A Literacy-Targeted Approach to Teaching Monetary Policy

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The principles of economics course taught at most colleges and universities includes too much content. This complaint is well known and has a long history. A report to the American Economic Association in 1950 said, "The number of objectives and the content of the elementary course should be reduced" (p. 56). In 1963 George Stigler (p.657) said it this way: "The watered-down encyclopedia which constitutes the present course in beginning college economics does not teach the student how to think on economic questions. The student will memorize a few facts, diagrams, and policy recommendations and ten years later will be as untutored in economics as the day he entered the class." In 1998 Robert Frank argued for a short list of core ideas with repeated applications. Modern courses are prone to adding content to ensure that they reflect new developments in the discipline, but rarely subtract more established or outdated content. By 1998, McConnell (1998) reported that Frank Taussig's 1946 text contained about a dozen diagrams, whereas more modern standard textbooks contain more than 200.

Well-meaning instructors often design their courses to prepare their principles students for intermediate courses. They include models and theories that transfer to upper-level courses in the sequence, assuming that students will choose to major in economics. However, of the students who take principles, over 80 percent are one-and-done — they never take another economics course. And of those who take at least one additional course, only 2 percent go on to major in economics (Stock, 2024). The data call into question the validity of designing principles courses for future economics majors. Hansen, Salemi, and Siegfried (2002, 464) put it this way, "The Principles course fails to improve economic literacy of not only those who take it, but also those frightened away by its reputation as a technical course. The course fails because it does not teach students how to apply economics to their personal, professional, and public lives. The cost of jamming many topics into the course is that students never master the basics." Because the principles course is the only course 80 percent of students ever take, it is essential that it provide students with the knowledge they need to think like an economist and apply that reasoning to the decisions they make every day.

These facts lead to the question: What should go into the only economics course most students will ever take, while not disadvantaging majors?

The literacy-targeted (LT) approach to teaching principles of economics argues that it is far more valuable for students to understand and apply core economic concepts well, than to be exposed to a wide range of concepts they will soon forget.¹

What about those who take a literacy targeted course, and then choose to major in economics? Research suggests that the literacy-targeted approach is Pareto-improving; it appeals to, and better serves, a broader audience than "traditional" economics courses while doing no harm to those who go on to major in economics. A University of Toronto study, using an 11-year dataset with over 13,000 students, compares the performance in intermediate micro/macro theory and statistics courses of students taking traditional principles courses with students taking LT courses. The results — no significant differences in grades in intermediate theory or statistics (Benjamin, Cohen, Hamilton, 2020). An earlier study at the University of North Carolina Chapel Hill had similar results (Gilleskie and Salemi, 2012). The authors of both studies attribute the results to the extra course time devoted to mastering fewer topics through enrichment and application assessments that create deeper and more durable learning.

Monetary policy is one area within the principles course where the literacy targeted principles can be applied. The purpose of this paper is to explain of the core knowledge needed to teach monetary policy from a literacy targeted perspective.

Monetary Policy

The way monetary policy is implemented has changed. Prior to 2008, the Federal Reserve used a limited reserves regime. With scarce reserves in the banking system, the Fed used open market operations to increase or decrease reserves in the banking system, and thereby move the federal funds rate, and short-term interest rates, higher and lower.

In 2008, the Fed shifted to an ample reserves regime, where reserves are abundant. With the shift came an adjustment to the monetary policy tools. The Fed started paying private Banks interest on reserve balances held at the Fed. The Fed now uses the interest rate on reserve balances as its primary tool for steering the federal funds rate into the Federal Open Market Committee's (FOMC) target range.

Monetary policy is a two-step process. The FOMC sets the policy stance, and the Fed implements policy using its policy tools. In the next sections, we describe the two-step process and note what has changed due to the move to an ample reserves monetary policy implementation, and what has not changed.

Conducting Monetary Policy

Monetary policy is conducted by the FOMC, a group made up of the seven governors from the Federal Reserve Board of Governors, and the 12 Federal Reserve Bank Presidents. This committee sets the stance of monetary policy by setting the target range for the Fed's policy rate – the federal funds rate. The federal funds rate is the rate determined in the reserve market – where banks can borrow and lend reserves. Because the reserve market is important to bank operations, the federal funds rate serves as a key short-term interest rate that bank use in determining their lending rates, and through the interaction of financial markets, the federal funds rate influences other short-term rates. In short, the FOMC conducts monetary

¹ For a history and survey of the LT approach, see Cohen (2024). The papers in the Symposium on "What Should Go Into the Only Economics Course Students Will Ever Take?" (Cohen, Stock, Wolla, 2024) describe more aspects and applications of the literacy-targeted approach.

policy by setting the federal funds rate target range. This step of the policy process has not changed significantly, it was the same in the limited reserves regime as it is in the current ample reserves regime. The only slight change is that the FOMC now sets a target range for the federal funds rate, rather than a single numerical target.

In the second step of the process, the Fed implements policy by using its policy tools to move and keep the federal funds rate within the target rate. This step *has* changed in important ways.

Implementing Monetary Policy with Ample Reserves

The second step in the monetary policy process is implementation. The ample reserves approach to monetary policy focuses on interest rate tools, rather than the money supply tools (such as open market operations and reserve requirements) associated with the prior limited reserves regime. In the ample reserve approach, the Fed uses three administered rates to ensure the federal funds (FFR) rate stays with the FOMC's target range – interest on reserve balances (and the associated Interest on Reserve Balances Rate, IORB rate), the overnight reverse repurchase agreement facility (and the associated overnight reverse repurchase agreement rate, ON RRP rate), and the discount window (and associated discount rate).

In teaching about the ample reserves approach, student only need to learn about two rates – the federal funds rate (FFR) and the Interest on Reserves Balances Rate (IORB) – the primary tool the Fed uses to push the federal funds rate (FFR) higher and lower.

The ample reserves implementation of monetary policy is a floor system. The interest on reserves balances rate sets a floor for the federal funds rate. The Fed can move the federal funds rate higher and lower by increasing or decreasing the interest on reserves balances rate. The ample reserves approach to policy is a more straightforward way to implement, understand, and teach monetary policy. When the FOMC wants to raise the federal funds rate, the Fed simply increases the interest on reserves balances rate, and when the FOMC wants to lower the federal funds rate, the Fed simply lowers the interest on reserves balances rate. That's the entire story!

The effectiveness of the IORB rate rests on two simple concepts that are transferable to other parts of the curriculum. The first concept is reservation rate. In this setting, a reservation rate is the lowest rate that banks are likely willing to accept for lending out their funds. Because depositing funds at the Federal Reserve and earning the IORB is a risk-free investment, banks are unlikely to lend reserves in the federal funds market for less than the IORB rate. So, when the Fed sets the IORB rate, it serves as a floor, because banks will not be willing to lend their reserves for less than that rate.

Arbitrage is the second concept. Arbitrage ensures that the FFR does not fall much below, or rise very far above, the IORB rate. For example, if the federal funds rate falls below the IORB rate, banks can borrow in the federal funds market and deposit at the Fed to earn the difference. This extra demand for funds in the federal funds market pushes the federal funds rate higher, and arbitrage continues until the difference is eliminated. Likewise, if the federal funds rate rises above the IORB rate, banks can withdraw funds from their reserve accounts at the Fed and lend in the federal funds market. The extra supply of funds in the reserve market pushes down the federal funds rate, and again, arbitrage occurs until the difference is eliminated.

These economic concepts (reservation rate and arbitrage) ensure that when the Fed raises or lowers the IORB rate, the FFR also moves up or down. As such, the Federal Reserve can steer the FFR into the target range set by the FOMC by adjusting the IORB rate. And, because the Fed sets the IORB rate directly, IORB

serves as an effective monetary policy tool. Currently, the interest on reserve balances rate (IORB) is the primary tool used by the Fed for influencing the federal funds rate (FFR).

Thinking about Monetary Policy in a Literacy Targeted Course

The literacy targeted approach to teaching monetary policy should focus on providing a non-economist with the tools they need to understand the economic concepts that underlie the monetary policy process and how policy changes affect the economy through decisions of consumers and producers. This understanding should be transferable to many aspects of peoples' lives from reading the news, making economic and financial decisions, and applying the understanding to decisions made in the workplace, whether it's in the business, finance, or healthcare industry. A good test of economic literacy, as it pertains to monetary policy, is whether a person can read and understand the FOMC statement that is published at the end of each FOMC meeting. After all, the FOMC statement serves as the official press release, it is the message the FOMC intends to transmit directly and through the news infrastructure to consumers, producers, and financial markets about the current stance of monetary policy. The FOMC statement is a key part of Fed transparency, and contributes to the effectiveness of another understated tool, forward guidance.

The Current State

Textbooks and the curriculum both shape and reflect instruction. In many cases, the Fed's decision to move from limited reserves to ample reserves has resulted in making an already too-long curriculum longer and more complex, moving further away from the goals of targeted instruction. For example, although the College Board was very responsive in updating their Course and Exam Description, which defines the curriculum for AP Macroeconomics course, they added the reserves model and content about interest on reserves to the existing content on limited reserves model (Ihrig and Wolla, 2022). In terms of an LT approach, this change adds to the encyclopedia, rather than trimming and focusing content. Similarly, textbook authors and their publishers have updated their texts, but in many cases, they have either 1) added interest on reserves as an extension to the old framework, which is mistaken or 2) kept their content on limited reserves, but added content on ample reserves regime, again leading to a longer, more complicated approach because students are now learning both frameworks (Ihrig and Wolla, 2022).

Narrowing the Content

Many textbooks spend many pages describing the tools the Fed used to implement policy. For example, many authors use several paragraphs and pages to describe how open market operations, reserve requirements, and the discount rate are used by the Fed to adjust the federal funds rate. In many cases, the Fed's tools are emphasized more than the explanation of how the tools affect the decisions of consumers and producers, and the economy more broadly. This emphasis on technical knowledge of the tools, and how they function, falls outside the scope of core economic literacy.

The literature on literacy-targeted approach discusses the need to trim the content, but there has been less written on strategies for doing so. For monetary policy, we recommend using two strategies for guiding, and reducing, the content – base content coverage on the National Voluntary Content Standards in Economics and use the FOMC statement as an assessment of the coverage.

Voluntary National Content Standards as a Guide for Coverage

Hansen, Salemi, and Siegfried (2002) suggest that instructors use the list of standards and benchmarks in the Voluntary National Content Standards in Economics, designed as a guide for K-12 educators, as a guide for LT content, and then scale up the rigor to match the college classroom. They reference the first edition of the standards (1997). The second edition of the standards (2010) grouped fiscal and monetary policy, with monetary policy given four of the ten benchmarks. Of the four benchmarks, one is tools-focused, describing three tools from the now outdated limited reserves regime. Two of the other benchmarks include applications of how open market operations are used to implement policy. So, of the four benchmarks, one is entirely focused on tools and two more describe how the tools are used. This is consistent with the earlier critique, that monetary policy content is too tools-focused at the introductory level.

The third edition (2025) of the Voluntary National Content Standards in Economics separates fiscal and monetary policy, giving the Federal Reserve and monetary policy its own standard, and increases the coverage of content from four benchmarks to ten. The treatment of monetary policy in the third edition is focused on the ample reserves implementation framework and is more consistent with a literacy-targeted approach (see Table 1). For example, benchmarks focus on the dual-mandate goals of price stability and maximum employment, stating that the federal funds rate is the policy rate, identifying interest on reserve balances (IORB) as the Fed's primary tool, and describes how the FOMC adjusts interest rates to address inflation that is too high, or employment that falls short of maximum employment. One final benchmark describes how changes in interest rates influence the spending and investing decisions of consumers and producers. In this case, while the number of benchmarks has increased, the coverage of tools has decreased. The second edition of the standards had one benchmark (of four total) that described three policy tools. The third edition of the standards has one benchmark (of ten) that describes one tool – the primary tool. Other mentions of policy changes focus the FOMC adjusting the federal funds rate target range, not the tools – this is consistent with the way policy is reported in the news.

FOMC Statement as an Assessment of Coverage

The same 1950 report to the American Economic Association recommending that content in the principles course should be constrained, also recommended that students see the relevance of what they are learning in the world around them by saying, "Students should be trained to follow current news [to enhance their interest in economics]" (p. 59). The FOMC statement, which is used to communicate the stance of policy and provide information to consumers, producers, and markets, does not include details about the policy tools, such as how the Fed adjusts the three administered rates (IORB rate, ON RRP offering rate, and Discount rate), or open market operations to implement the FOMC's decisions. If economic literacy instruction is designed to understand the world and economy we live in, we argue that the focus of coverage at the principles level should be on understanding economic fundamentals, and how changes in Fed policy affect those fundamentals through interest rates. The FOMC statement is the information the FOMC intends to communicate to the public about the stance of policy and is the information that is transmitted through the news infrastructure to consumers, producers, and financial markets about the current stance of monetary policy.

Method: How the FOMC Statement Aligns with the Voluntary National Content Standards

If the FOMC statement can serve as guide of what an economic literate person should know about the Fed's policy decisions, are the Voluntary National Content Standards (VNCS) a good guide for instructors? In other words, if an instructor uses the Standards as a guide, will their students have the knowledge to read and understand the FOMC statement? To assess, we first outline the underlying content knowledge necessary to understand a recent FOMC statement. Then, as a check for coverage, we ran three recent (June 12, July 31, and September 18, all 2024) FOMC statements through Chat GPT and asked the LLM to identify the underlying economic concepts (see Appendix B). With that information, we finalized our concept list. Then we listed the appropriate standard and benchmarks that address that content knowledge.

The first section of the FOMC statement includes an assessment of current economic conditions, such as the condition of labor markets, inflation, economic growth, with specific attention to how current conditions relate to the Fed's Congressional mandate to promote maximum employment and price stability.

Because monetary policy is taught in the context of a larger introduction to macroeconomics course, many of the concepts discussed in the economic overview section of the FOMC statement (labor market conditions, inflation, unemployment, GDP, economic growth and associated data) are already addressed in other parts of the Voluntary National Content Standards. So, adhering to the standards as a guide ensures coverage.

The next sections of the FOMC statement describe monetary policy goals, the policy decision and explanation, and the path ahead. This is where we should pay attention to the concepts described, and how the Voluntary National Content Standards do or don't already provide coverage.

Table 1 identifies the underlying economic concepts found in the most recent FOMC statement (at the time of this writing). Let's examine each concept as they come and identify whether the Voluntary National Content Standards provides coverage.

Table 1: Economic Concepts in the FOMC Statement Aligned with Voluntary National Content Standards (2025), Standards and Benchmarks

Concept	Quote from September 18, 2024, FOMC Statement	Voluntary National Content Standards (2025), Standard and Benchmark
Unemployment Rate	Job gains have slowed, and the unemployment rate has moved up but remains low.	The unemployment rate is the percentage of the labor force that is unemployed. It is computed as the number of unemployed divided by the labor force. (Standard 12.M.2)
Inflation	Inflation has made further progress toward the Committee's 2 percent objective but remains somewhat elevated.	Inflation is an increase in most prices; deflation is a decrease in most prices. (Standard 15, Benchmark M1) The inflation rate is the percentage increase in the average price level of goods and services over a period of time. (Standard 15.M.4) To achieve its price stability goal, the Federal Open Market Committee (FOMC) conducts monetary policy to achieve inflation that is low and steady over time. (Standard 17.H.2)
Price stability	The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run.	To achieve its price stability goal, the Federal Open Market Committee (FOMC) conducts monetary policy to achieve inflation that is low and steady over time. (Standard 17.H.2)
Dual Mandate	The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run.	The Federal Reserve has a dual mandate from the U.S. Congress to promote maximum employment and price stability in the U.S. economy. (Standard 17.M.3)
Maximum Employment	The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run.	To achieve its maximum employment goal, the Federal Reserve uses policies to promote the highest level of employment that the economy can sustain while maintaining a low and stable inflation rate over time. (Standard 17.H.3)
Federal Funds Rate	In light of the progress on inflation and the balance of risks, the Committee decided to lower the target range for the federal funds rate by 1/2 percentage point to 4-3/4 to 5 percent.	The Federal Open Market Committee (FOMC) conducts monetary policy by setting the target range for the federal funds rate. The federal funds rate is the interest rate banks charge each other for overnight loans. (Standard 17.H.4) The Federal Open Market Committee (FOMC) tends to increase its target range for the federal funds rate when the average inflation is too high. The FOMC tends to lower its target range for the federal funds rate when unemployment is high and average inflation is low. (Standard 17.H.6)

Federal Funds Rate target range	In considering additional adjustments to the target range for the federal funds rate, the Committee will carefully assess incoming data, the evolving outlook, and the balance of risks.	The Federal Open Market Committee (FOMC) conducts monetary policy by setting the target range for the federal funds rate. The federal funds rate is the interest rate banks charge each other for overnight loans. (Standard 17.H.4) The Federal Open Market Committee (FOMC) tends to increase its target range for the federal funds rate when the average inflation is too high. The FOMC tends to lower its target range for the federal funds rate when unemployment is high and average inflation is low. (Standard 17.H.6)
Balance Sheet	The Committee will continue reducing its holdings of Treasury securities and agency debt and agency mortgage-backed securities.	When bonds are sold before maturity, the price the seller receives is determined by supply and demand in the bond market. Bond prices and market interest rates have an inverse relationship; when market interest rates rise, bond prices fall; when market interest rates fall, bond prices rise. (Standard 14.H.4)
Treasury Securities	The Committee will continue reducing its holdings of Treasury securities and agency debt and agency mortgage-backed securities.	When the government runs a budget deficit, it must borrow to finance that deficit. The government funds the deficit by selling Treasury bills, notes and bonds. (Standard 18.H.7)
Balance of Risks	In light of the progress on inflation and the balance of risks, the Committee decided to lower the target range for the federal funds rate by 1/2 percentage point to 4-3/4 to 5 percent.	During recessions, unemployment rates typically rise. In expansions, unemployment rates typically fall. (Standard 16.H.9) While inflation tends to fall during a recession, sometimes a recession itself may be caused by factors that pushed prices up. (Standard 16, Benchmark H11) Inflation can occur when the overall demand for goods and services in an economy increases or the overall supply of goods and services in an economy decreases. (Standard 15.H.3)

These same themes are consistent from meeting to meeting, with emphases on changing based on economic conditions.

Results

Each of the economic concepts found in the FOMC statement, except two, are clearly found in the third edition of the Voluntary National Content Standards. The two economic concepts from the FOMC statement that aren't represented in the Voluntary National Content are Fed-focused, and more technical, and are less likely to show up in a news report about the Fed's decision. The first is the Federal Reserve's Balance Sheet.

In the classroom, this is a relatively complex conversation but can be addressed by building on concepts already in the standards. For example, standard fourteen includes benchmarks on bonds and the inverse relationship between bond prices and interest rates (S 14, H3, H4). Instructors could include instruction about the Fed's portfolio of assets that serves two purposes, 1) the Fed's portfolio enables it to earn interest to pay its own operating expenses. Because it is not reliant on taxpayer funding, it is not reliant on Congress or the President, and thus has the independent to make policy to achieve longer run goals. 2) The Fed can provide liquidity to the financial system and affect longer term interest rates by buying and selling assets from its portfolio. For example, during the Financial Crisis and COVID the Fed bought financial Treasury Securities to lower longer-term interest rates (noting the inverse relationship between price and yield) and to ensure liquidity in the financial system. A balance sheet discussion is outside a strict adherence to a literacy targeted approach but would be necessary to ensure citizens could read and understand the FOMC statement.

The second is the "Balance of Risks" that shows up in the FOMC statement. This conversation builds on concepts that are already in the standards. The balance of risks that faces the FOMC are the dual mandate goals of price stability and maximum employment – at every meeting FOMC members have to weigh the tradeoffs because addressing one part, such raising interest rates during a period of high inflation to address the price stability part of the mandate, will likely weaken labor markets and risk upsetting the maximum employment goal. Likewise, when the economy is weak, or in recession, lowering interest rates to encourage spending and economic output to boost labor markets, might also increase inflationary pressures. As such, teaching about balance of risks is an extension of the concepts already evident in the standards.

While these concepts of the Federal Reserve's Balance Sheet and "Balance of Risks" can be taught as extensions of other standards, we recommend that a literacy-targeted approach omit them altogether.

Teaching in Context

Ihirg and Wolla (2023) suggest that the best way to teach monetary policy is by putting it in context of how the Fed's policy actions affect the economy. They recommend starting with an economic shock that results in high inflation or high unemployment. Then discuss how the FOMC might adjust the federal funds rate target range and use Interest on Reserve Balances to move the federal funds rate into the target range, and then focus on the transmission to the rest of the economy, starting with other short-term interest rates, consumer and producer decision-making, and how those spending decision influence inflation and employment. This practical, literacy targeted approach is more valuable than the behind-the-scenes discussion of "how the sausage is made" that often dominates time in principles-level classrooms. Those discussions are often best left to a money and banking course, designed for economics majors.

Conclusion

Economics courses include too many concepts and models, attempting to prepare students who continue on to upper-level economics courses. This has been counterproductive in many ways, leading to unsatisfied students who attempt to learn too many theories and diagrams that have little to do with basic economic literacy. The coverage of monetary policy is no exception – the usual coverage includes too much content overall, and an over-concentration on technical aspects of the monetary policy tools. This paper used the Voluntary National Content Standards (2025) as a guide for content coverage, and compared the concepts to recent FOMC statements, to assess how well prepared a student would be to read and understand the FOMC statement. The Voluntary National Content Standards provided good coverage. Two concepts that appeared

in the FOMC – balance sheet and balance of risks -- are not represented in the VNCS, but they are more technical and Fed-specific. In both cases, content in other parts of the VNCS could be leveraged to support instruction on those concepts, but we suggest they be omitted altogether.

Based on these results, we recommend that educators focus their literacy-targeted instruction about the Federal Reserve and monetary policy on the economic conditions the Fed considers, the Fed's dual mandate goals, how the FOMC adjusts the target for the federal funds rate, and how that influences the decisions of consumers and businesses. Discussion of the tools should focus on how the Fed uses Interest on Reserve Balances (and the associated IORB rate) to steer the federal funds rate. We also recommend that educators use the Voluntary National Content Standards as a guide for constraining content.

Appendix A: Voluntary National Content Standards, 2025

Standard 17: Monetary Policy

Monetary policy refers to interest rate and money supply decisions made by a central bank. In the United States, the Federal Reserve uses monetary policy to promote maximum employment and a low, stable rate of inflation.

Design of Standard

Middle school students learn that the Federal Reserve is the central bank of the United States and are introduced to the goals of the Federal Reserve. High school students learn about the composition of the Federal Reserve. They then learn about how monetary policy is implemented and how the change in the federal funds rate can impact the economy.

Benchmarks: Standard (S) – Grade Level (G) – Benchmark (B)

S	Students will know that:	Students will use this knowledge to:
17.M.1	The Federal Reserve is the central bank of the United States. A central bank oversees and regulates the banking system to sets monetary policy to promote a healthy economy.	Explain how a central bank provides benefits for the banking system and the economy.
17.M.2	Monetary policy is central bank actions that influence interest rates and overall financial conditions in an economy.	Discuss how changes in interest rates affect a person's decision of whether to save or invest.
17.M.3	The Federal Reserve has a dual mandate from the U.S. Congress to promote maximum employment and price stability in the U.S. economy.	Explain why both maximum employment and price stability are important to the economy.
17.H.1	The Federal Reserve System is composed of three entities, 1) Federal Reserve Board of Governors, which oversees all aspects of the Federal Reserve, 2) the 12 Federal Reserve Banks, which examine and supervise financial institutions, act as lenders of last resort, and provide U.S. payments system services, and 3) the Federal Open Market Committee (FOMC), which is responsible for determining U.S. monetary policy.	Use a map of the Federal Reserve System to determine which district students live in, and the location of their Federal Reserve Bank. Use paper currency to identify which Federal Reserve Bank is accounting for that bill. Ask students to discuss why it is important to have a central bank in charge of the payments system.
17.H.2	To achieve its price stability goal, the Federal Open Market Committee (FOMC) conducts monetary policy to achieve inflation that is low and steady over time.	Discuss the reasons that the Fed's current 2 percent inflation target might be better than a 10 percent target.

17.H.3	To achieve its maximum employment goal, the Federal Reserve uses policies to promote the highest level of employment that the economy can sustain while maintaining a low and stable inflation rate over time.	Discuss what kind of data and information the Fed might consider in deciding whether the economy is at maximum employment.
17.H.4	The Federal Open Market Committee (FOMC) conducts monetary policy by setting the target range for the federal funds rate. The federal funds rate is the interest rate that banks and other institutions charge each other for overnight loans.	Identify a recently announced change in the federal funds rate target range and use the relevant FOMC statement to determine why this change was made.
17.H.5	The Federal Reserve's primary monetary policy tool is the interest it pays banks to keep reserves at the Federal Reserve – called the interest on reserve balances (IORB). The Federal Reserve implements policy by using the IORB interest rate to steer the federal funds rate to the FOMC's target range.	Look up the federal funds rate and see how it relates to the interest on reserve balances (IORB) rate.
17.H.6	The Federal Open Market Committee (FOMC) tends to increase its target range for the federal funds rate when the inflation rate is too high. The FOMC tends to lower its target range for the federal funds rate when unemployment is high and the inflation rate is low.	Discuss reasons for the monetary policy changes implemented by the Federal Reserve from March 2020-March 2022.
17.H.7	Monetary policy actions by the Federal Reserve lead to changes in interest rates and broader financial conditions. These changes influence the spending and investing decisions of consumers and producers, which then influences overall levels of employment and prices in the economy.	Explain how changes in monetary policy affect the interest rates, consumer and business decisions, and the path of economic activity.

Appendix B

Using Chat GPT as a tool and using the prompt: "I'm going to load three recent FOMC statements from the Federal Reserve. Considering all three documents, identify the underlying economic concepts that are essential for understanding the intended message" The three FOMC Statements are June 12, July 31, and September 18, all 2024. Examining these three FOMC statements collectively, several key economic concepts are emphasized that are essential for understanding the Fed's intentions and policy stance:

- 1. **Economic Growth and Activity**: Across all statements, "solid pace" is used to characterize the economic expansion, indicating sustained growth in economic activity. This growth metric signals the Fed's watchfulness of overall economic health, including changes in demand, output, and investment.
- 2. **Labor Market Health**: The statements mention job gains and the low unemployment rate as indicators of a strong labor market. However, the shift from "slowed" to "moderated" and then "remained strong" in job gains reflects nuanced changes in labor market strength, and suggests the Fed is attuned to employment trends while monitoring for any labor market cooling.
- 3. **Inflation Control and Price Stability**: The Committee's long-term inflation target remains at 2 percent, and inflation's "progress" is carefully noted in each statement as slightly closer to this goal, even though it remains above target. The Committee's sustained focus on inflation demonstrates the importance of price stability in their policy considerations.
- 4. **Dual Mandate—Employment and Inflation**: The Committee's commitment to balancing "maximum employment" and "stable inflation" is reiterated in each statement. The Fed carefully assesses "risks" to these dual objectives, highlighting the importance of stabilizing both the labor market and prices without compromising one goal for the other.
- 5. **Federal Funds Rate Target Adjustments**: The decision to either maintain or lower the federal funds rate target reflects the Fed's response to inflation and employment conditions. A rate cut in the first statement followed by holding the rate steady in the latter two indicates cautious optimism as inflation moderates but remains elevated.
- 6. **Balance Sheet Reduction**: Reducing Treasury and mortgage-backed securities holdings complements rate policy by managing overall market liquidity and influencing long-term rates, further supporting the inflation goal. This measure signals the Fed's ongoing effort to reduce balance sheet size gradually without destabilizing markets.
- 7. **Forward-Looking Risk Assessment**: The statements emphasize the uncertain economic outlook, with the Committee acknowledging it may adjust policies in response to new risks. This flexibility is crucial for navigating potential global and domestic economic shifts that could impact inflation or employment.
- 8. **Data-Driven Approach**: The Fed's reliance on a broad range of indicators—labor market data, inflation expectations, and international conditions—shows its comprehensive, data-informed approach. This helps the Committee remain responsive to current conditions, adjusting policy based on updated insights.

Together, these concepts illustrate the Fed's focus on sustaining economic growth, stabilizing inflation, and achieving maximum employment, with a flexible yet measured approach to navigating economic uncertainties.

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