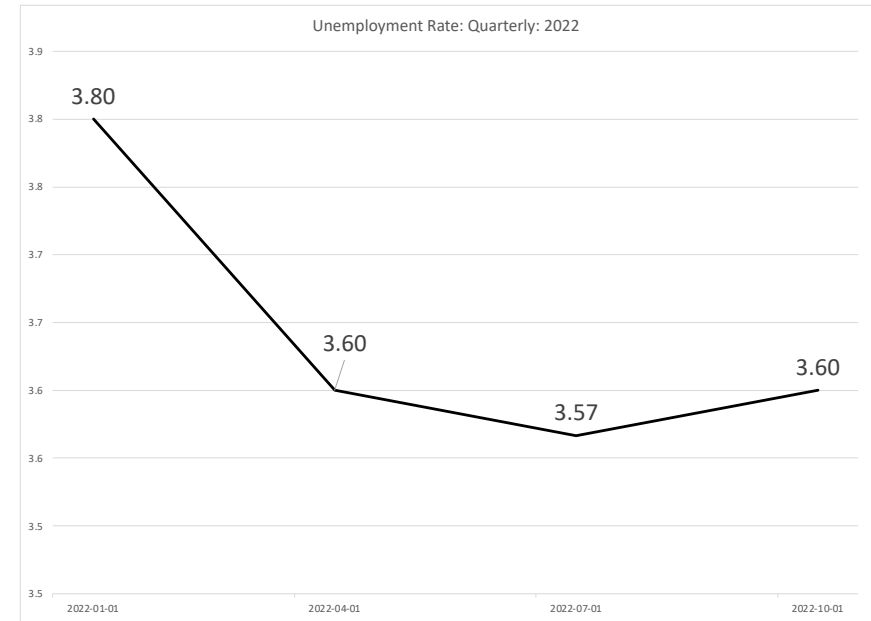
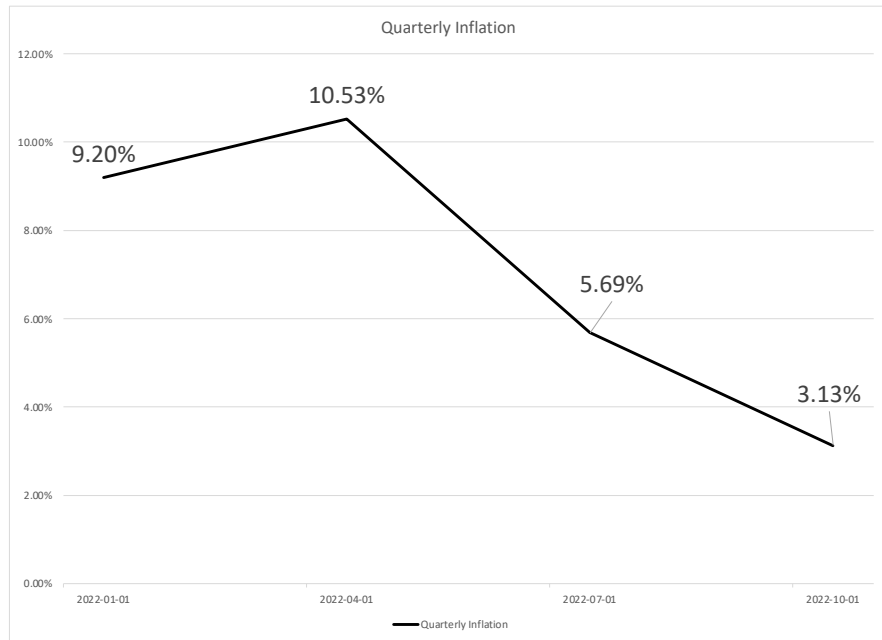
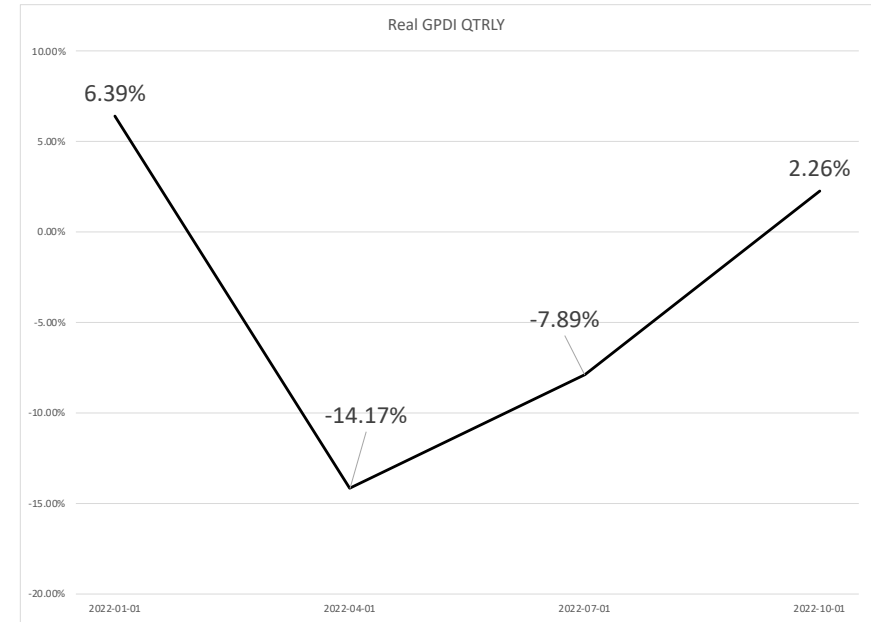
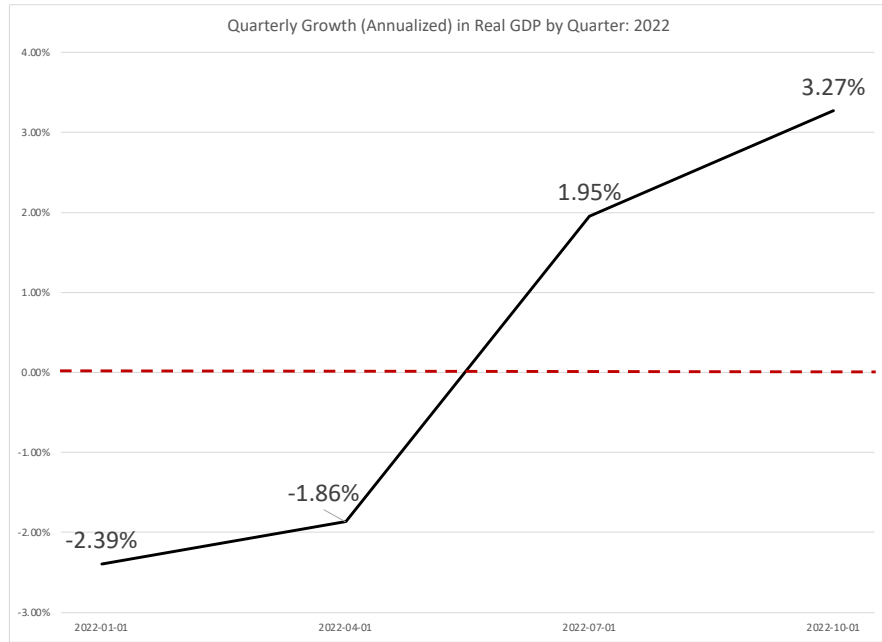


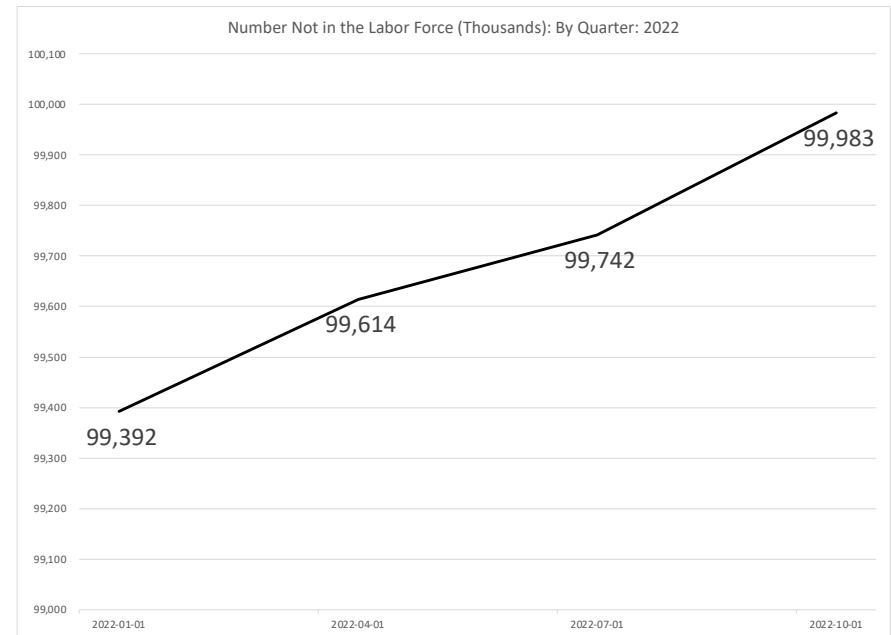
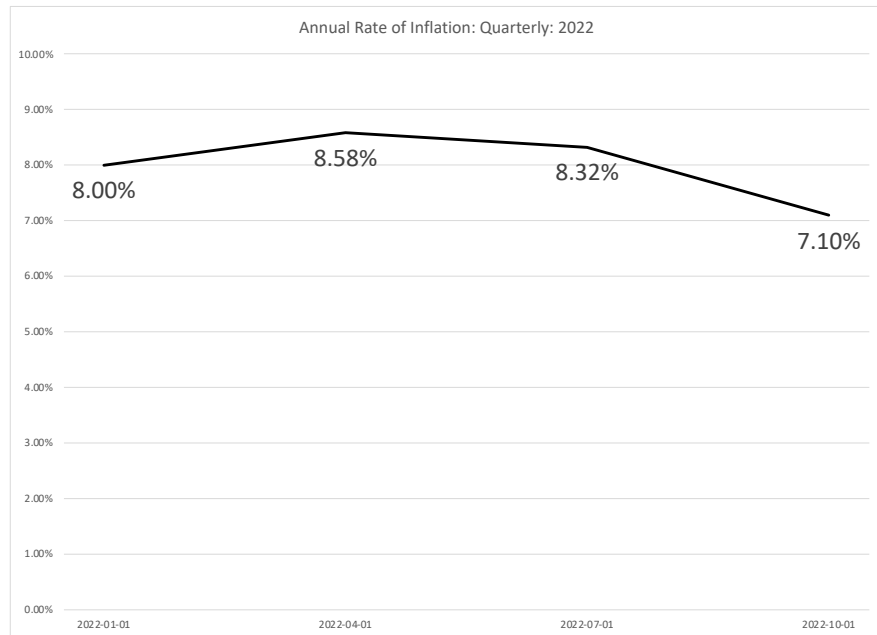
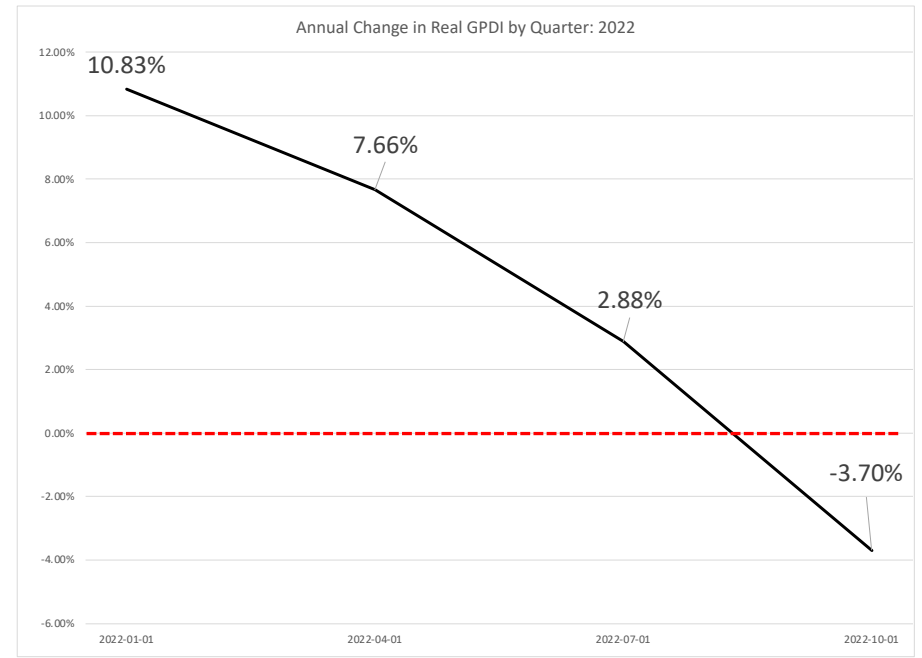
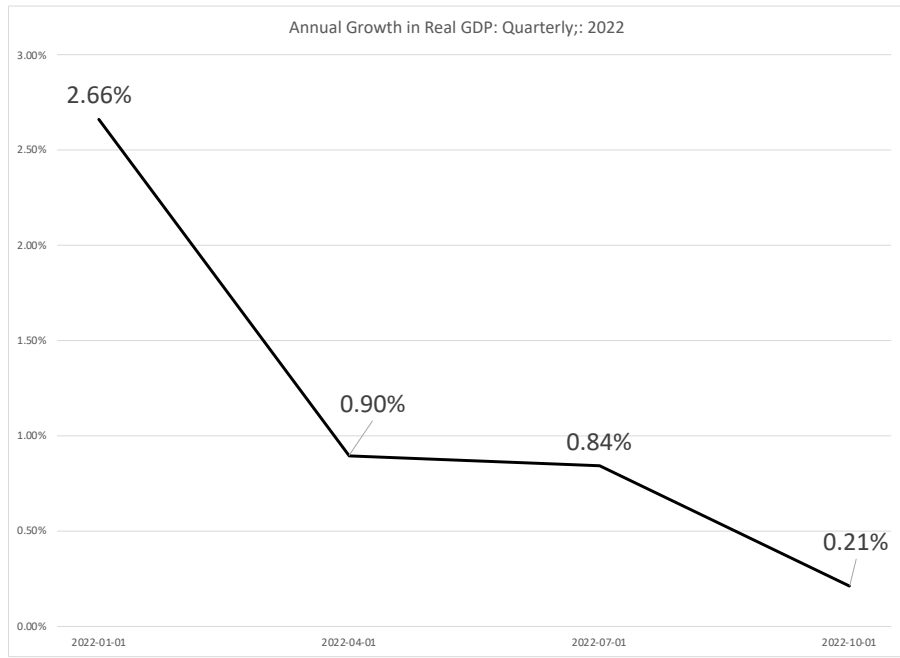
# What's Up with the Economy?

*Steven C. Isberg, PhD*

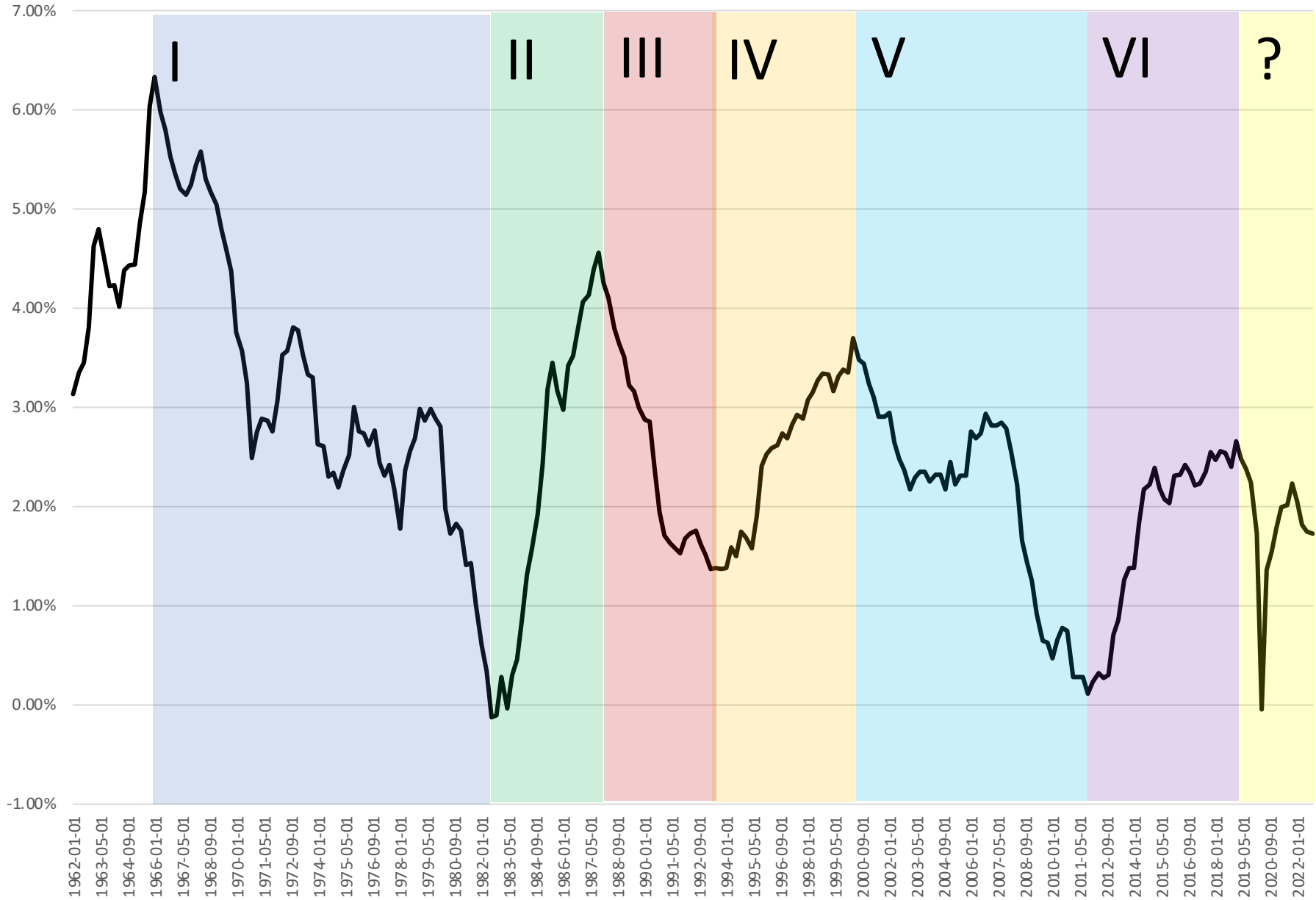
Senior Fellow, Credit Research Foundation

Chair, Department of Accounting, College of Business and Economics, Towson University

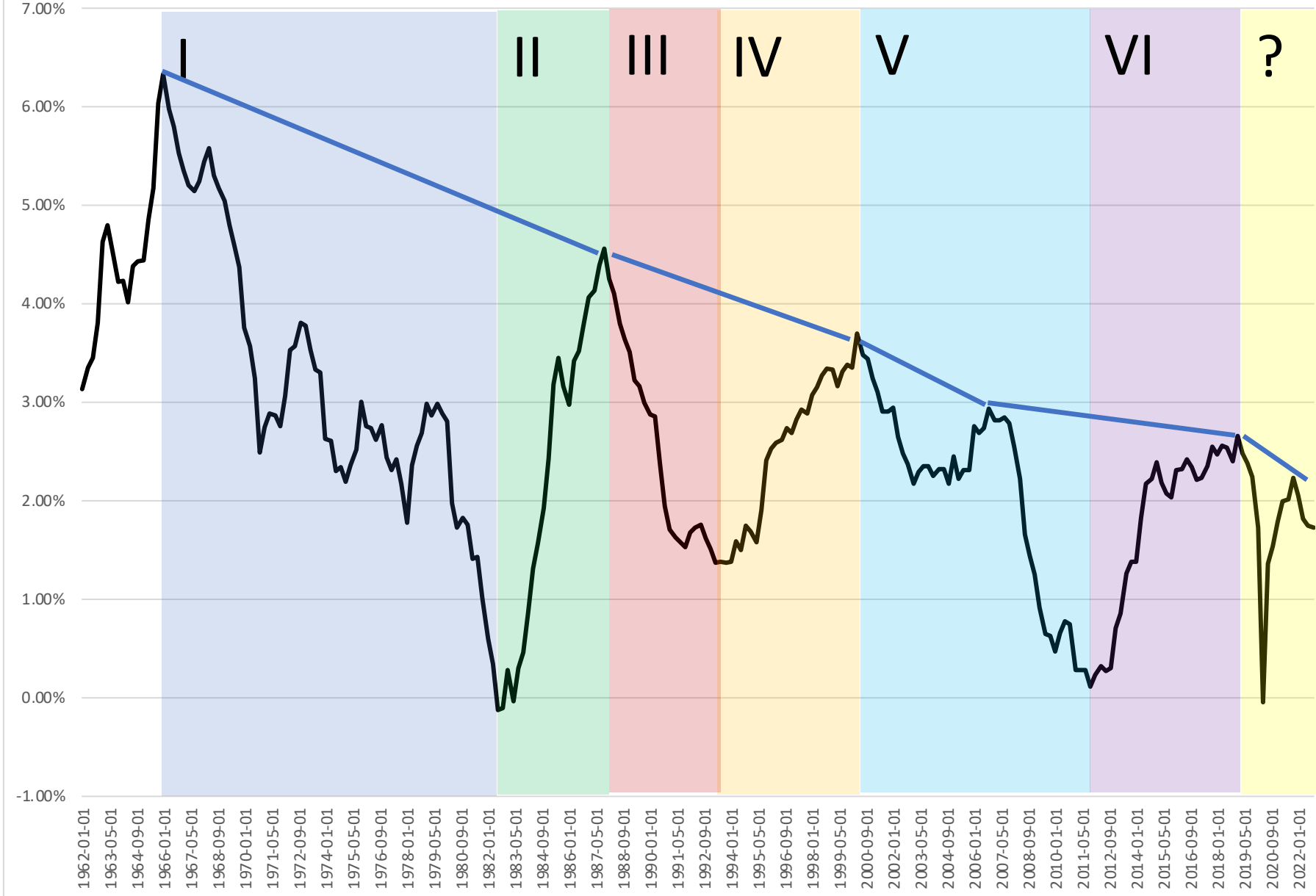




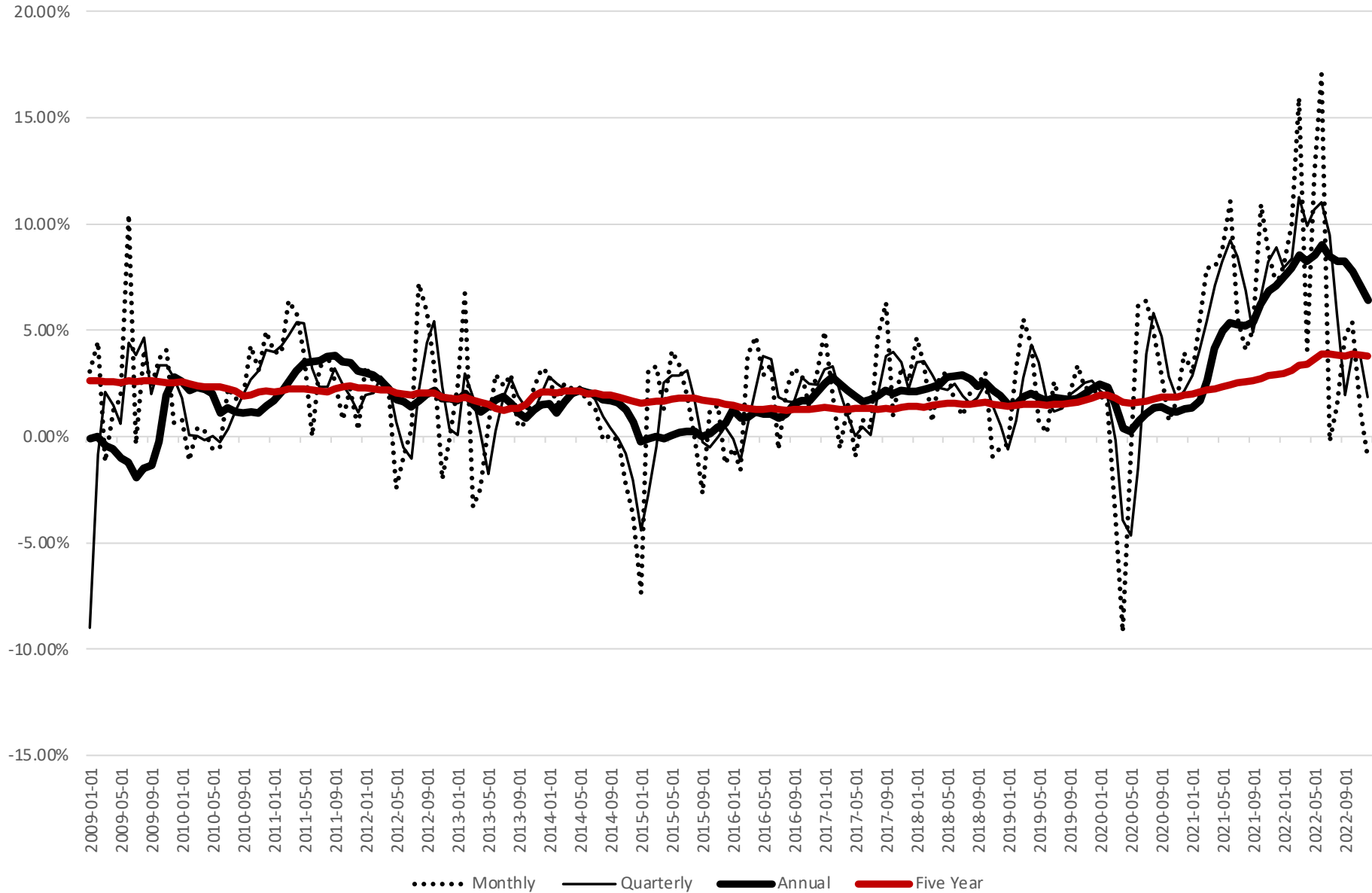
Five Year Average Annual Growth in Real US GDP: Quarterly: 1962 I to 2022 IV



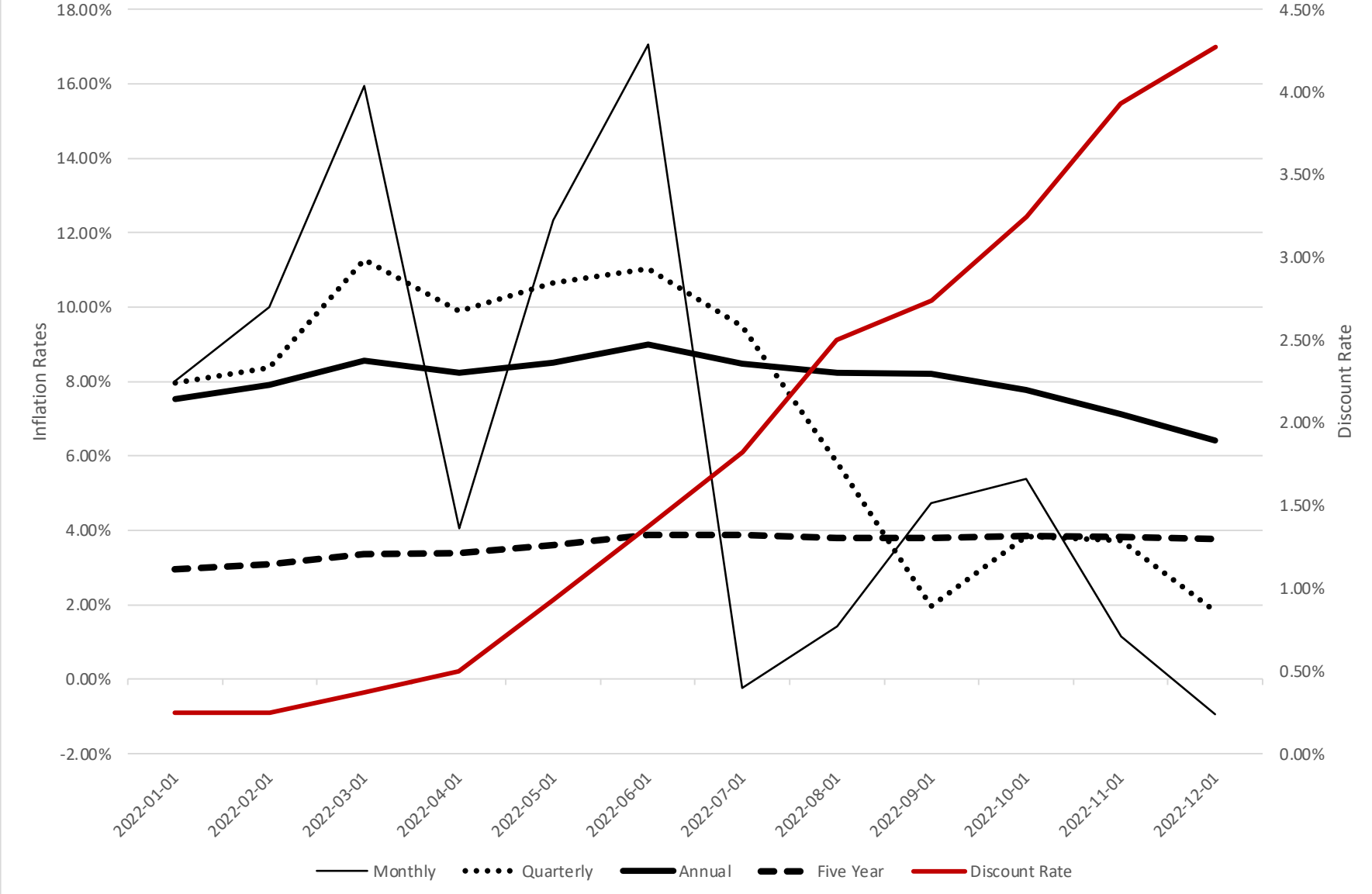
Five Year Average Annual Growth in Real US GDP: Quarterly: 1962 I to 2022 IV



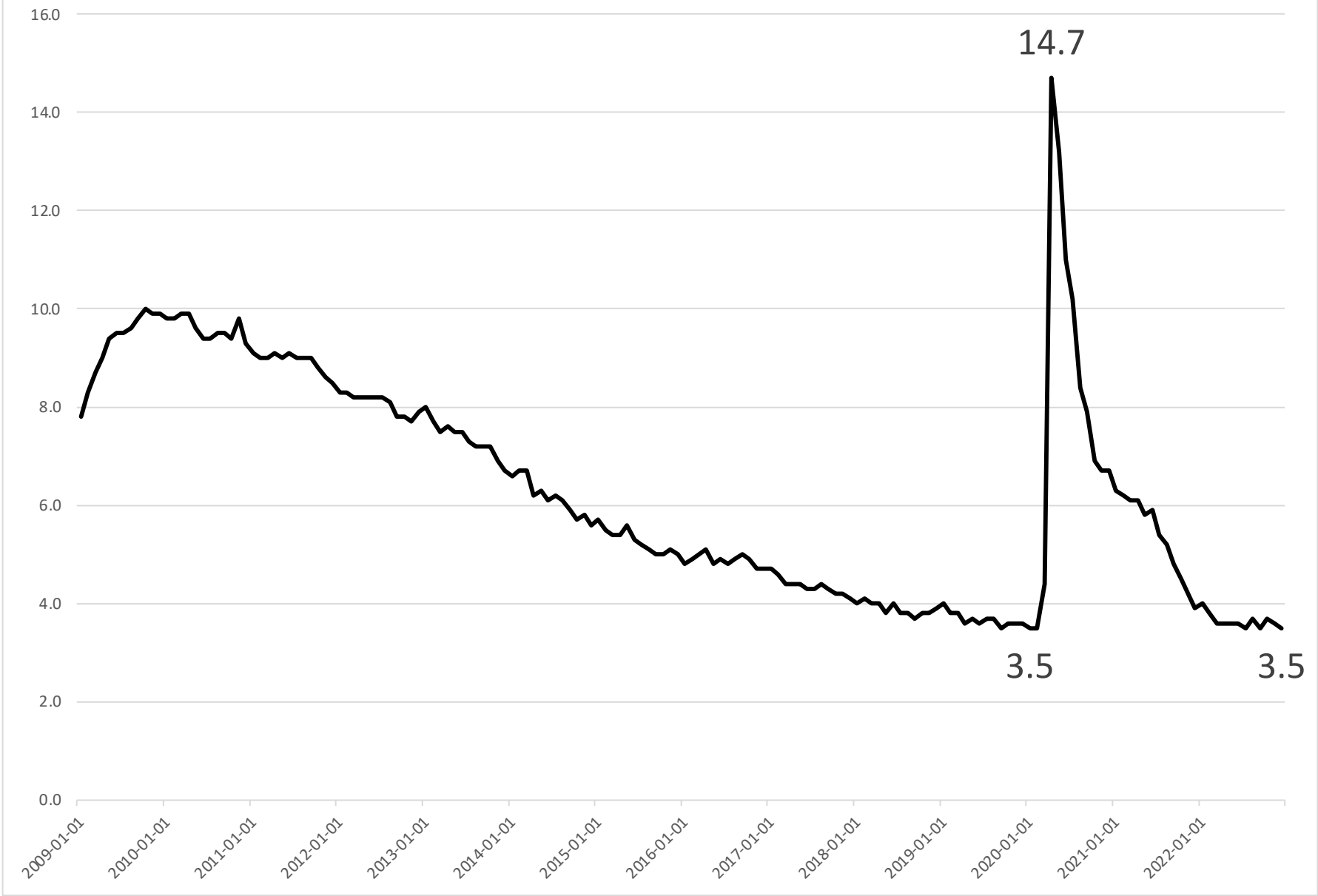
# Monthly, Quarterly, Annual, and Five-Year Annualized Inflation Rates: Monthly: Jan 2009-Jan 2023



### FRB Discount Rate and Inflation Measures by Month: 2022 Monthly, Quarterly, Annual, and Five Year Intervals

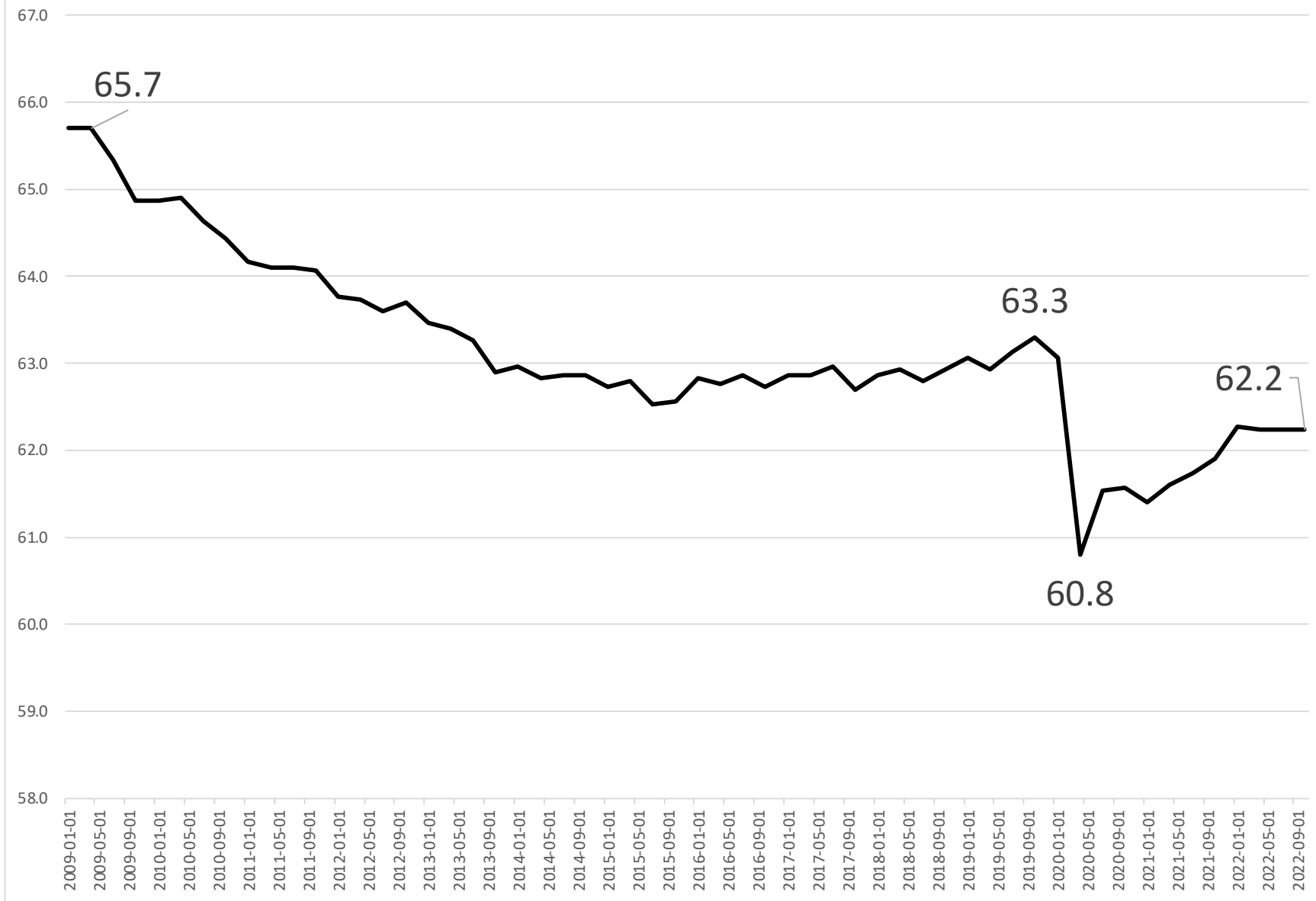


Monthly Unemployment Rate: Jan 2009 - Dec 2022



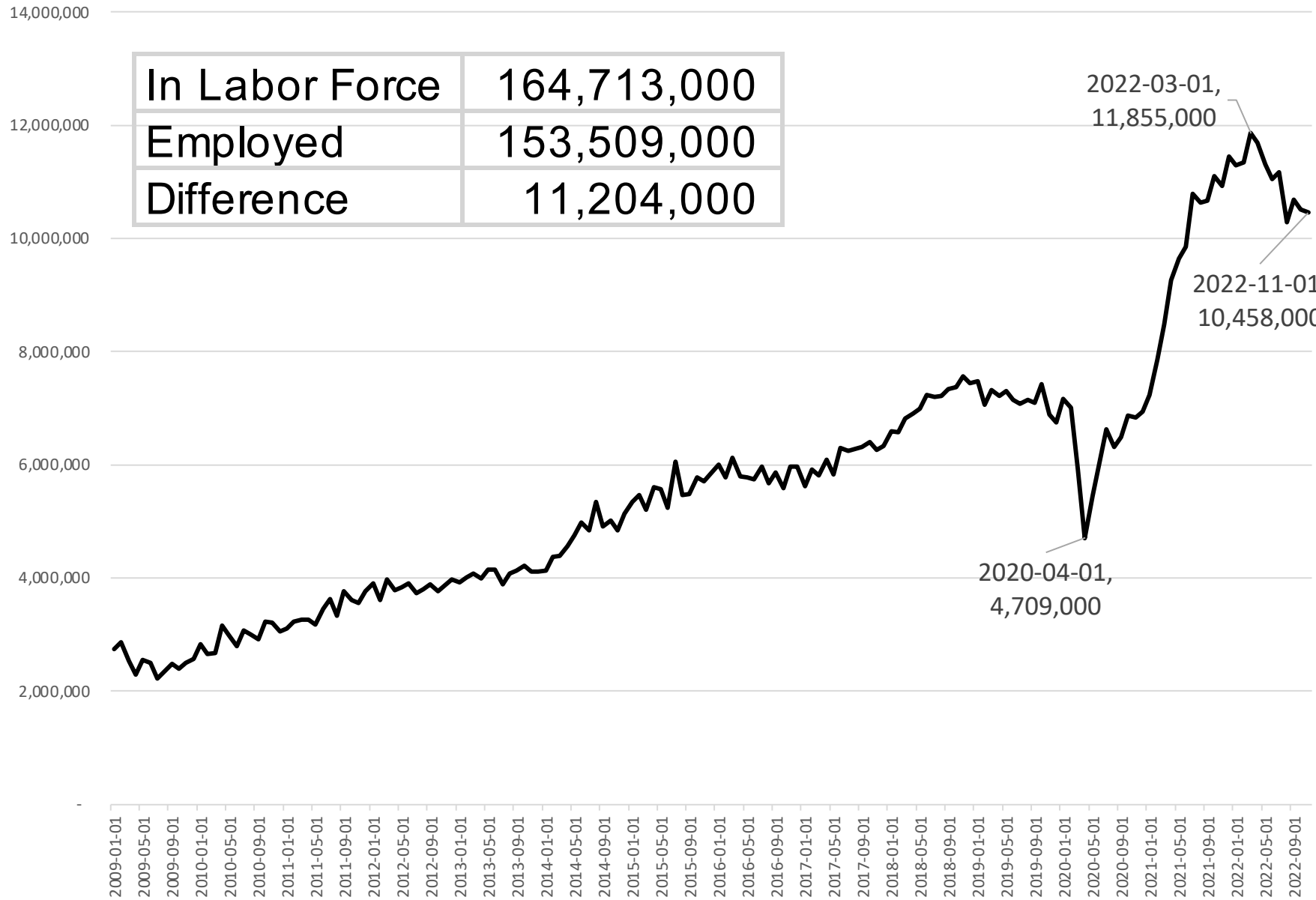


Labore Force Participation Rate: Quarterly: 2009 IV- 2022 IV



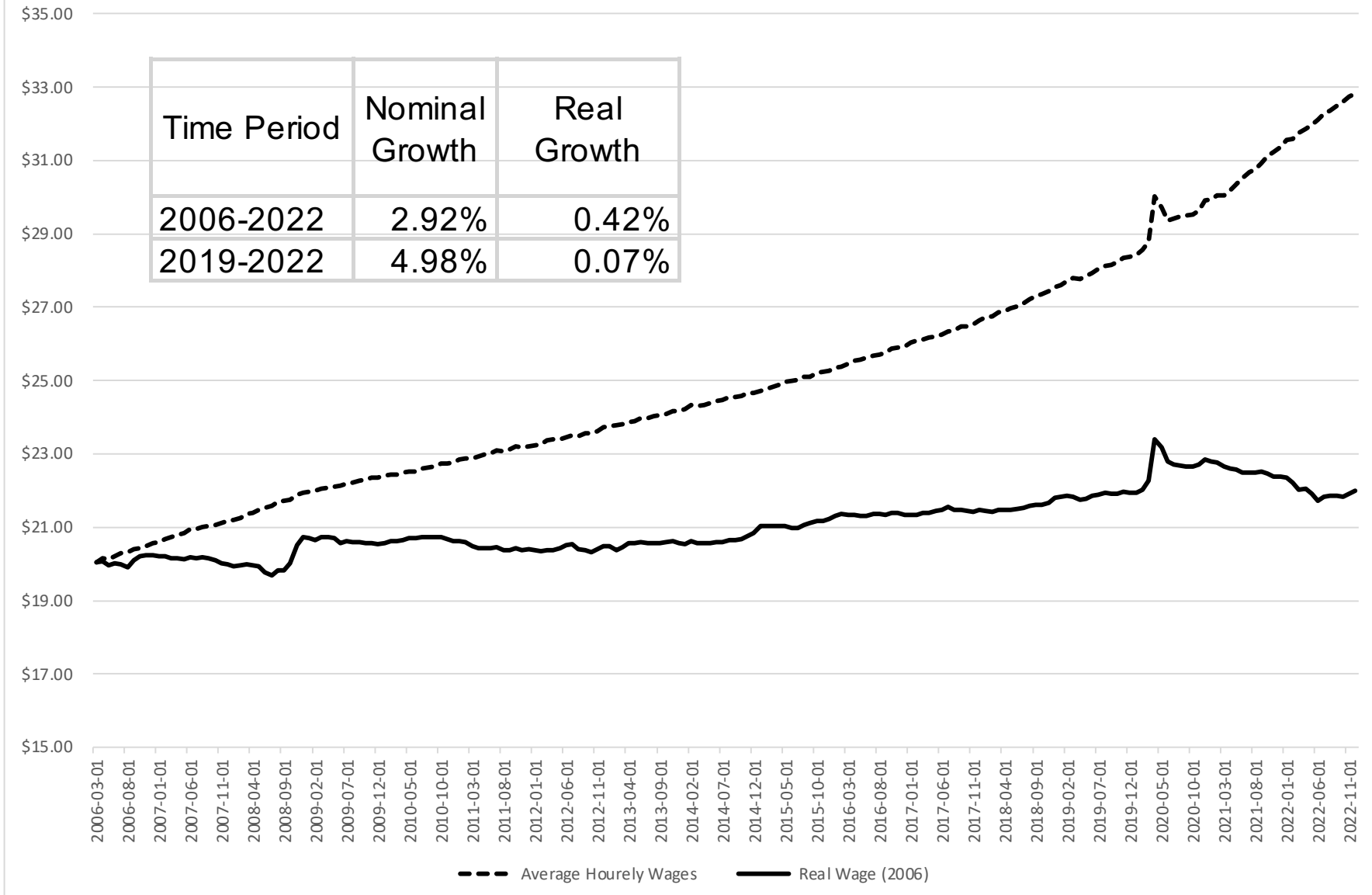
Total Unfilled Job Vacancies: US: Monthly: Jan 2009-Nov 2022

In Labor Force	164,713,000
Employed	153,509,000
Difference	11,204,000

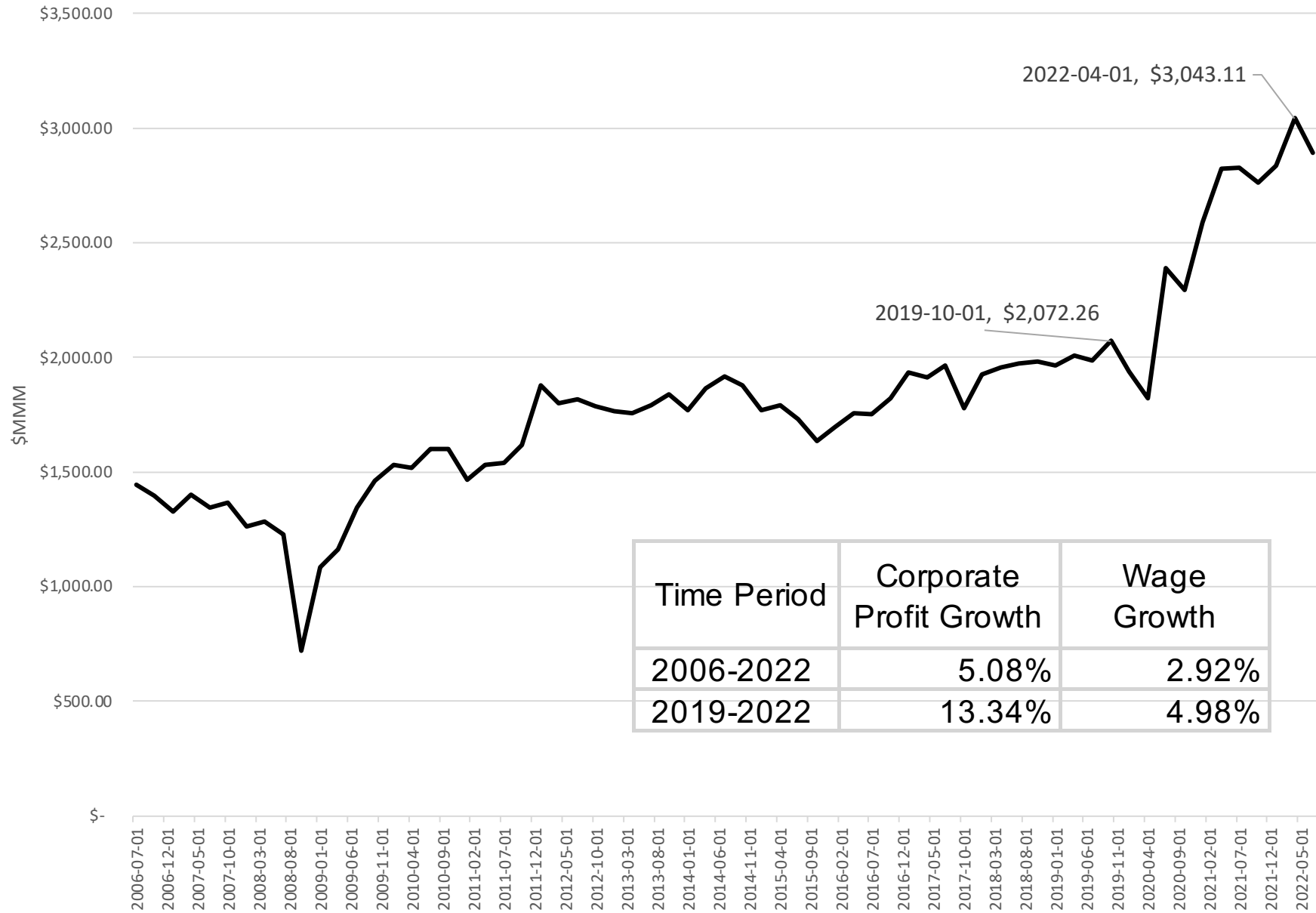


Nominal and Real Average Hourly Wages: Private Sector Employed:  
Monthly: March 2006-Dec 2022

Time Period	Nominal Growth	Real Growth
2006-2022	2.92%	0.42%
2019-2022	4.98%	0.07%



Corporate Profits: Quarterly: 2006 III to 2022 III



Time Period	Corporate Profit Growth	Wage Growth
2006-2022	5.08%	2.92%
2019-2022	13.34%	4.98%

Monetization

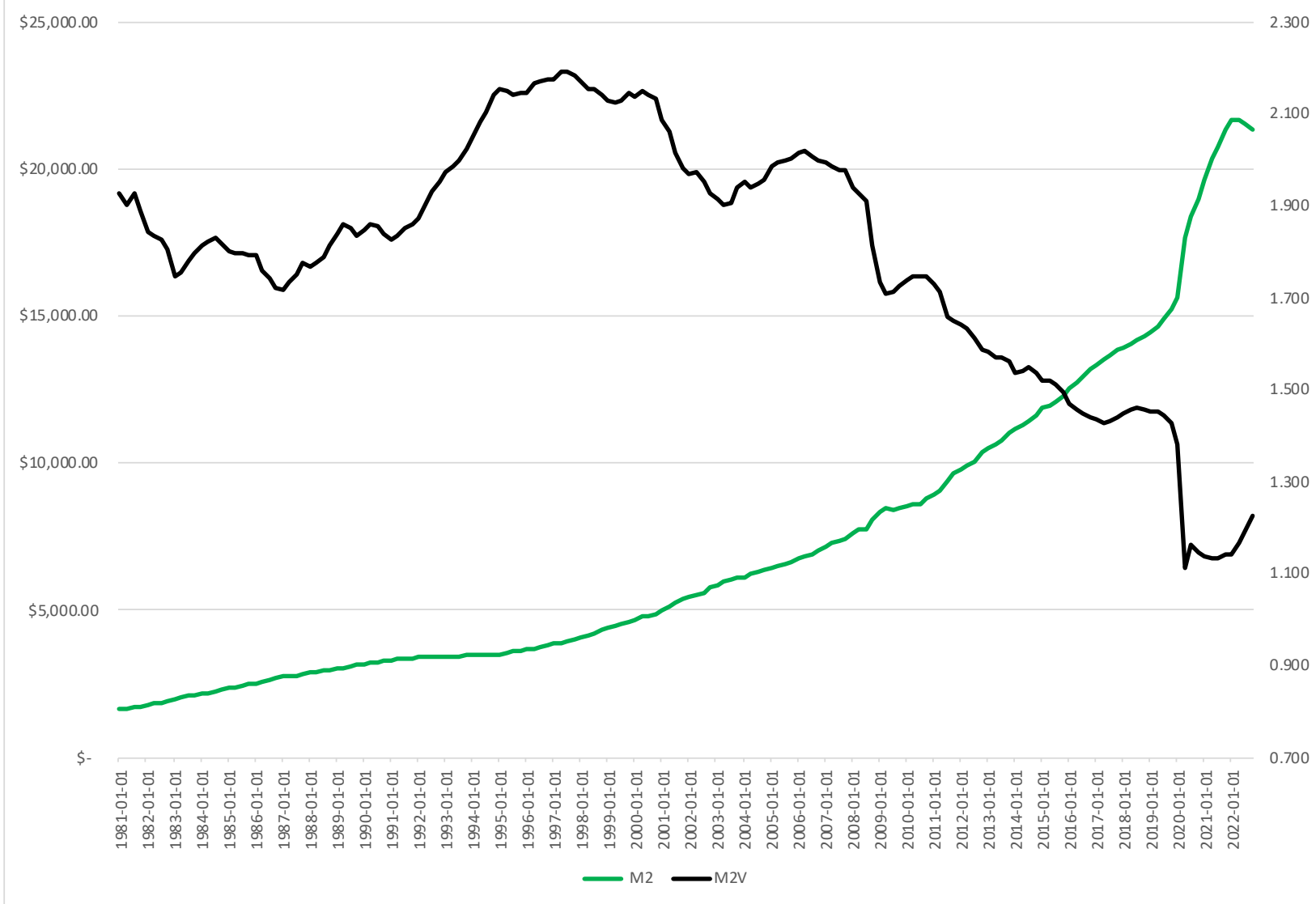
# Monetary Policy and GDP

- $M * V = P * Q = \text{GDP}$ 
  - M = money supply
  - V = “velocity” of money
  - P = price levels
  - Q = output levels
- Importance of “slack” or output below capacity ( $Q < Q_{\text{max}}$ )
  - If  $Q < Q_{\text{max}}$ , then increasing M will increase Q and GDP
  - If  $Q > Q_{\text{max}}$ , then increasing M will increase P and cause inflation
- What are we assuming about V?
- How do we increase M?

# Reserves

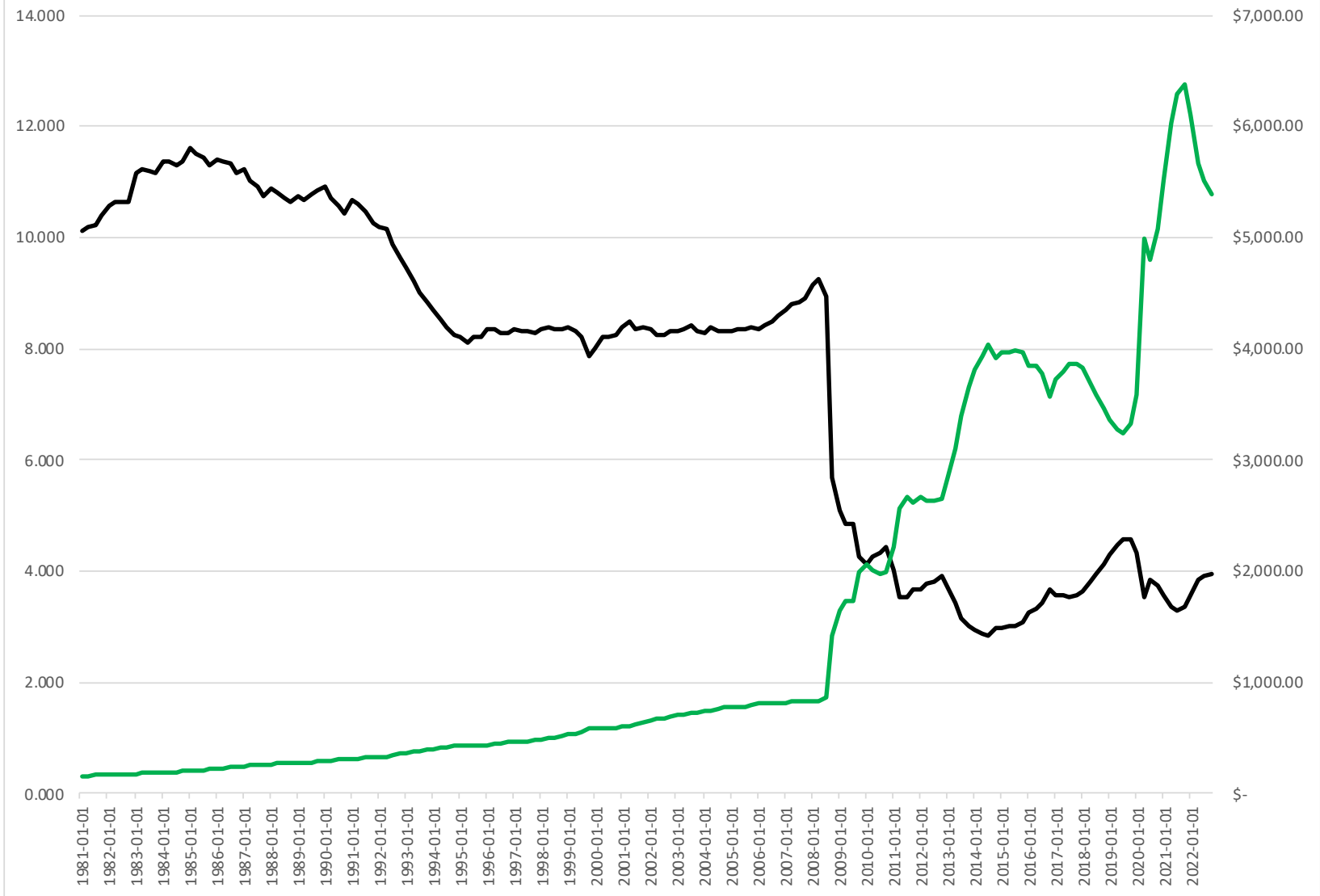
- The Federal Reserve Bank “creates” reserves
- “Reserves” go into the monetary base and end up in the banking system
- As banks make loans, reserves become money
- $M = \text{Reserves} * L$ 
  - $L =$  bank lending multiplier
- Therefore:  $M * V = (\text{Reserves} * L) * V$

M and V: Money Supply (M2) and Velocity of Money (M2V): Quarterly: 1981 I to 2022 IV

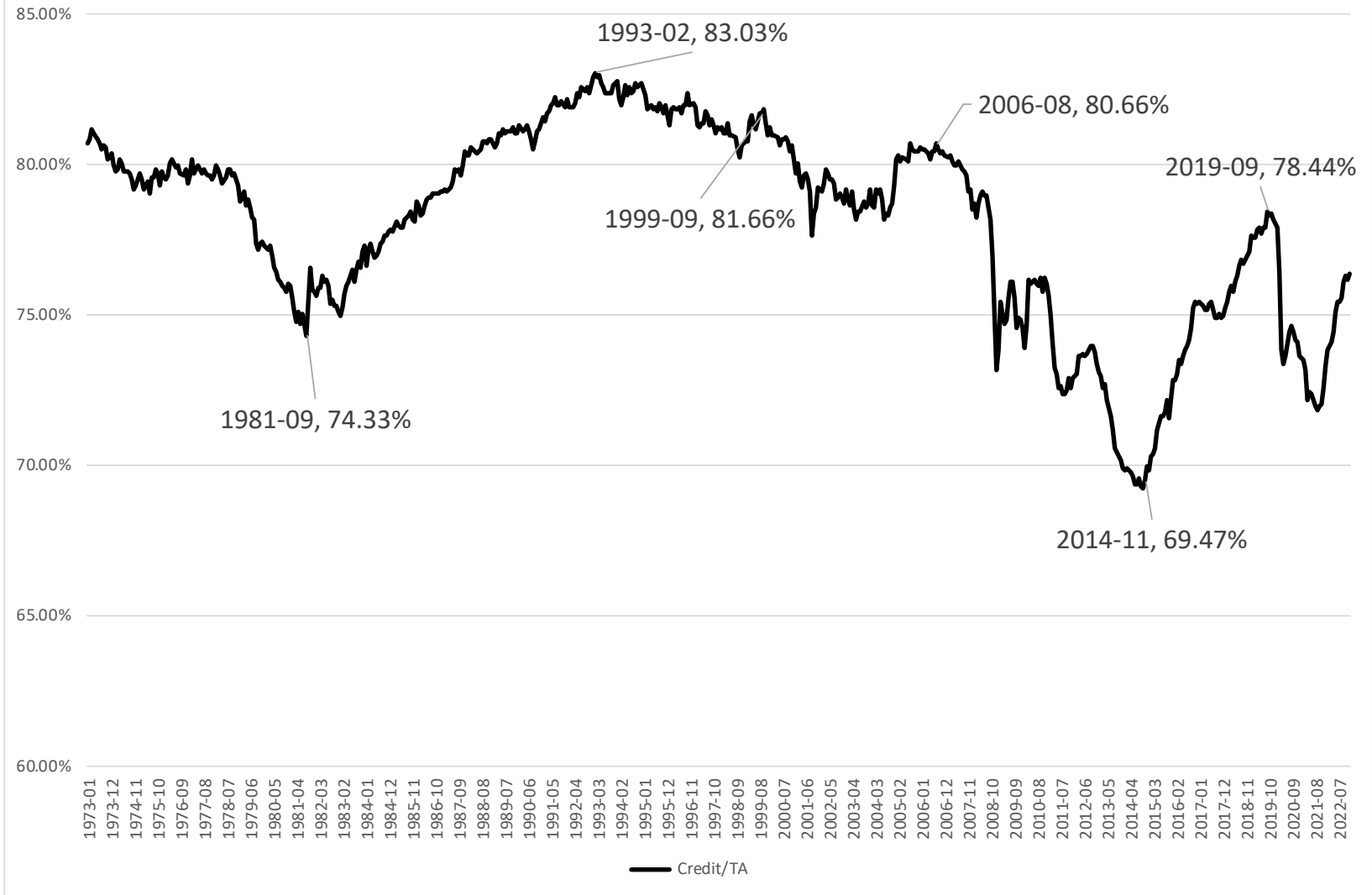




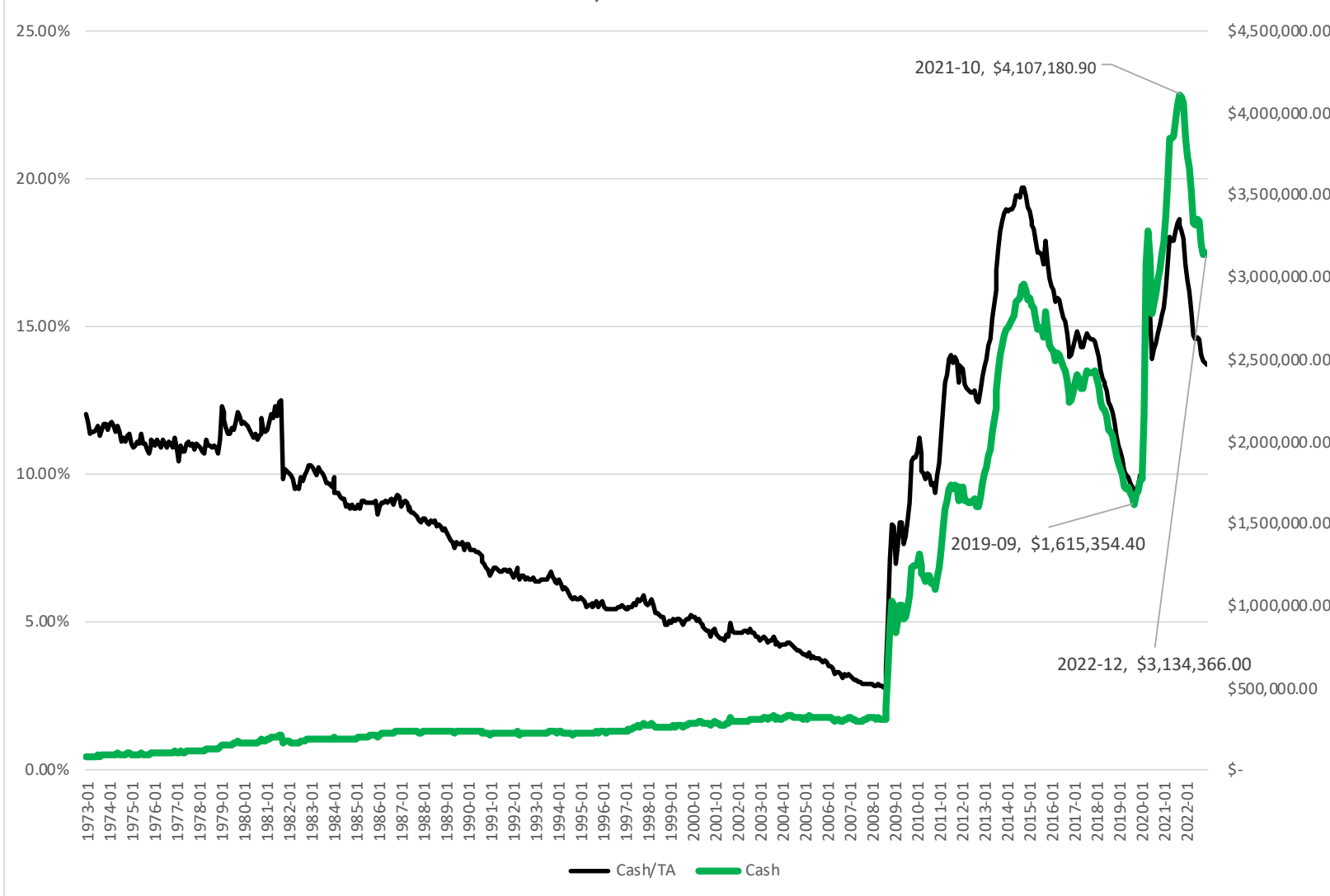
L and Reserves: Lending Multiplier and Monetary Base: Quarterly: 1981 I to 2022 IV



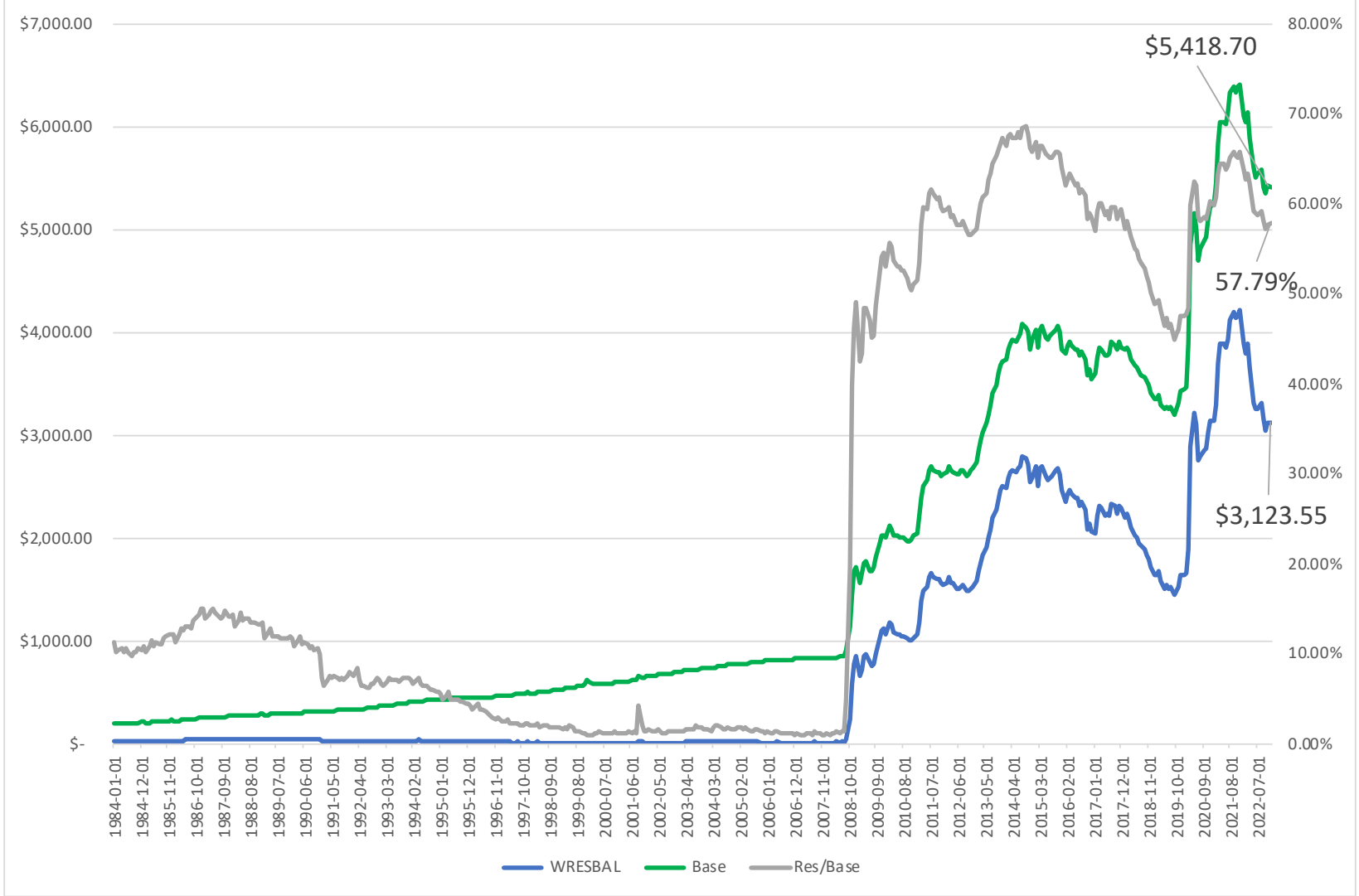
Total Bank Credit as Percentage of Total Assets: Monthly:  
Jan 1973-Dec 2022



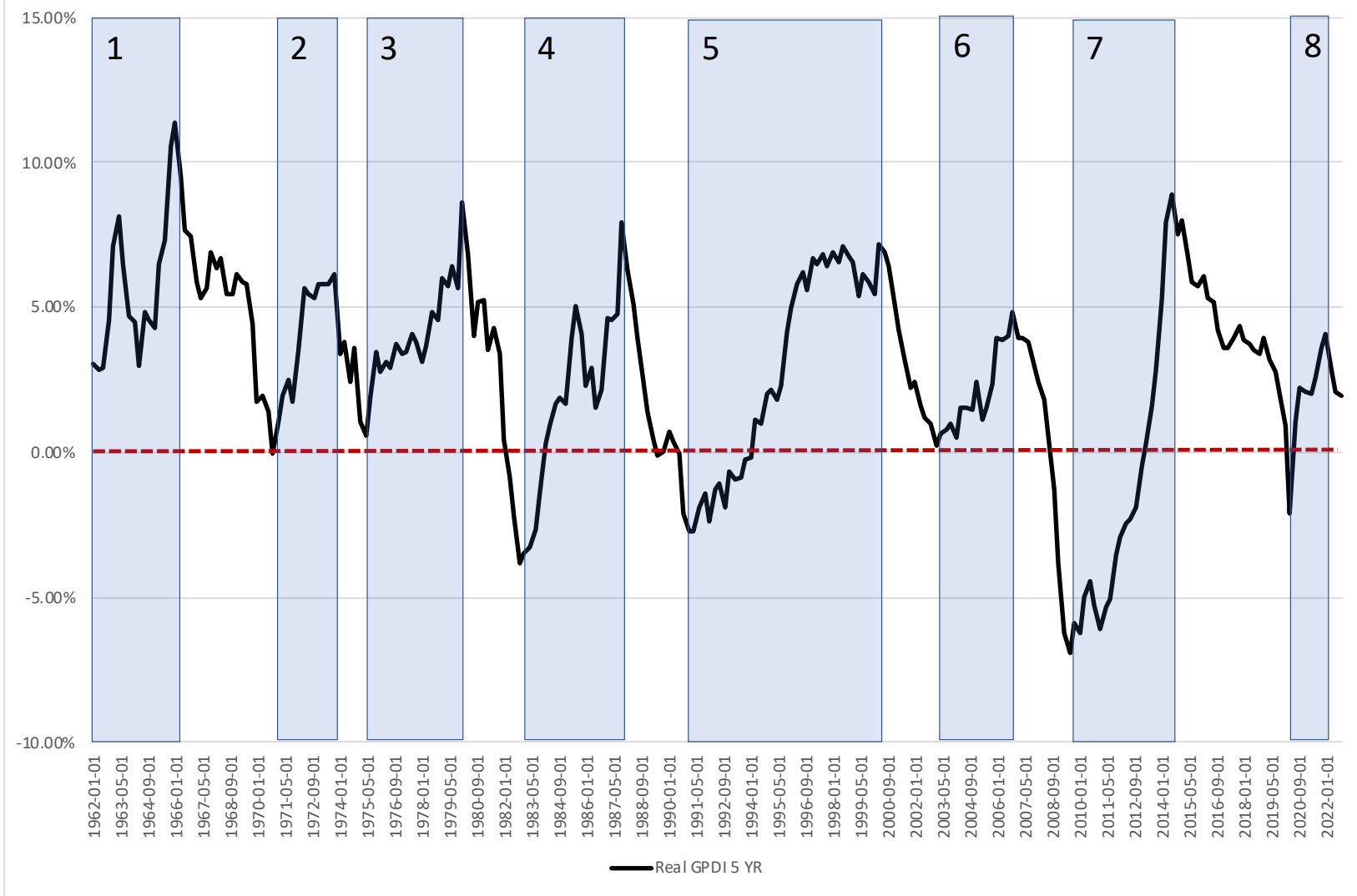
Bank Cash in Dollars and as Percentage of Total Assets  
Monthly: Jan 1973 - Dec 2022



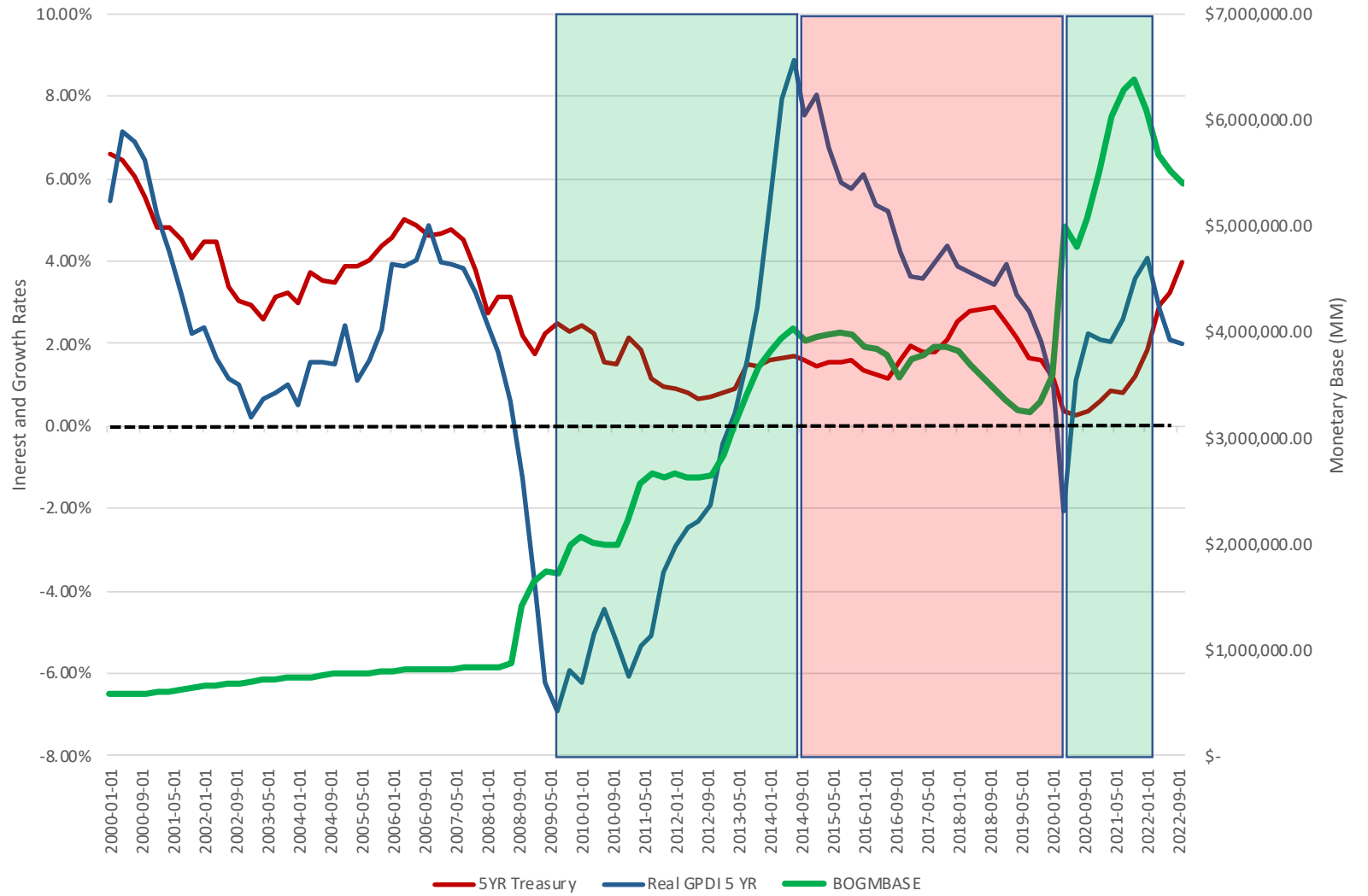
Monetary Base, Bank Reserve Deposits, and Deposits as Percentage of the Base  
Monthly: Jan 1984-Dec 2022



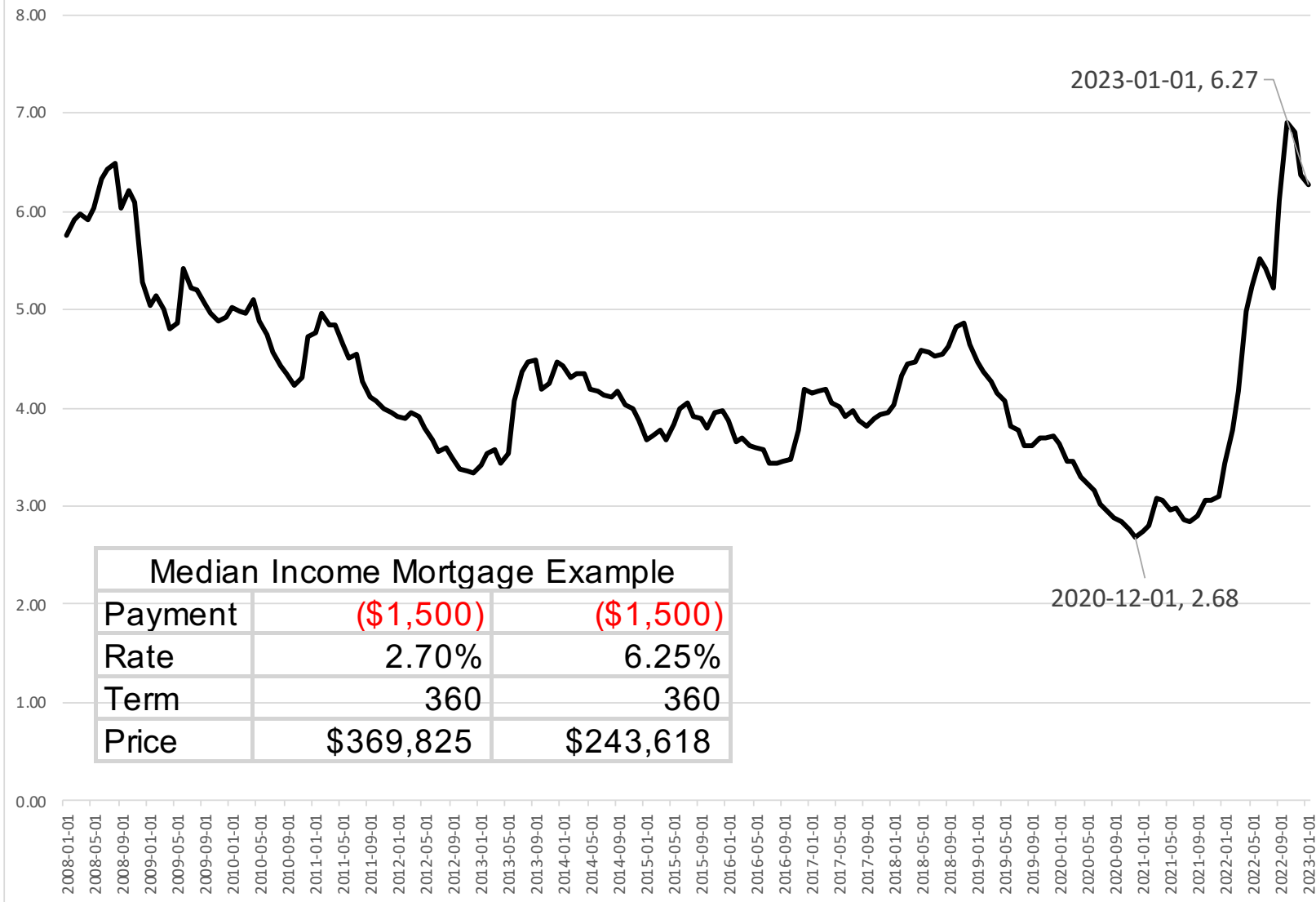
Five-Year Average Annualized Growth in Real Gross Private Domestic Investment  
Quarterly: 1962 I - 2022 IV



5 YR Growth in Gross Private Domestic Investment, Monetary Base and 5 YR Treasury Rate  
 Nominal: Quarterly: 2000 I to 2022 IV



30 Year Mortgage Rate: Monthly: Jan 2008-Jan 2022



Median Income Mortgage Example		
Payment	(\$1,500)	(\$1,500)
Rate	2.70%	6.25%
Term	360	360
Price	\$369,825	\$243,618

Annual Growth in Private Residential Fixed Investment and the 30 Year Mortgage Rate  
Quarterly: 2000 I to 2022 IV

