As an example, Saudi Arabia could be used to illustrate both. It has huge reserves of oil so that would give it an absolute advantage over other countries. For Saudi Arabia, extracting oil takes fewer resources, so that would mean it also has a comparative advantage.</p> <p>In Key Terms on page 806 absolute advantage is listed, but the definition is for comparative advantage.</p> <p>Key Terms</p> <p>absolute advantage when one country can use fewer resources to produce a good compared to another country; when a country is more productive compared to another country.</p>	<p>Revise "A country has an absolute advantage over another country in producing a good if it uses fewer resources to produce that good. Absolute advantage can be the result of a country's natural endowment." to "A country has an absolute advantage over another country in producing a good if it can produce more of that good. Absolute advantage can be the result of a country's having more resources, having more productive resources, or its natural endowment."</p> <p>Also update the key term definition to "when one country has more resources, more productive resources, or a natural endowment to produce a good compared to another country; when a country can produce more of a good compared to another country".</p>	<p>General/pedagogical suggestion or question</p>
<p>Chapter20</p> <p>International Trade: Section 20.3 Intra-industry Trade between Similar Economies</p>	<p>Capitalize "Intra-Industry" heading</p>	<p>Revise "Intra-industry" to "Intra-Industry" in the heading.</p>	<p>Typo</p>