

Why The Fed is Losing Its Relevance, And Should Lose It

Separating Myth from Reality:

What Monetary Policy Is, Is Not, and Should Be

A presentation by Bert Ely to the

National Economists Club

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Summation of this presentation:

Contrary to textbook theory and widespread belief, the Federal Reserve does not, by its own admission, control any component of the U.S. money supply, however defined. This is the case because long ago it elected to be an interest rate signaller, understanding, as the socialists learned to their great dismay, that a government authority cannot control both the price and quantity of any economic good or service. Specifically, the Fed sets a Federal Funds Rate Target (FFRT) which pegs the short end of the interest rate yield curve. Although the Fed cannot, in fact, enforce the FFRT on any interest rate except the increasingly insignificant overnight Fed Funds rate, the financial markets have generally followed the Fed's lead in changing the level of short-term rates.

Rarely, if ever, though, is this question asked: Why is it desirable for a government agency, which the Fed is, to signal the appropriate level of any interest rate? This presentation will explain why in fact it is highly undesirable for the Fed to send any interest-rate signals to the financial markets and why it would be far better for the American economy if the financial markets set all interest rates. Market-determined interest rates will produce non-inflationary credit growth as well as determine how much of the credit supply also will serve simultaneously as media of exchange.

An important caveat: This presentation will focus on the U.S. monetary system as it actually exists today and as it probably will exist in the foreseeable future. It is not necessarily descriptive of the U.S. monetary system prior to recent times nor is it descriptive of past or present monetary systems in other countries.

Understanding the role of money in the U.S. economy today:

- All forms of money used in the United States today are merely those forms of credit instruments that also conveniently serve as media of exchange.
 - **Figure 1** illustrates the balance sheet of an economy. The top portion of the right bar represents the quantity of credit outstanding in an economy. The money portion of the credit supply is shown at the very top of the right bar.
 - **Figure 2** illustrates the moneyness ladder, which shows the relative degree of moneyness for various types of credit instruments. Even mortgages, which are at the bottom of the ladder, serve as media of exchange when assumed in a real estate purchase.
 - Credit is much more important to the U.S. economy than money because credit finances purchases not paid for from the buyer's net worth while money represents just one way to execute a purchase.
- The quantity of all forms of money utilized in the U.S. economy today is entirely demand-driven.

- Then Fed Vice Chairman Alan Blinder, in a 1995 congressional testimony, unequivocally stated that the Fed supplies whatever quantity of currency that is demanded of it. **Figure 3** illustrates the weekly variability in the demand for currency as evidence of Blinder's statement.
- **Figure 4** illustrates an important point regarding currency and coins -- because of their physical form, they are so convenient as media of exchange and, particularly outside of the United States, also as a store of value, that people are willing to hold them on a non-interest-bearing basis. Consequently, currency and coins represent the major portion of the federal government's non-interest-bearing debt.
- **Figure 4** also illustrates another important point -- the reserves which banks hold on deposit at the Fed also are another form of non-interest-bearing federal debt although not a very significant one.
- As the New York Fed clearly admitted in its 1995 annual report, the Fed, through its open market operations (buying and selling Treasury securities), supplies to the banking system whatever quantity of required reserves banks need to meet their reserve requirement.
- Reserve requirements, therefore, do not pose any constraint on the quantity of reservable deposits that banks hold. Instead, reserve requirements are merely a tax on deposits in the form of a non-interest-bearing loan which depositors are forced to make to the federal government. As **Figure 5** illustrates, banks and the Fed are merely pass-through agents for that loan.
- Interestingly, only 18% of total U.S. bank, thrift, and credit union deposits today are subject to reserve requirements. These are the checkable deposits which are a major component of the M1 measure of the money supply.
- The printing press long ago ceased to cause inflation in the United States for one simple reason: The federal government pays almost all of its obligations by check or increasingly by electronic funds transfer. Both forms of payment require advance funding through tax collections or the sale of interest-bearing debt. Consequently, U.S. currency is now pulled into circulation rather than being pushed into circulation, which occurs when a government pays its bills in currency. **Figure 6** illustrates, in determining the cause of inflation, the crucial importance of understanding how a government pays its bills.
- In recent years, unused lines of credit have become an significant alternative to money for the purpose of executing purchase transactions. These unused lines of credit are not counted in any measure of the money supply. **Figure 7** contrasts the rapid growth in unused lines of credit on bank credit cards, as a percentage of GDP, to M1; other types of unused lines of credit, such as those secured by home equity loans, also have grown rapidly. **Figure 8** relates growth in unused lines of credit on bank credit cards to M2.

Monetary policy in the United States today:

- As a practical matter, U.S. monetary policy today consists entirely of the Federal Funds Rate Target (FFRT) that the FOMC announces periodically. This year's first FOMC meeting started today and concludes tomorrow.
 - The FFRT is the Fed's target rate for the overnight Fed Funds rate (OFFR), which is the rate at which banks lend funds to each other, usually on an overnight basis, and primarily to meet reserve requirements.
 - The Fed started announcing the FFRT four years ago because it was not readily evident before then what the FFRT was due to the extreme volatility of the OFFR, as **Figure 9** illustrates.
- The Fed's discount rate is meaningless because the Fed lends so little from its discount window, as **Figure 10** illustrates. In recent years, the Fed's loans outstanding have averaged about \$200 million in an economy with \$15 trillion of domestic, non-financial debt outstanding.

Central question: What is the purpose of monetary policy?

- The sole purpose of monetary policy, however executed, should be to encourage non-inflationary credit growth. This condition will produce other outcomes sought of monetary policy, specifically "maximum employment, stable prices, and moderate long-term interest rates" (the goals of the Humphrey-Hawkins Act). Additionally, non-inflationary credit growth will produce stable economic growth, which is necessary to minimize unemployment, and economic growth that is as rapid as possible without stimulating inflation or other economic distortions.

In recent decades, U.S. inflation has been caused solely by underpriced credit; i.e., interest rates have been too low.

- In an economy such as the United States where the money supply is entirely demand-driven, credit growth is a function of interest rates, as **Figure 11** illustrates. That is, the rate of credit growth increases when interest rates decline; likewise, the rate of credit growth declines when rates rise. Changes in the rate of credit growth, in turn, are just one factor influencing changes in the money supply.
 - The rate of credit growth is critical to the rate of inflation because credit represents the source of marginal purchasing power. If credit grows too rapidly, then purchasing power will rise faster than the quantity of what is available to purchase. To paraphrase an old saying, inflation is caused by too much credit chasing too few goods. This

observation has led to the formulation of Ely's Variation of Say's Law, as illustrated in **Figure 12**.

Production creates purchasing power which, increased or decreased by mispriced credit, creates an inflationary or deflationary demand for that production, plus or minus inventory changes.

- If interest rates are too low, then the economy experiences inflationary credit growth. When underpriced interest rates cause inflation, inflation is a monetary price phenomenon. If caused by a government forcing currency into circulation, then inflation is a monetary quantity phenomenon.
- If interest rates are too high, then the economy experiences disinflationary or even deflationary credit growth.
- Fed officials, at least intuitively, understand that in a modern economy where a government does not pay its bills in currency and there are ample credit substitutes for currency and bank deposits, interest rates are much more important than the money supply in influencing economic activity, which is why the Fed, along with most other central banks, is an interest rate signaller and not a money supply controller.
- Contrary to widespread belief, the financial markets do not need bureaucratic guidance in setting interest rates which will produce non-inflationary credit growth because the clearly opposed interests of debtors and creditors will lead, through marketplace bargaining, to the setting of nominal interest rates that will produce non-inflationary credit growth. This is the case because both debtors and creditors have less uncertainty as to the ex post real rate of interest in a low-inflation environment than they do in a high-inflation environment.
 - **Figure 13** illustrates the theory that marketplace bargaining will produce interest rates that will foster non-inflationary credit growth.
 - **Figure 14** demonstrates that the U.S. experience since 1960 fits this theory.

Fed interest rate signalling has been extremely damaging to the U.S. economy in recent decades, but the Fed's ability to hurt the economy is declining:

- Although the financial markets have always been better equipped than central bankers or other government bureaucrats to determine interest rates that will produce non-inflationary credit growth, the markets followed the Fed's lead in setting excessively low interest rates in the late 1960s and 1970s. Those low real rates sparked the inflation that only now is finally being squeezed out of the economy.

- **Figure 15** illustrates the U.S. interest rate and inflation experience since 1960. Note on the left side of the figure that the Fed was able to snooker the entire yield curve into very low and even negative real rate territory in the late 1960s and 1970s. The Volcker antidote was the signalling of very high real rates in the 1980s.
- The right side of **Figure 15** illustrates the dramatic, and extremely positive, shift in power over long-term rates from the Fed to the financial markets that had taken place by the early 1990s. In 1992 and 1993, when the markets unwisely followed the Fed's lead at the short-end of the yield curve into negative real territory, the long end of the yield curve stayed high. While creating a record steepness in the yield curve, those high real rates prevented an outburst of inflationary credit growth.
- Because the markets are exercising increasing control over interest rates, the U.S. economy has experienced since the last recession a favorable economic climate unparalleled in the post-World War II era, as **Figure 16** illustrates. Contrary to the Phillips curve theory and NAIRU nonsense, the unemployment and inflation rates have steadily declined in tandem since 1992. In sharp contrast, other post-1945 periods with even lower unemployment rates were marked by war and/or rising inflation.
 - During the longest post-war expansion (February 1961 to December 1969), inflation started to increase noticeably in 1965 and did not stop rising until the 1970 recession. Therefore, the low unemployment rate in the late 1960s, which was stimulated both by the Vietnam war and excessively low, Fed-induced real interest rates, was unsustainable.
 - During the second longest expansion (November 1982 to July 1990), the inflation rate started rising in 1986 after a half-decade of decline even as the unemployment rate bottomed out above today's rate.
- Market-determined, longer-term interest rates have been the primary reason that inflation and unemployment have been declining in recent years. This phenomenon has been especially evident over the last two years as the Fed has held the FFRT nearly constant.
 - As **Figure 17** illustrates, longer term interest rates have been much more volatile over the last two years than short-term rates even though the reverse should be true since real shocks to the economy reverse themselves within a few months or a year or two at most. In effect, while the Fed has sat on the sidelines, by not signalling significant changes in short-term rates, longer term rates have done the job that short-term rate volatility should have done in offsetting or neutralizing the economic effects of real shocks.
 - **Figure 18** illustrates the relationship, with an approximate 60 day lag, that has existed over the last two years between major directional changes in the nominal yield on the 10-year Treasury note and changes in quarterly real GDP growth. In effect, fluctuations in longer term interest rates have kept the economy on track.

- America has paid a price, though, for relying upon longer term rate volatility to keep the economy on a stable course -- economic growth fluctuated significantly from quarter to quarter through the fourth quarter of 1996, as **Figure 19** illustrates. In particular, longer term rate volatility can accentuate swings in demand for long-life assets heavily financed by debt, such as housing and other types of construction, autos and other consumer durables, and capital equipment. Because of long production lead times, these are the very sectors of the economy that should not be whipsawed by interest rate volatility. The marginally employable also are hurt most by this whipsawing.
- Since the fourth quarter of 1996, though, fluctuations in quarterly GDP growth have moderated from the growth rate volatility of the previous five years. This very healthy development improves the economy's growth rate while reducing the likelihood that the economy will overheat or suddenly spill into a recession.

Looking to the future, it is vitally important to get the Fed completely out of the interest rate signalling business so that interest rate volatility will shift to the short end of the yield curve, where it belongs.

- The Fed is a short-term interest rate signaller because there is nothing comparable to the FFRT with which it could signal long-term rates. In effect, the Fed pegs what it pegs because that is all it can peg even though that pegging hurts America. The Fed justifies this pegging by essentially arguing that it is socially beneficial to smooth fluctuations in short-term rates even though that smoothing destroys important price information. Since when is the masking of any price signal socially desirable?
- Ideally, Congress should simply ban the Fed from doing any interest rate signalling; abolishing the FOMC would help in that regard. The financial markets, though, could make the Fed an expensive irrelevancy tomorrow by simply ignoring the FFRT. On two occasions in the last two months, shorter term rates have momentarily broken free from the FFRT, which is a hopeful sign that the markets are starting to ignore the Fed in setting short-term interest rates.
- Once the financial markets assert full control over all interest rates, then the term structure of interest rates will undergo a significant change in five regards.
 - First, interest rate volatility, which now is much greater at the long end of the yield curve than at the short end, as both **Figure 17** and the top portion of **Figure 20** illustrate, will shift to the short end of the curve, as shown in the bottom portion of **Figure 20**. This shift will have dramatic effects on the real economy, specifically in inventory management and demand for longer-life assets.
 - Second, short-term interest rate volatility should be of a lesser magnitude and possibly of a shorter duration than the volatility now seen in longer term rates. This will be the

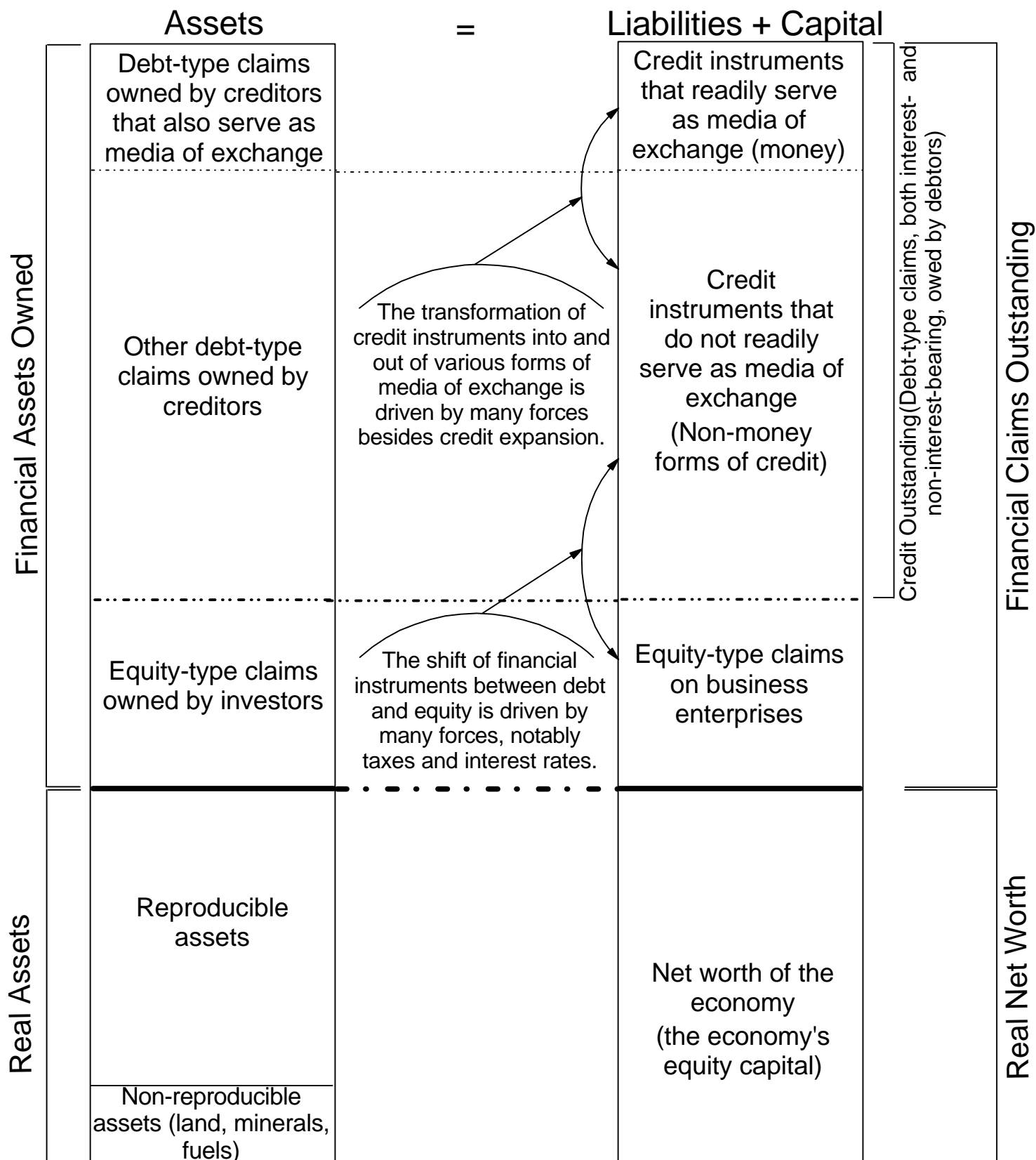
case because the bond market today tends to exaggerate, in terms of yield swings, the inflationary or deflationary effect of real economic shocks.

- Third, the yield curve should flatten and generally stay flatter than has been the case in recent decades because sufficient volatility in short-term rates will largely eliminate the inflation premium in longer term rates. Consequently, long-term rates should approximate real interest rates; fluctuations in long-term rates therefore should only reflect changes in the long-term supply and demand for savings. A flatter curve and less volatility at the long end of the curve will dramatically alter financing structures and concepts of interest rate risks.
- Fourth, the yield curve will invert frequently, but generally for short periods of time. Those inversions will be desirable because they will brake demand before excessive demand overheats the economy, thereby setting it up for an economic downturn.
- Fifth, the amplitude of the business cycle will moderate greatly, with the consequence that recessions should be rarer and relatively shallow events. **Figure 16** suggests that this phenomenon already is taking hold in the U.S. economy.
- The end of Fed rate signalling, or its complete irrelevance, whichever comes first, will return the United States to interest volatility patterns comparable to what it experienced in pre-Fed days, as **Figure 21** illustrates. However, because the currency is fully elastic today and credit is easily created and destroyed, the real economy should function much more smoothly than it did in pre-Fed days.

Summing up -- what U.S. monetary policy should be:

- Monetary policy should be entirely market-driven: The financial markets should set all interest rates, which will determine the rate of credit growth. Separately, the marketplace should determine how much of the credit supply will simultaneously serve as media of exchange. In such an economy, there is no need for a central bank.

The Balance Sheet of an Economy

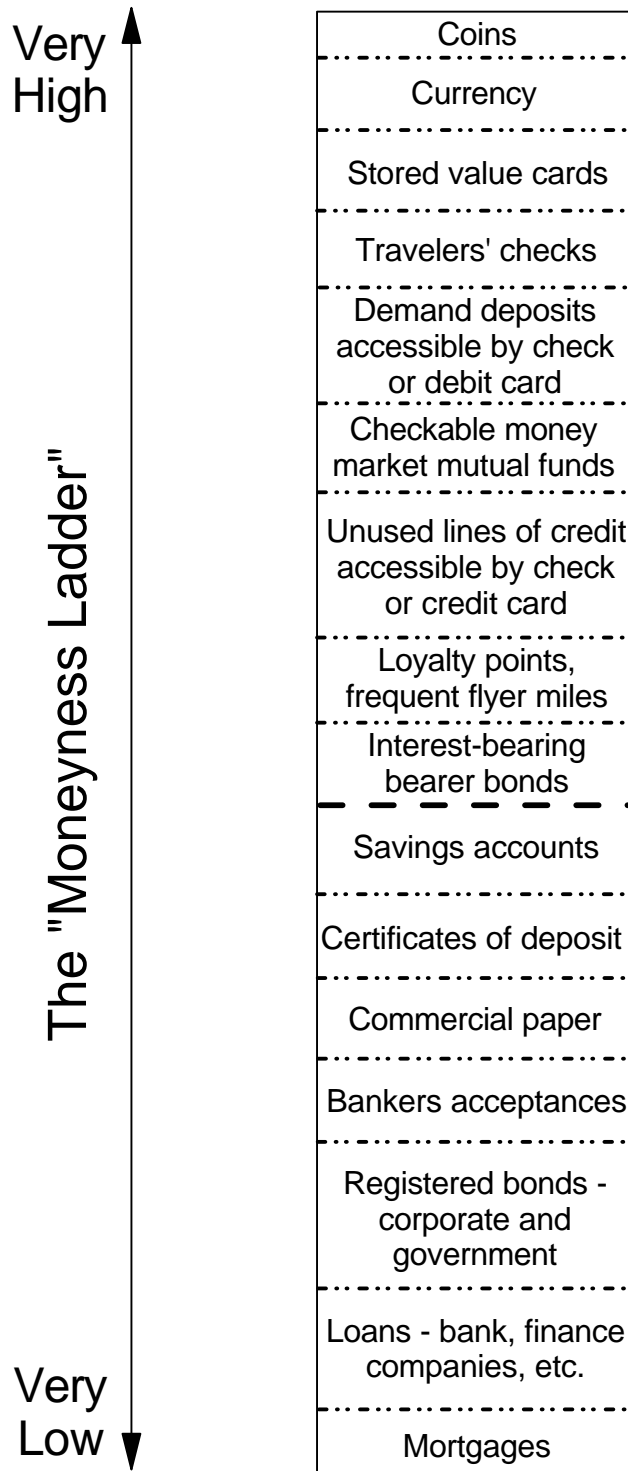


This figure purposely excludes human capital, which is largely a non-tradeable asset, except for the employment contracts of sports and other professionals.

The Moneyness of Credit

Figure 2

The Extent to Which Various Types of Credit Instruments Can Also Serve as a Media of Exchange, that is as Money



Note: Excludes liabilities generally not considered to be credit market debt, such as trade debt, security credit, taxes payable, life insurance reserves, deferred and unpaid insurance premiums, pension fund reserves, and investments in bank trust departments.

Weekly Balance of Currency Outstanding January 4, 1995 through January 28, 1998

Source: Federal Reserve Report H.4.1 - Factors Affecting Reserve Balances of Depository
Institutions and Condition Statement of Federal Reserve Banks

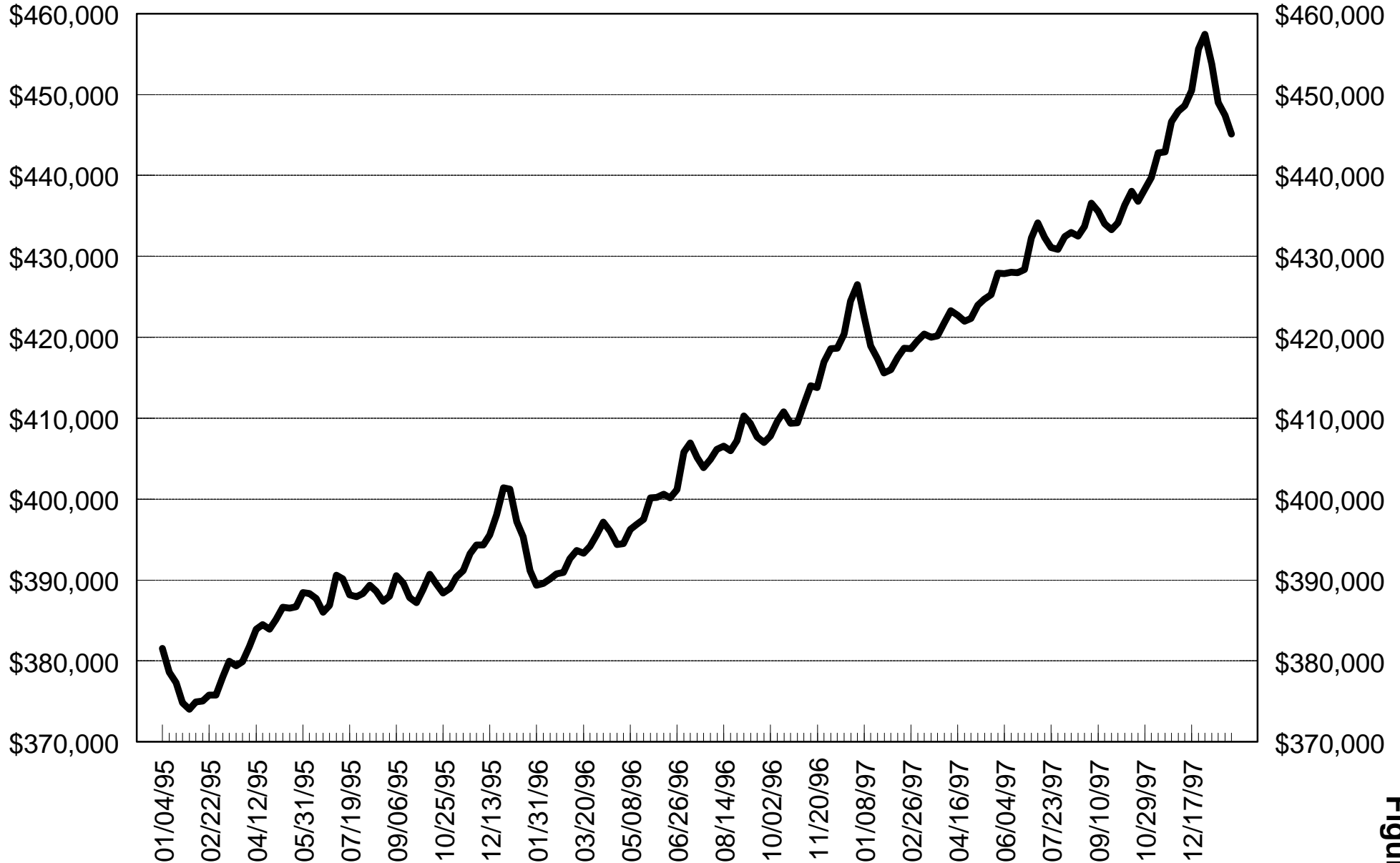


Figure 3

Simplified Consolidation of Treasury Department and Federal Reserve Balance Sheets

Figure 4

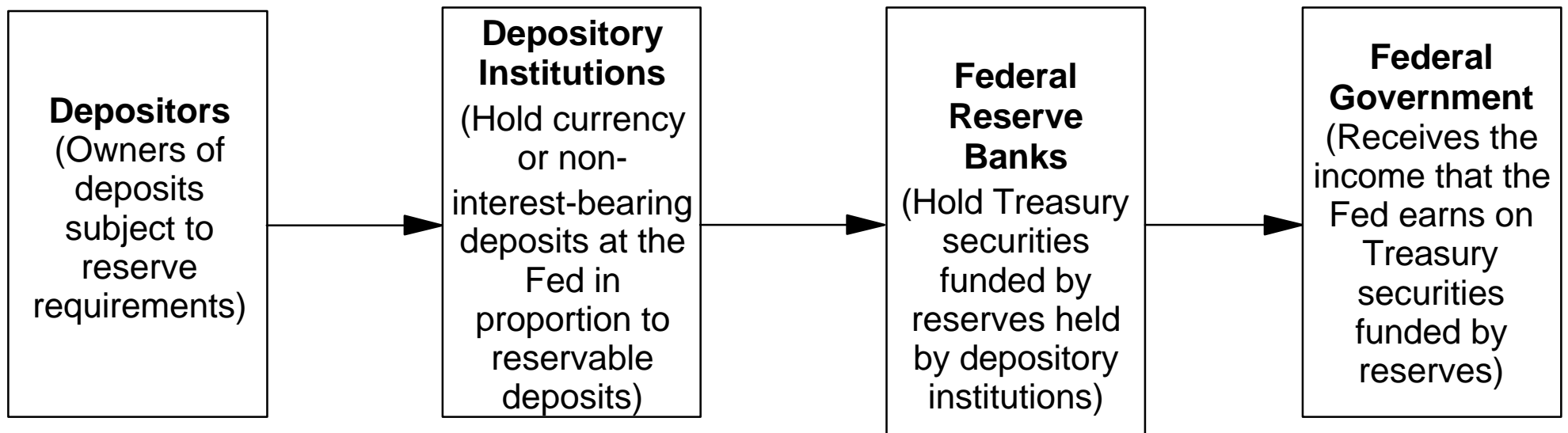
As of June 30, 1997
(Dollars in Billions)

Assets - Accumulated Deficits	=	Liabilities	
<p>Net debt of the federal government to the public \$3,726.4</p>	=	<p>Reserves \$15.8</p> <hr style="border-top: 1px dashed black;"/>	<p>Liabilities on the books of the Federal Reserve banks</p>
		<p>Currency \$429.1</p> <hr style="border-top: 1px solid black;"/>	
		<p>Coins \$23.9</p> <hr style="border-top: 1px dashed black;"/>	<p>Net liabilities on the books of the Treasury Department</p>
		<p>Interest-bearing Treasury securities held by the general public \$3,257.6</p>	

Sources: Federal Reserve Bulletin 83 (November, 1997), Table 1.18, page A10; Treasury Bulletin, September 1997, Table USCC-1, page 56; Monthly Treasury Statement, June 30, 1997, page 20.

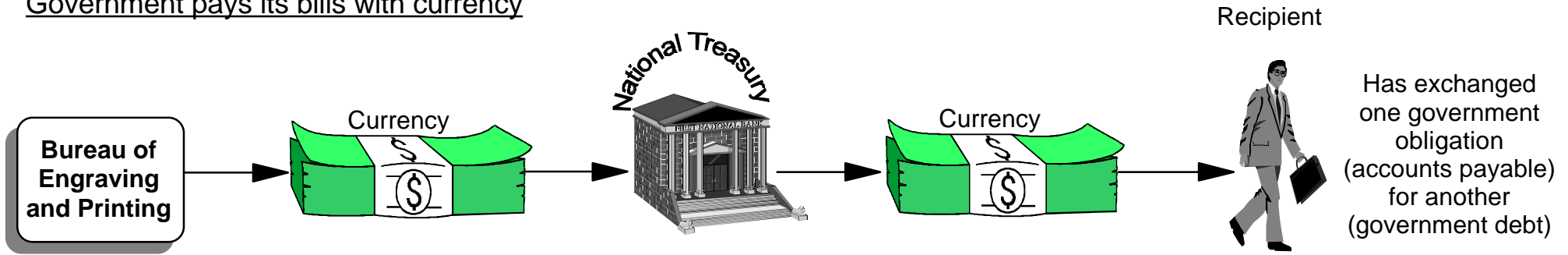
Adjustments: Excludes various minor asset and liability accounts of the Treasury and the Federal Reserve; Net debt of the government increased by the amount of coins outstanding; Bank reserves on deposit at the Federal Reserve Banks reduced by the amount of required clearing balances and float adjustments on which the Federal Reserve provides an earnings credit equivalent to interest.

Required Reserves Represent a Forced, Non-Interest-Bearing Loan From Depositors to the Federal Government that Flows Through the Banking System



A Government Abandons the Classic Way to Inflate When It Stops Paying Its Bills in Currency Because Government Checks and Electronic Payments Separate the Payment Function from the Financing Function

Government pays its bills with currency



Government pays its bills by check or electronic funds transfer

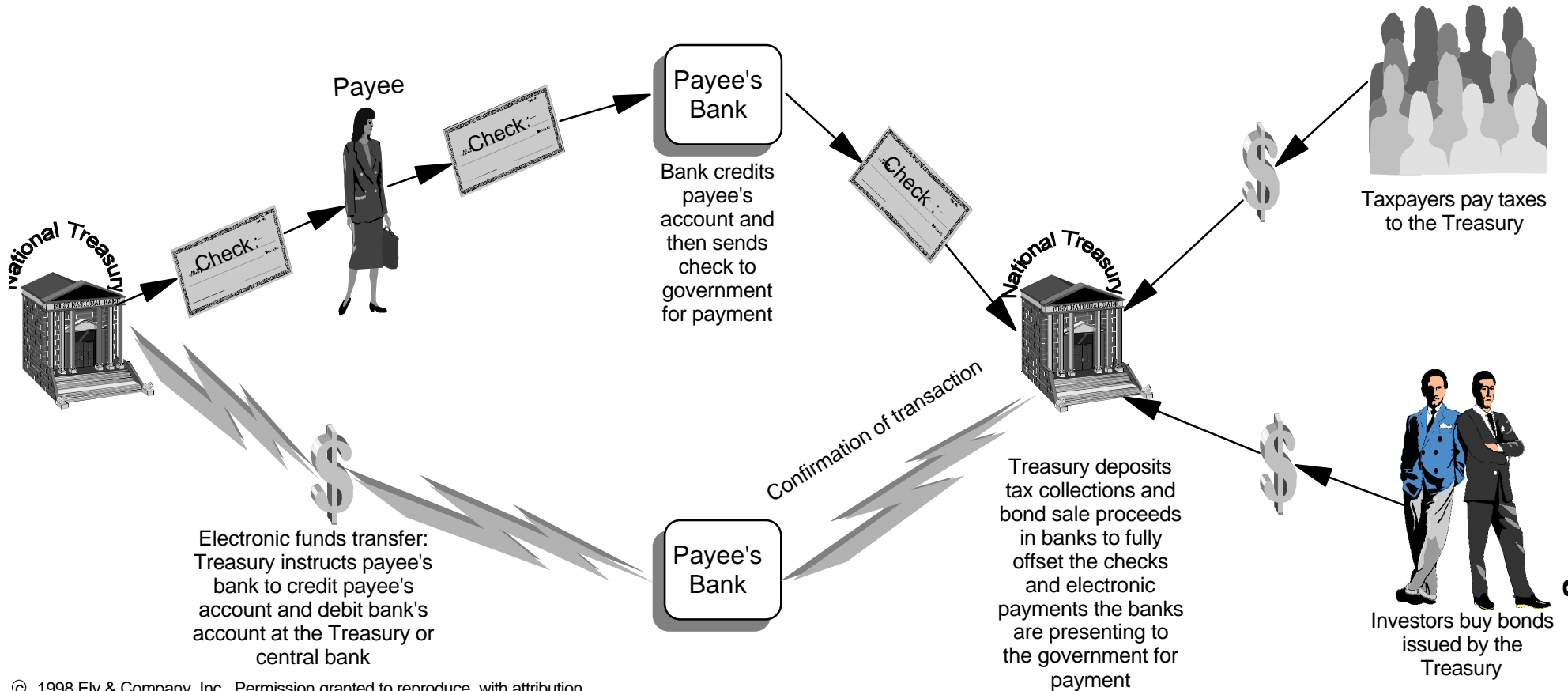
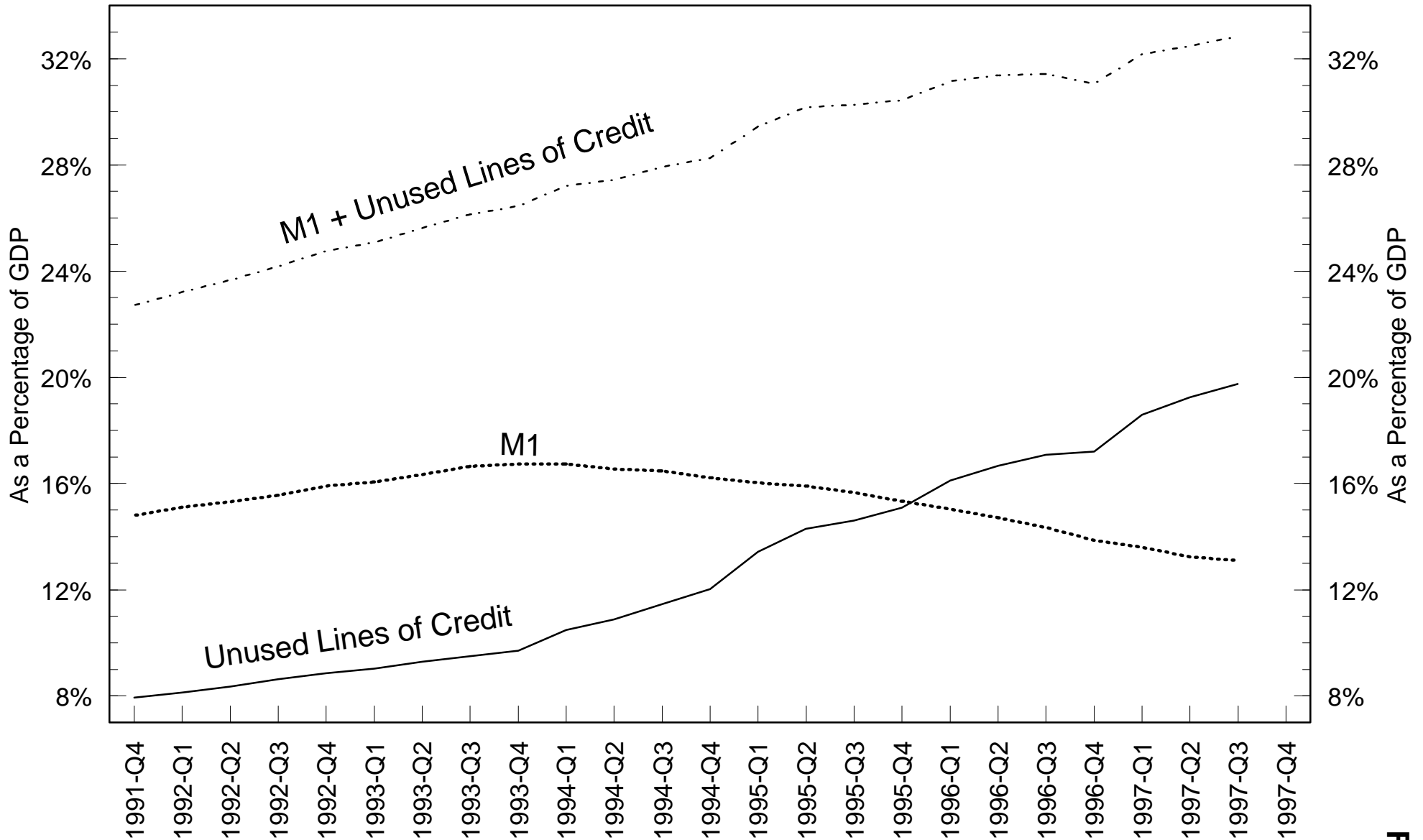


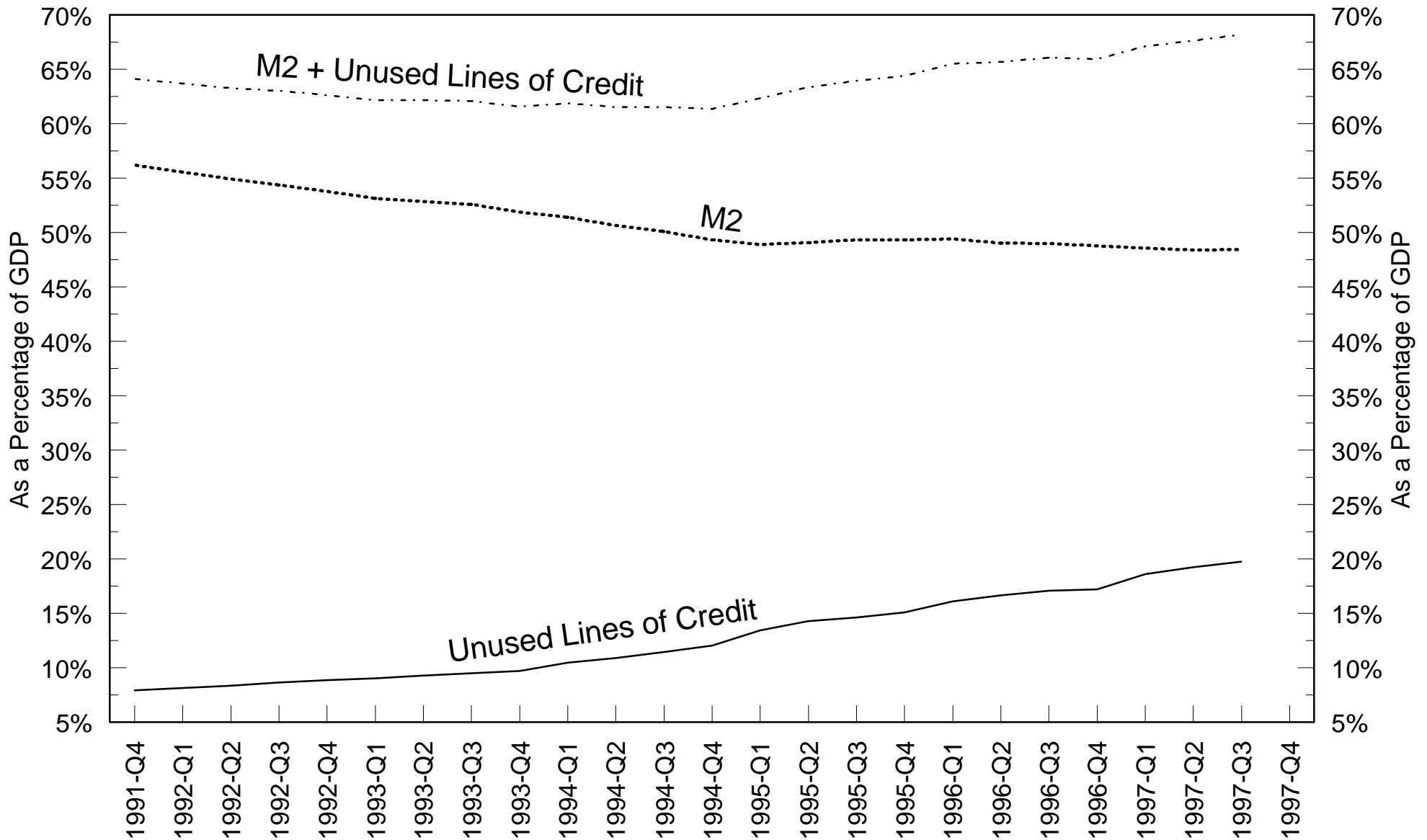
Figure 6

U. S. Totals for Unused Lines of Credit on Bank-Issued Credit Cards and M1 Money Stock as a Percentage of GDP



Note: M1 = Currency outstanding (including currency circulating outside of the United States), demand deposits, other checkable deposits, and travelers checks.

U. S. Totals for Unused Lines of Credit on Bank-Issued Credit Cards and M2 Money Stock as a Percentage of GDP



Note: M2 = M1 plus retail money market mutual fund balances, savings deposits (including money market demand accounts), and small time deposits.

The Fed Started Announcing the FFRT on February 4, 1994, Because It Was Not Always Clear Before Then What the FFRT Was

January 4, 1993 through January 23, 1998

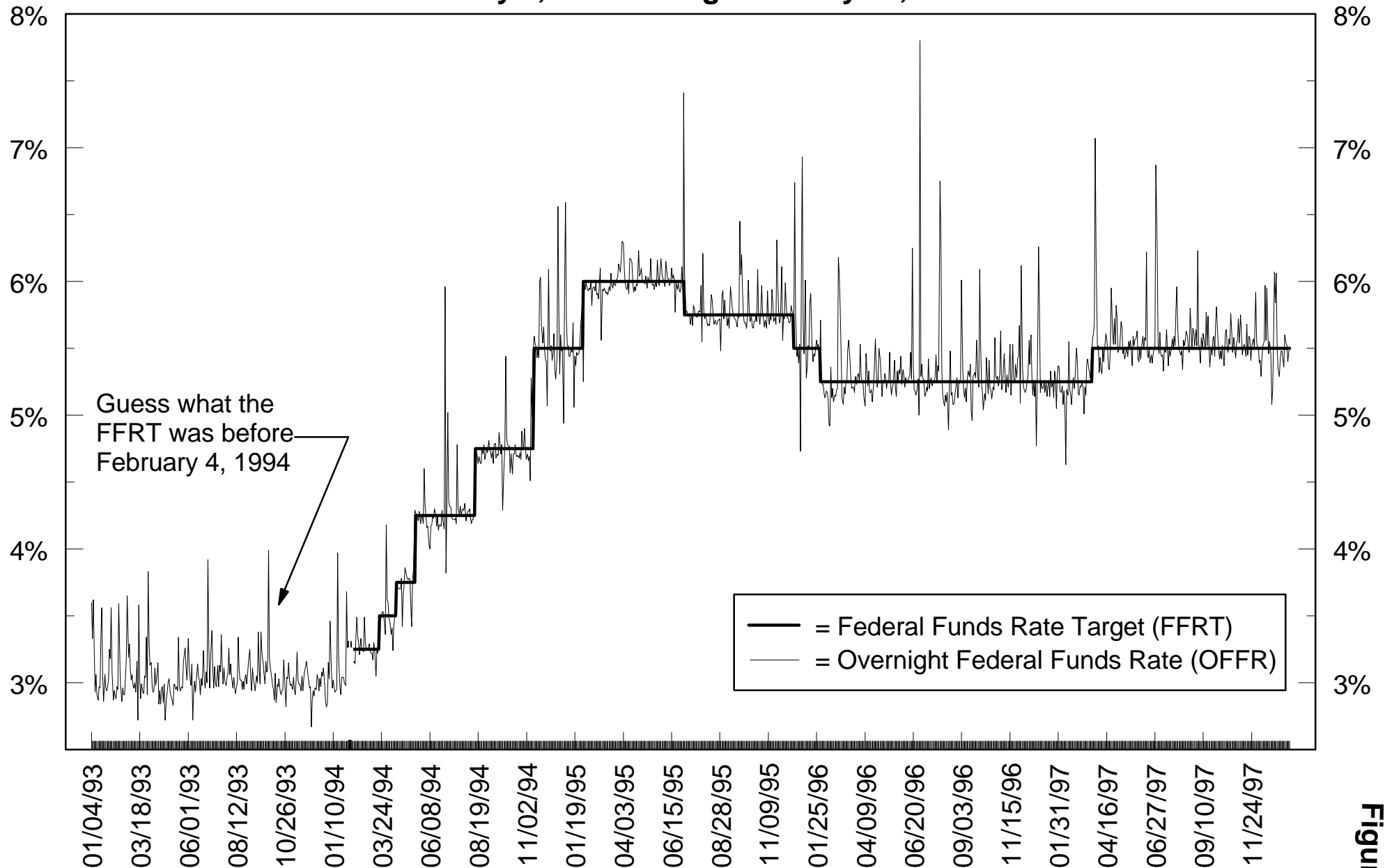
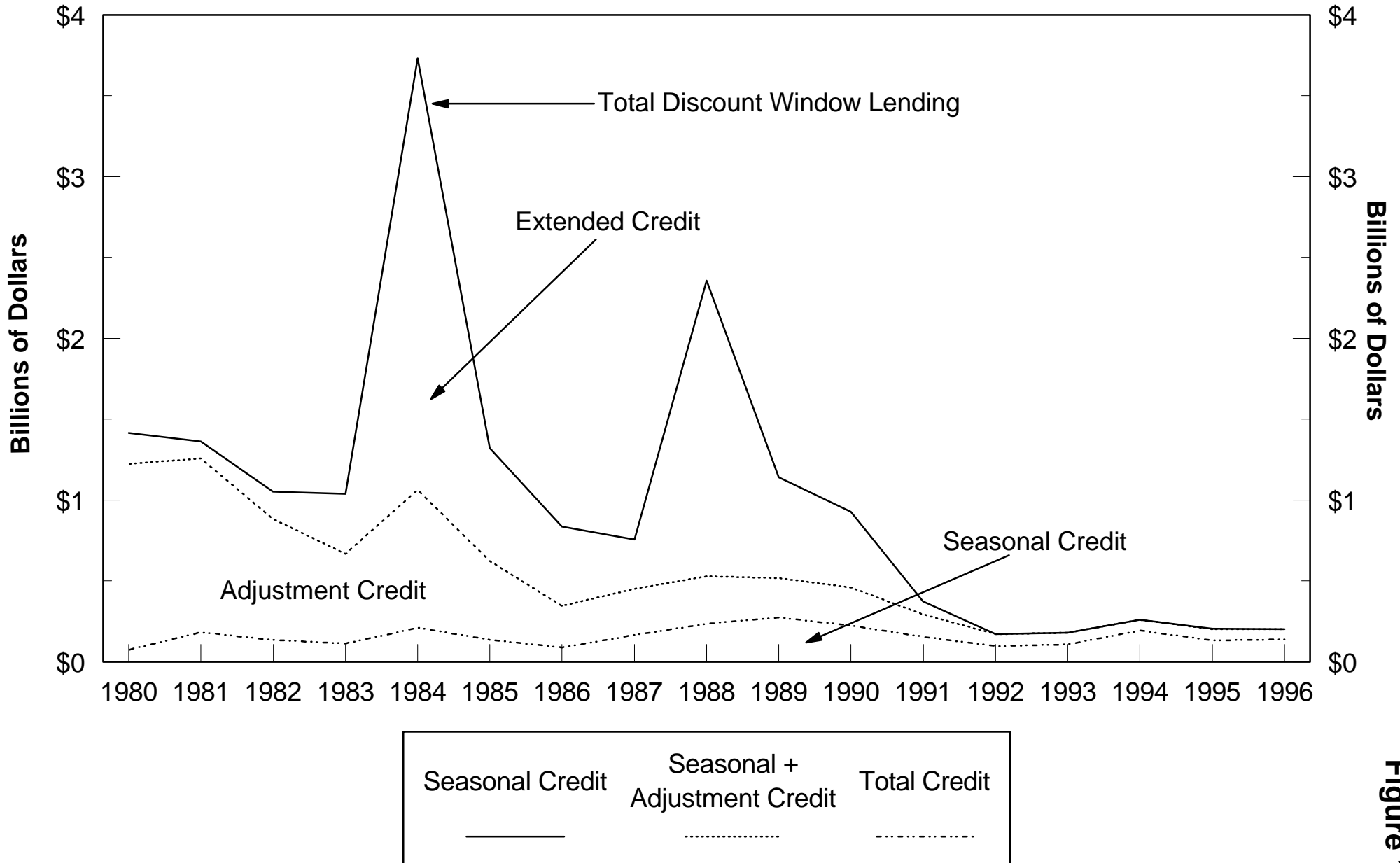


Figure 9

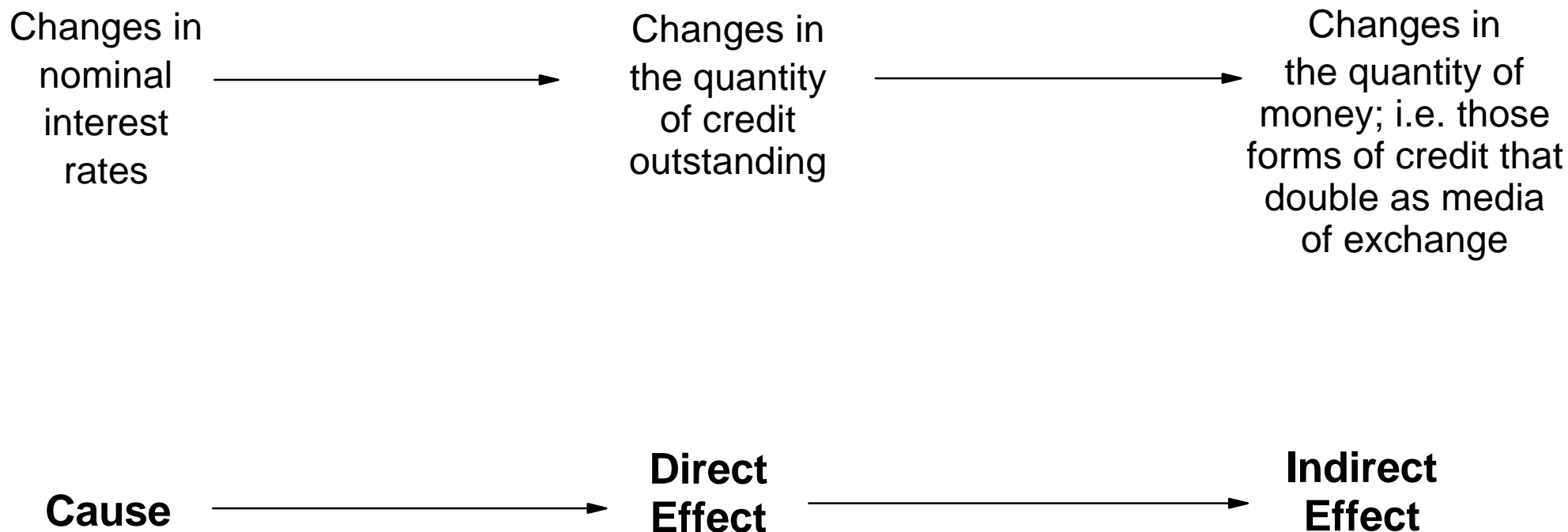
The Fed's Discount Window Lending Has Dropped in Recent Years

Yearly Average of Borrowings From Federal Reserve Banks

1980 through 1996



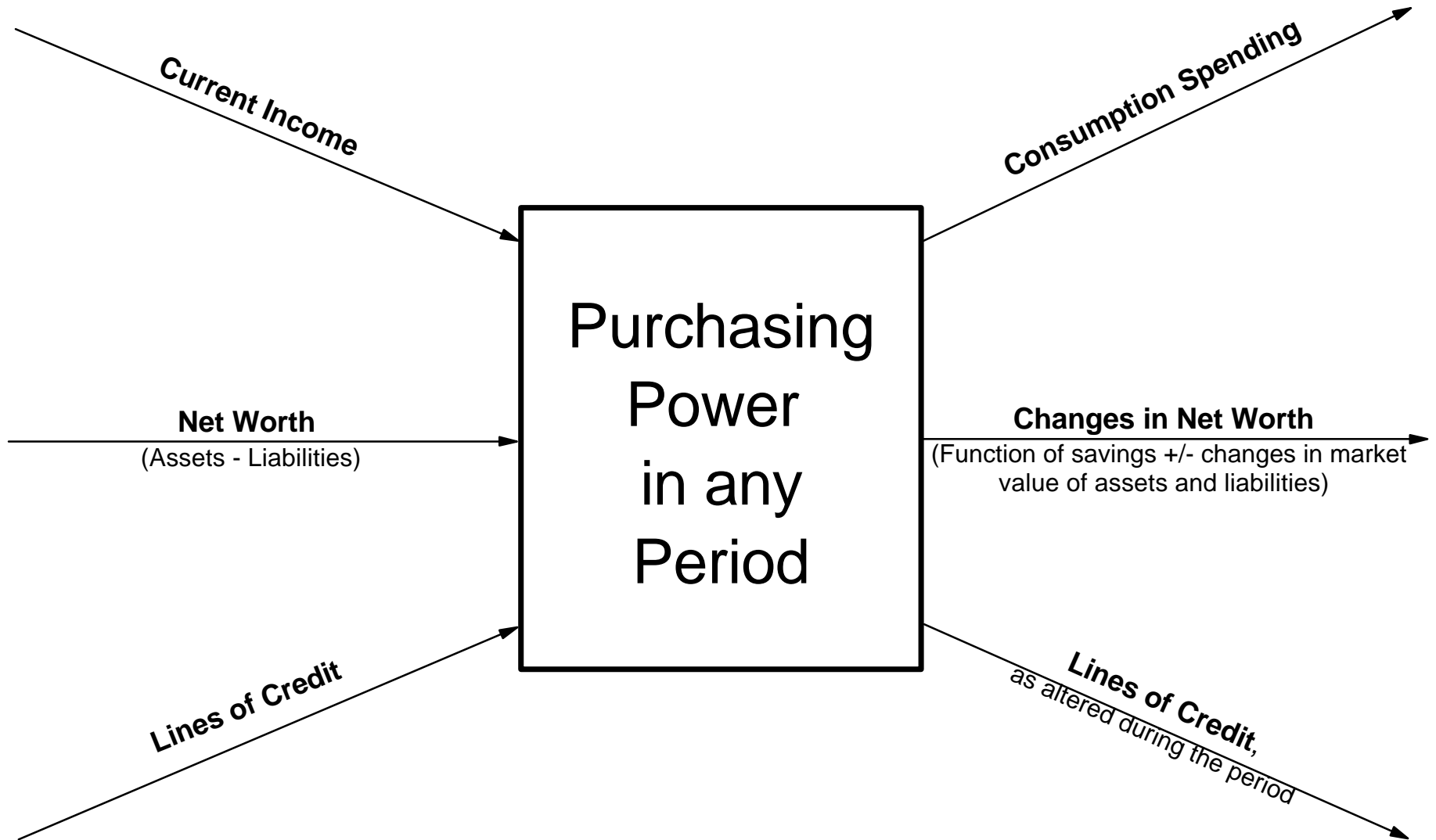
Cause and Effect: Nominal Interest Rates and the Money Supply in a Regime In Which the Money Supply is Demand-Driven



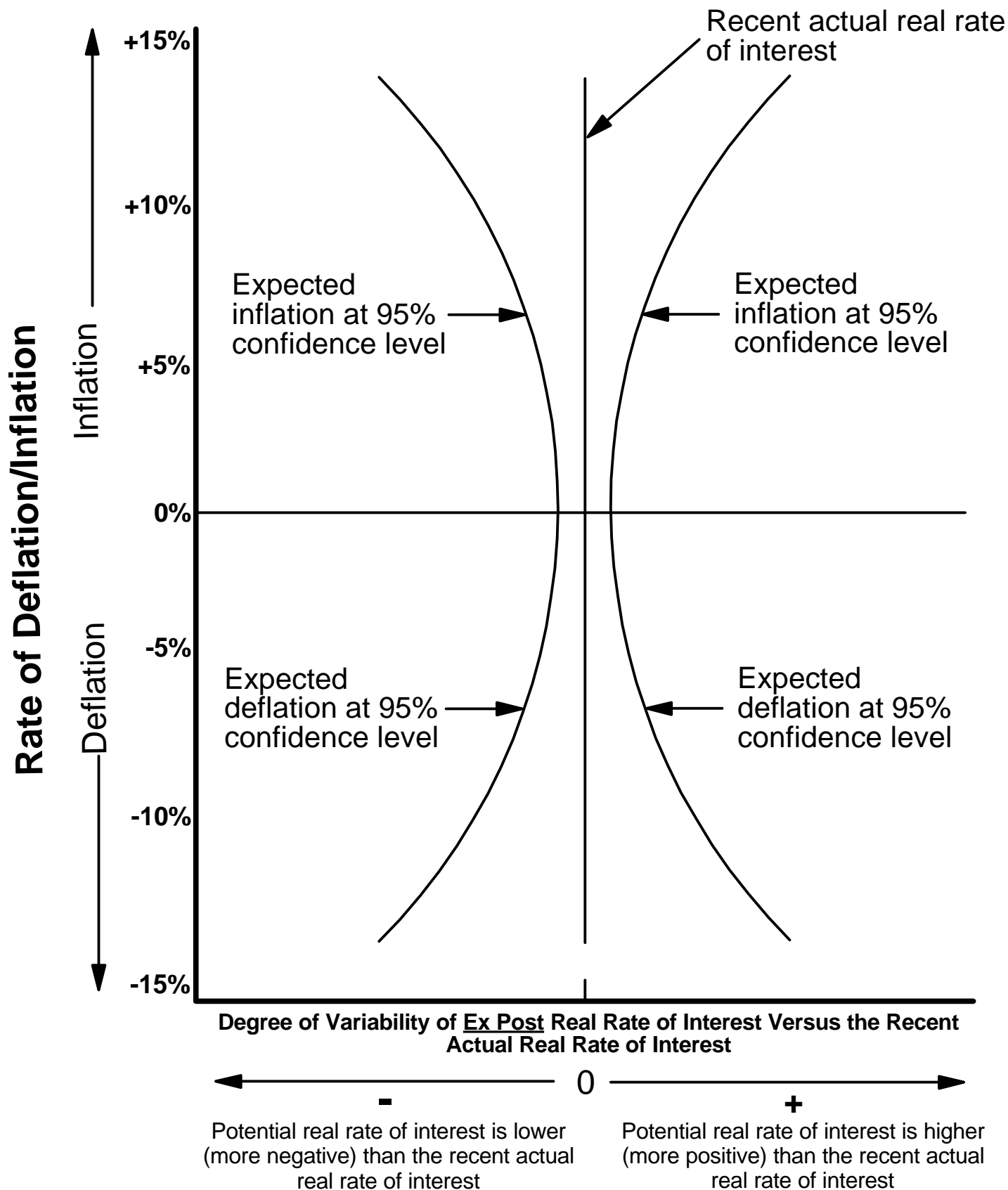
Note: If a change in nominal interest rates is entirely market-driven, then the subsequent change in the quantity of money will have no feedback effect on nominal interest rates. This will be the case because the quantity of currency in circulation and the quantity of bank deposits included in the money supply (however measured) will be entirely demand-driven. That is, the Fed will supply whatever quantity of currency the public desires to hold and whatever quantity of bank reserves are needed to back the quantity of reservable deposits that people and businesses desire to hold.

Ely's Variation of Say's Law

Production creates purchasing power which, increased or decreased by mispriced credit, creates an inflationary or deflationary demand for that production, plus or minus inventory changes

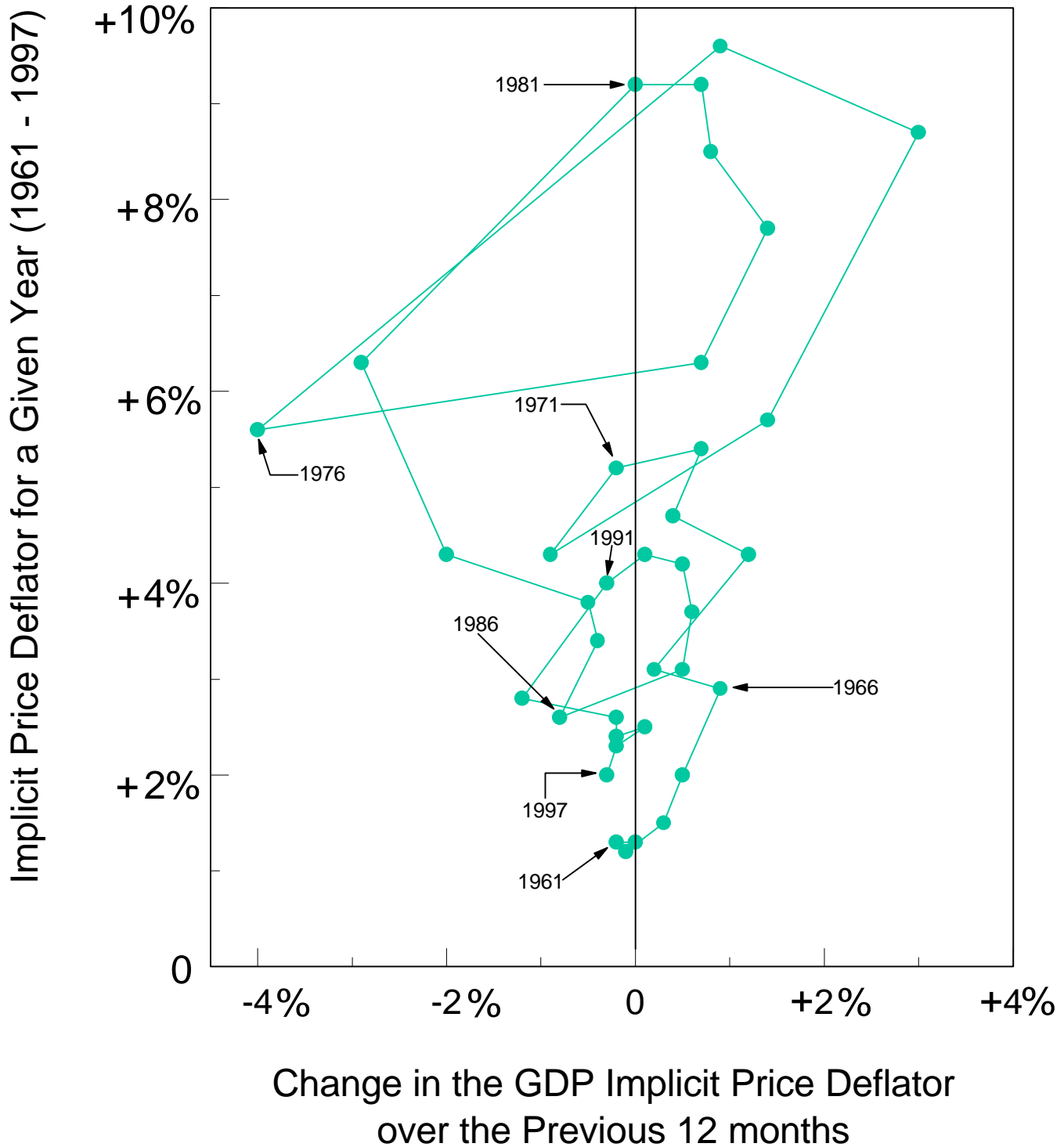


The Degree of Uncertainty as to the Ex Post Real Rate of Interest Decreases as the Recent Actual Rate of Inflation/Deflation Decreases

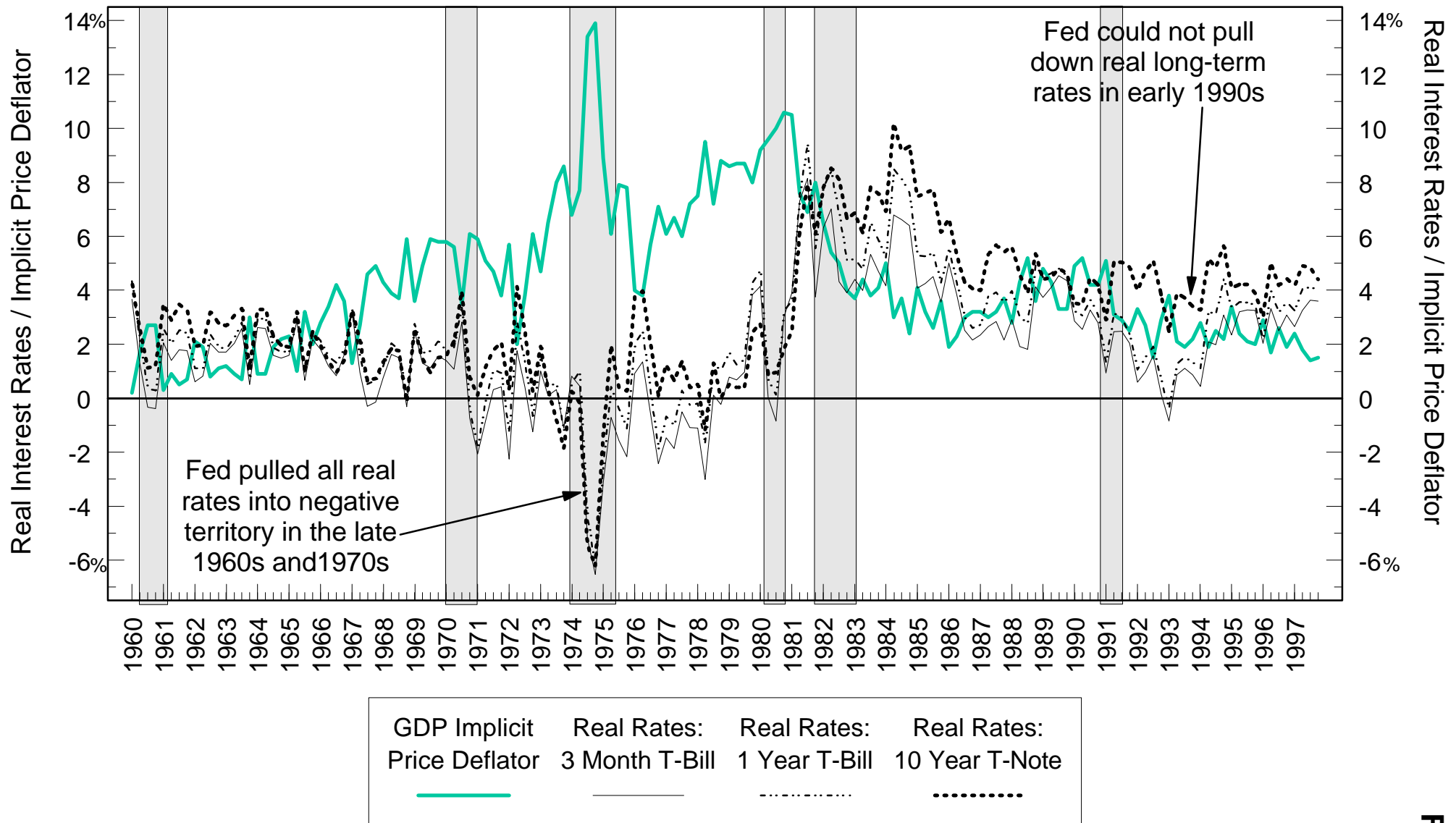


Tracking Annual Changes in the GDP Implicit Price Deflator for the United States: 1961 through 1997

(Relates to the top half of Figure 13)



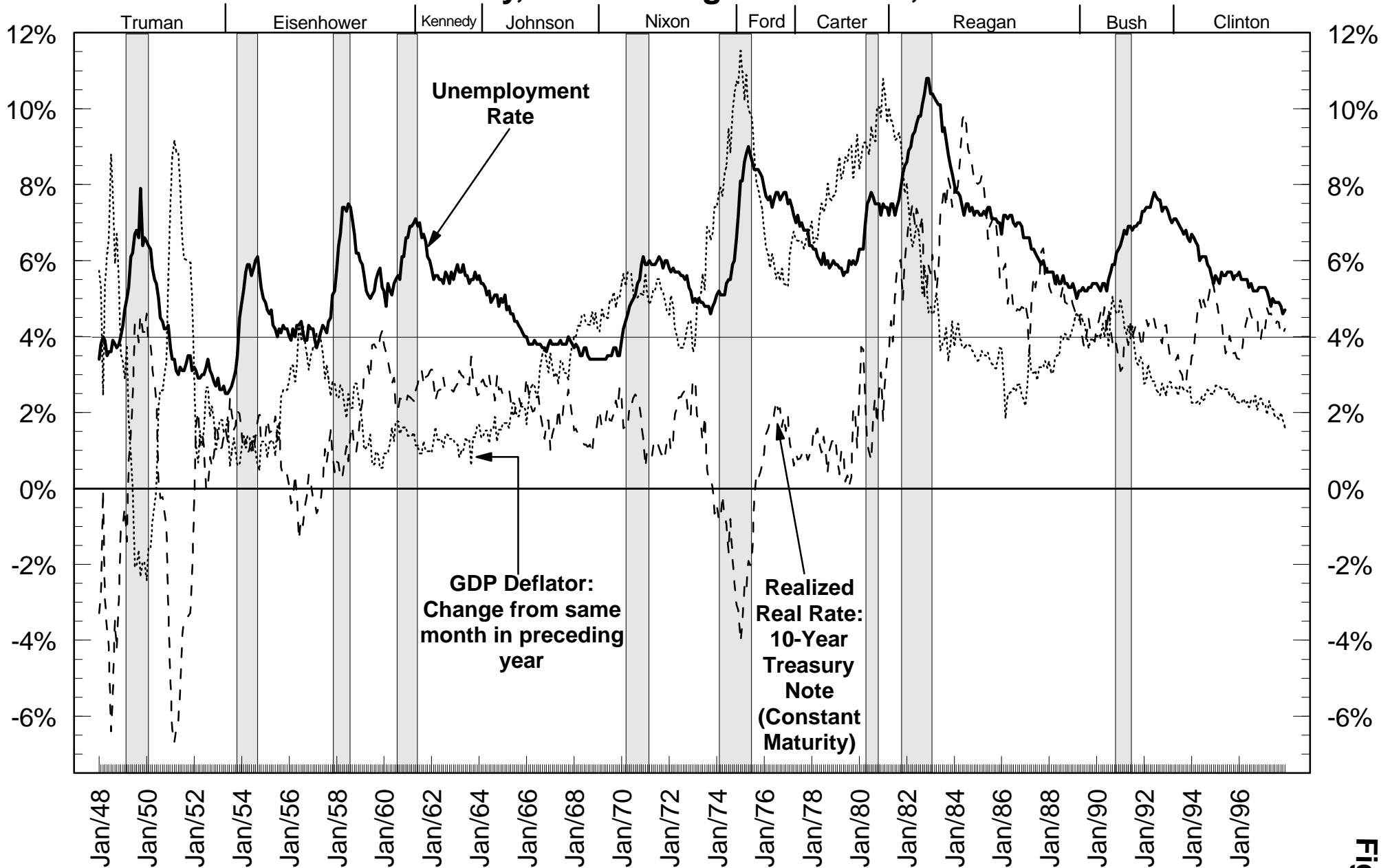
Real Interest Rates in the United States Were Quite Volatile from the Mid-1960s to the Mid-1990s



Notes: Implicit price deflator has not been lagged so that graph reflects actual ex post rates.
 Long hash marks indicate the first quarter of each calendar year. Shaded areas represent recessions.

50 Years of Unemployment, Inflation and Real Interest Rates

January, 1948 through December, 1997



Note: Shaded areas represent recession periods. Prior to April 1953, the yield on long-term Treasury securities was used since the yield on the 10-year Treasury note is not available prior to April 1953. Monthly GDP deflator estimated by adjusting quarterly GDP deflator by the change in the monthly Consumer Price Index. The realized real rate on the 10-year Treasury note equals the nominal yield on the Treasury note in a month minus the estimated GDP deflator for that month.

Source: U. S. Bureau of the Census, *Current Population Survey*; Board of Governors of the Federal Reserve System

Daily Interest Rates

October 2, 1995 through January 30, 1998

Source: Federal Reserve Statistical Release H.15 - Selected Interest Rates

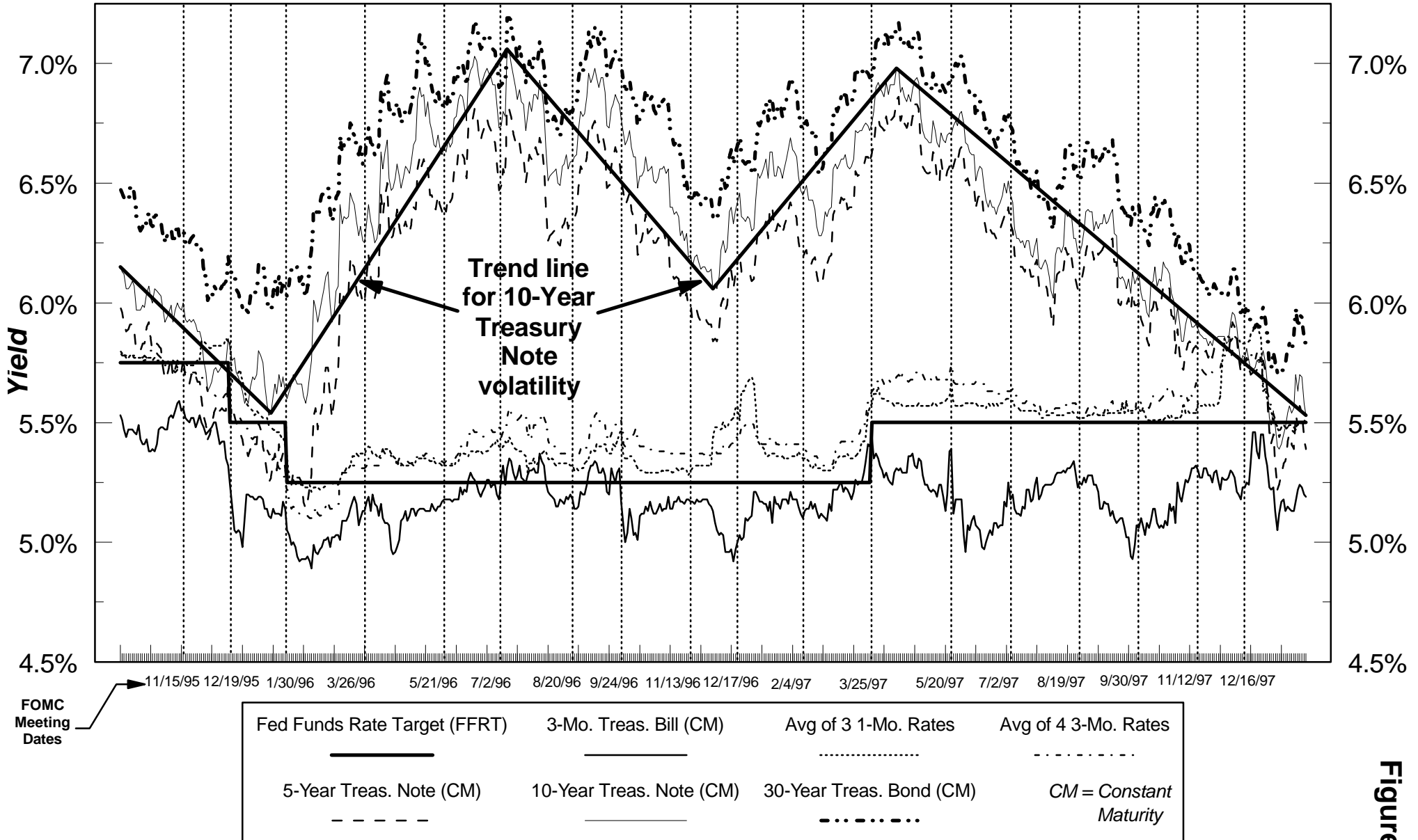


Figure 17

With An Approximately Two Month Lag, Real Growth in GDP Moves Inversely with the Yield on the 10-Year Treasury Note

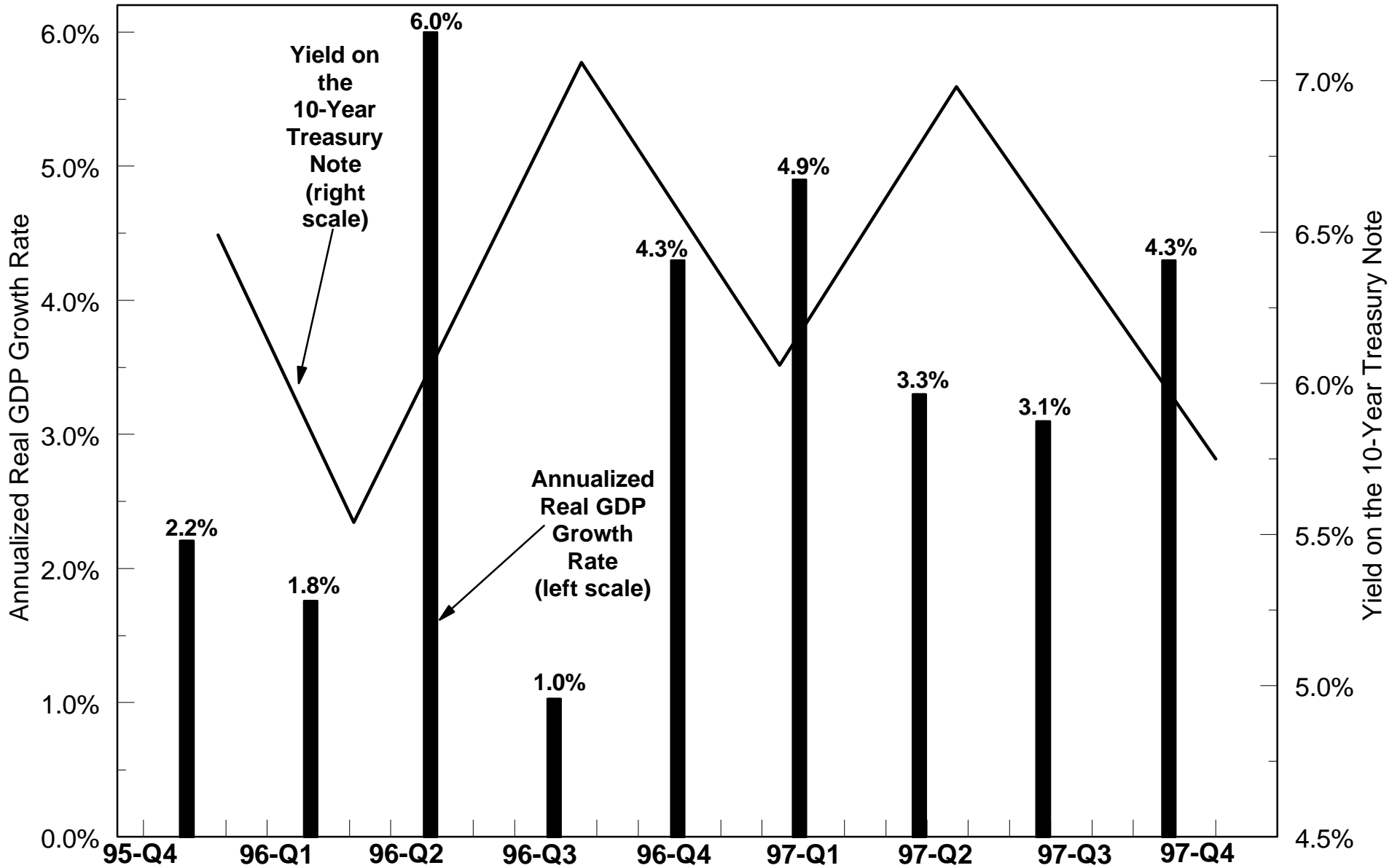


Figure 18

Volatility in Quarterly GDP Growth Rates Can Threaten the Duration of the Current Economic Expansion

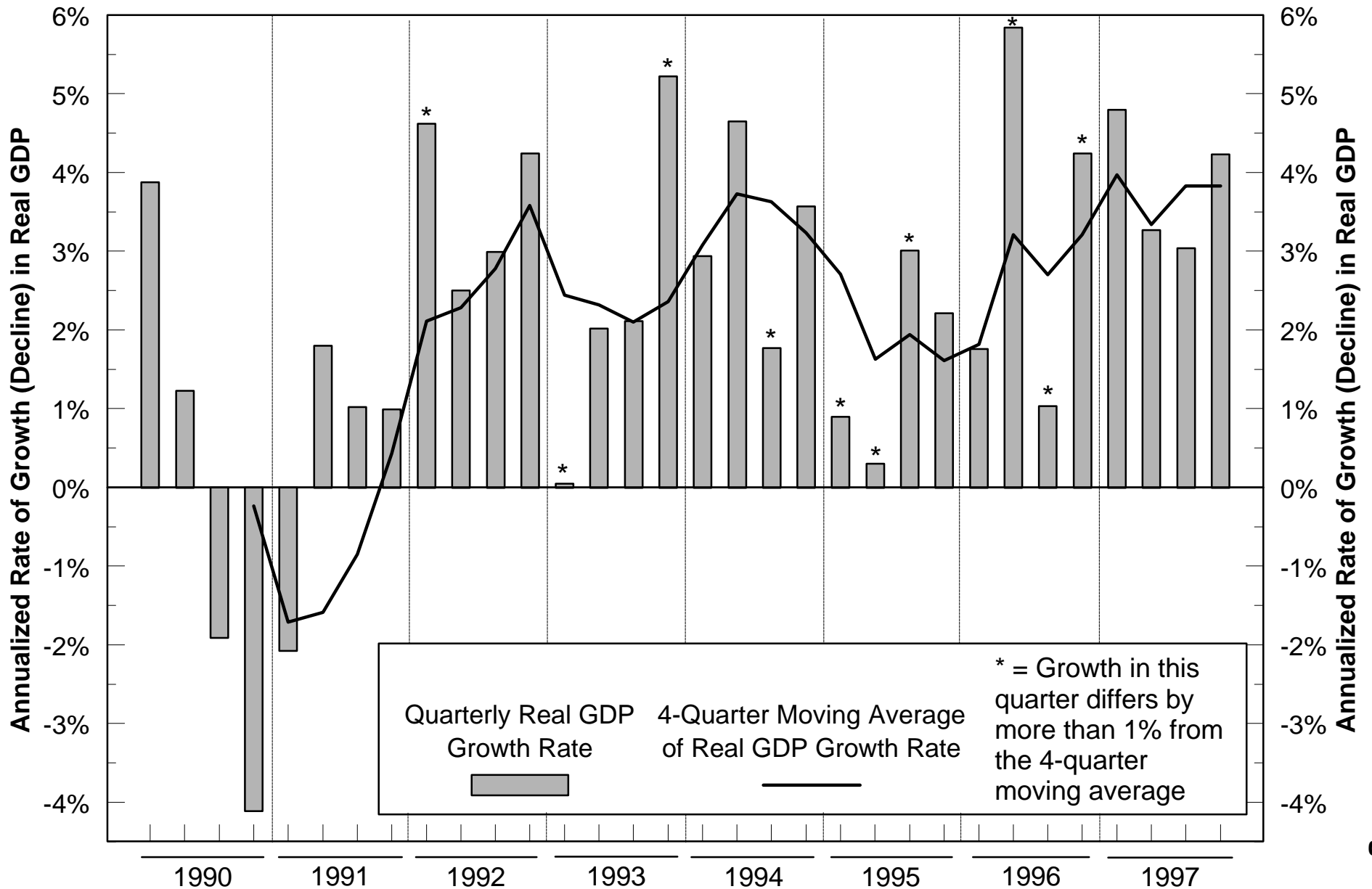
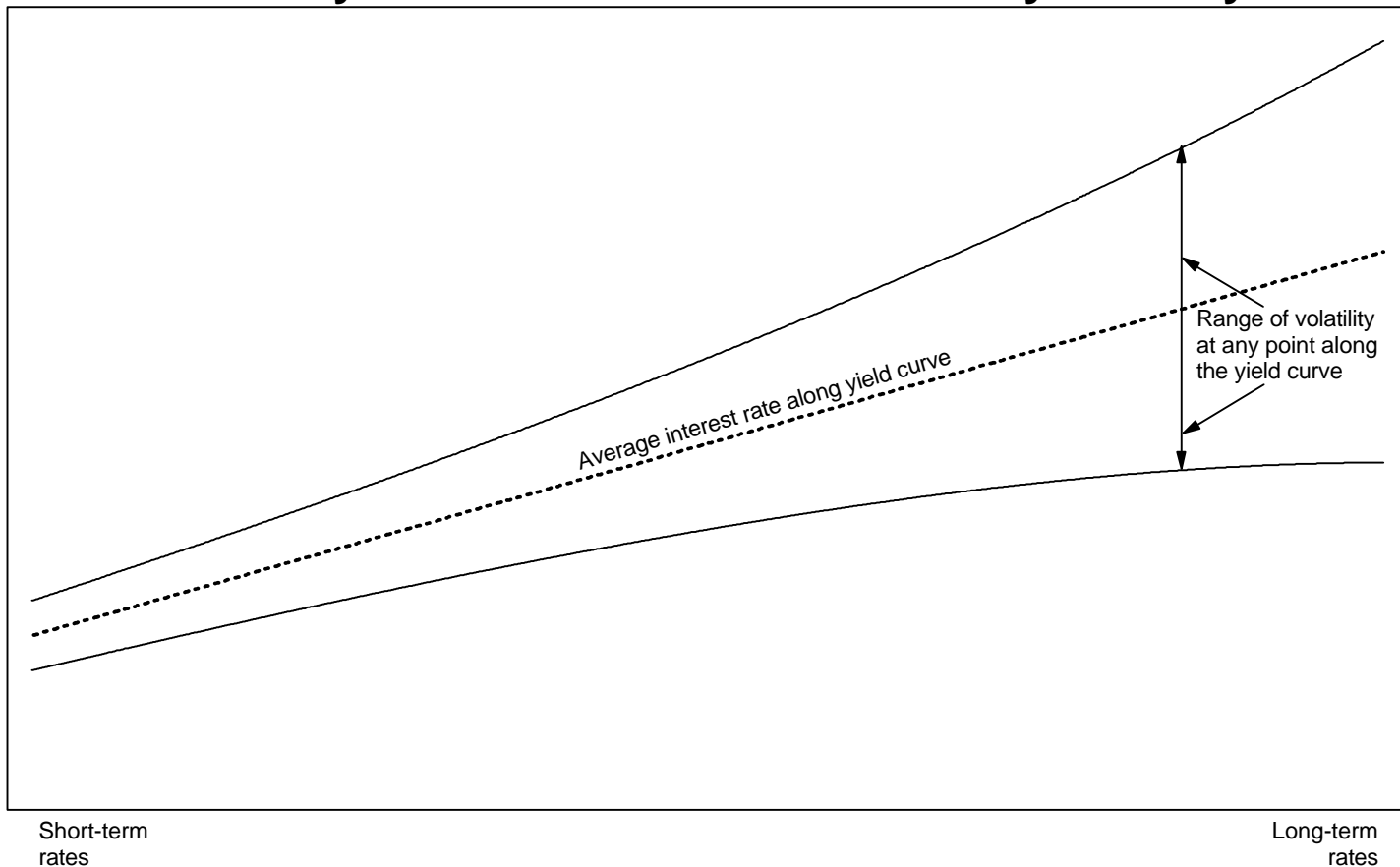
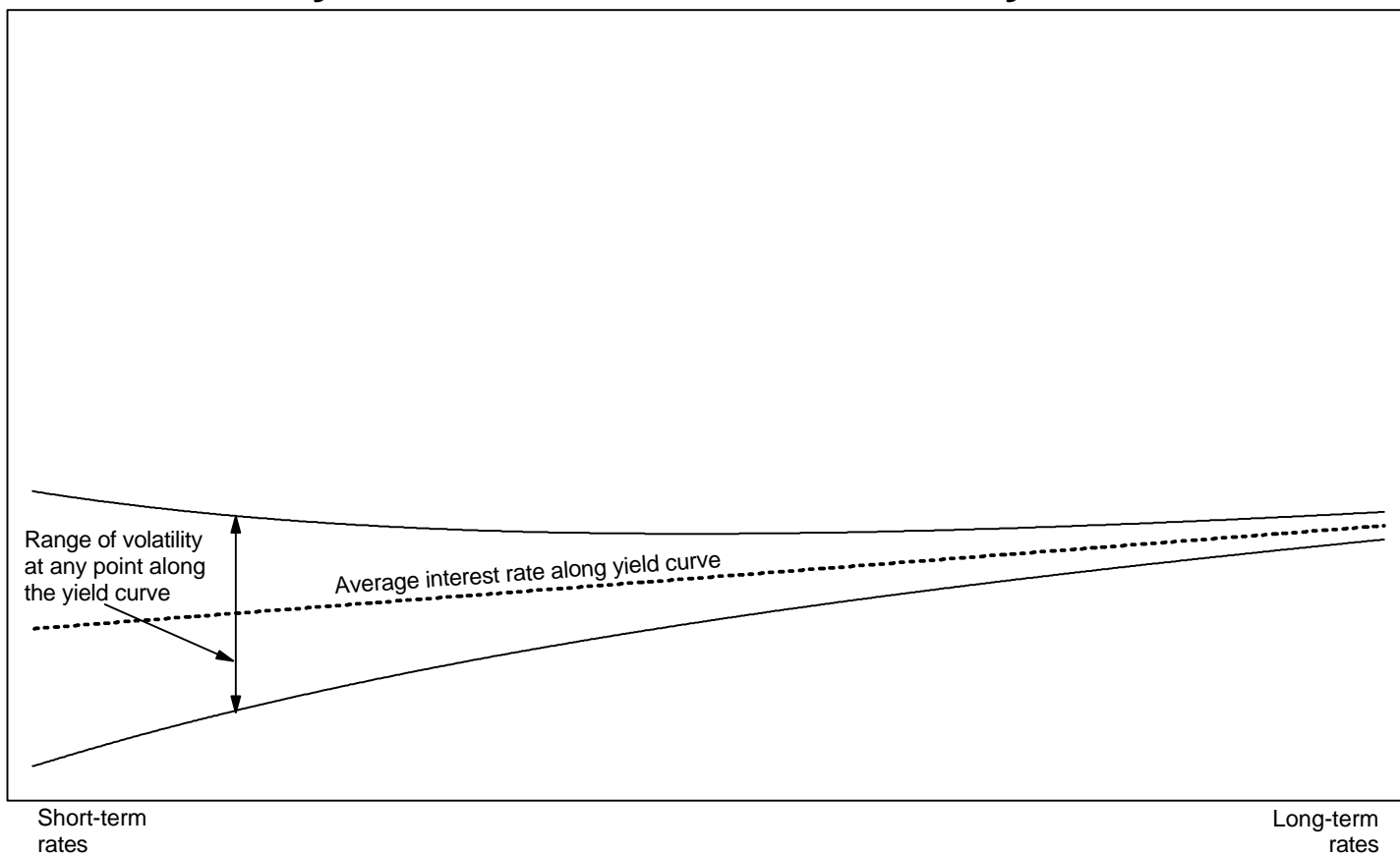


Figure 19

The Way Nominal Interest Rate Volatility is Today



The Way Nominal Interest Rate Volatility Should Be



Interest Rates and Inflation 1865 - 1913

