

**EUROPEAN ASSOCIATION FOR BANKING AND FINANCIAL HISTORY**  
**CONFERENCE ON INFLATION HISTORY**

Prague, May 2015

# **Inflation in Argentina**

## **An eventful experience**

Daniel Heymann

IIEP BAIRES and UdeSA



# Introduction

- Long history. Since 1945:
  - 13 years inflation below 10%
  - 15 years above 100%
- Several regimes, including extremes:
  - From price stability- deflation to hyperinflation
- Distinctive patterns of behavior, depending on regime.

Indicator:

- Time frame of decisions and relevant price changes

# Introduction

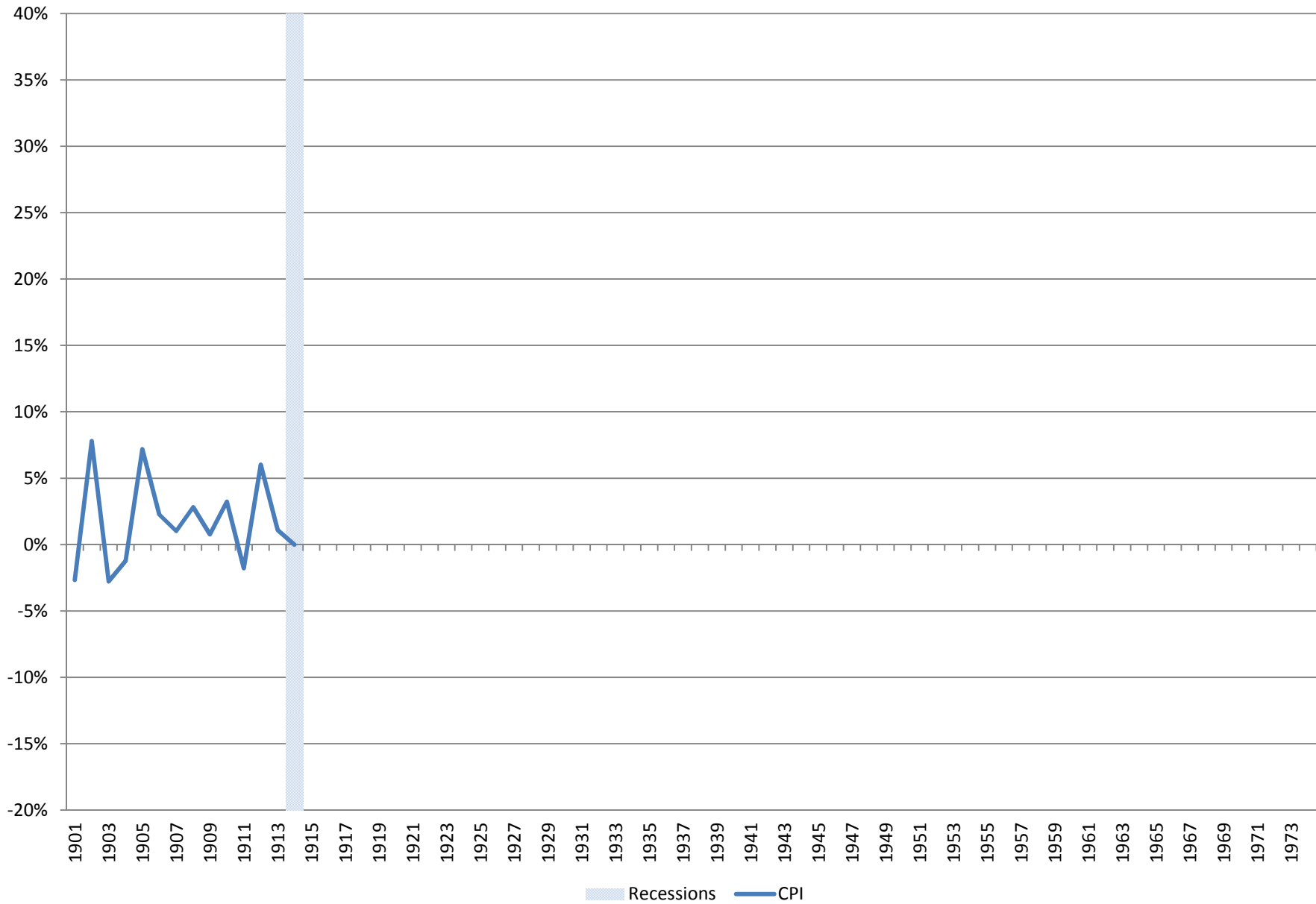
- Contents:

- Very brief overview of experience
- Comments on inflationary mechanisms; political economy of inflation
- Transitions between regimes. Inflationary bursts, stabilization programs
- Behavioral adaptations: living with inflation

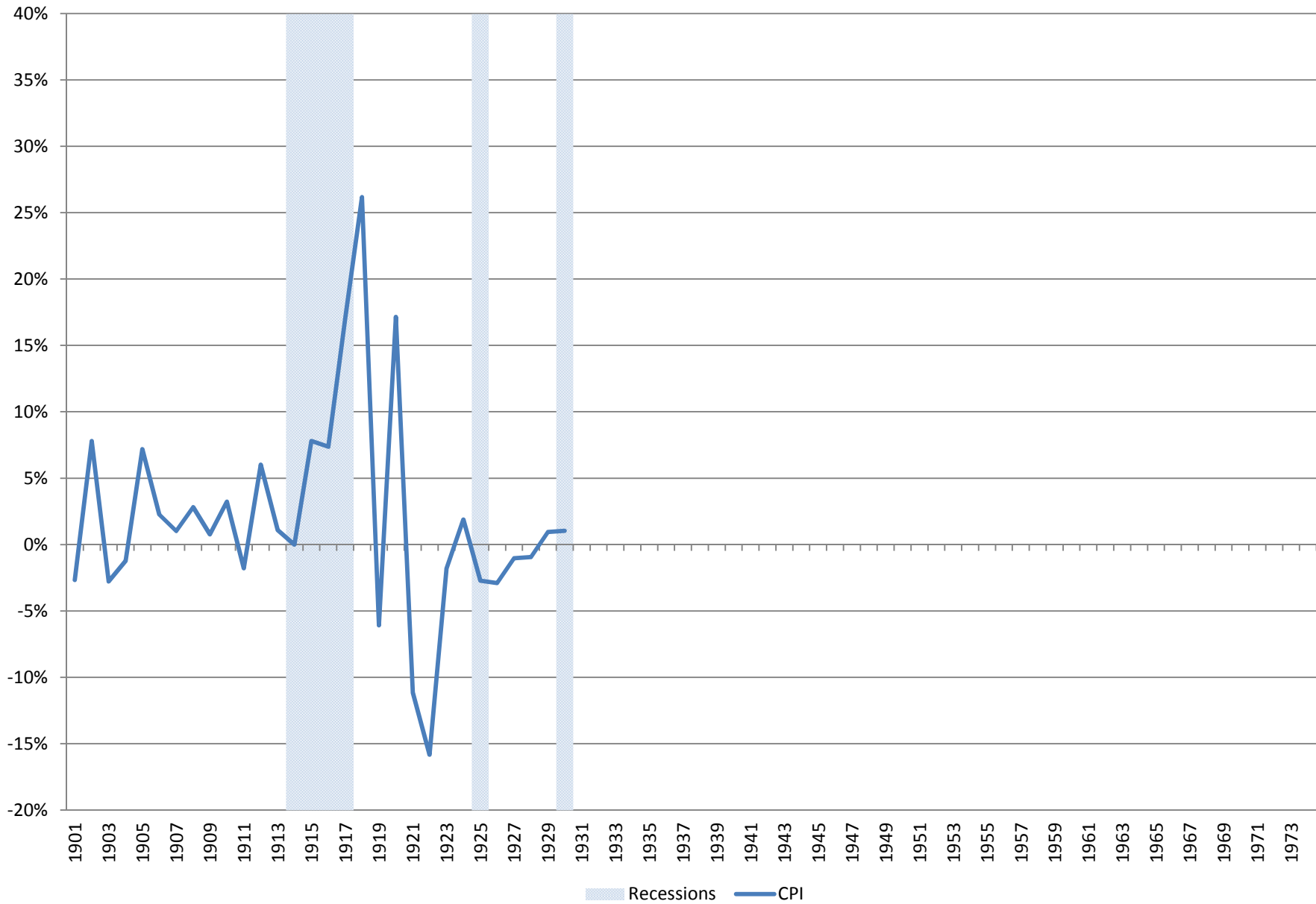
# Overview

- Roughly four big periods:
  - **Until mid- 1940s:** low inflation; deflationary episodes
  - **Mid- 1940s- Mid- 1970s:** substantial, but still comparatively moderate inflation
  - **Mid- 1970s- Early 1990s:** very high inflation, ending in hyper
  - **Early 1990s- today:** stabilization under convertibility; collapse; return of inflation, still moderate

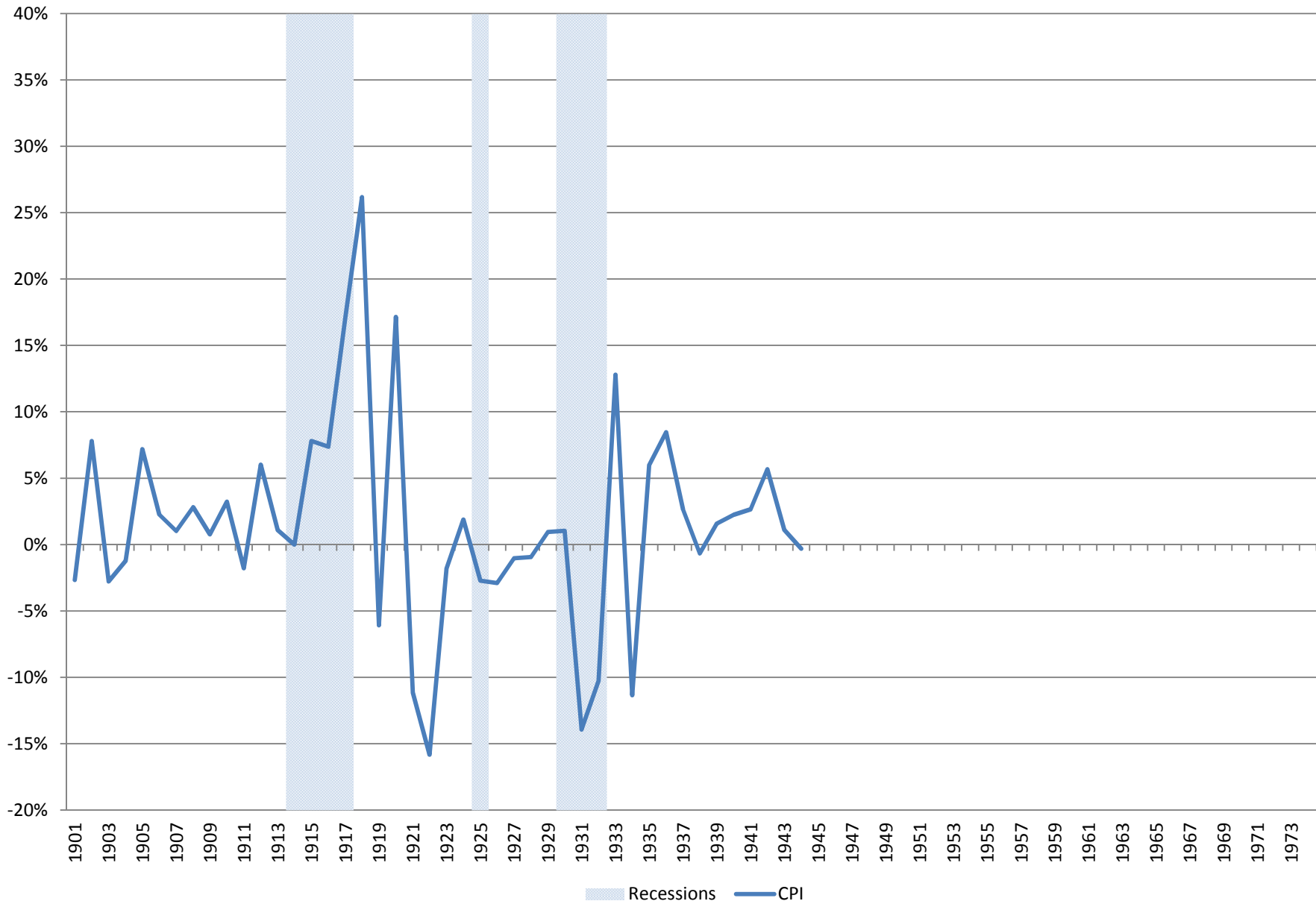
# Inflation 1901-2012



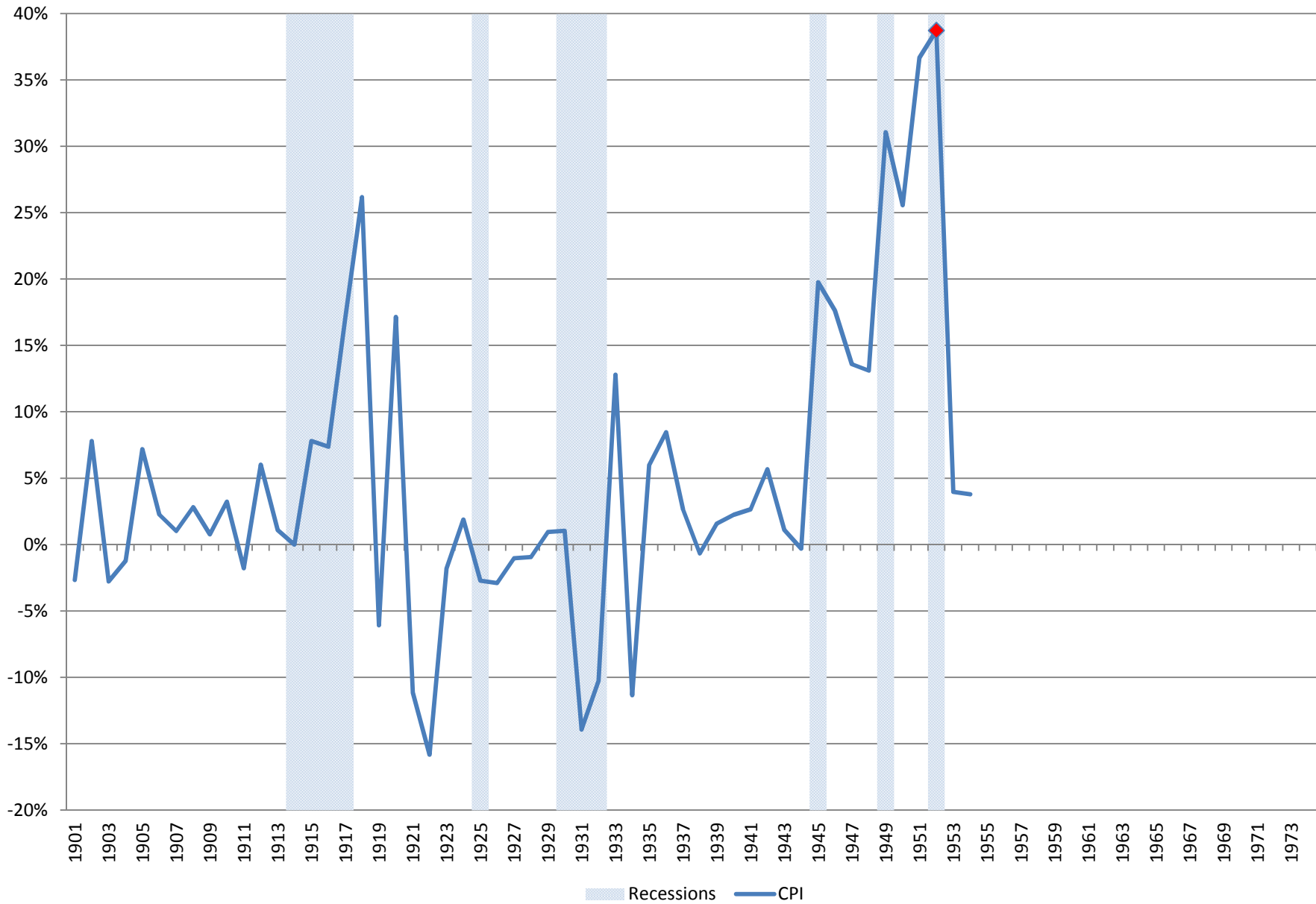
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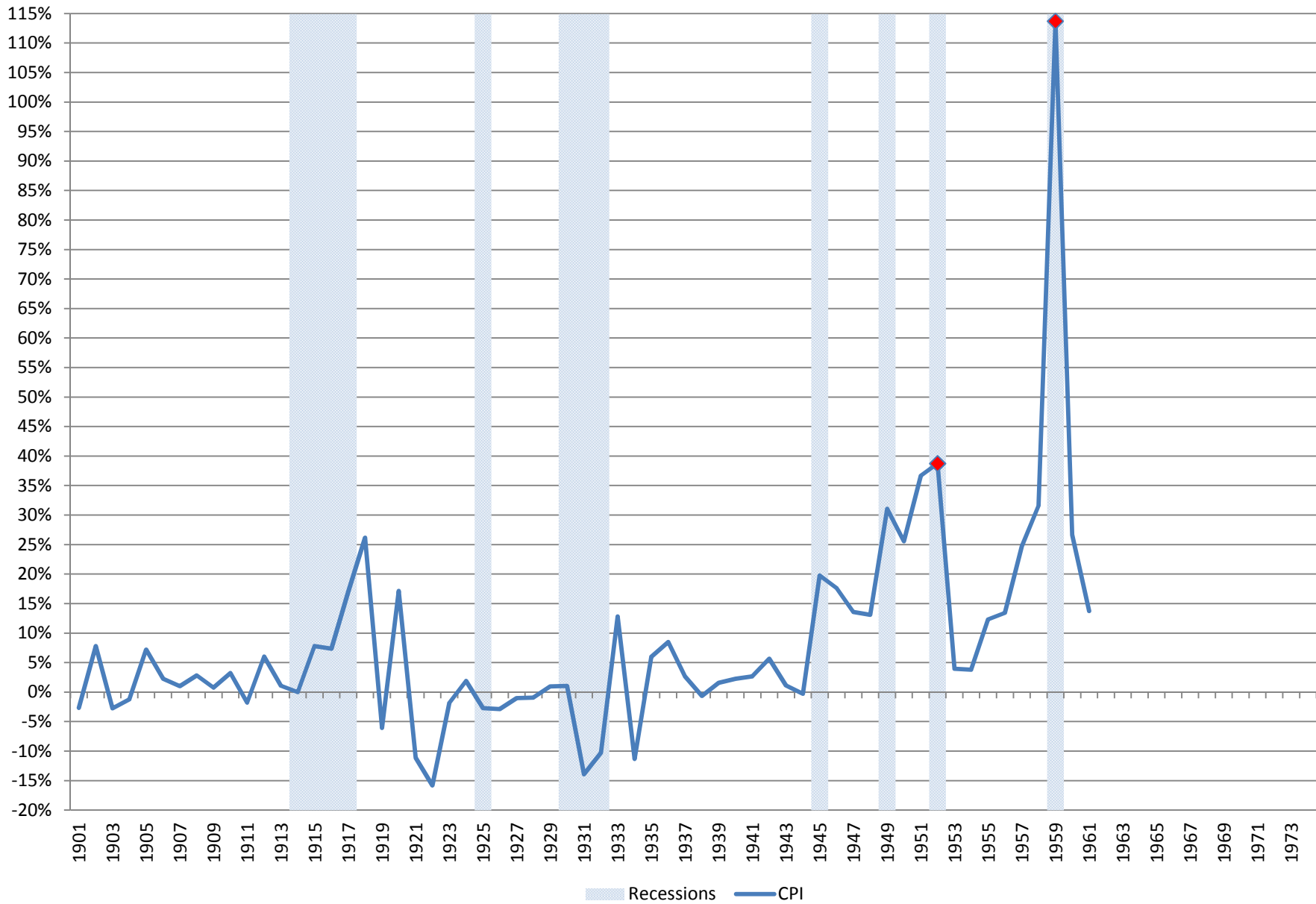


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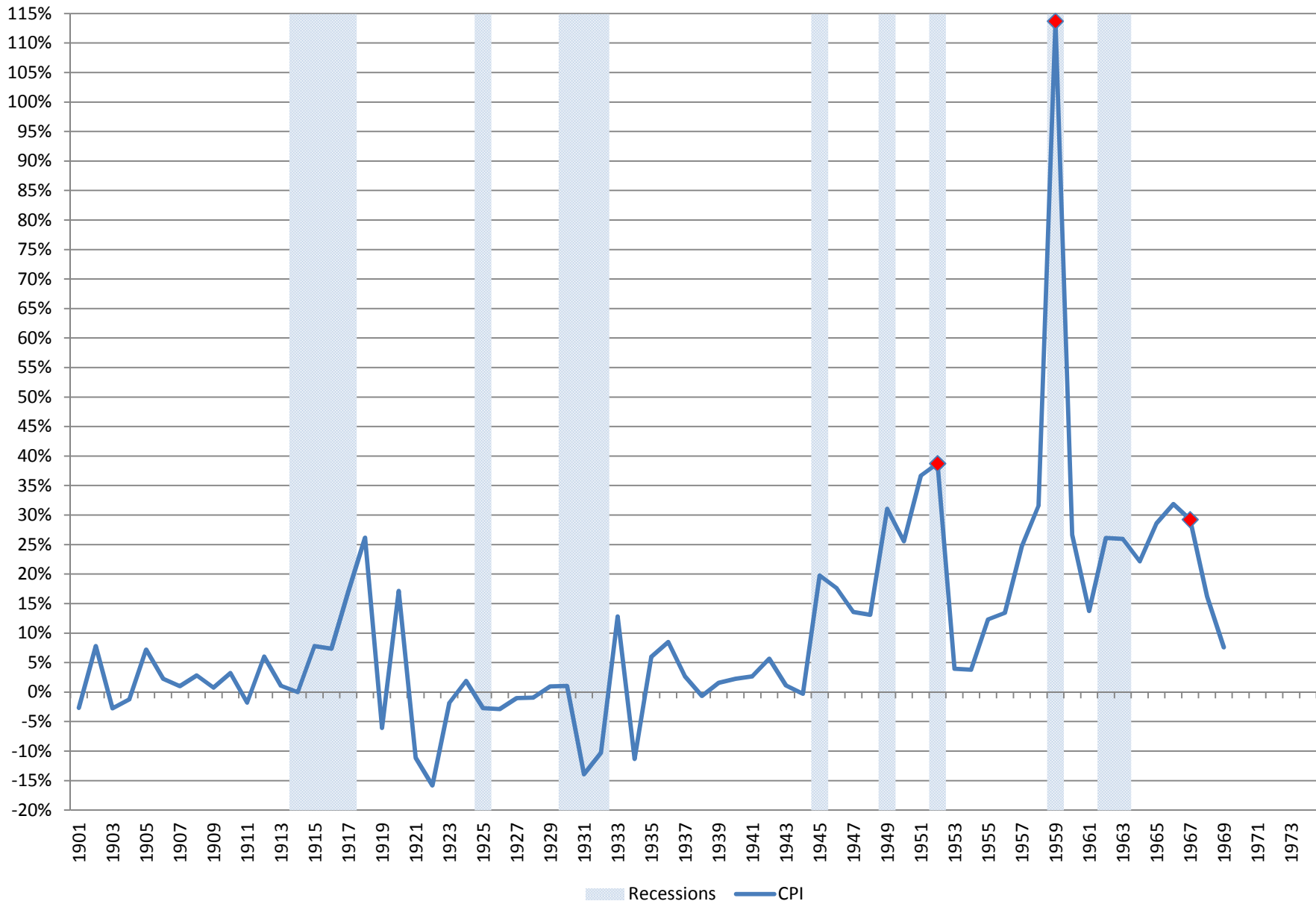




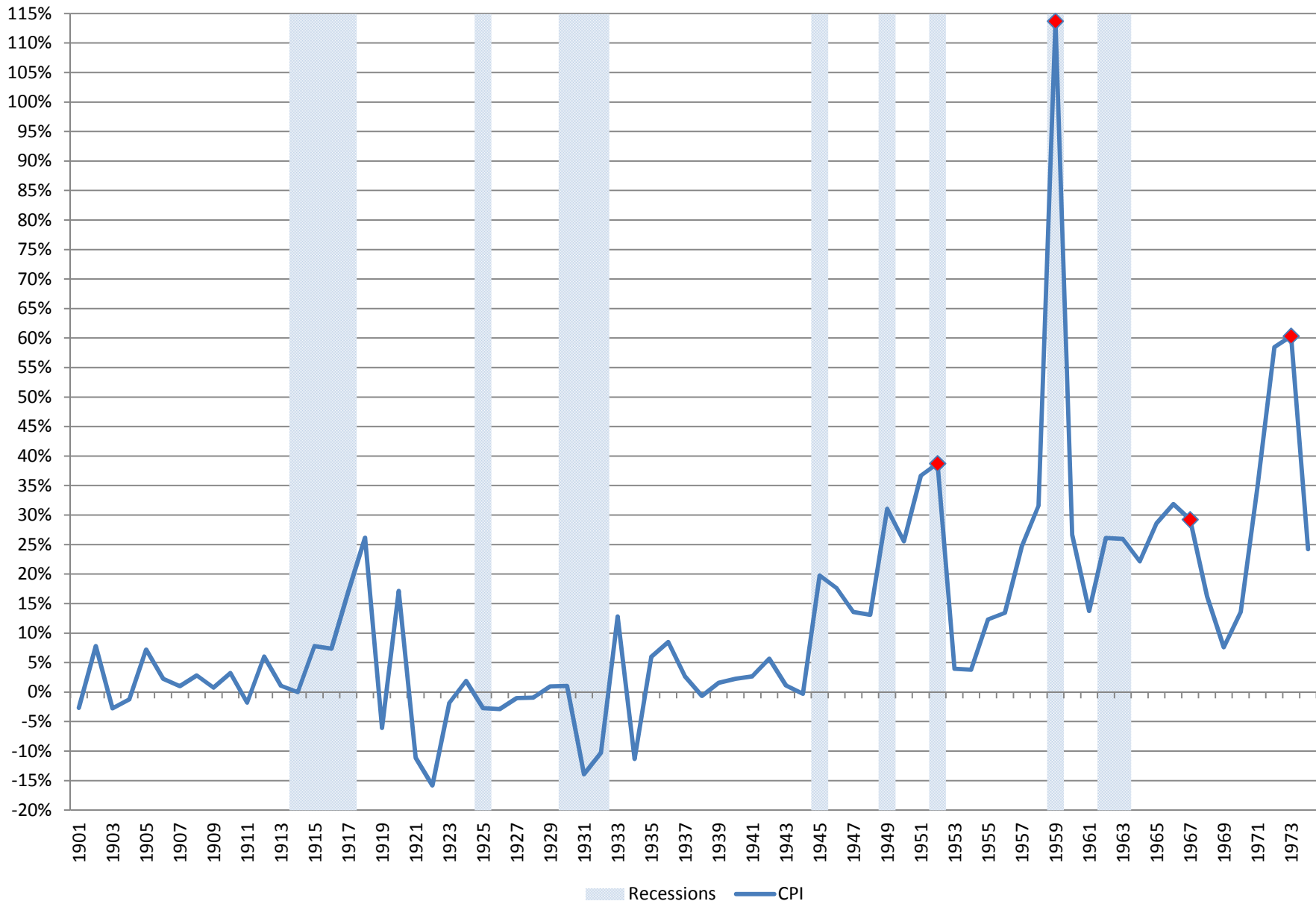
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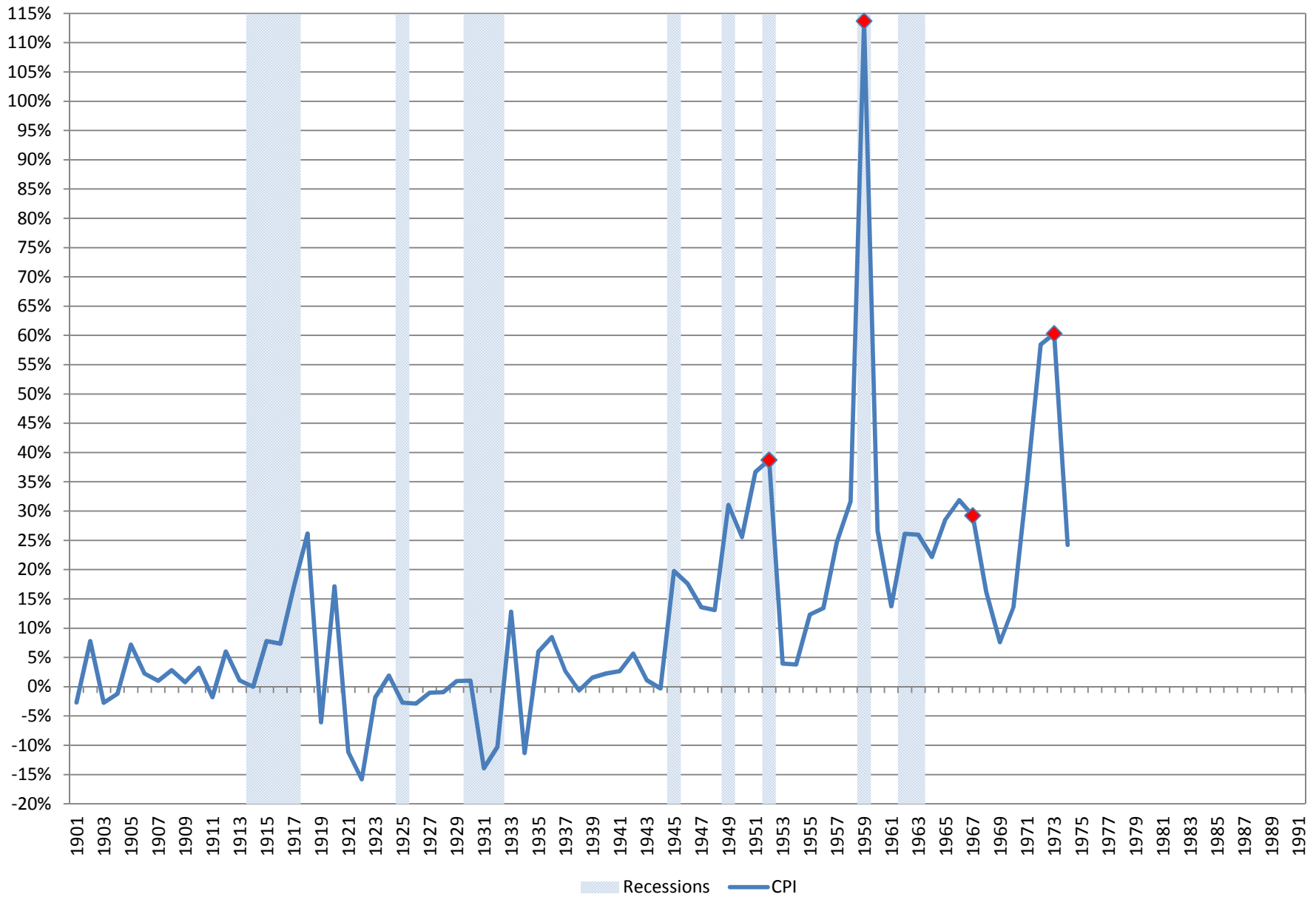
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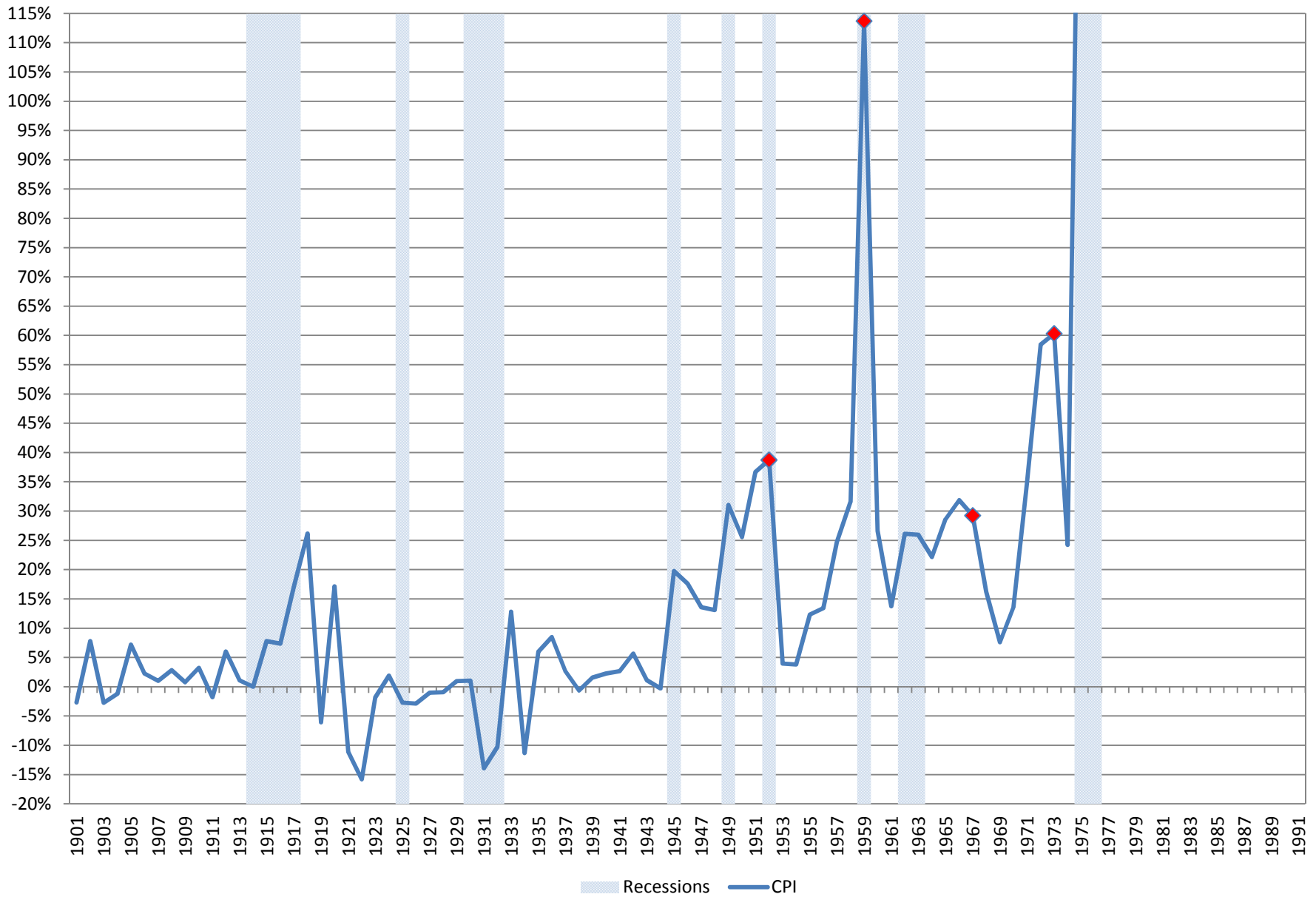
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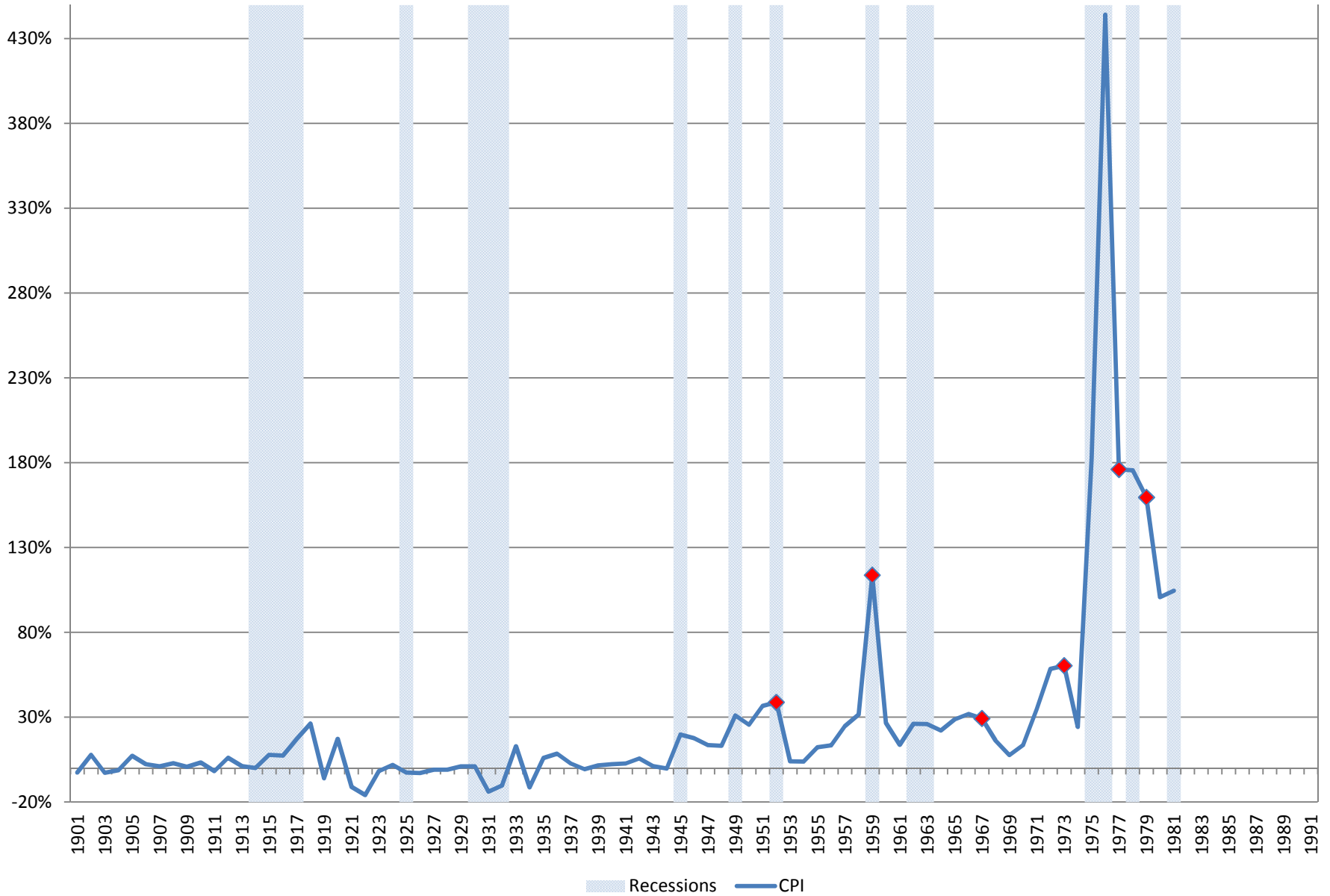
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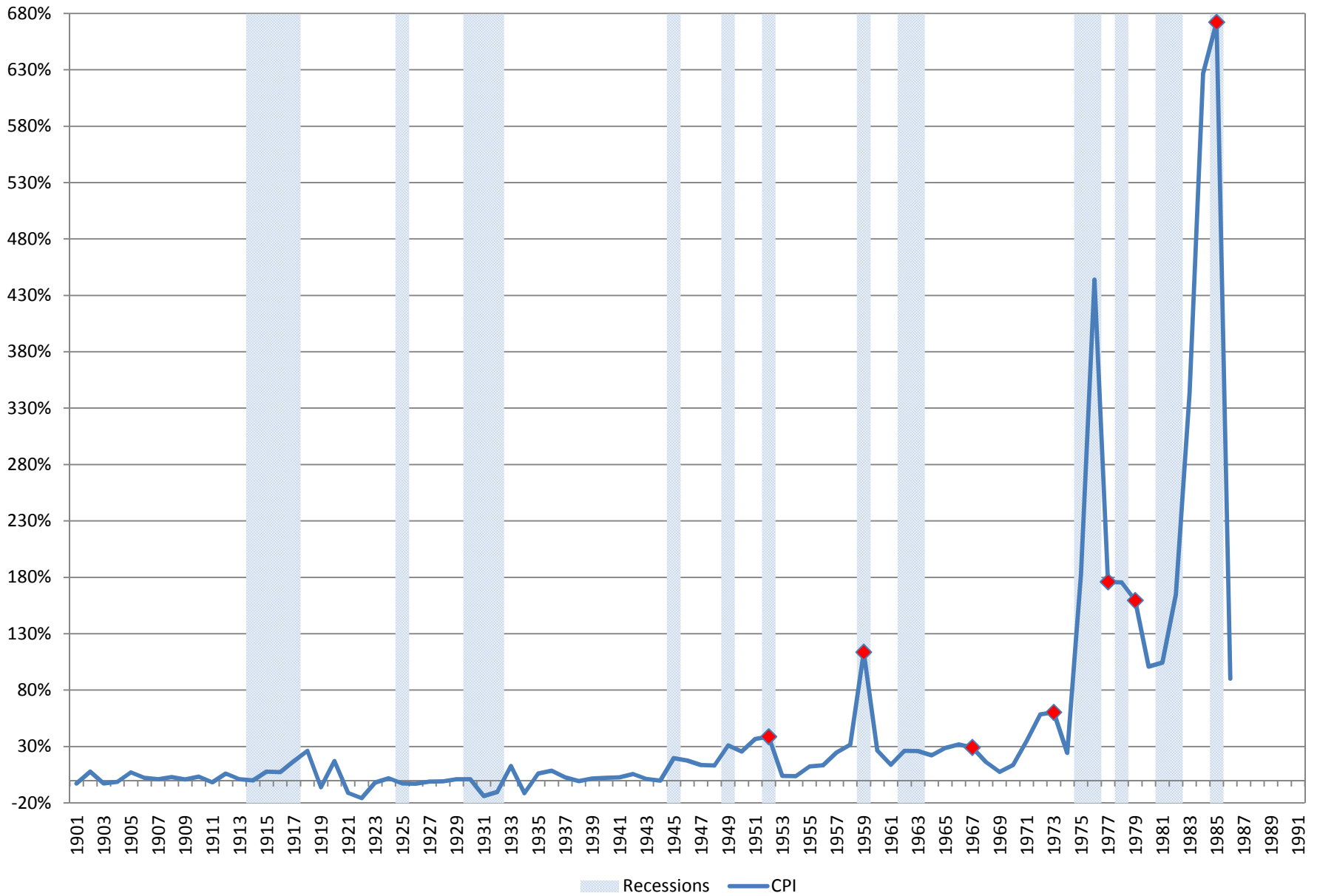
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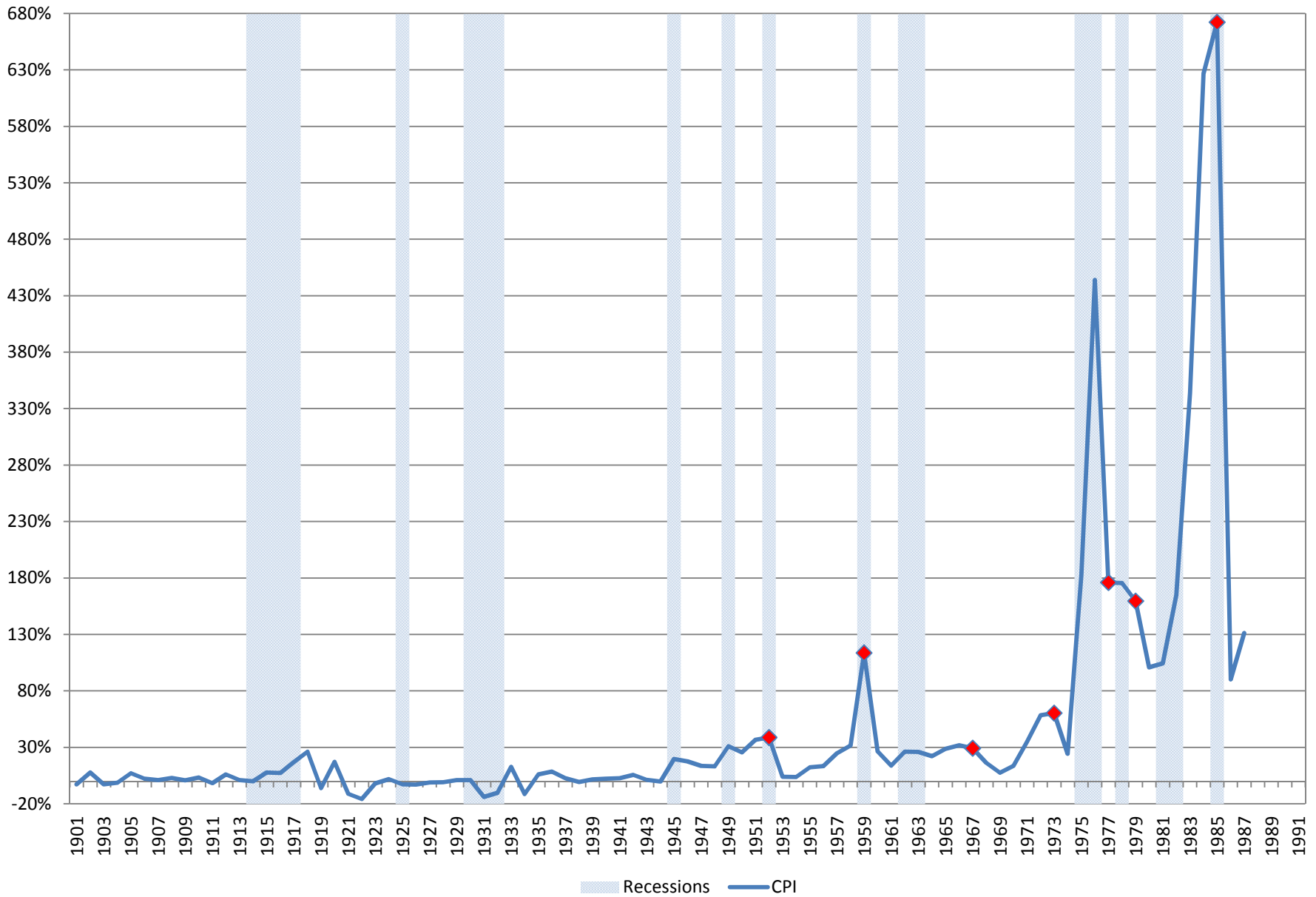
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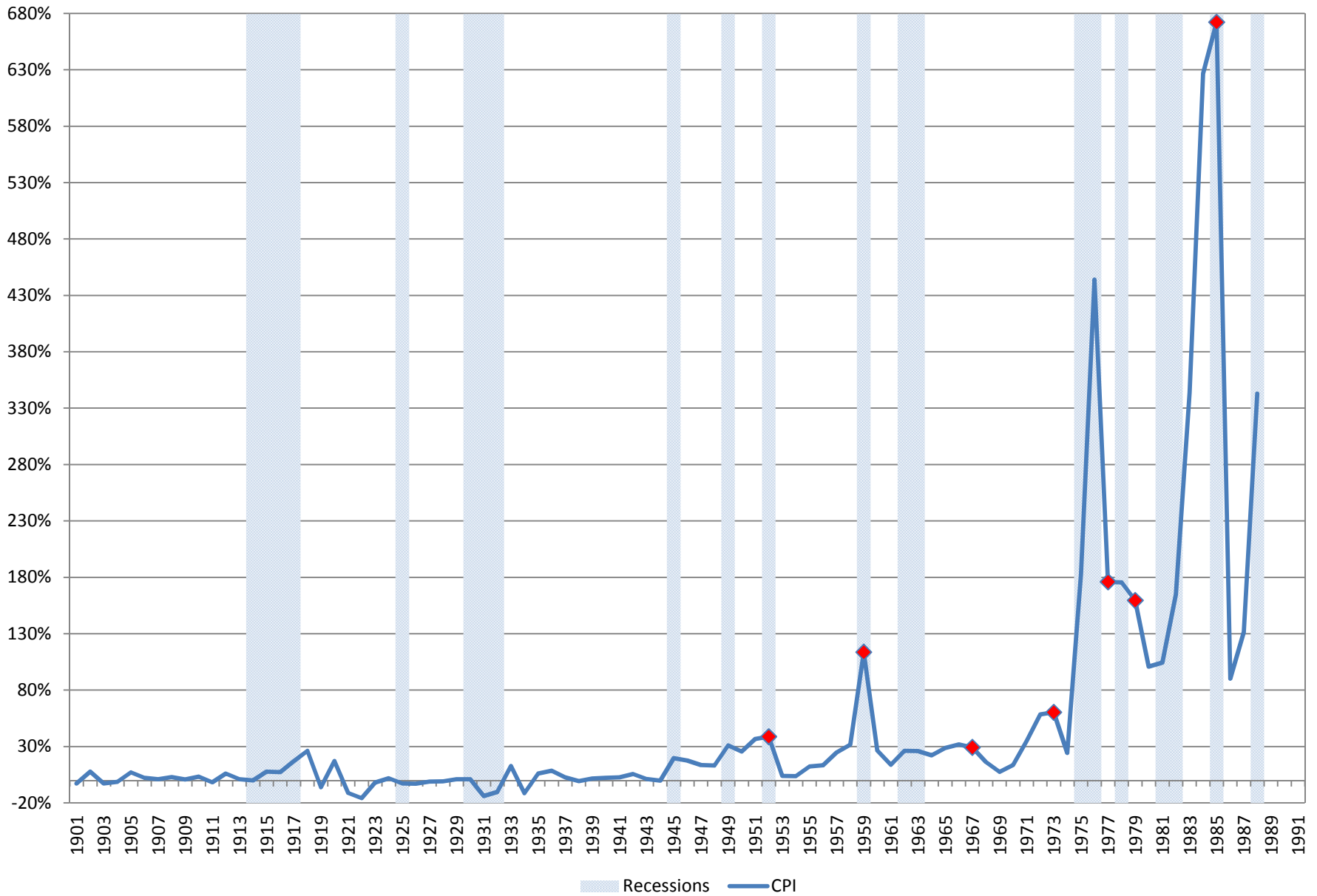


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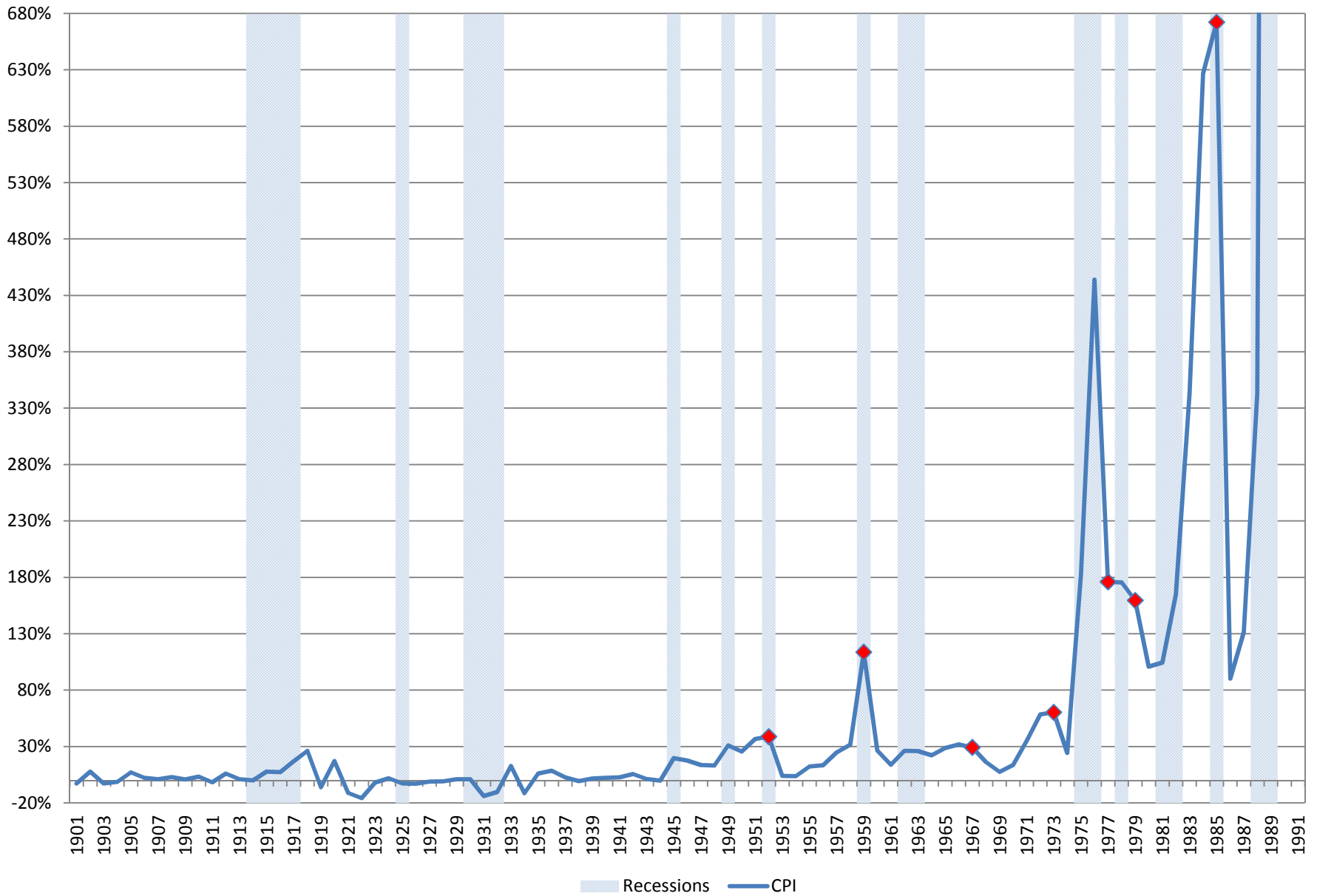




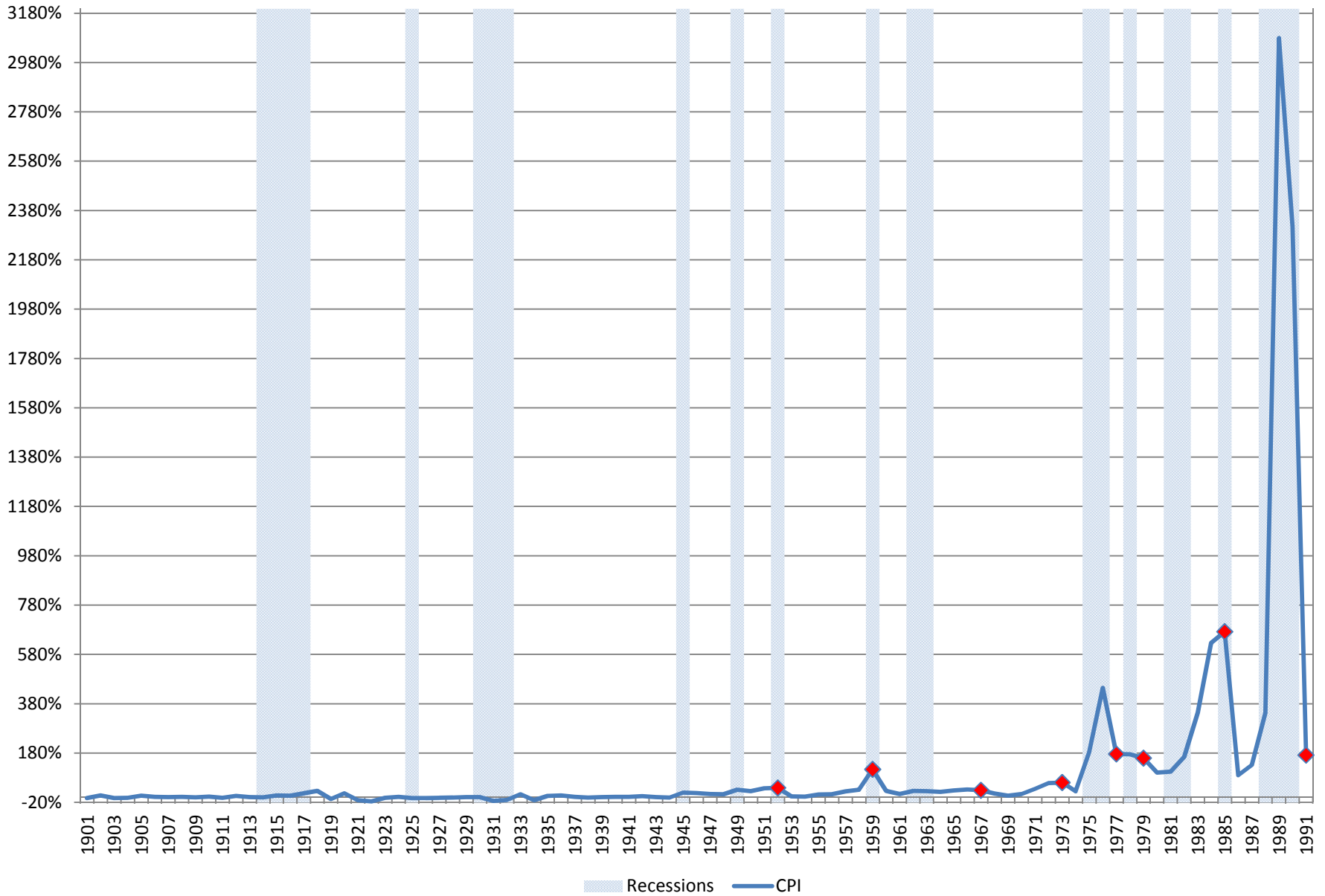
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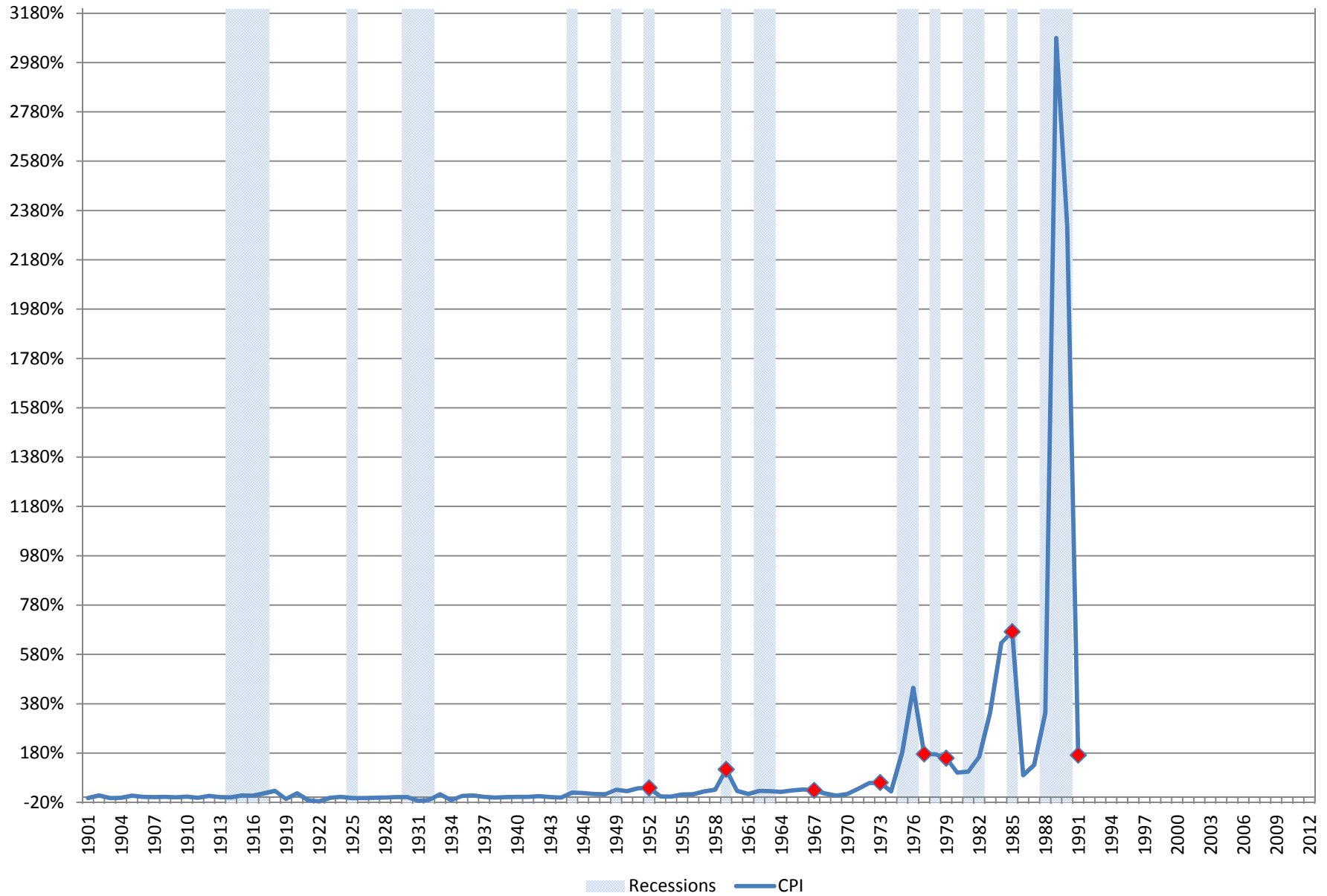
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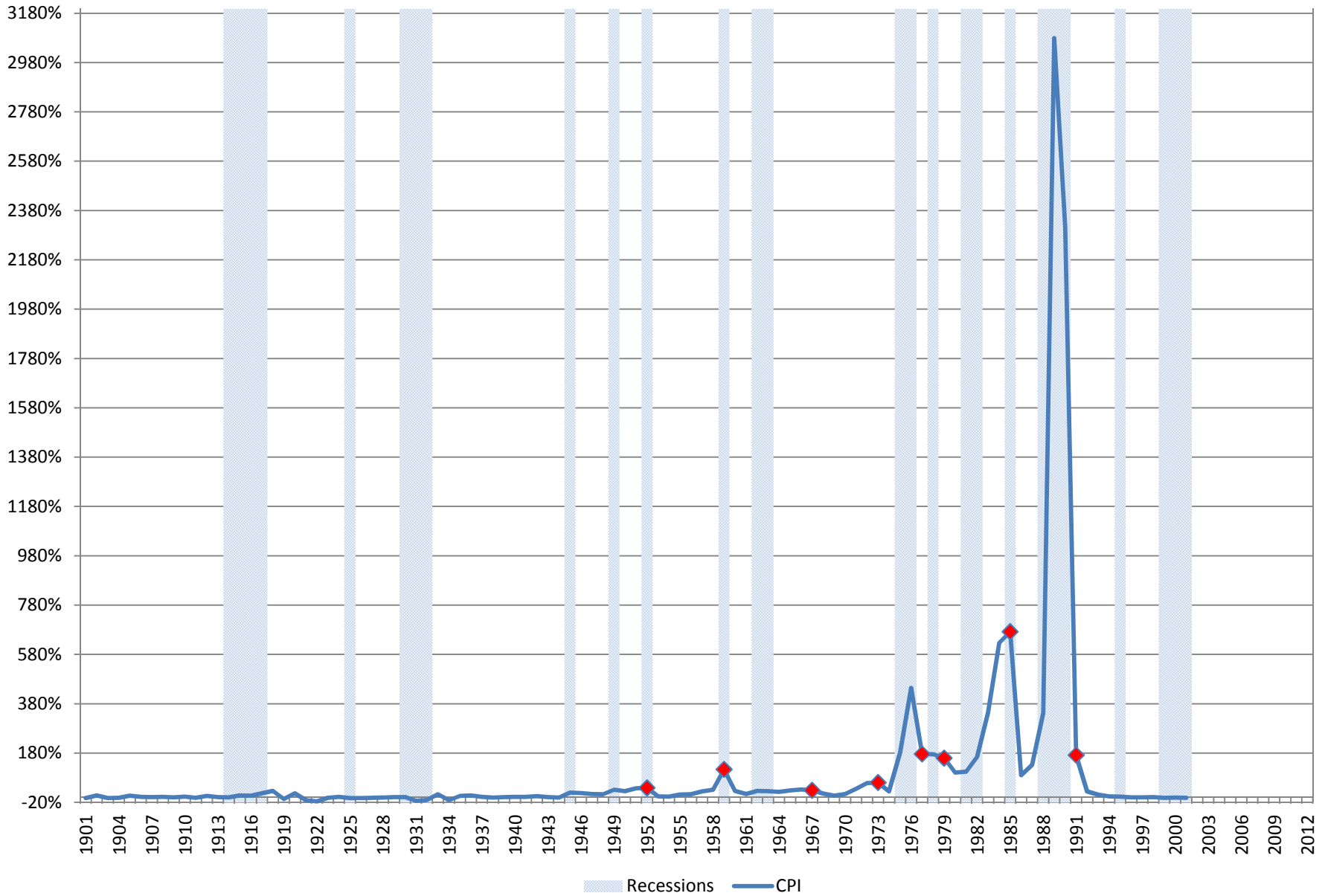
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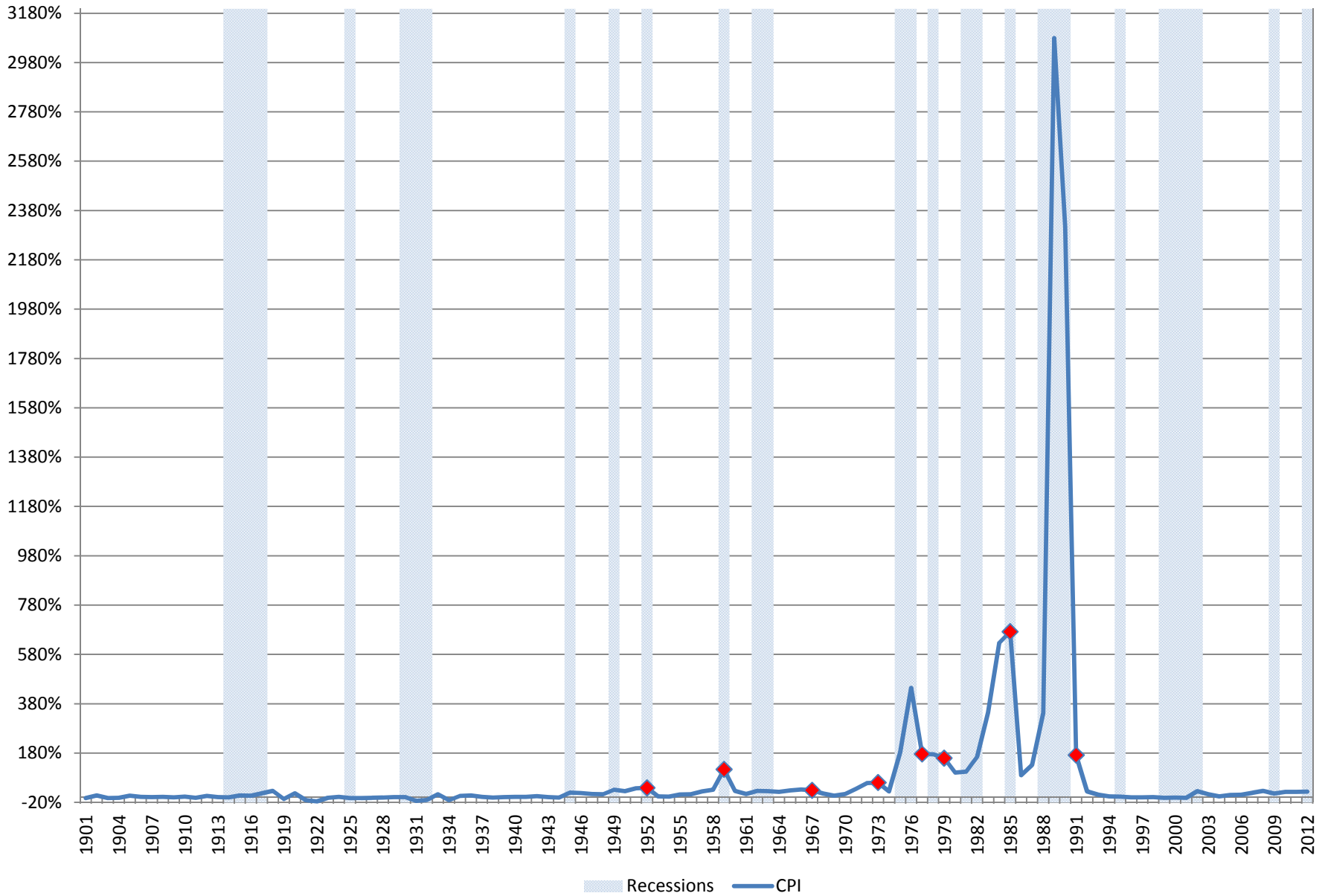
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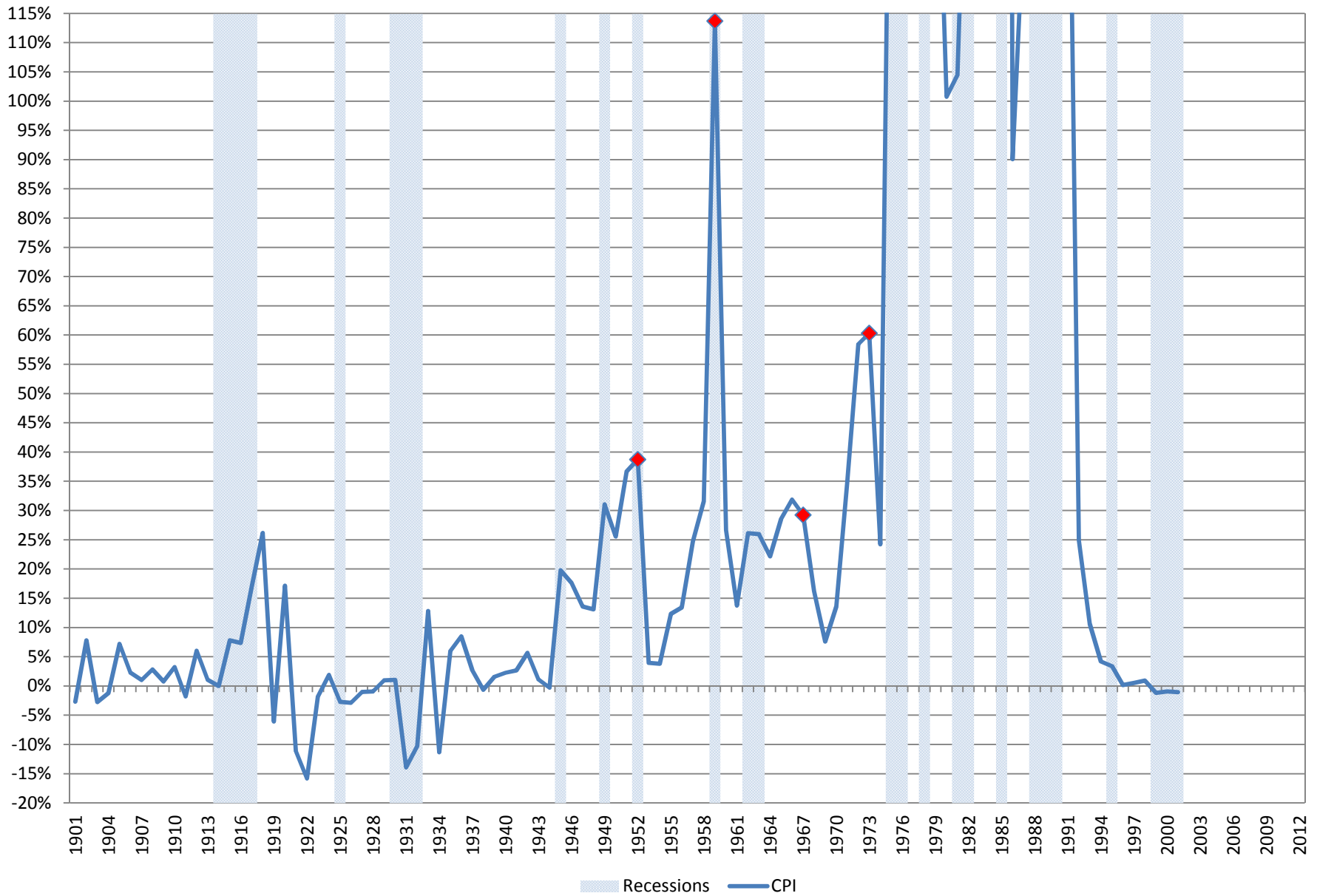
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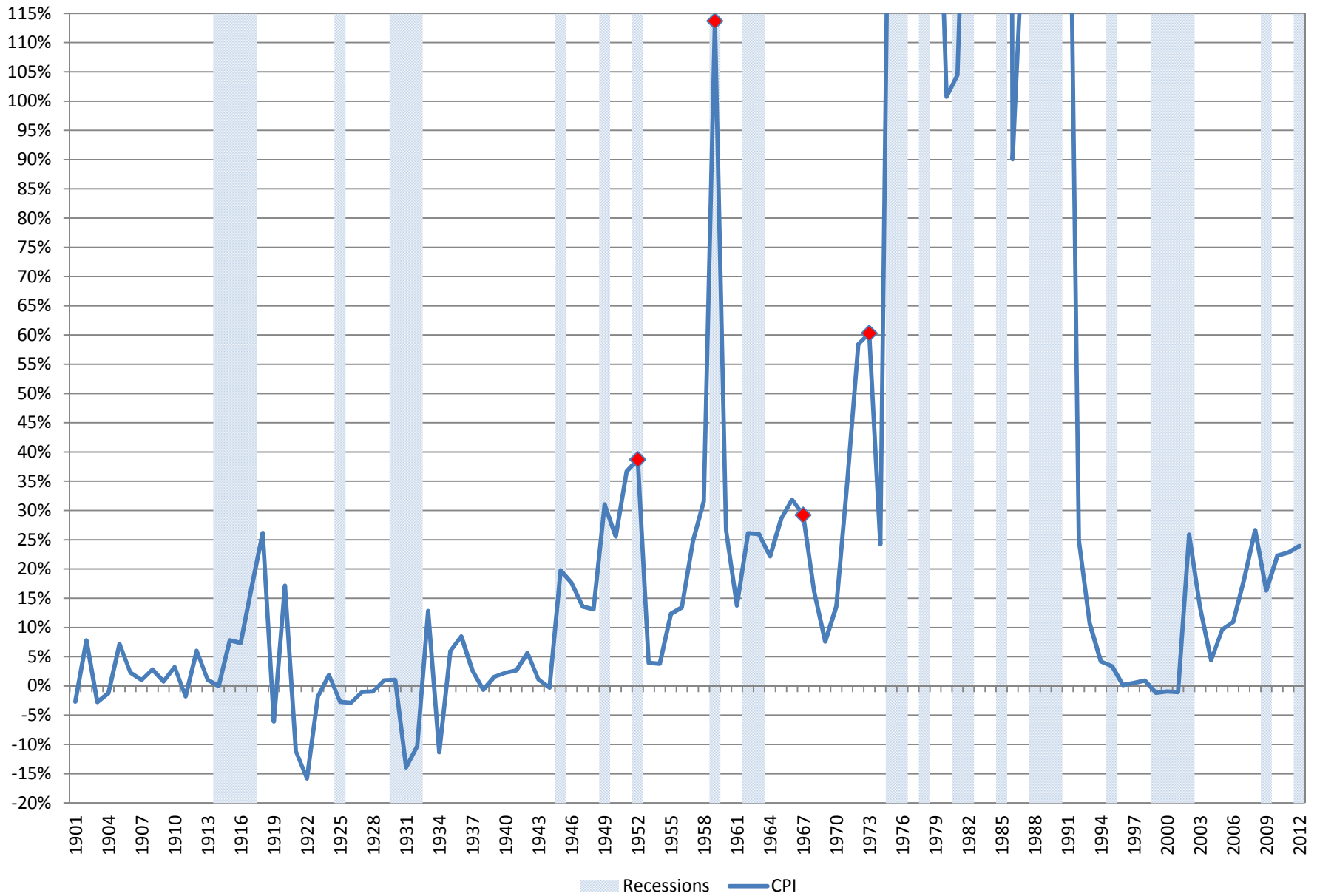


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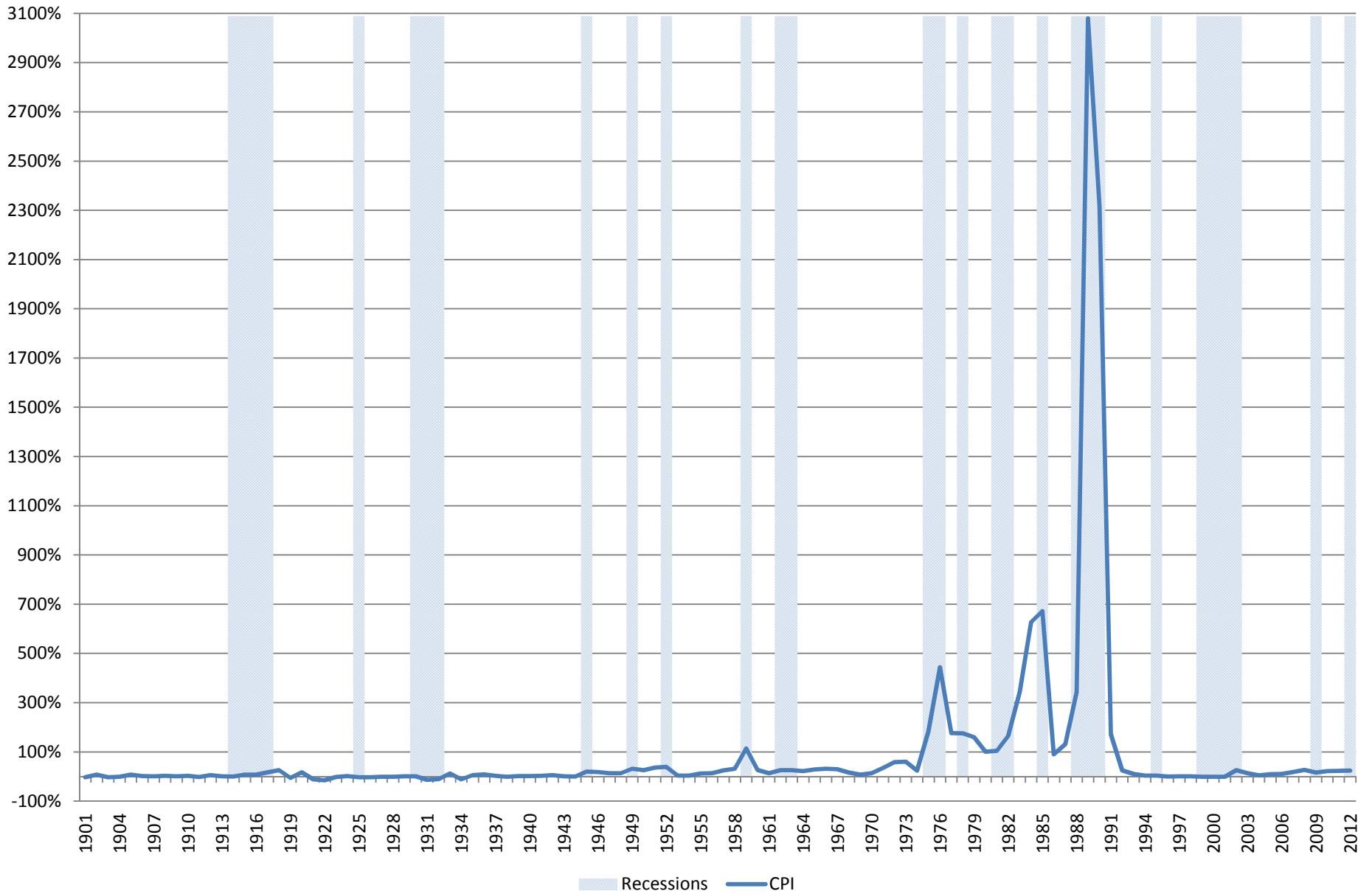


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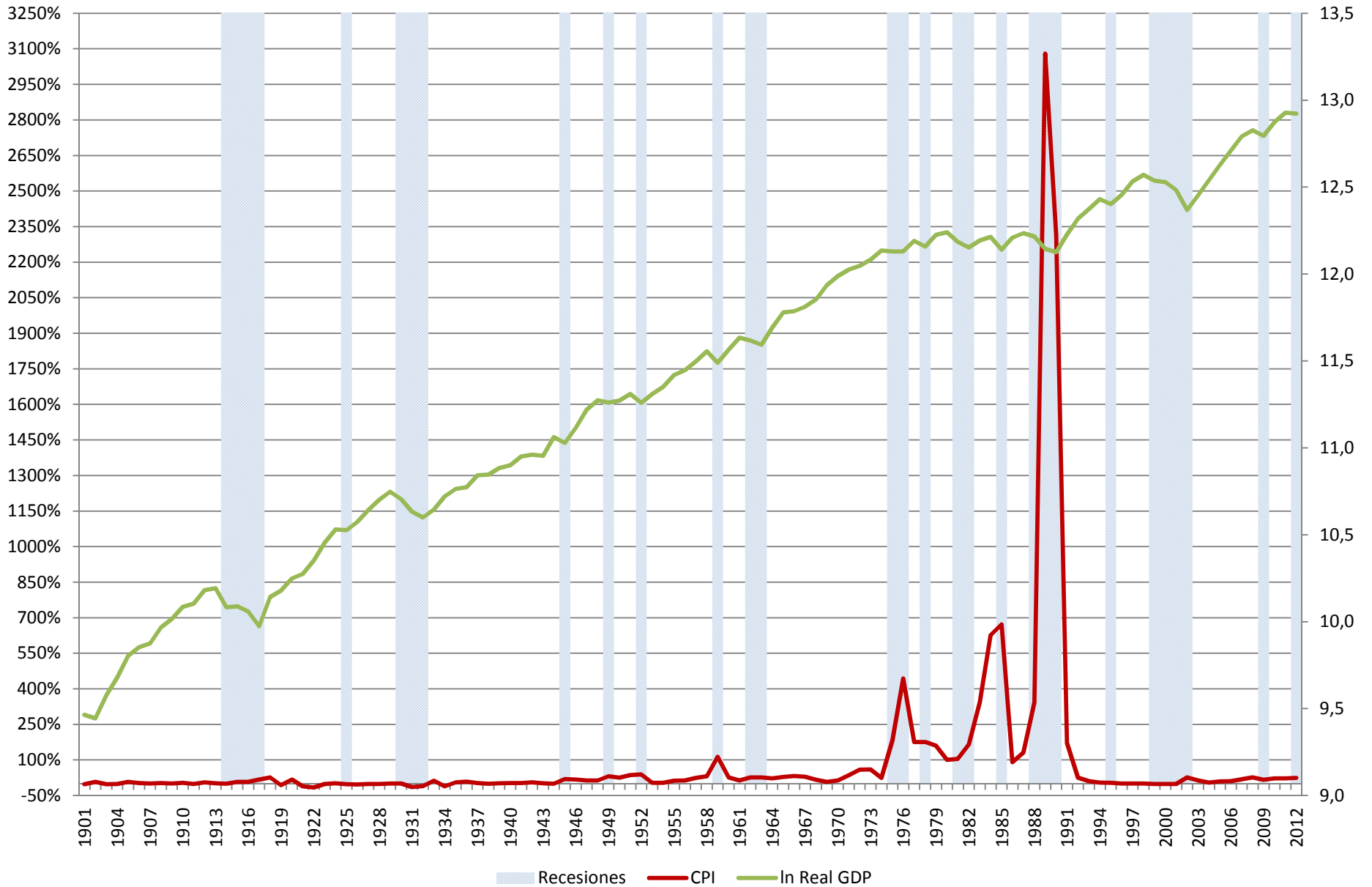




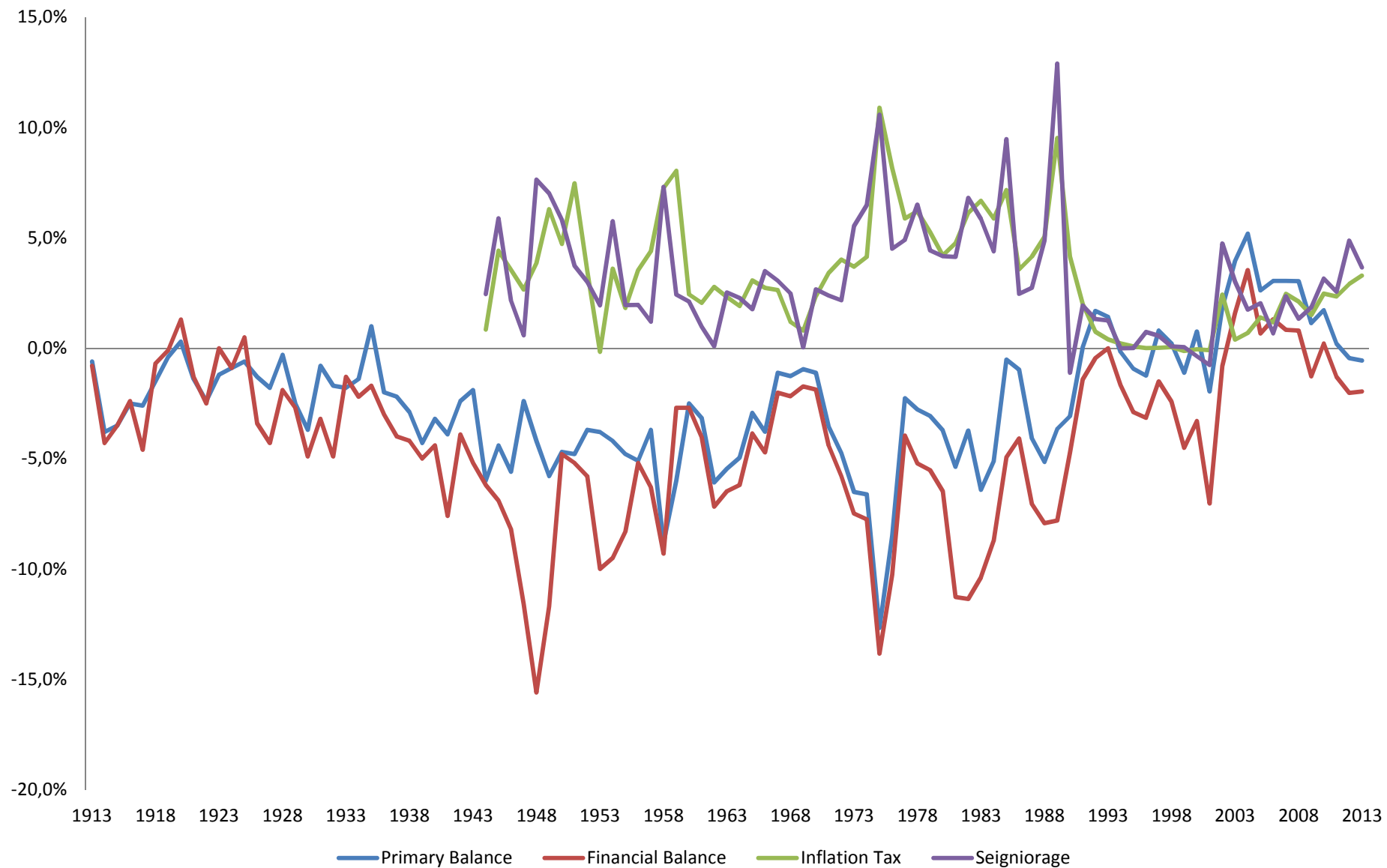
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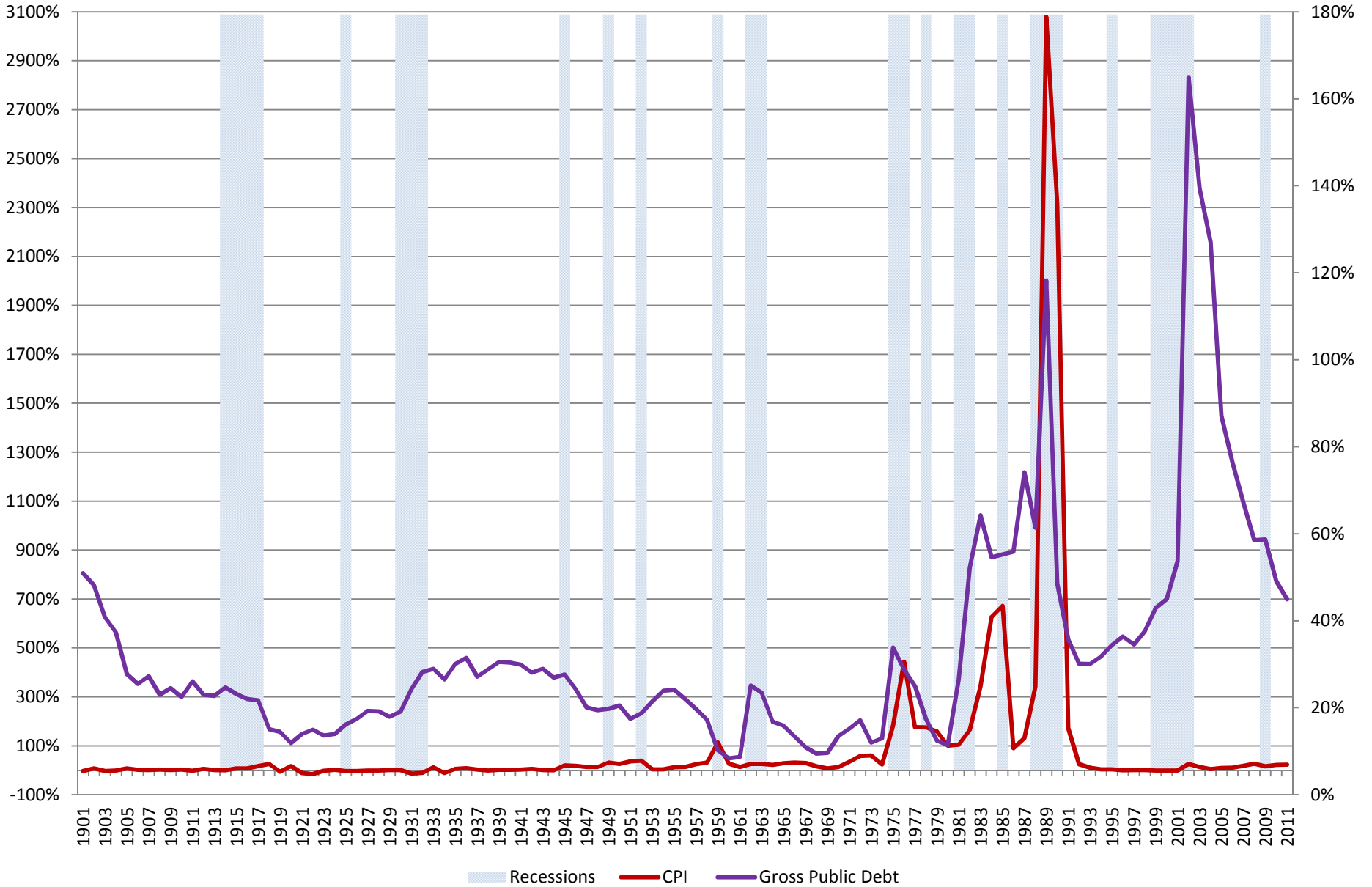
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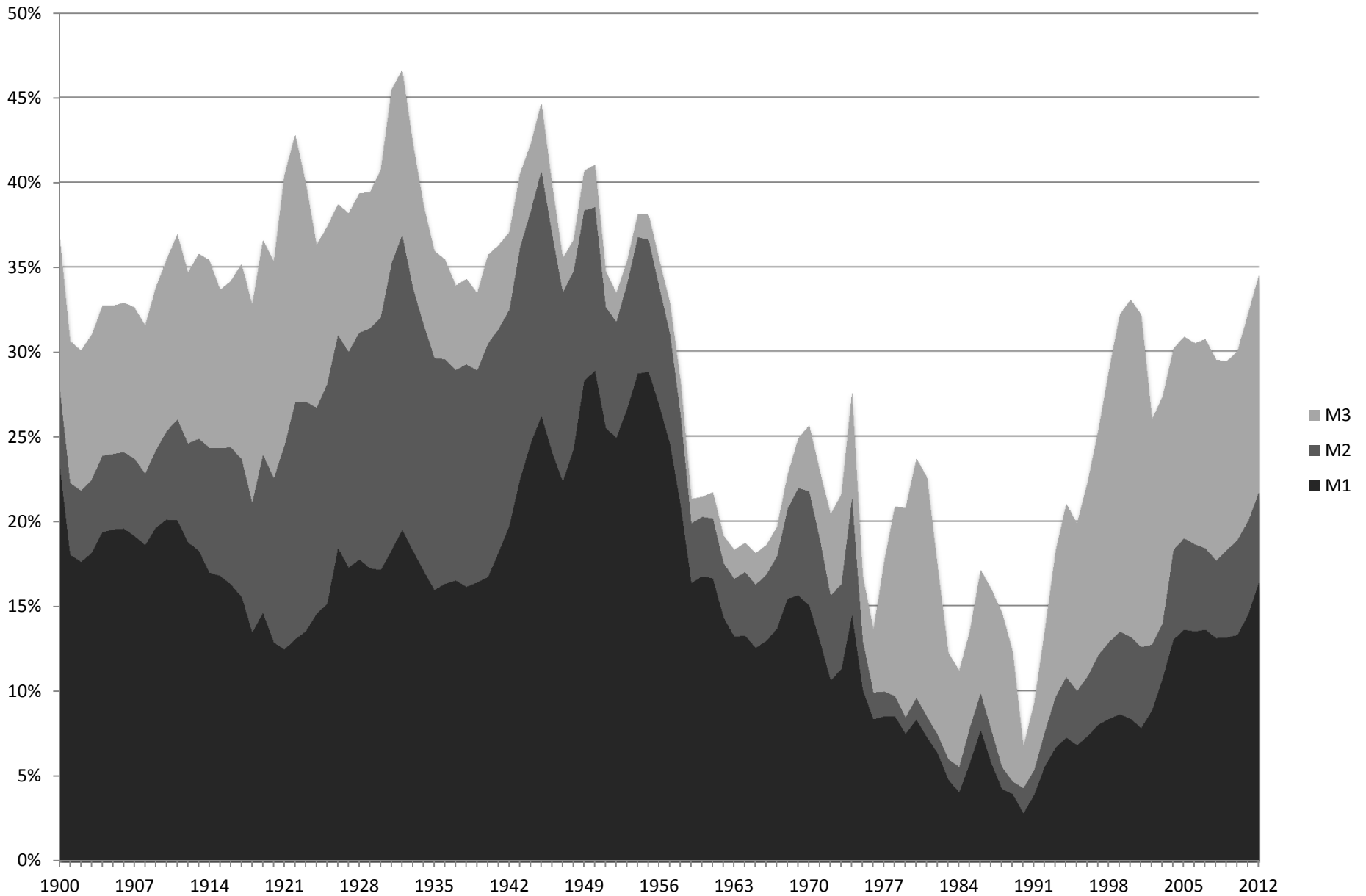
# Fiscal Balance (Primary and Financial), Seigniorage and Inflation Tax (%GDP) 1913-2013



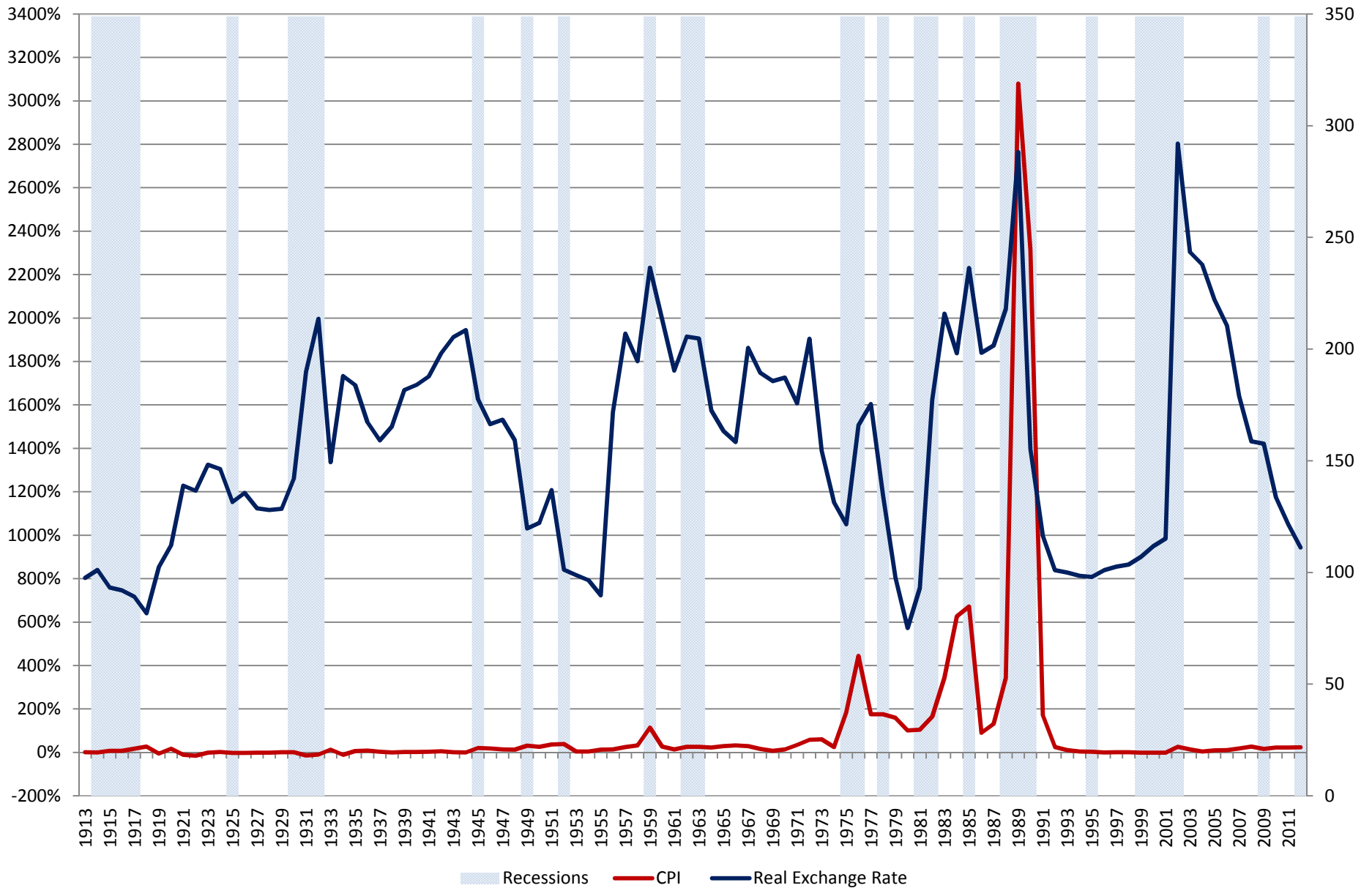
# Inflation and Gross Public Debt (%GDP) 1901-2011



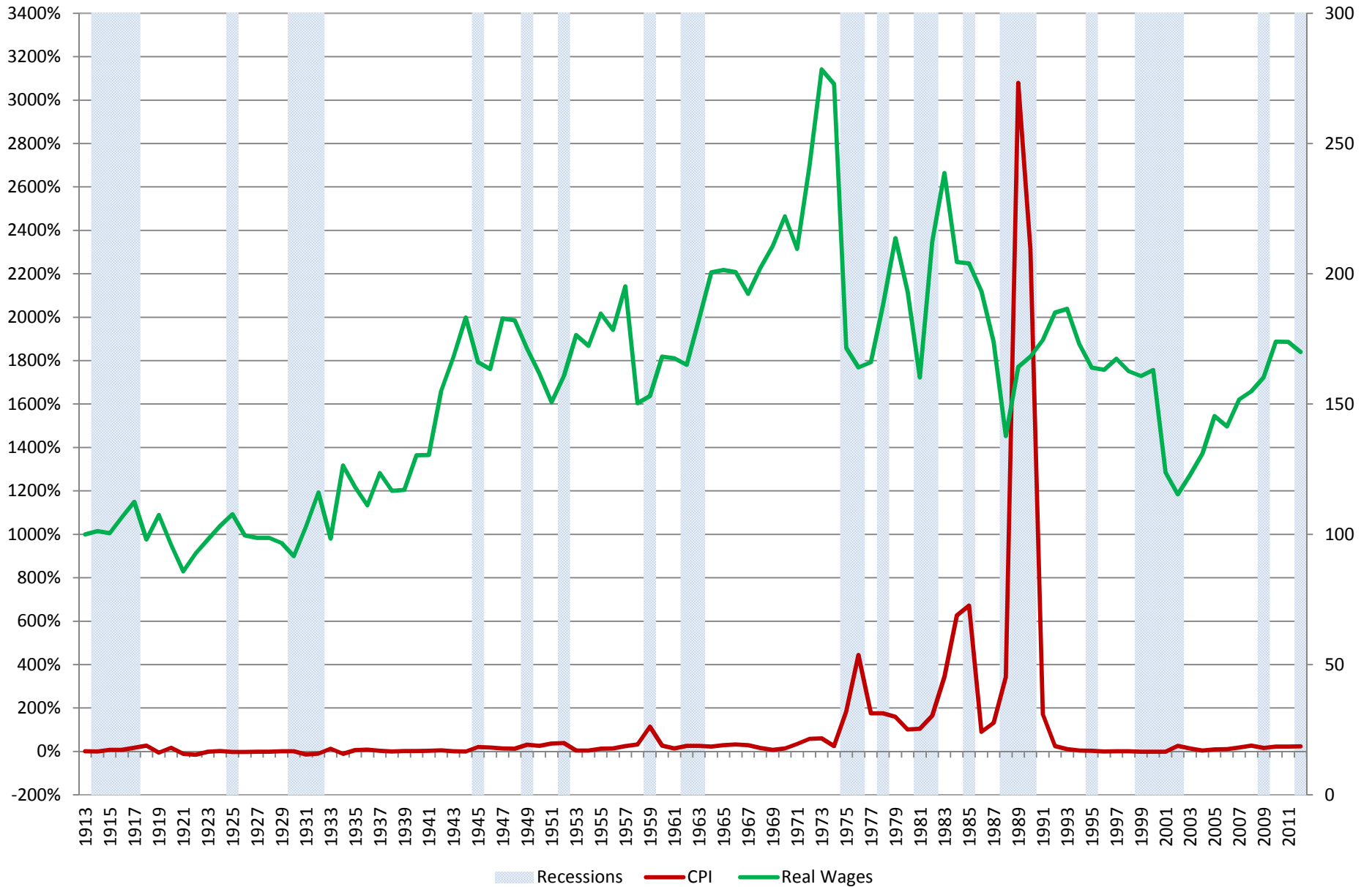
# Liquidity Coefficients (%GDP) 1900-2012



# Inflation and Real Exchange Rate 1913-2012



# Inflation and Real Wages 1913-2012



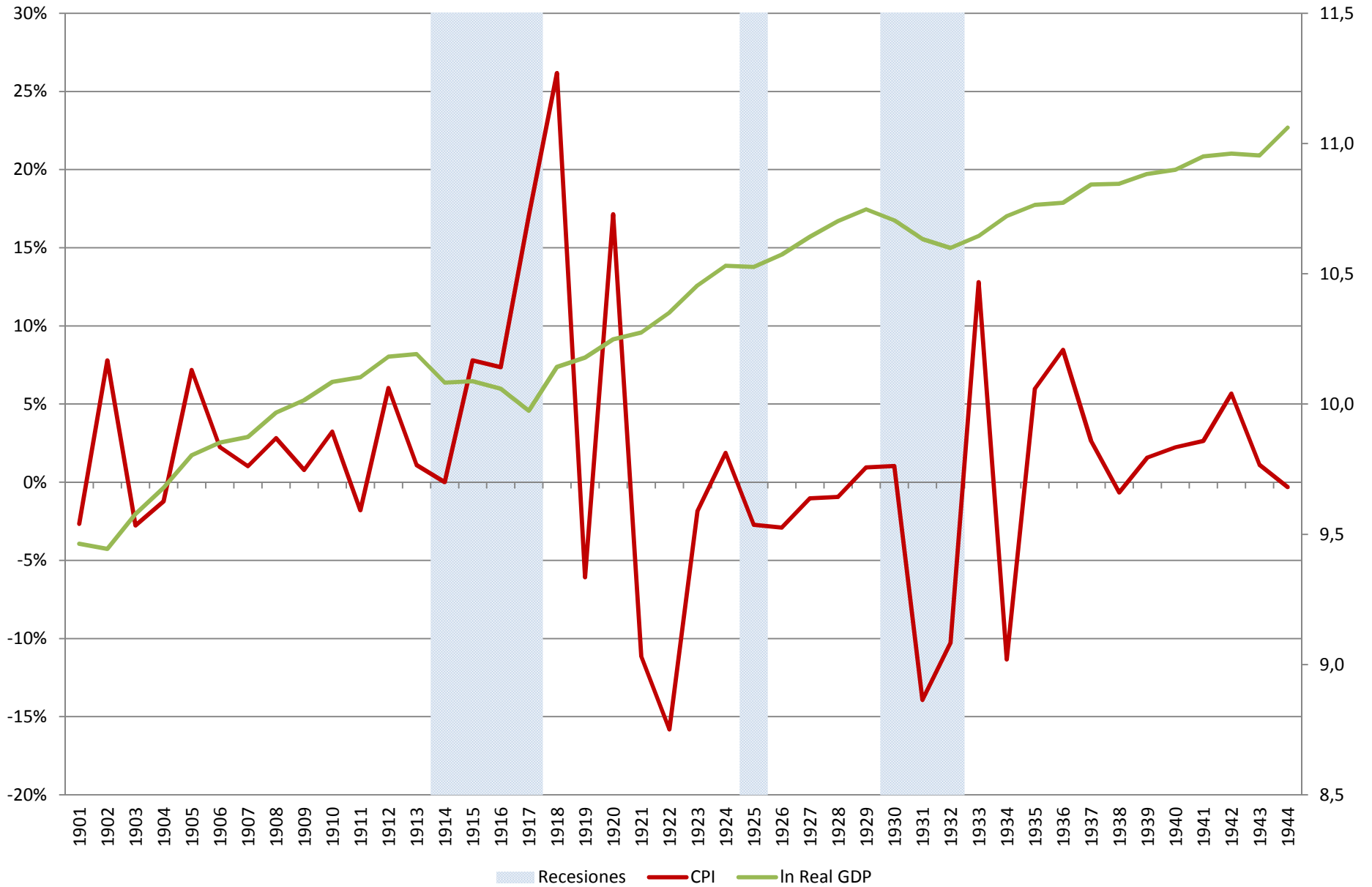
# Until 1940s

Economic, Political Ups and Downs, Low Inflation

- Open economy, disturbed by WW1  
Depression, WW2. Shift towards ISI
- Traditional macro policies until crisis; then experimentation:
  - Exchange controls
  - Multiple rates
  - Active monetary policy (creation of CB)
- Low inflation on average, substantial ups and downs (including sizeable deflations)
- Comparatively high demand for domestic assets.



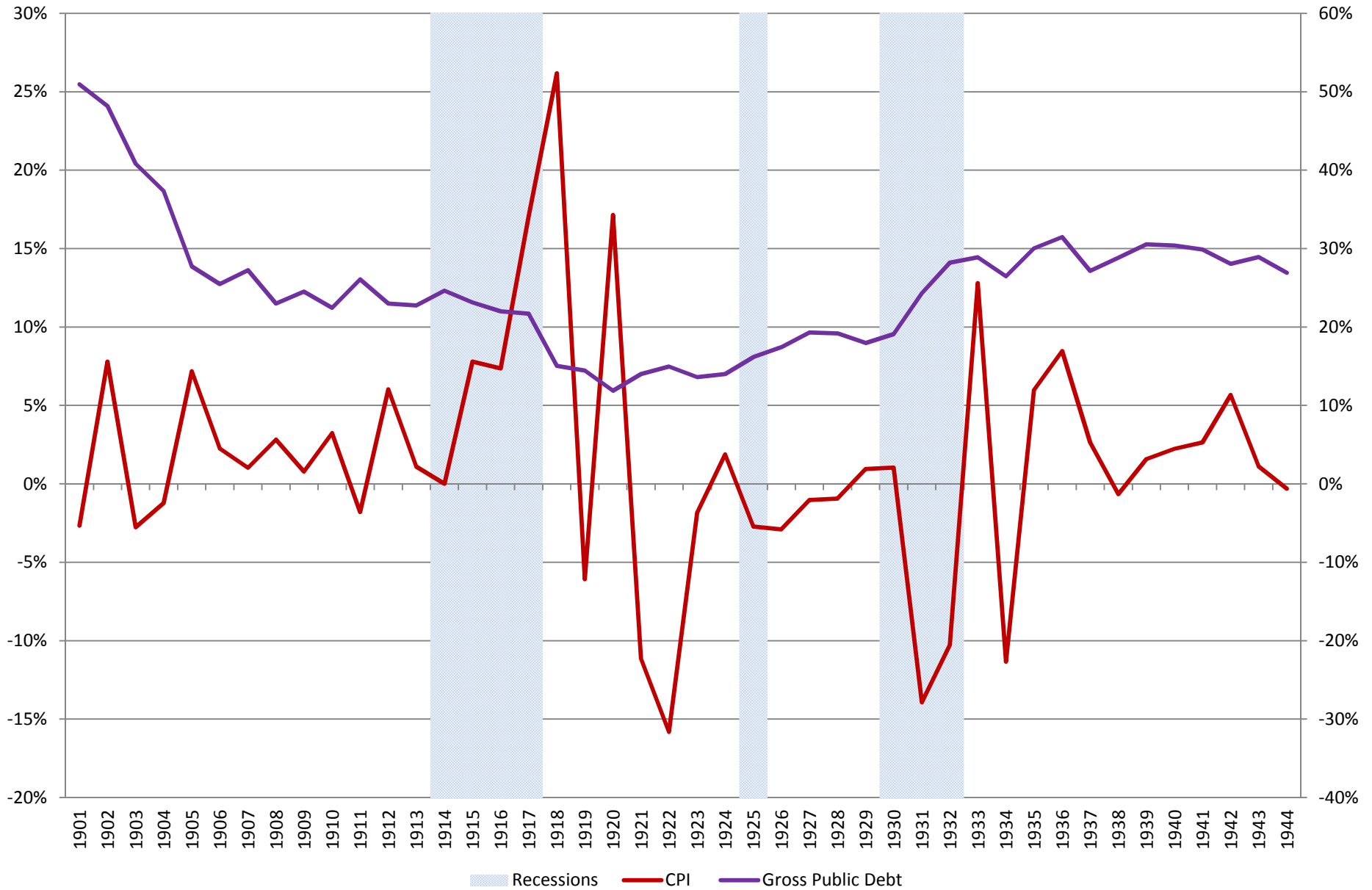
# Inflation and Real GDP (Logs) 1901- 1944



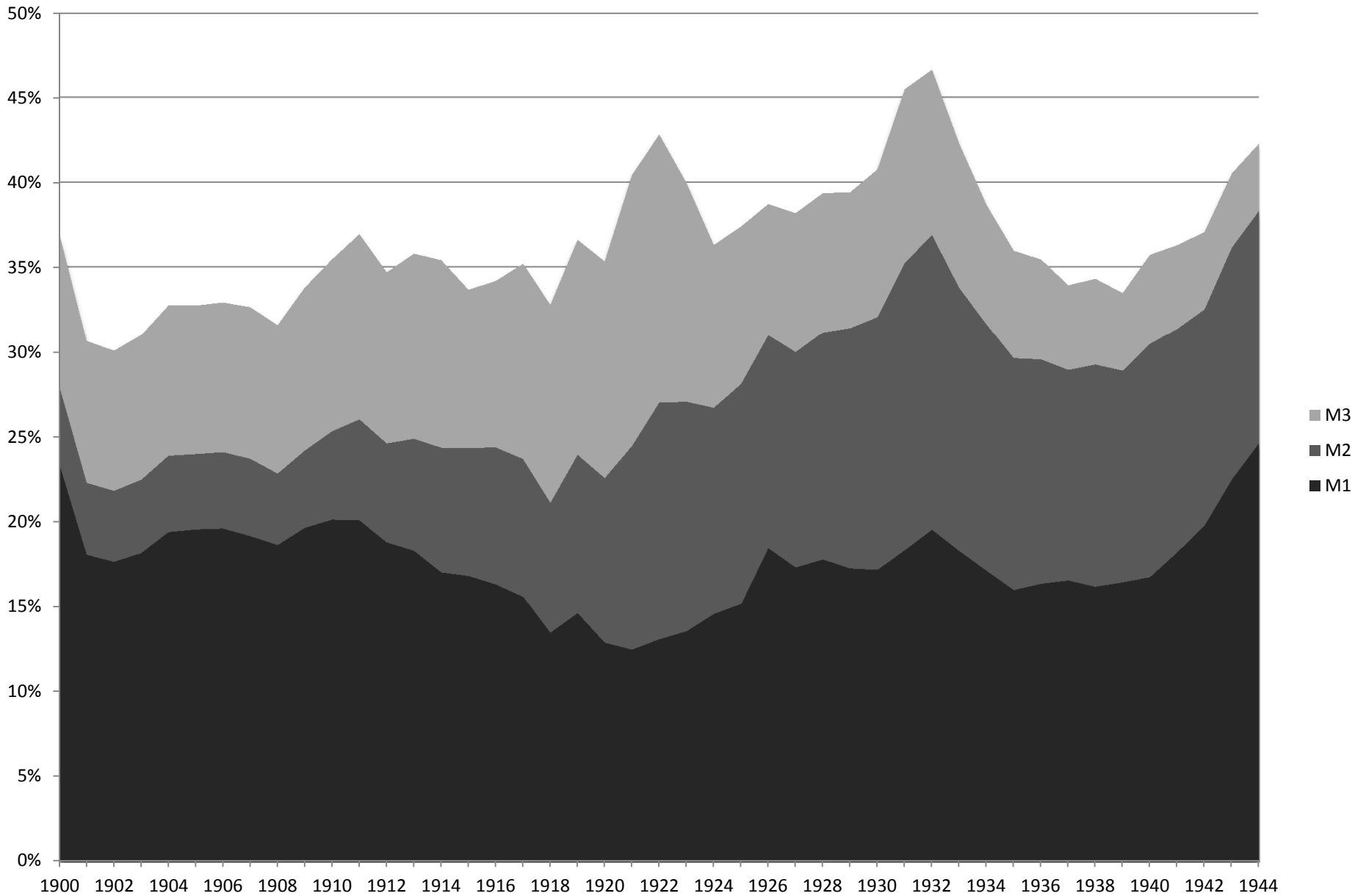
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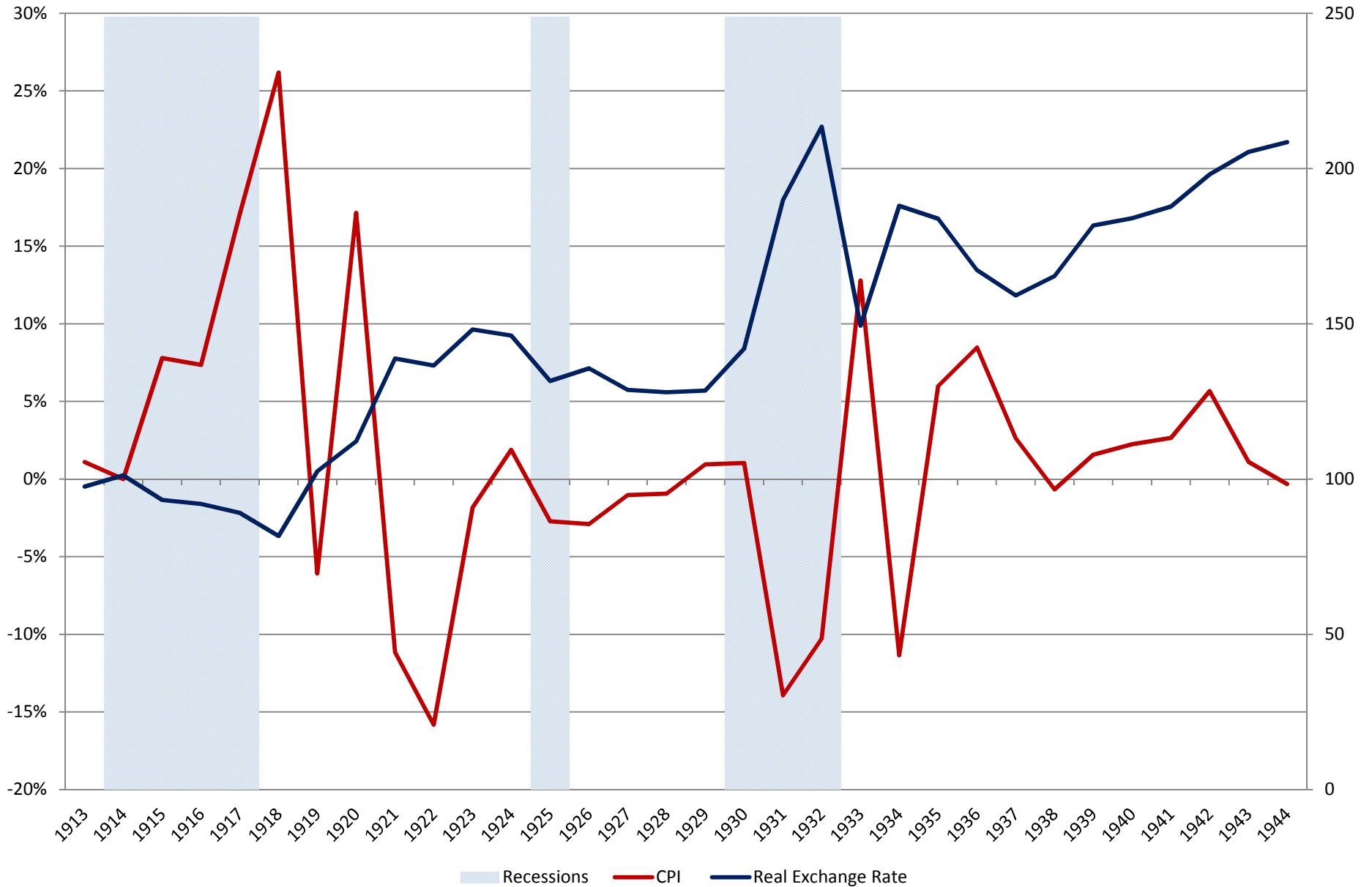
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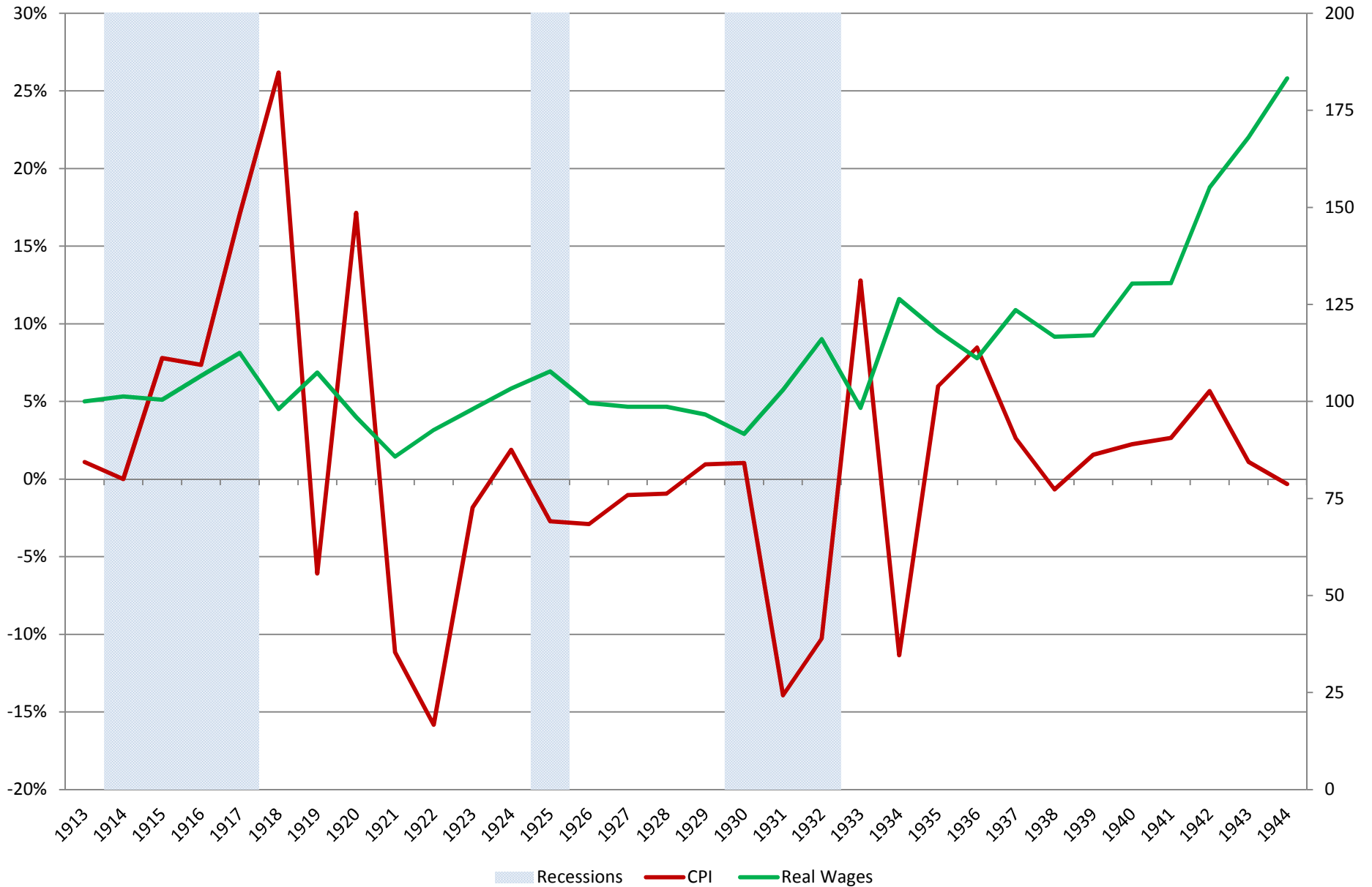
# Liquidity Coefficients (%GDP) 1900-1944



# Inflation and Real Exchange Rate 1913-1944



# Inflation and Real Wages 1913-1944



# Mid 1940s- Mid 1970s

## Chronic Inflation

- Manufacturing non- tradable activity
  - Low real exchange rate favorable to industry, urban employment, until hit reserve constraint
- Moderate average growth; much discussed stop-go pattern.
- Chronic inflation, with wide swings; still annual rates relevant
  - Inflation policy problem: succession of stabilization plans. Major programs 1952, 1959, 1967, 1973, of different inspiration, under different political conditions
  - Debates about origins, mechanisms of inflation

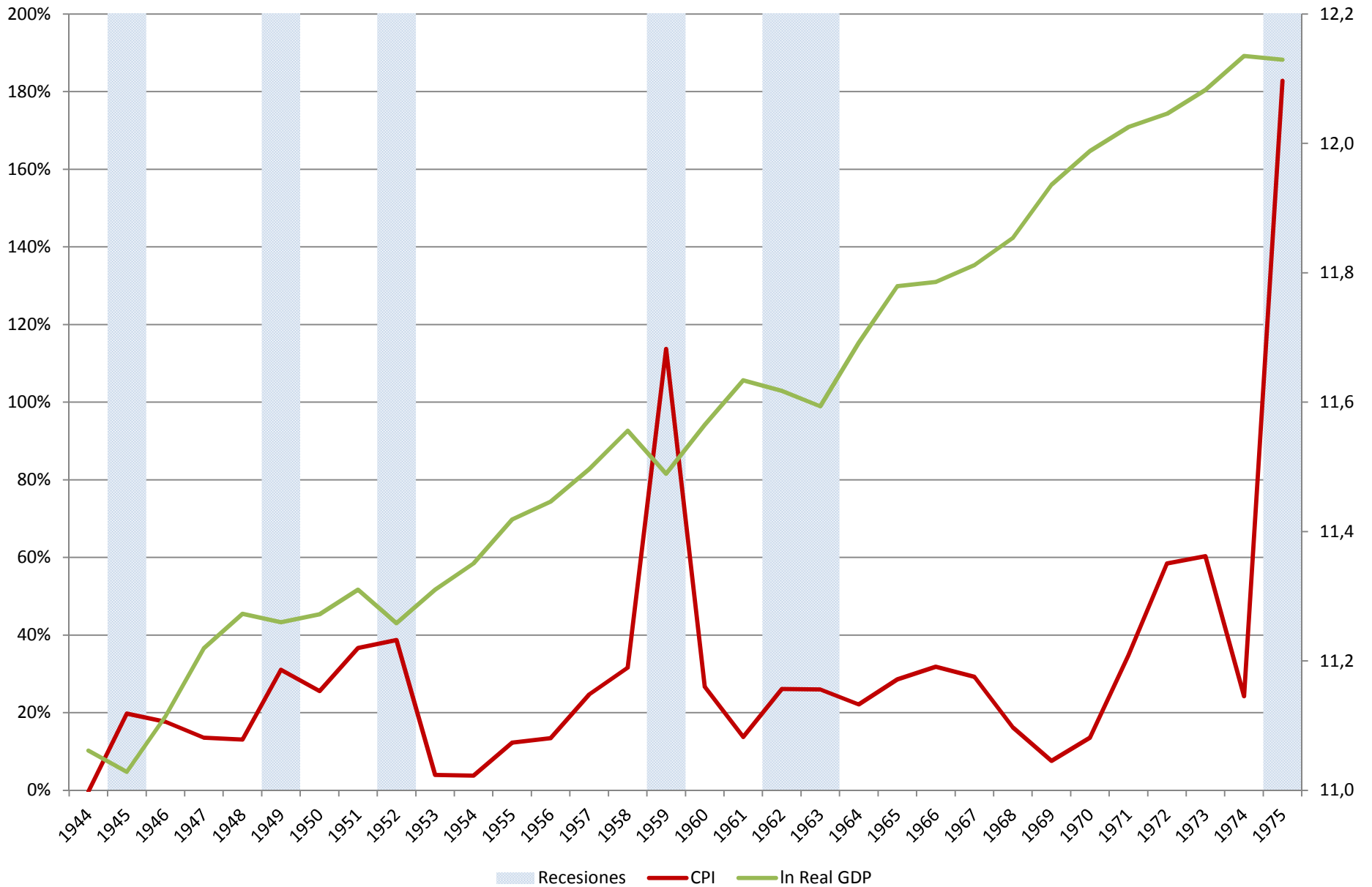
# Mid 1940s- Mid 1970s

## Chronic Inflation

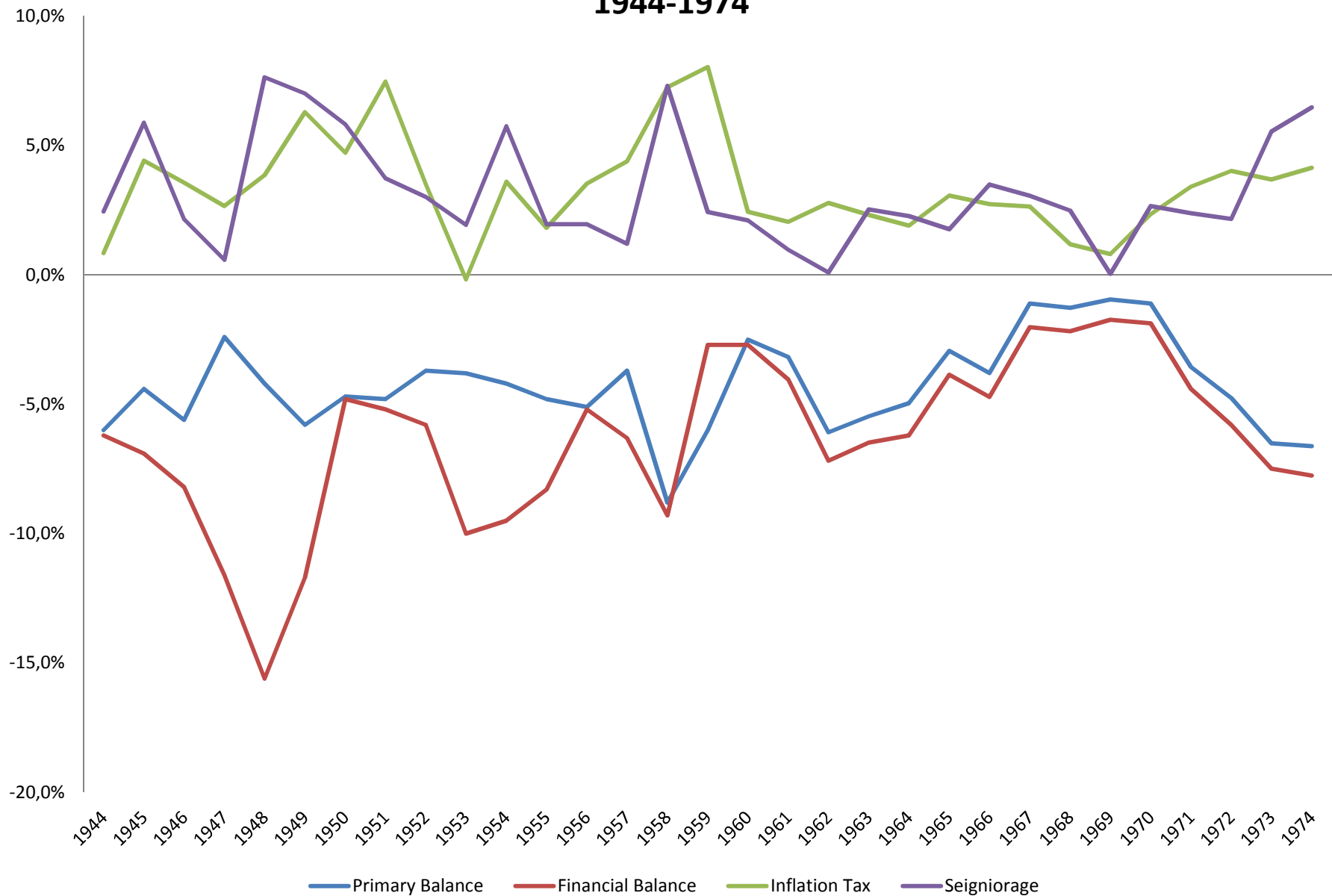
- Distributive tensions
  - Exchange rate-wages (varying setups for wage negotiations)
  - Fiscal deficit
- Sizeable values of seigniorage, inflation tax; declining demand for money and other domestic assets.
- Limited use of formal indexation. But adaptations:
  - Inflation factored in behavior shortening of contracts
- Major program (1967) unsuccessful;
  - Social tensions
  - Inflationary acceleration early 1970s



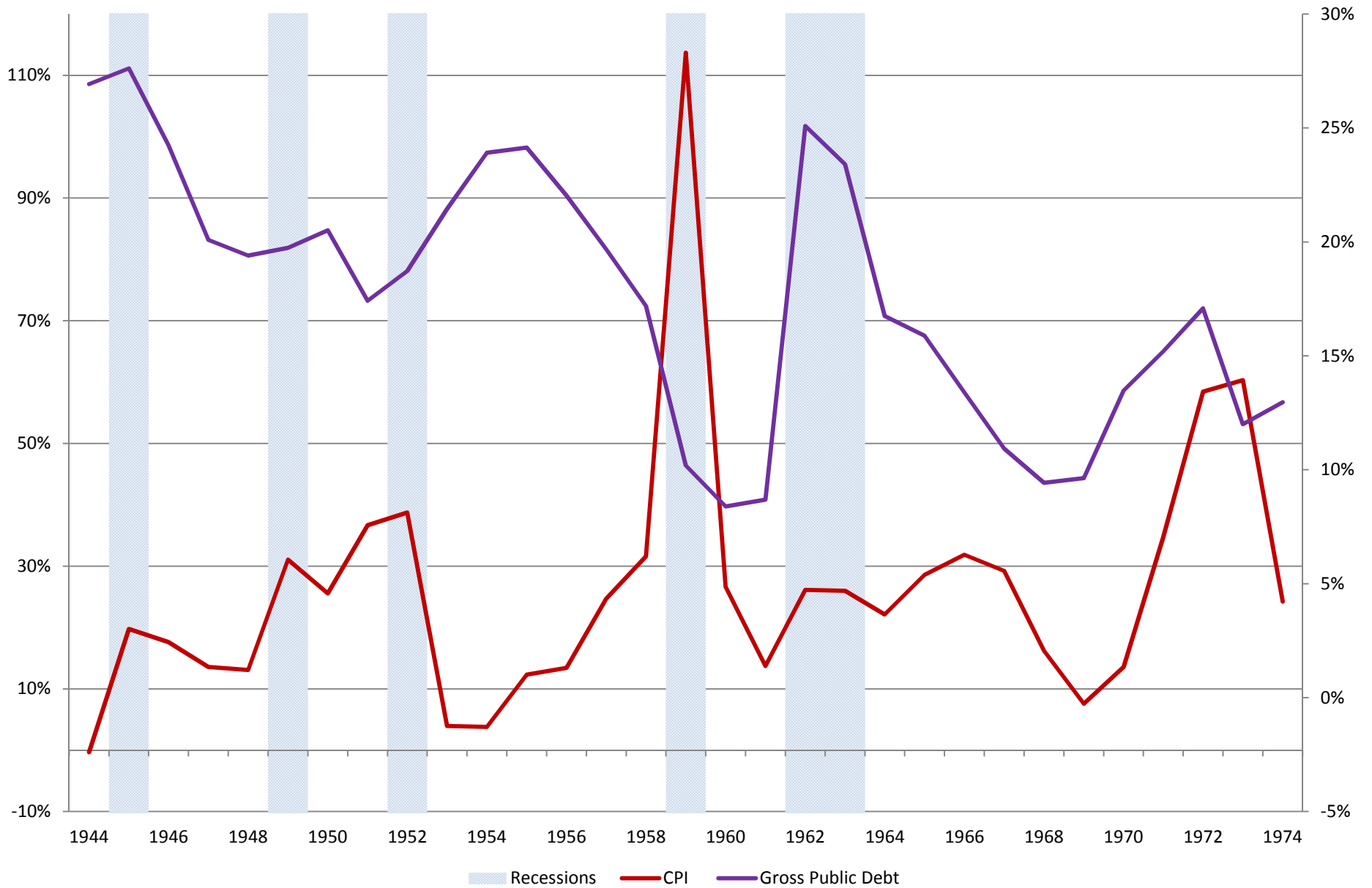
# Inflation and Real GDP (Logs) 1944-1975



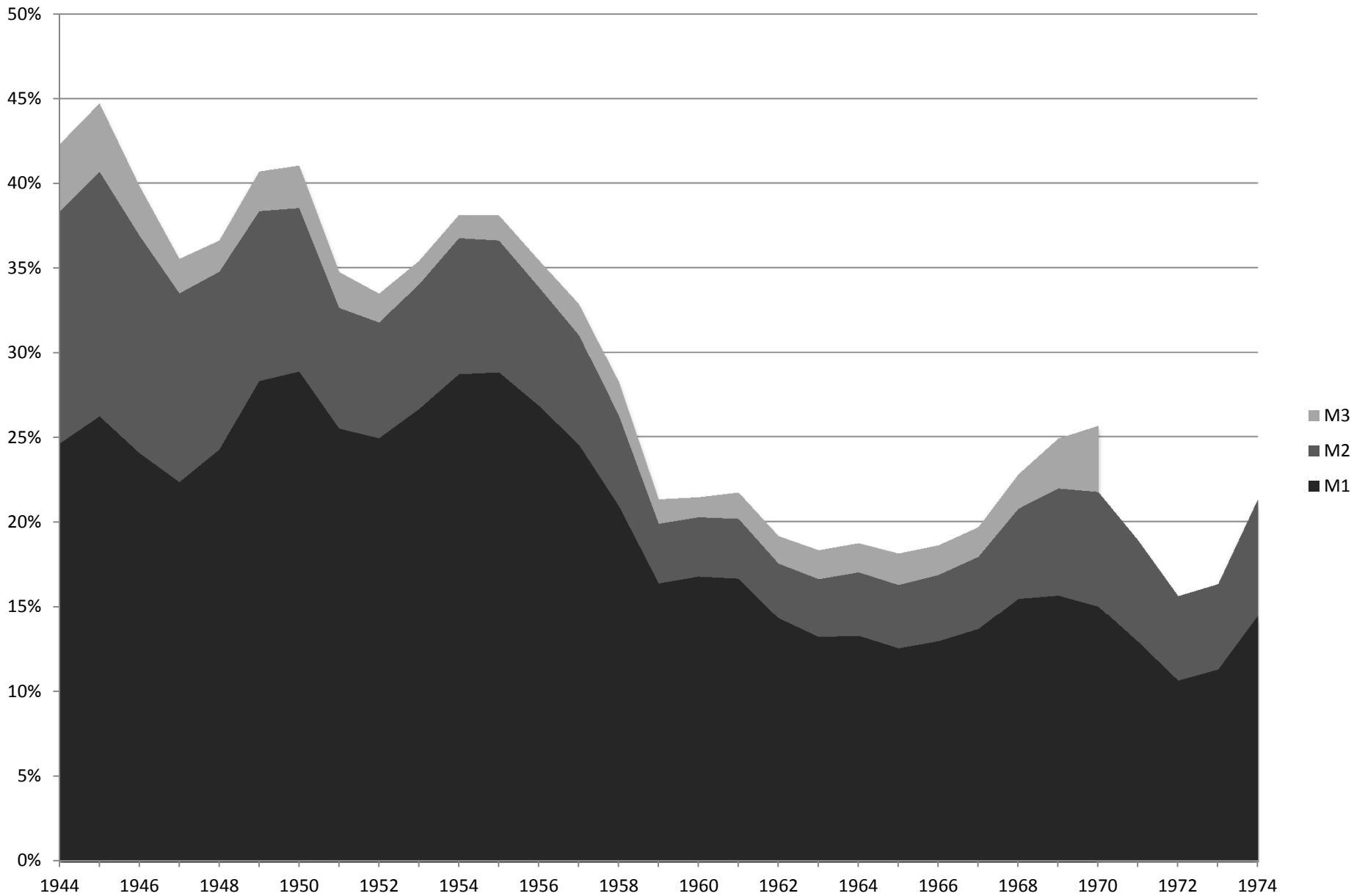
# Fiscal Balance (Primary and Financial), Seigniorage and Inflation Tax (%GDP) 1944-1974



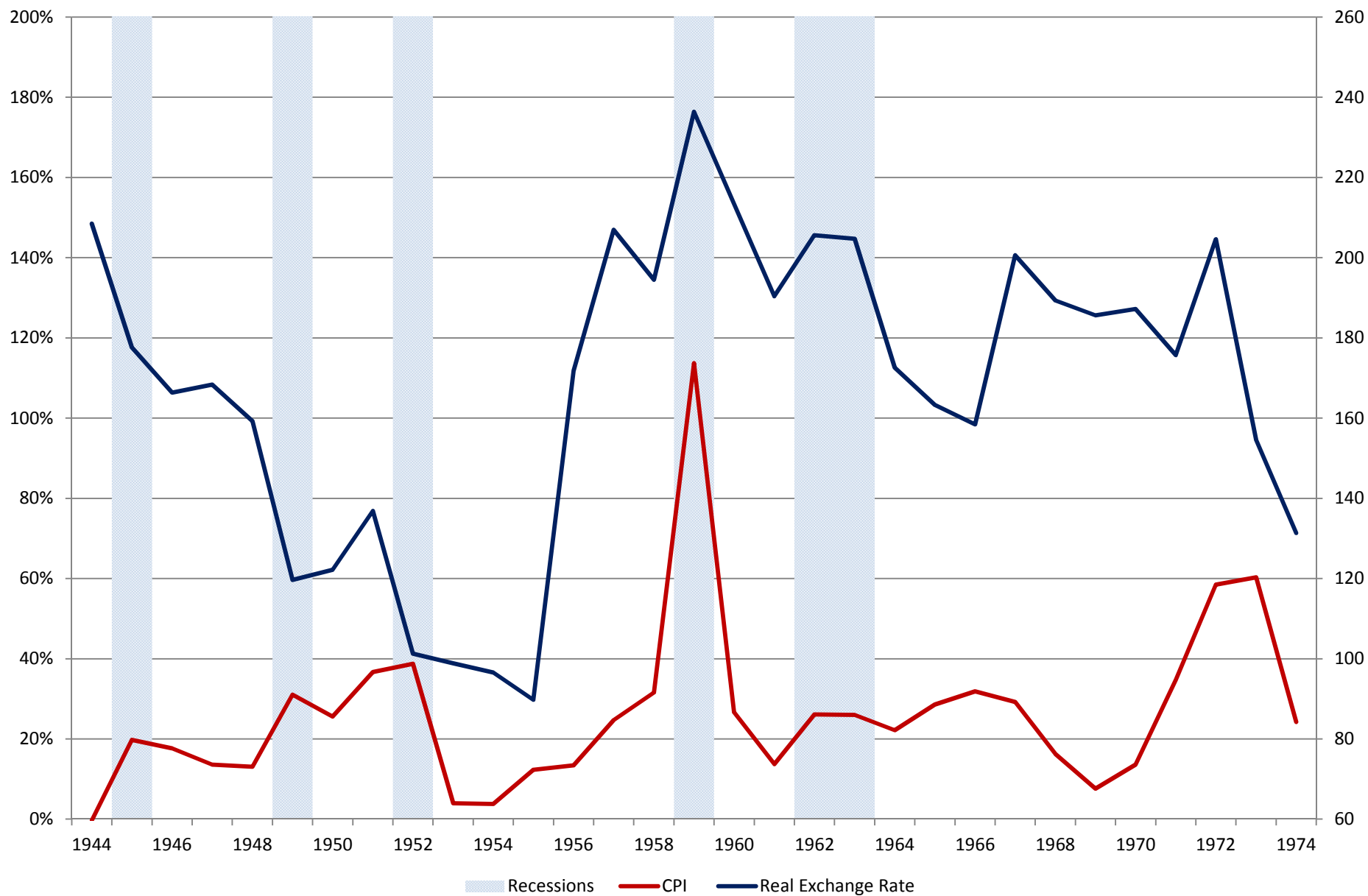
# Inflation and Gross Public Debt (%GDP) 1944-1974



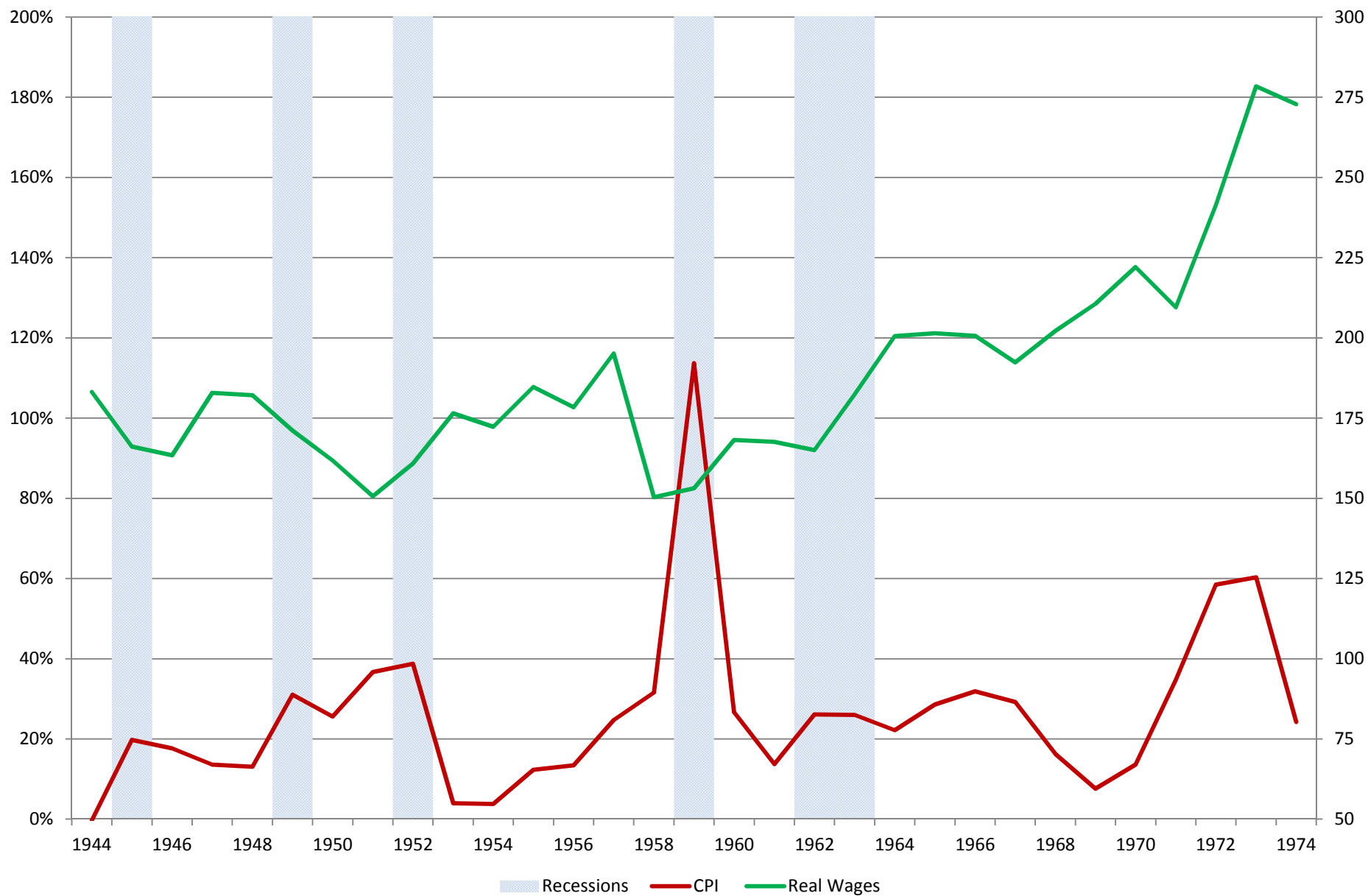
# Liquidity Coefficients (%GDP) 1944-1974



# Inflation and Real Exchange Rate 1944-1974



# Inflation and Real Wages 1944-1974



# Mid 1970s- Early 1990s

## High Inflation to Hyperinflation

- Breakdown of economic program 1973- 1975 (large fiscal deficits, real appreciation)
- Huge devaluation
  - Wage reaction (partial)
  - Political turmoil: 1976 coup
- Persistent jump of inflation to new levels
  - Between 1975 and 1990, only two years below 100%; era of monthly rates, until hyper
  - Much lower real wages

# Mid 1970s- Early 1990s

## High Inflation to Hyperinflation

- Different types of attempts against inflation (under same authoritarian govt.)
- Fiscal adjustment , tighter monetary policy(with financial reform); sharp recession, switch to
- Open economy approach:
  - Pre-determined nominal devaluation at decreasing rate
  - Trade liberalization
  - Capital inflows
- Fall in inflation; still high
- Large real appreciation; financial crisis; run on reserves; exit from exchange rate scheme.



# Mid 1970s- Early 1990s

## High Inflation to Hyperinflation

- Early 1980s:
  - real devaluation
  - fiscal deficits, debt crisis (resolution took over 10 years)
  - much higher inflation
- Adaptations:
  - Falling demand for domestic assets. Diffusion of dollar as reference in asset markets (real estate), store of value
  - Further shortening of contracts/planning horizons; monthly wage adjustments, most domestic currency deposits, less than 30 days.
  - Very visible impacts on economic performance; demand for stabilization.

# Mid 1970s- Early 1990s

## High Inflation to Hyperinflation

- Stabilization package 1985 (analogies with Israeli plan around same time): after period of preparation and price realignments, shock program:
  - joint fiscal- monetary measures and incomes policies
  - scheme to avoid sudden increase in real value of nominal debts
- Sharp fall of inflation, recovery of real activity (revival of credit, effect of lower inflation tax on purchasing power)

# Mid 1970s- Early 1990s

## High Inflation to Hyperinflation

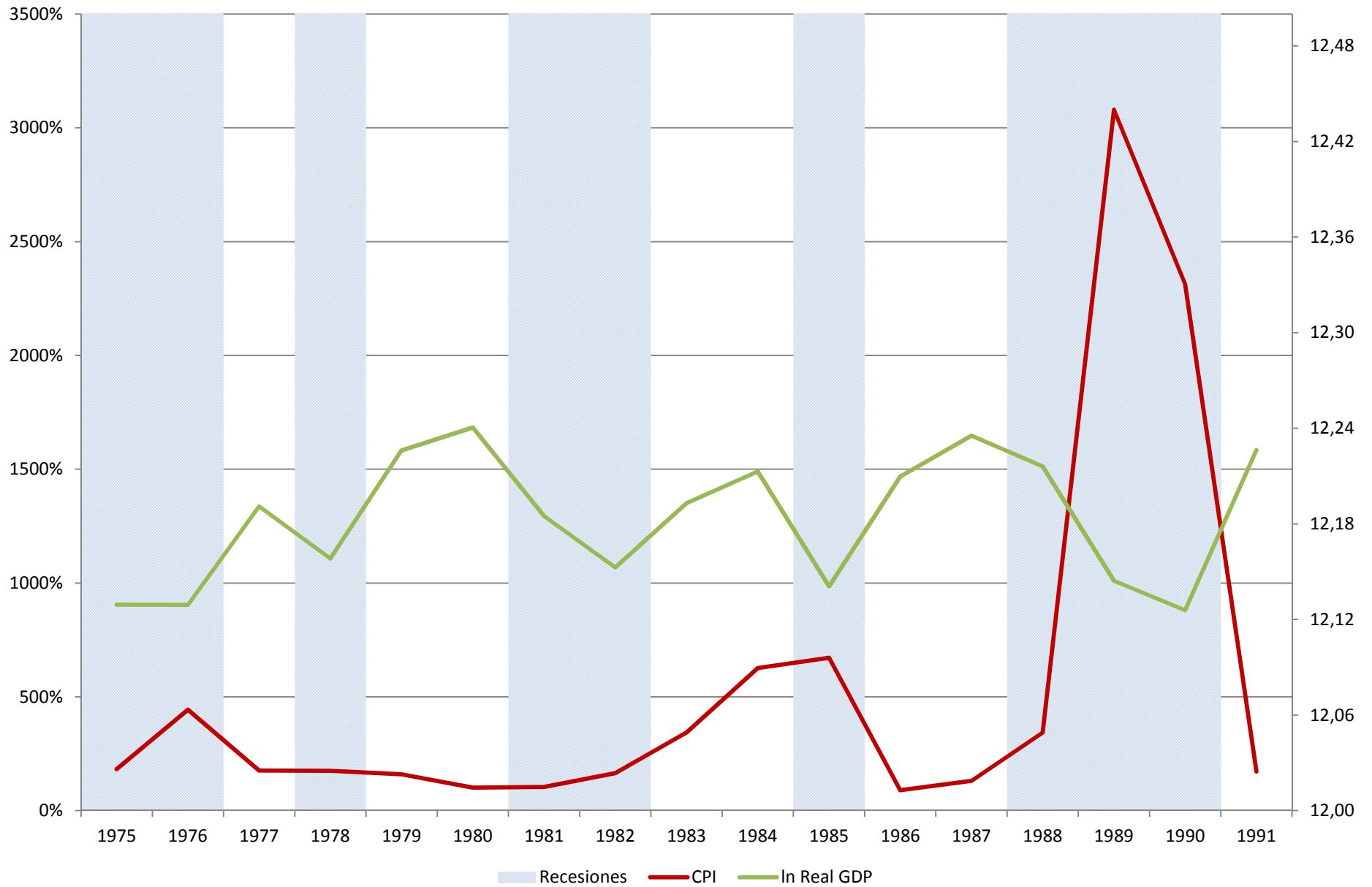
- However, strong pressures on
  - fiscal policies (unresolved debts, demands for spending) and
  - exchange rate (historically low terms of trade),
  - monetary policy, under stress.
- Deterioration of program; eventually: hyperinflationary burst.
  - Monthly price indices irrelevant. Time horizon reduced to few days, even trivial everyday transactions disrupted. In the limit: “closed for the lack of prices”
- Deep contraction
- Generalized use of dollar, in some cases, as denominator of prices.
- Very high real exchange rate; low wages.
- Naturally, fall of money demand, but no collapse of use of currency.

# Mid 1970s- Early 1990s

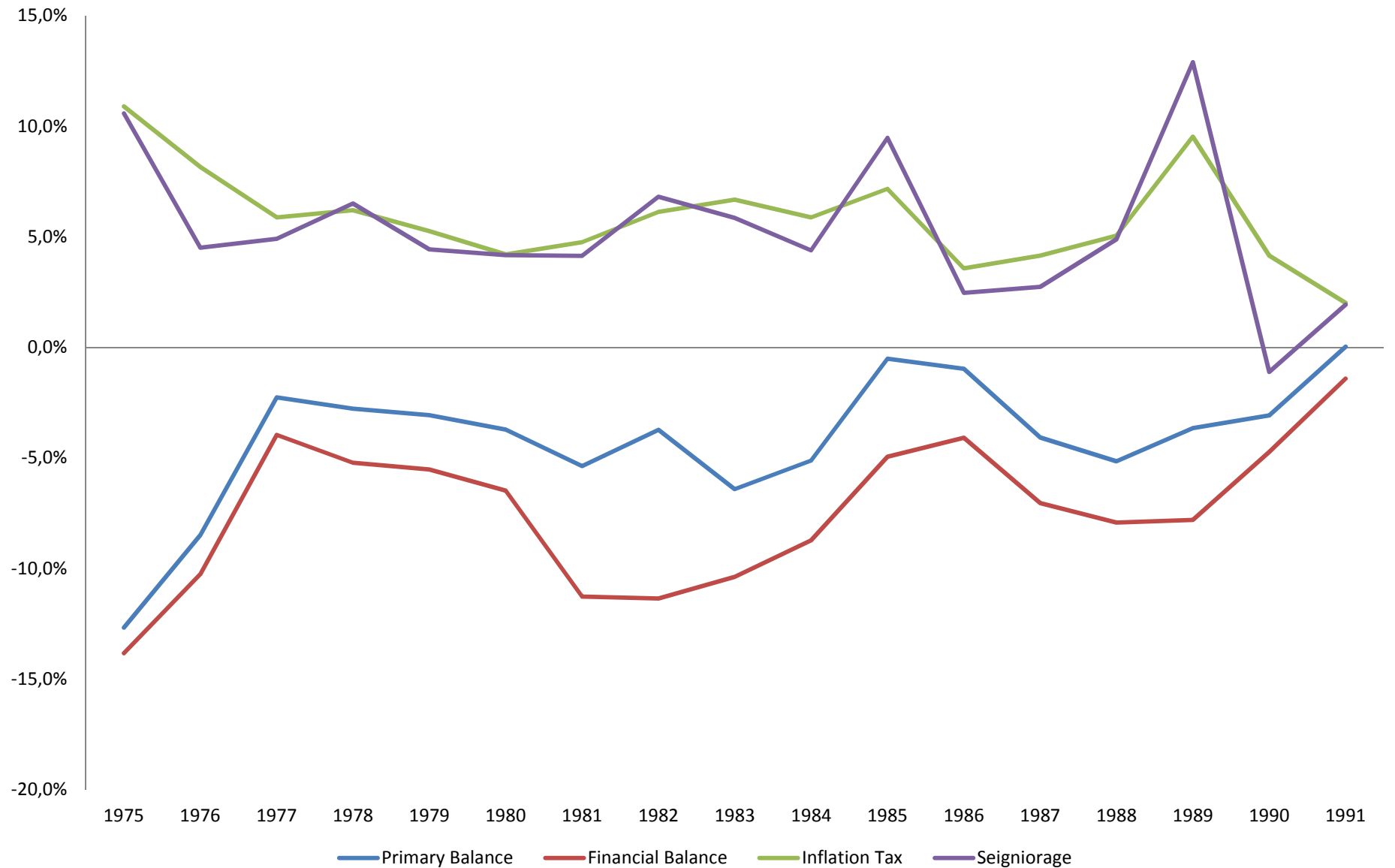
## High Inflation to Hyperinflation

- Transition of nearly two years under new government:
  - attempts at tightening fiscal- monetary policies, partial effects.
- After two large ups and downs of inflation (relapses into hyper), deceleration, but still very high; no definite change in regime.

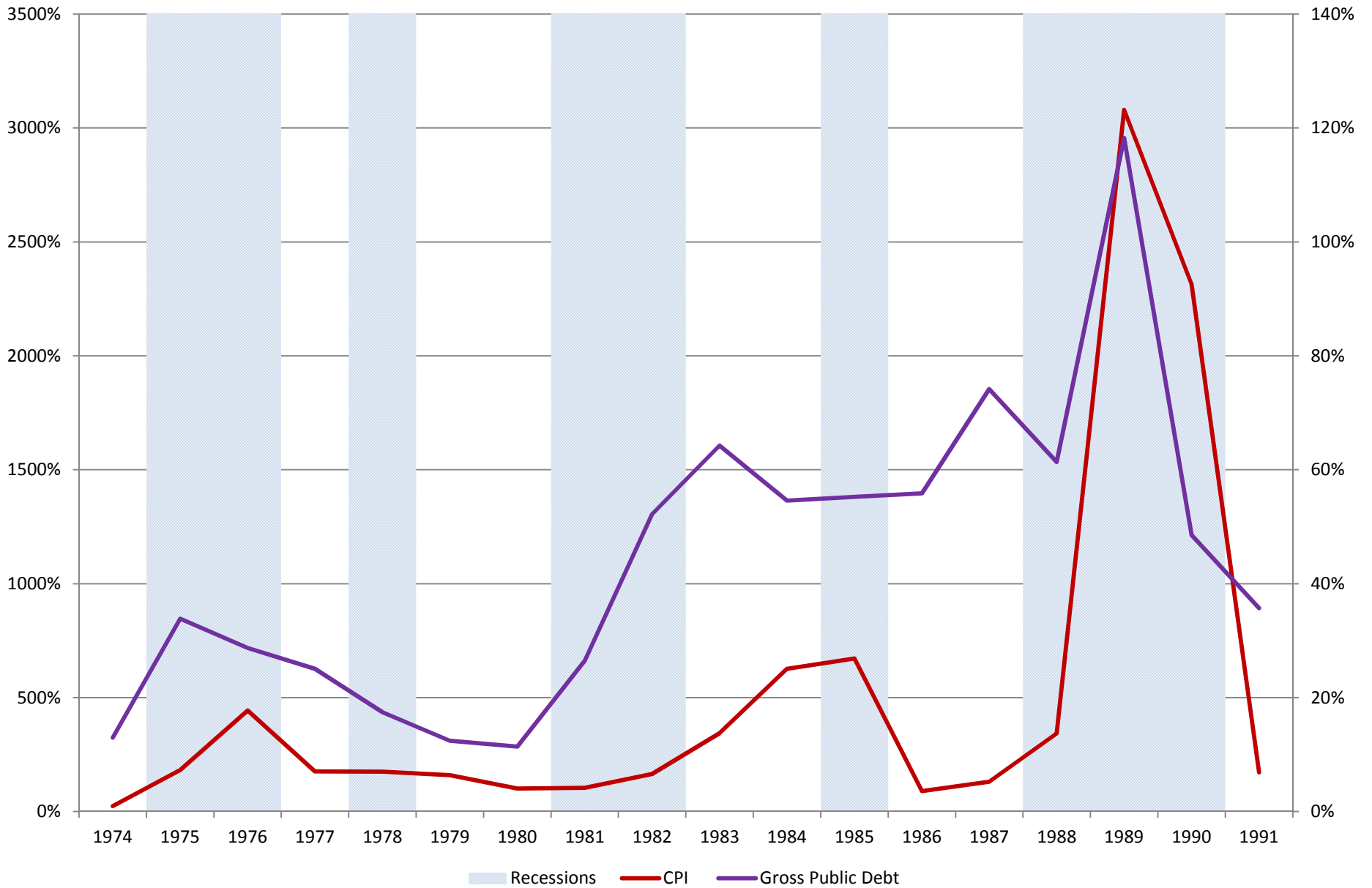
# Inflation and Real GDP (Logs) 1975-1991



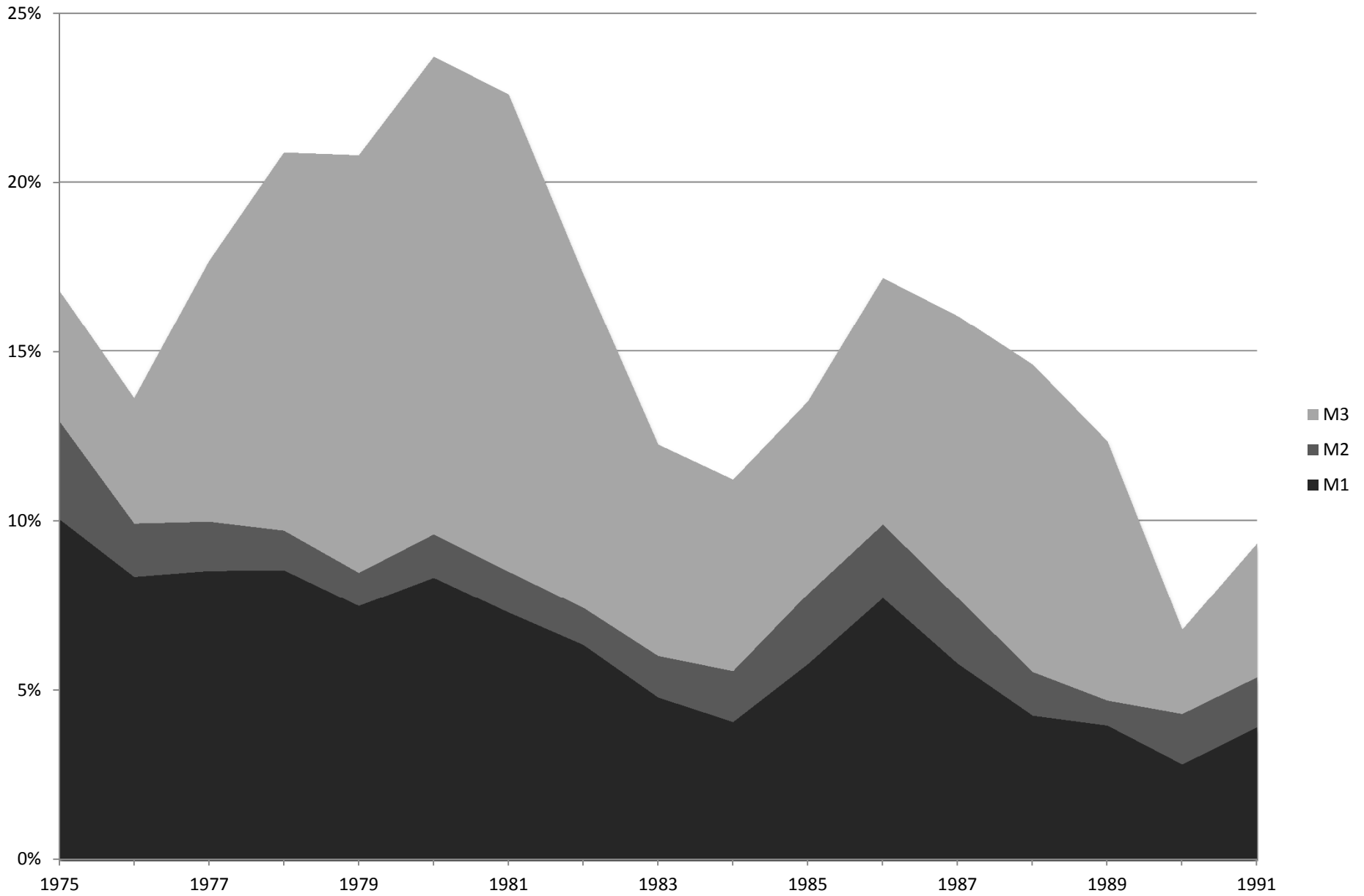
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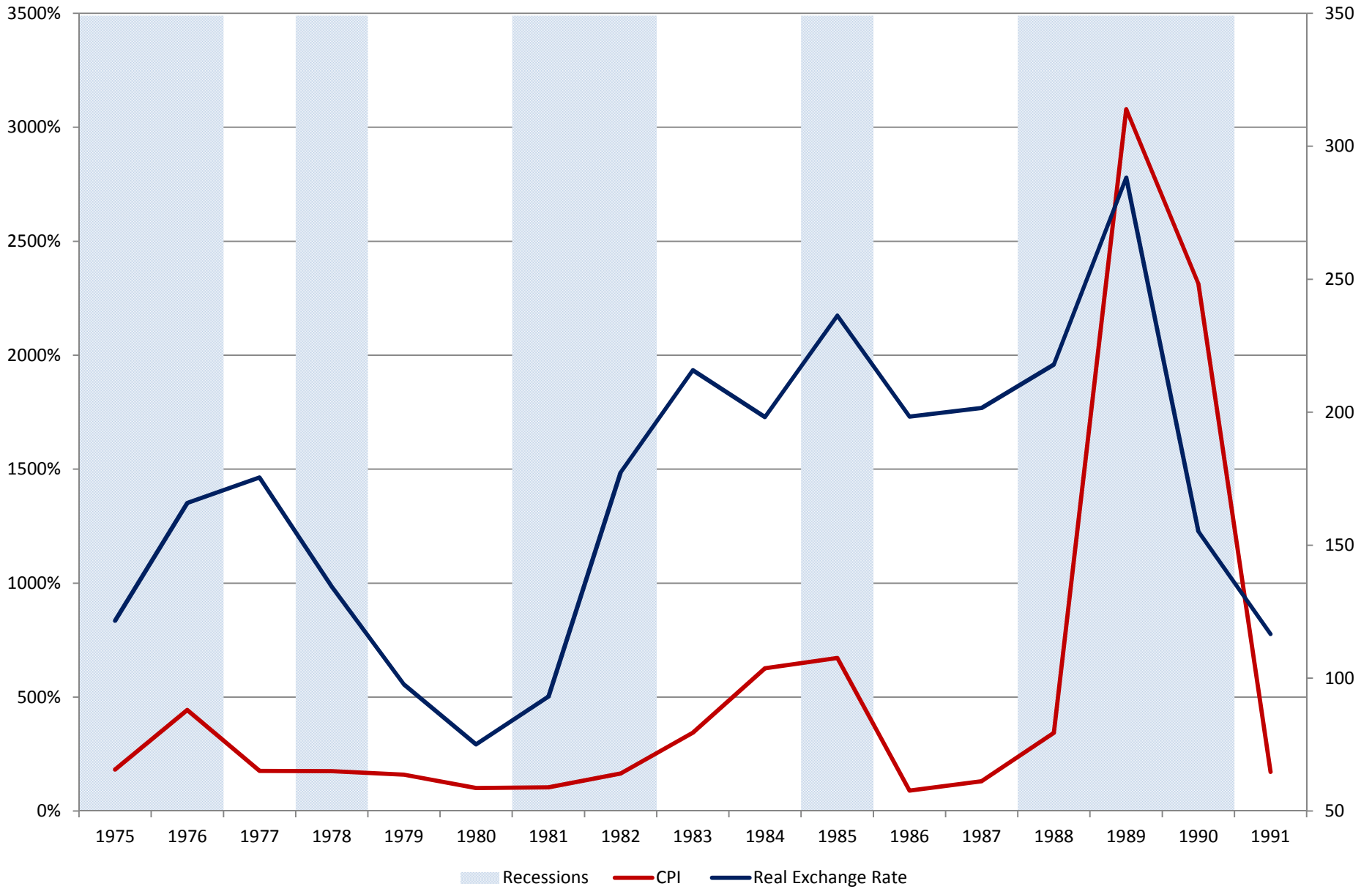


# Liquidity Coefficients (%GDP) 1975-1991

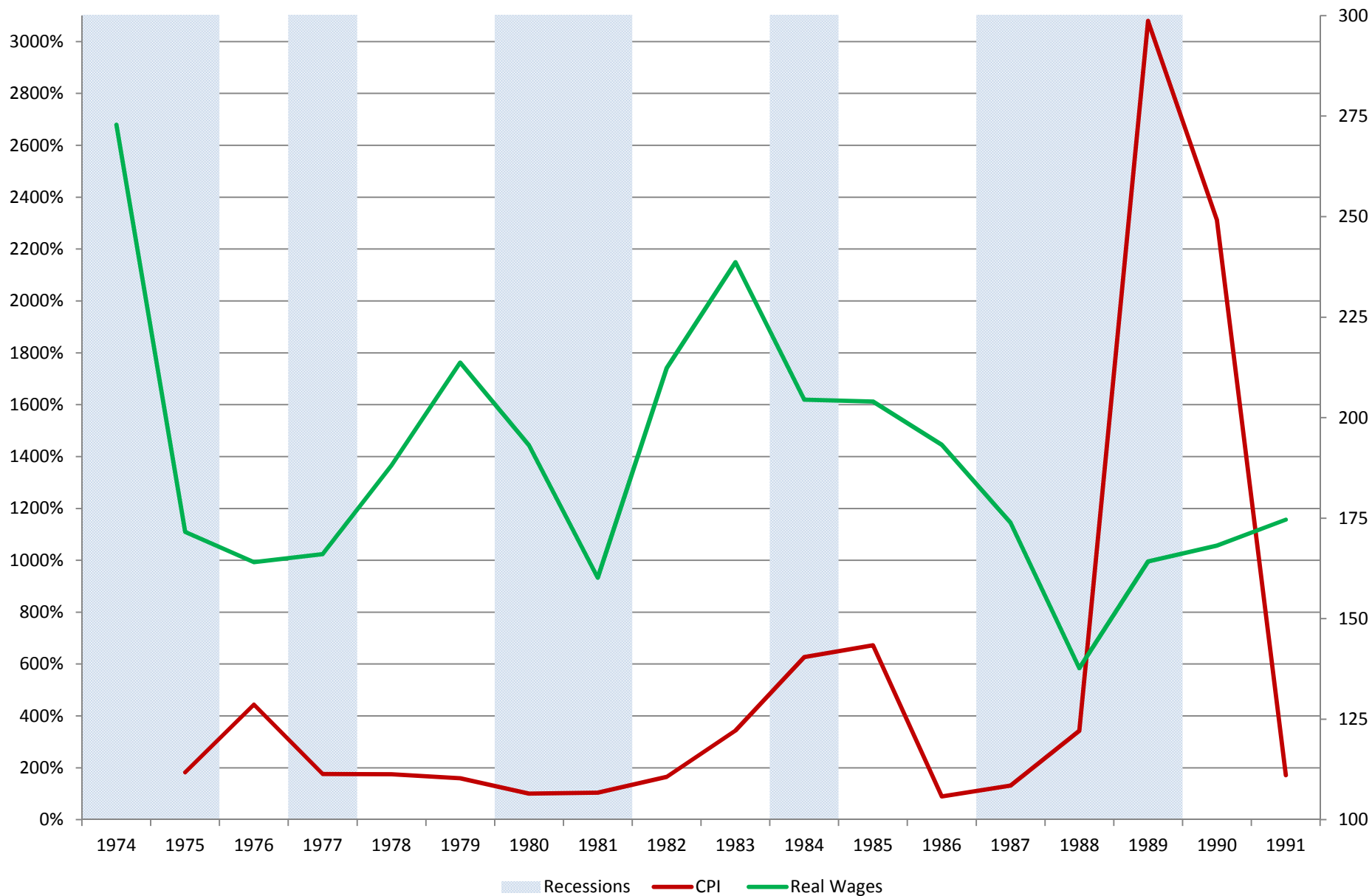




# Inflation and Real Exchange Rate 1975-1991



# Inflation and Real Wages 1975-1991



# Early 1990s- Today

Stabilization, Collapse, Recovery, Unfinished Transition

- Convertibility system (1991): aim at clearcut stabilization. Centerpiece: (quasi) currency board setup for central bank
  - Separation between fiscal and monetary policies
  - Strict peg to the dollar, as most visible anchor.
  - Indexation to prices not allowed, dollar contracting admitted (or promoted). In fact “bi- monetary” financial system. Crucial in eventual fate of program

# Early 1990s- Today

Stabilization, Collapse, Recovery, Unfinished Transition

- In addition: major reforms
  - Trade liberalization
  - Large- scale privatizations
  - Fiscal measures (e.g. social security reform)
  - Restructuring of public debt (Brady plan); reopening of foreign credit, particularly for government

# Early 1990s- Today

Stabilization, Collapse, Recovery, Unfinished Transition

- Initial effects
  - Sharp disinflation, converging to price stability; however, substantial price drift, real appreciation
  - With rapid increase in domestic demand, real activity. Strong credit growth, foreign, domestic; mostly dollar- denominated
  - From large trade surplus to deficits in few years; at the same time, reserve accumulation associated with higher demand for domestic assets under convertibility

# Early 1990s- Today

## Stabilization, Collapse, Recovery, Unfinished Transition

- Financial shock, 1995; repercussion of Mexican crisis.
  - Strong impact (bank run; recession, very high unemployment) but transitory.
  - Survival of monetary scheme widely interpreted as sign of robustness of policy setup
- Recovery:
  - Strong growth again,
  - Rebound of exports (agricultural, manufactures; Brazilian demand).
- But:
  - High unemployment (impacts on manufacturing activities, K/L substitution),
  - Worsening distribution.
- Persistent demands for foreign financing.
  - Rising mass of dollar debts;
  - Sustainability crucially dependent on generation of income in dollar terms (real exchange rate)

# Early 1990s- Today

Stabilization, Collapse, Recovery, Unfinished Transition

- Decline
  - Export jump: step, not trend. Fall in terms of trade; Brazilian devaluation
  - Tightening of financial conditions. Recession starts in 1998; emergence of doubts about sustainability.
  - Measures of fiscal adjustment; ineffective in weak economy.

# Early 1990s- Today

Stabilization, Collapse, Recovery, Unfinished Transition

- Acceleration of crisis, breakdown, 2001
  - Sharp fall in demand, real activity, employment.
  - Deflation
  - Growing doubts about repayment of public debt: direct evidence in «country risk» indicators
  - Concerns about solvency of financial system; fall in deposits at increasing pace
  - Resistance to further adjustments (which included wage reductions in public sector)
  - Still, fears about consequences of exit from convertibility



# Early 1990s- Today

Stabilization, Collapse, Recovery, Unfinished Transition

## ■ Breakdown

- Run on the banks. Suspension of cash withdrawals;
- Political crisis
- Stop payment on public debt
- Convertibility abandoned; steep jump of exchange rate (converged to 3 times convertibility level)
- Dramatic conversion of dollar bank deposits and loans into domestic currency. Widespread renegotiation of other debts.

# Early 1990s- Today

## Stabilization, Collapse, Recovery, Unfinished Transition

- Immediate impact
  - Further contraction of real activity
  - Large social effects (unemployment, poverty rates)
  - Weak wage reaction to large depreciation, especially in public sector
  - Fiscal deficit reversed (in midst of depression); weakens pressure on monetary policies
  - Large capital outflow, but exchange market balanced eventually
  - Relatively small pass-through; price increases (accumulated, 40% against 200% devaluation) but deceleration when exchange rate stops rising
  - Outcome: large real depreciation

# Early 1990s- Today

## Stabilization, Collapse, Recovery, Unfinished Transition

- Rapid recovery
  - Exchange rate stabilization normalizes routine transactions; induces use of highly appreciated dollar assets for domestic spending, initiates rebound of real activity
  - Elastic supply response: abundant unused resources
  - Improvement of terms of trade
  - «Twin surpluses»: external, fiscal
  - Restructuring of government debt (in two rounds); acceptance over 90% although substantial haircut (but litigation with holdouts eventually very complicated)

# Early 1990s- Today

Stabilization, Collapse, Recovery, Unfinished Transition

- Inflationary trends
  - CB prevents nominal appreciation; fall in real exchange rate plausible when domestic spending recovers: price adjustment implicit
  - But not only convergence of price level; return of entrenched inflation, moderate for historical standards, but high in international comparison
  - Macro policies aimed at raising demand; costs of inflation downplayed

# Early 1990s- Today

Stabilization, Collapse, Recovery, Unfinished Transition

- Adaptations:
  - No indexing (unreliable price indices) but
  - Inflationary expectations embedded in behavior
- Increasingly: exchange rate and public utility prices used as anchors:
  - Real appreciation and
  - Fiscal deficits, financed to large extent by central bank (limited market for government bonds)

# Early 1990s- Today

Stabilization, Collapse, Recovery, Unfinished Transition

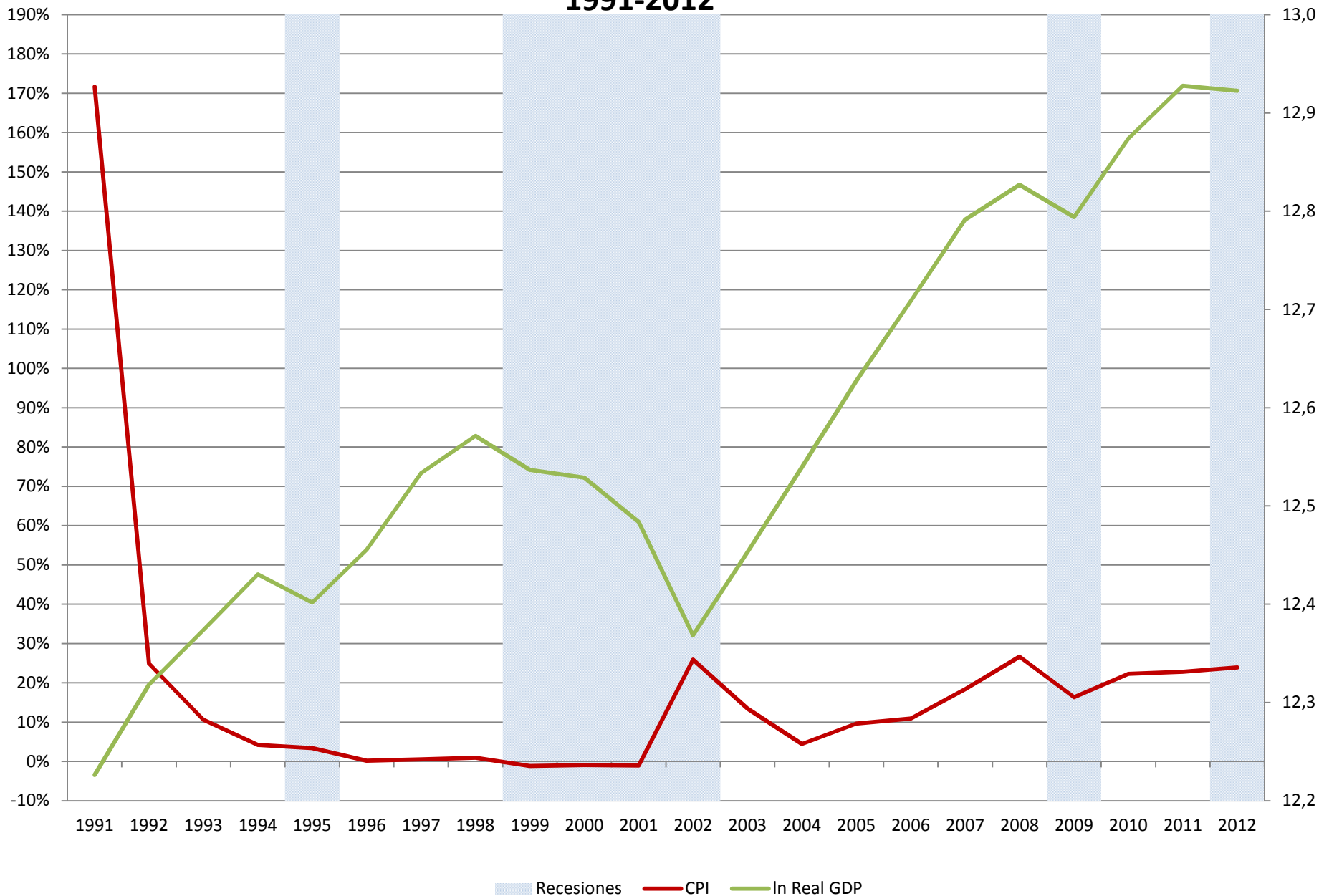
- Real activity:
  - Impact of international crisis, then strong recovery until 2011; from then on, oscillations with weak average growth
- Over time:
  - Increasing excess demand for foreign currencies.
  - Fall in reserves (from high values) led to exchange controls, import restrictions

# Early 1990s- Today

Stabilization, Collapse, Recovery, Unfinished Transition

- Macro conditions problematic
- Inflation general concern
- To be continued...

# Inflation and Real GDP (Logs) 1991-2012

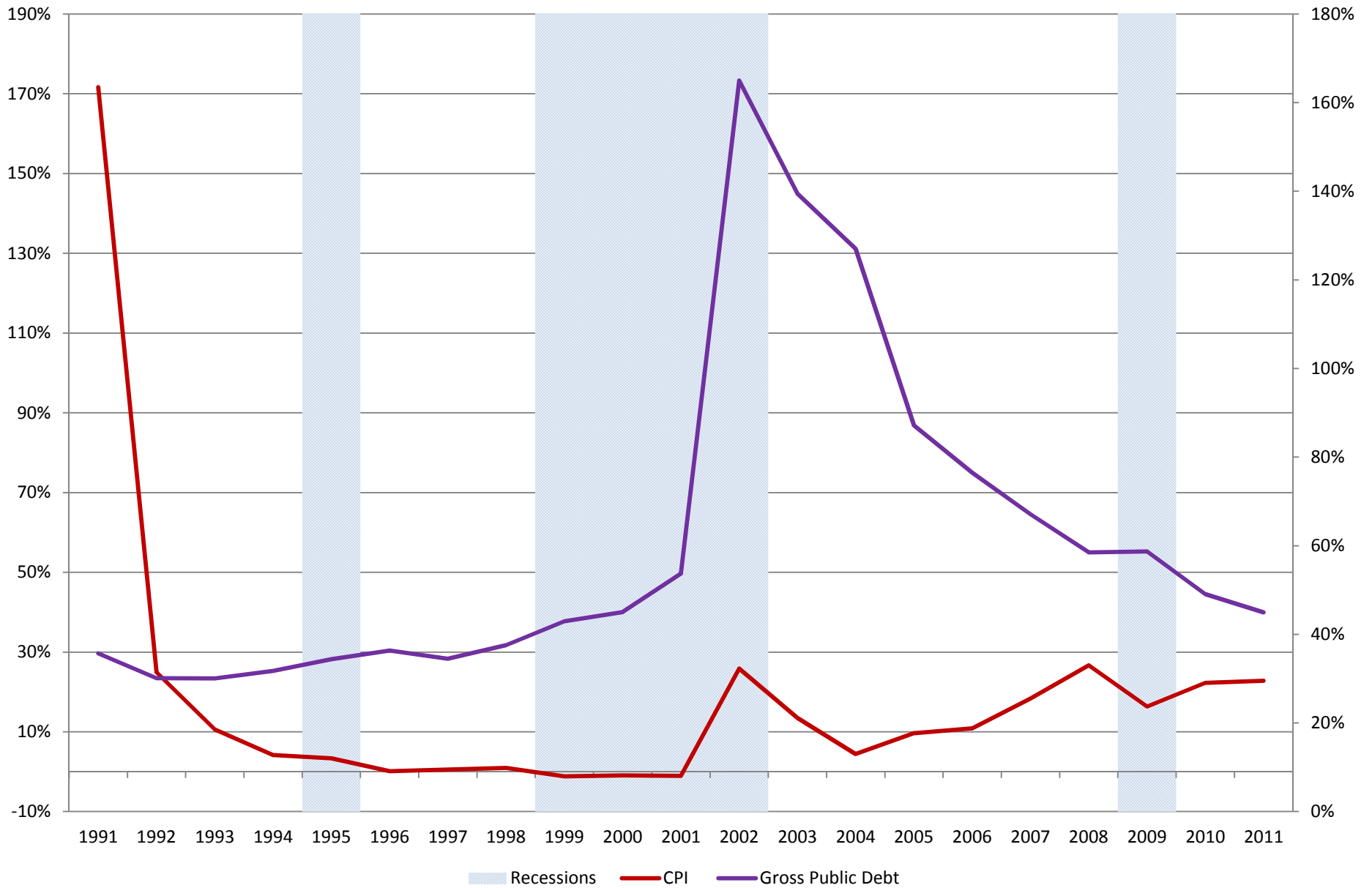




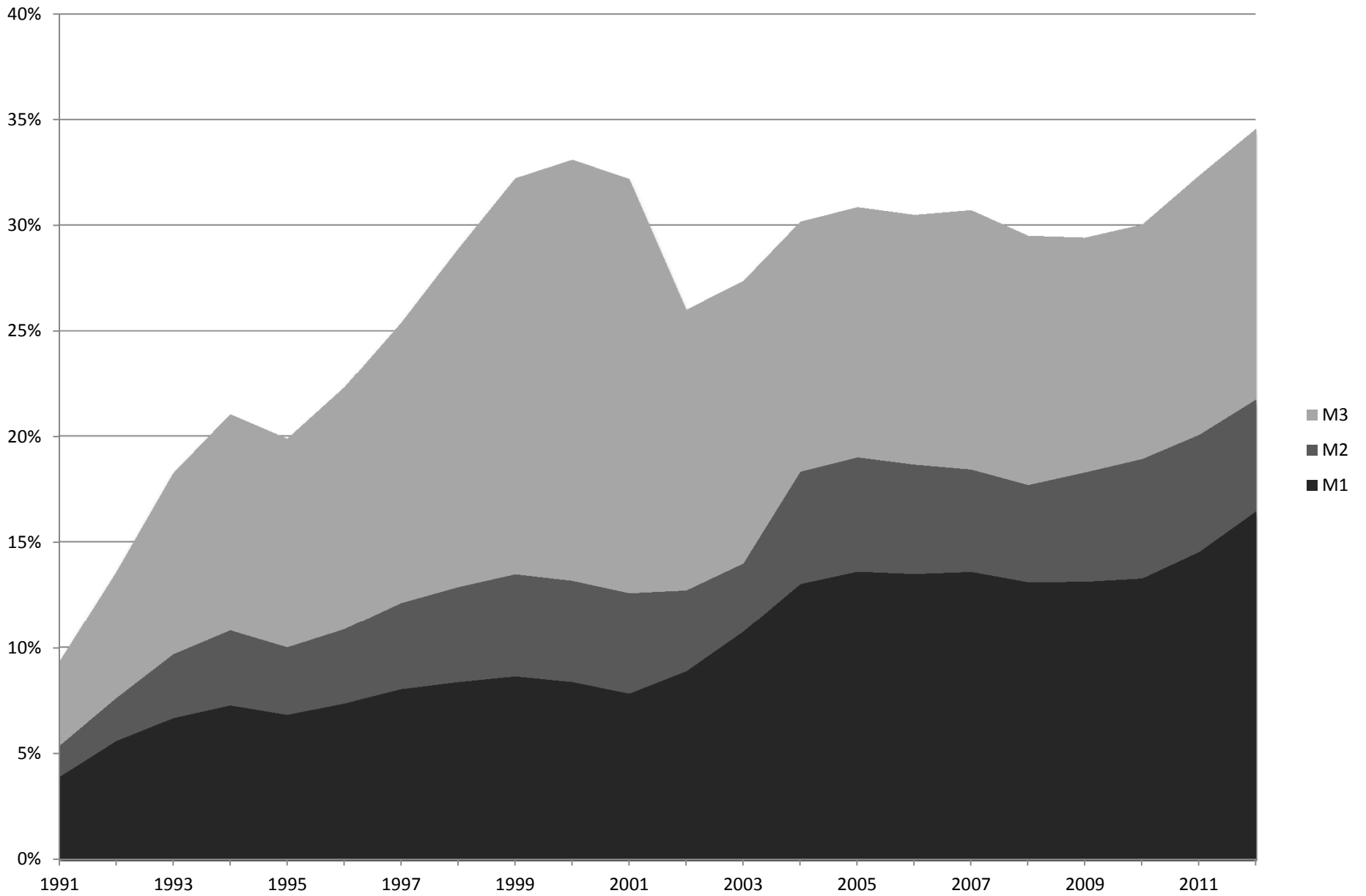
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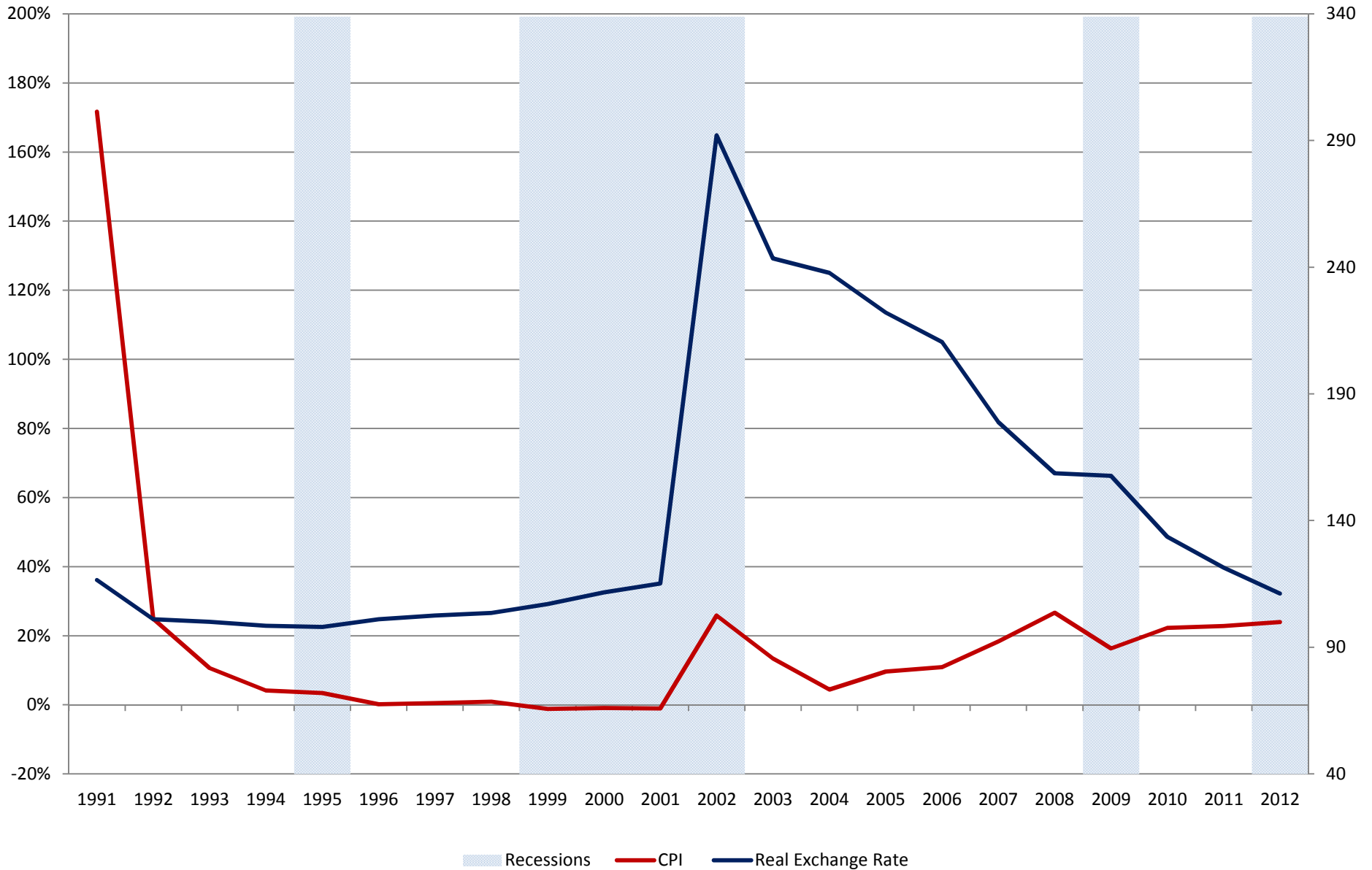
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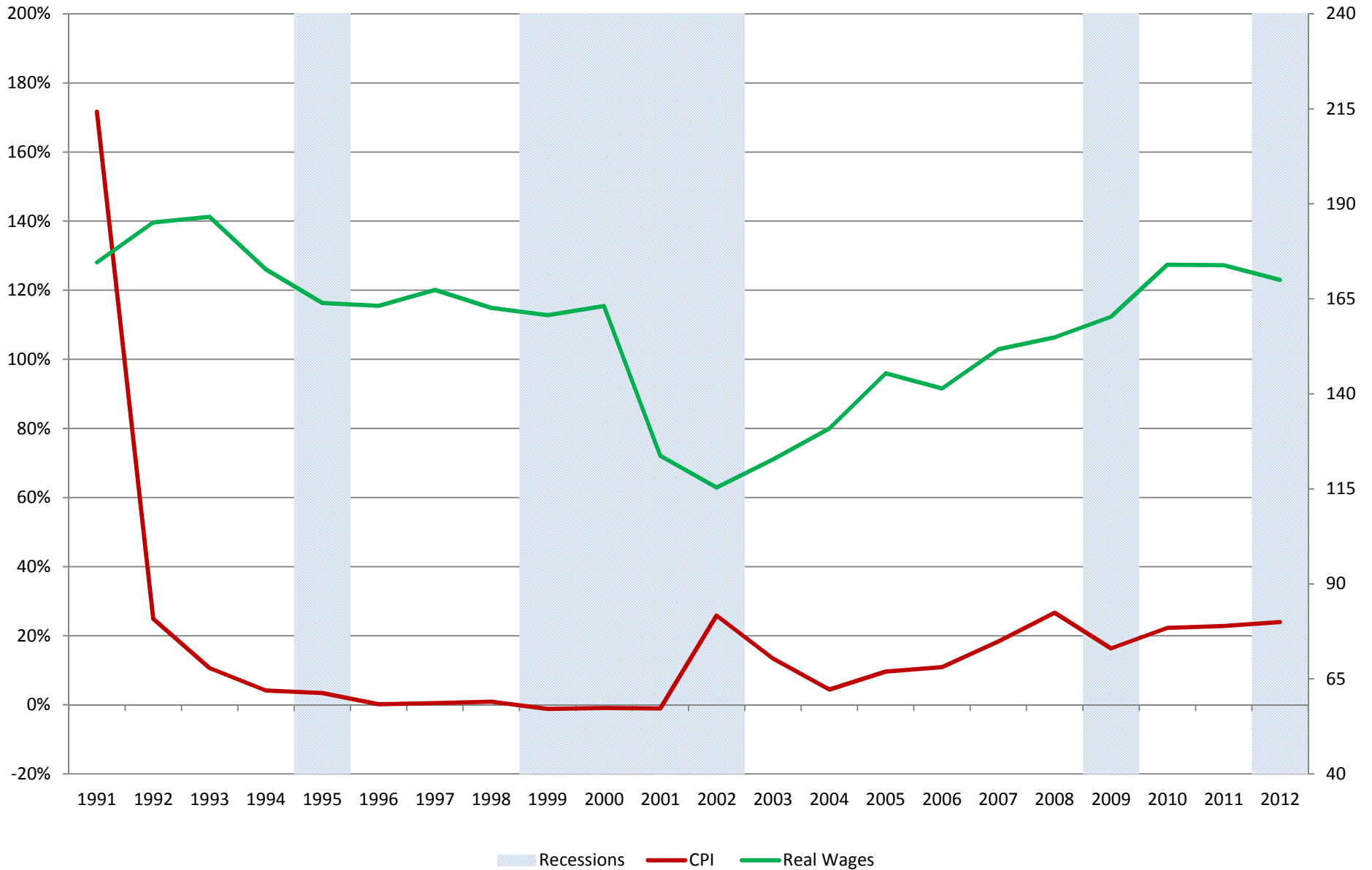
# Liquidity Coefficients (%GDP) 1991-2012



# Inflation and Real Exchange Rate 1991-2012



# Inflation and Real Wages 1991-2012



**Thank You!**