NGDP TARGETING
IS 5% TOO MUCH?

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Introduction

- Two different positions:
  - Taylor Rule: Monetary policy was *too loose for too long* after 2002
  - Market Monetarism: NGDP growth rate of 5% was appropriate
- Which reading is correct?
  - NGDP Targeting principle might be right…
  - … but the target may be wrong

Monetary equilibrium and NGDP Targeting

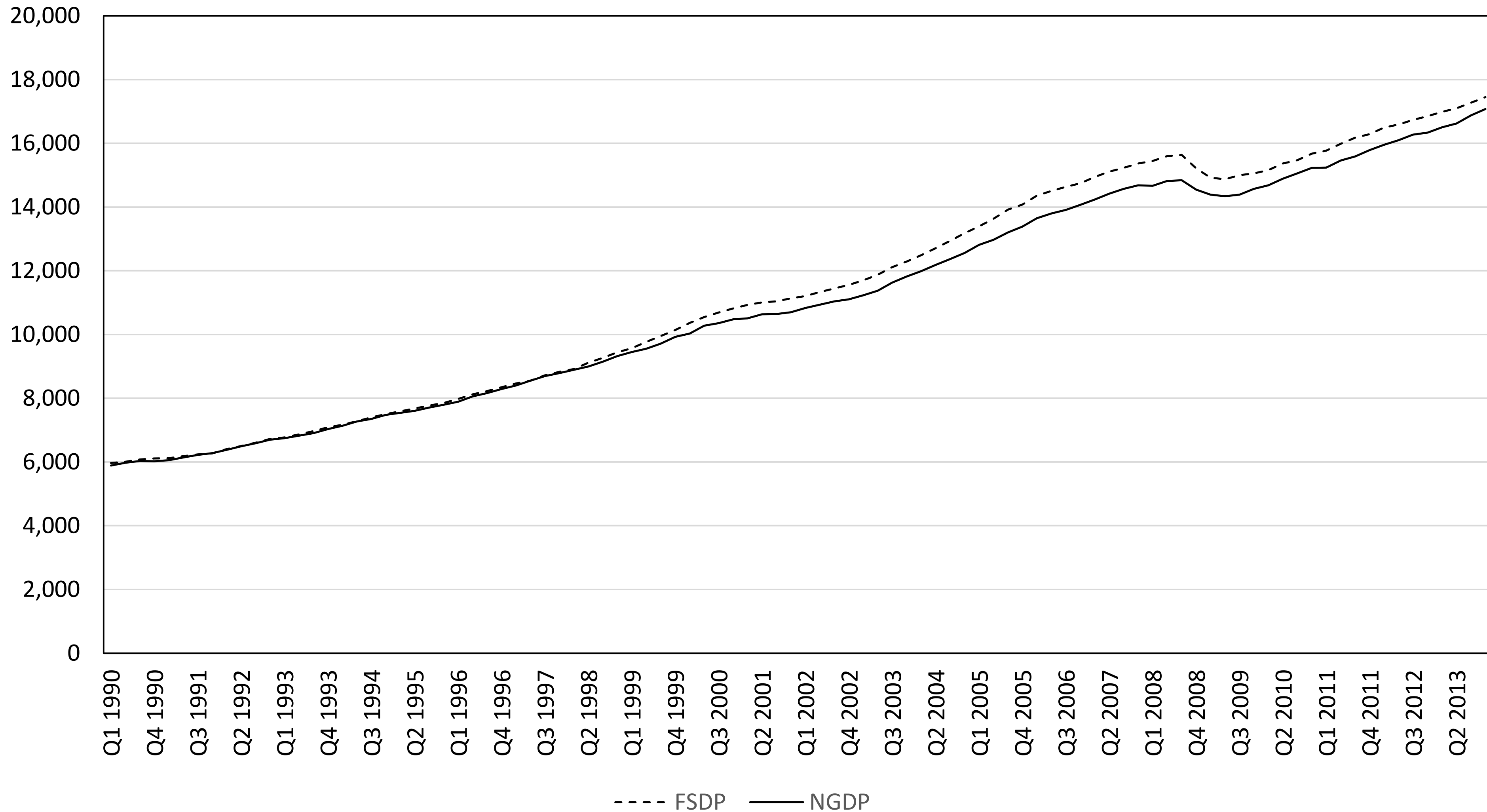
- NGDP Targeting:
  - 5% growth rate
  - Other growth rates are possible
- If there is monetary equilibrium then other variables should present a specific behavior:
  - (1) Nominal income should not deviate from trend
  - (2) Price of intermediate goods should not rise faster the price of finals goods and services
  - (3) Compare NGDP to a broader measure that follows more closely *all transactions*
  - (4) Federal Funds rate should be at its "natural" (long-run equilibrium) level

(1) Deviations from trend

- Niskanen (1992, 2001) proposes “Finale Sales to Domestic Purchases” (FSDP) as a better measure than NGDP

- 2001-2007 yearly growth rates
  - NGDP: 5.5%
  - FSPD: 5.4%
- 2001-2007 yearly growth of trend
  - NGDP: 4.9%
  - FSDP: 4.7%

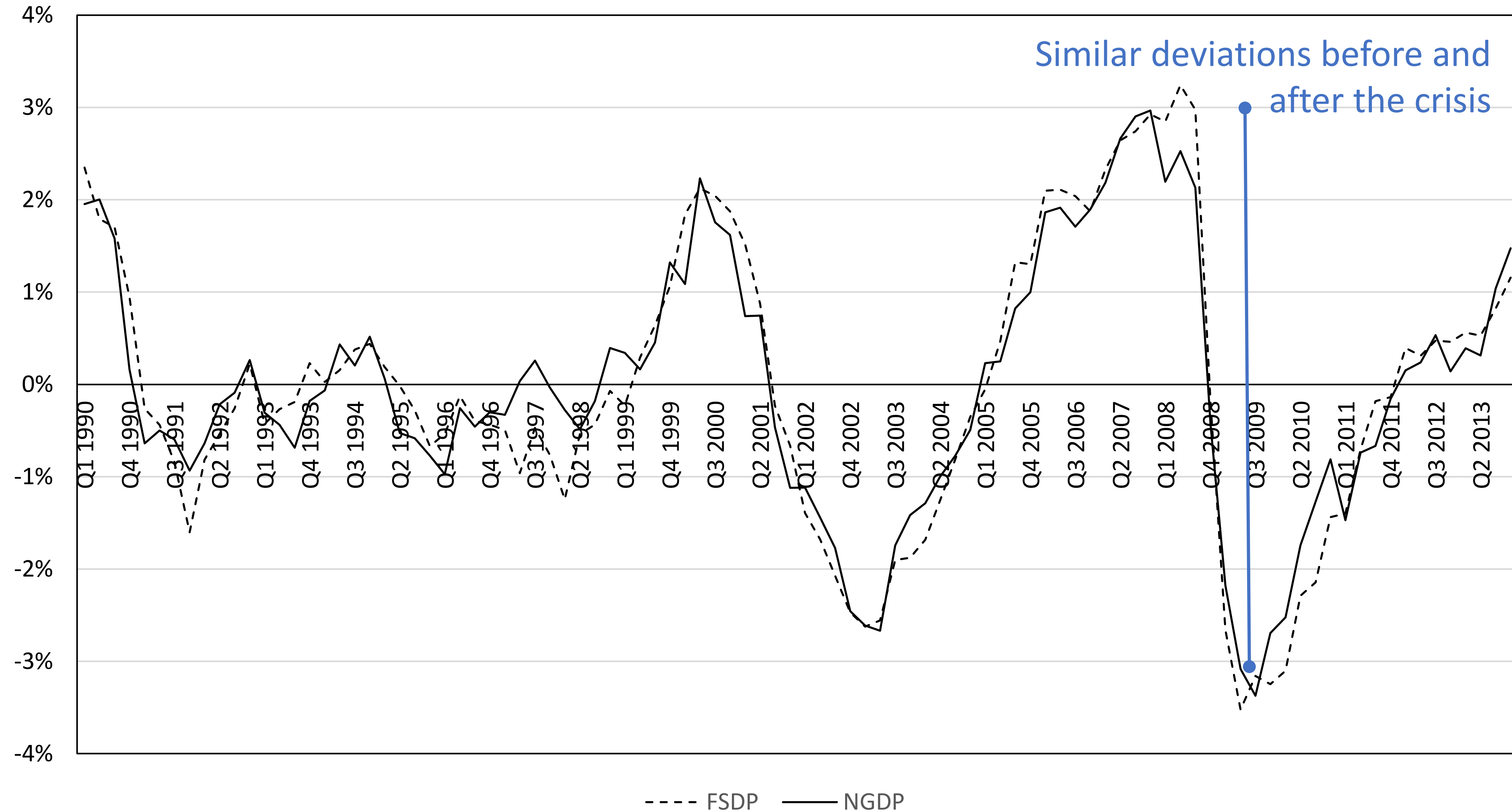
(1) Deviations from trend



(1) Deviations from trend

- Trend deviations are also similar for both series
- However, there is a deviation *before* and *after* the crisis of *similar* magnitude
- If what matters is to stay on the trend, then both deviations should matter
- There is a difference:
  - Deviation before the crisis is more extended in time
  - Deviation after the crisis is sudden
  - This is why the first deviation does not show up in the original series

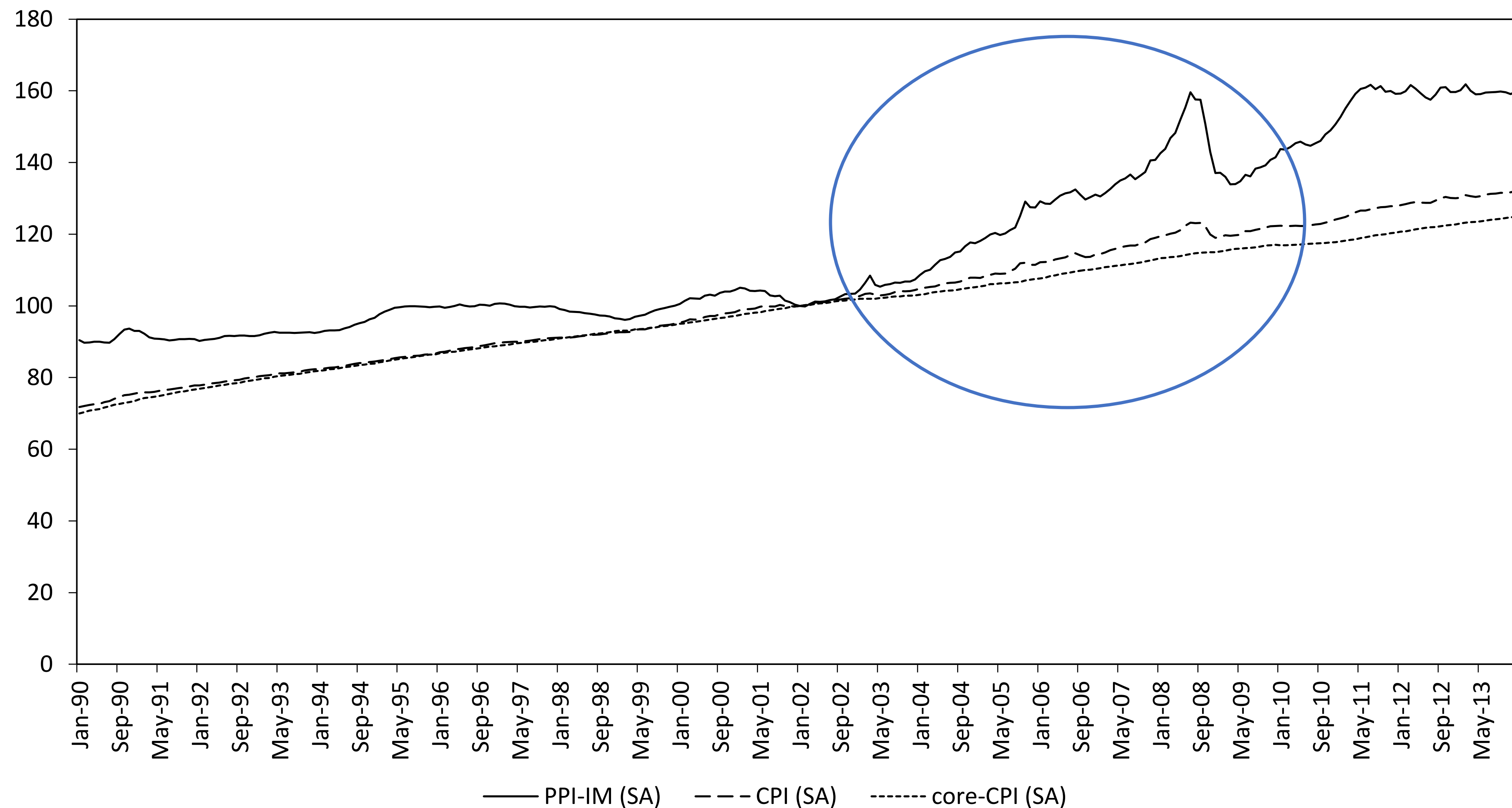
(1) Deviations from trend



(2) Price of intermediate goods

- Inflation: An excess of money supply over money demand
- Implicit inflation: An excess of money supply along with an increase in TFP
  - Price of final goods remain stable
  - But price of inputs and intermediate goods increase

(2) Price of intermediate goods



(2) Price of intermediate goods

- Jan 2002 – Aug 2008
  - CPI: 23%
  - Core-CPI: 14% (~ 2% yearly, arguably the Fed's target)
  - PPI-IM: 60%
- 2002-2007
  - TFP: 3.3%
- Yearly inflation without TFP growth
  - CPI: 4.3%
  - Core-CPI: 3.2%
  - Both above the 2% "target"

(3) Total transactions

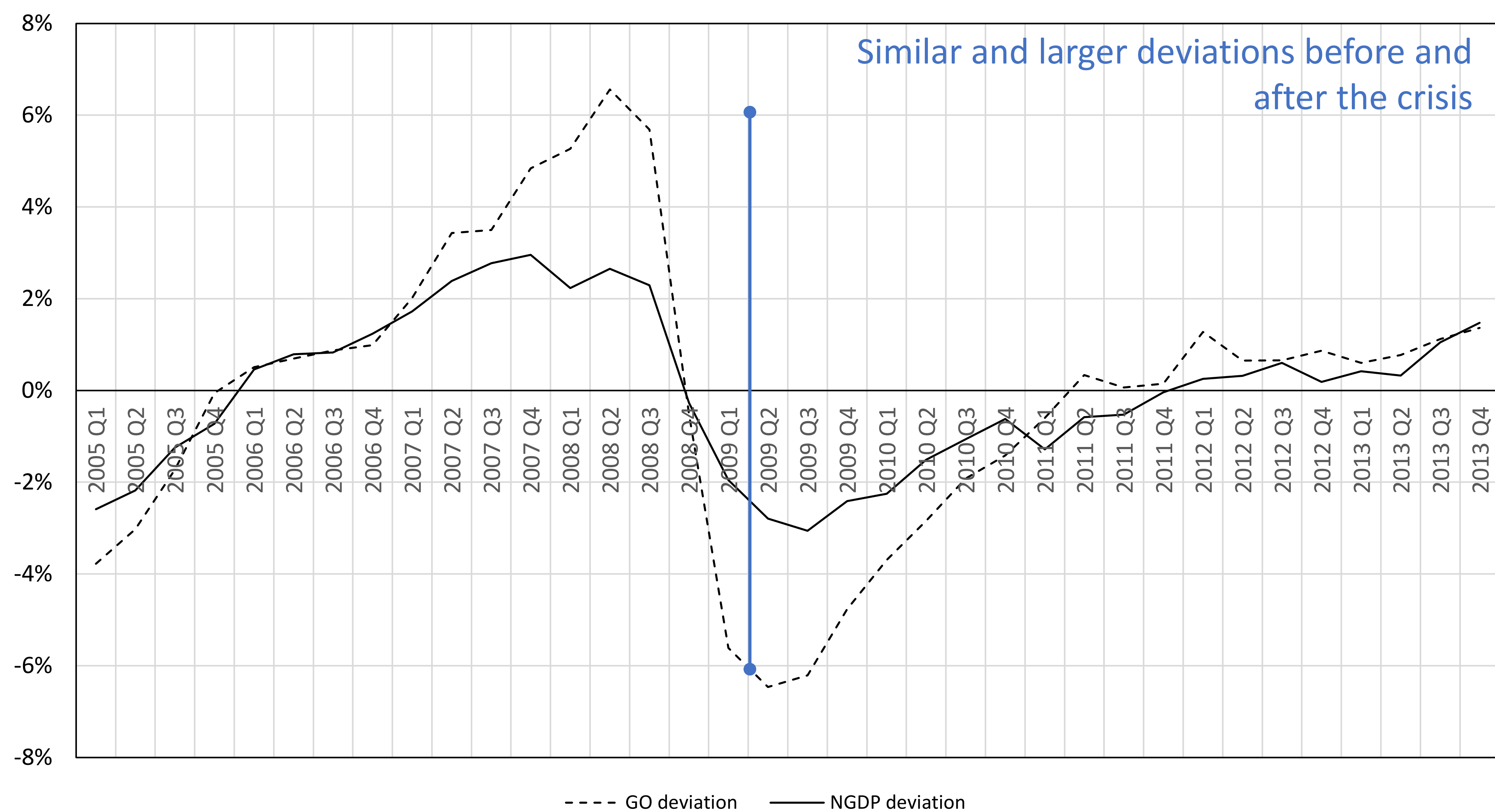
- Monetary equilibrium depends on all transactions
  - $MV_Y = P_Y Y$
  - $MV_T = P_T T$
- What if the ratio $\frac{Y}{T}$ is not constant (in the short-run)?
- Broader measures than GDP
  - GO = GDP + II (intermediate investment)
  - GDE = GO + IE (intermediate expenditures)
- GO series starts in 2005

(3) Total transactions

- 2005Q1 – 2008Q2 yearly growth rates
  - NGDP: 4.6%
  - GO: 5.7%

- GO Trend deviation
  - Similar behavior than trend NGDP trend deviation
  - But larger deviations (3% for NGDP versus 6% for GO)

(3) Total transactions

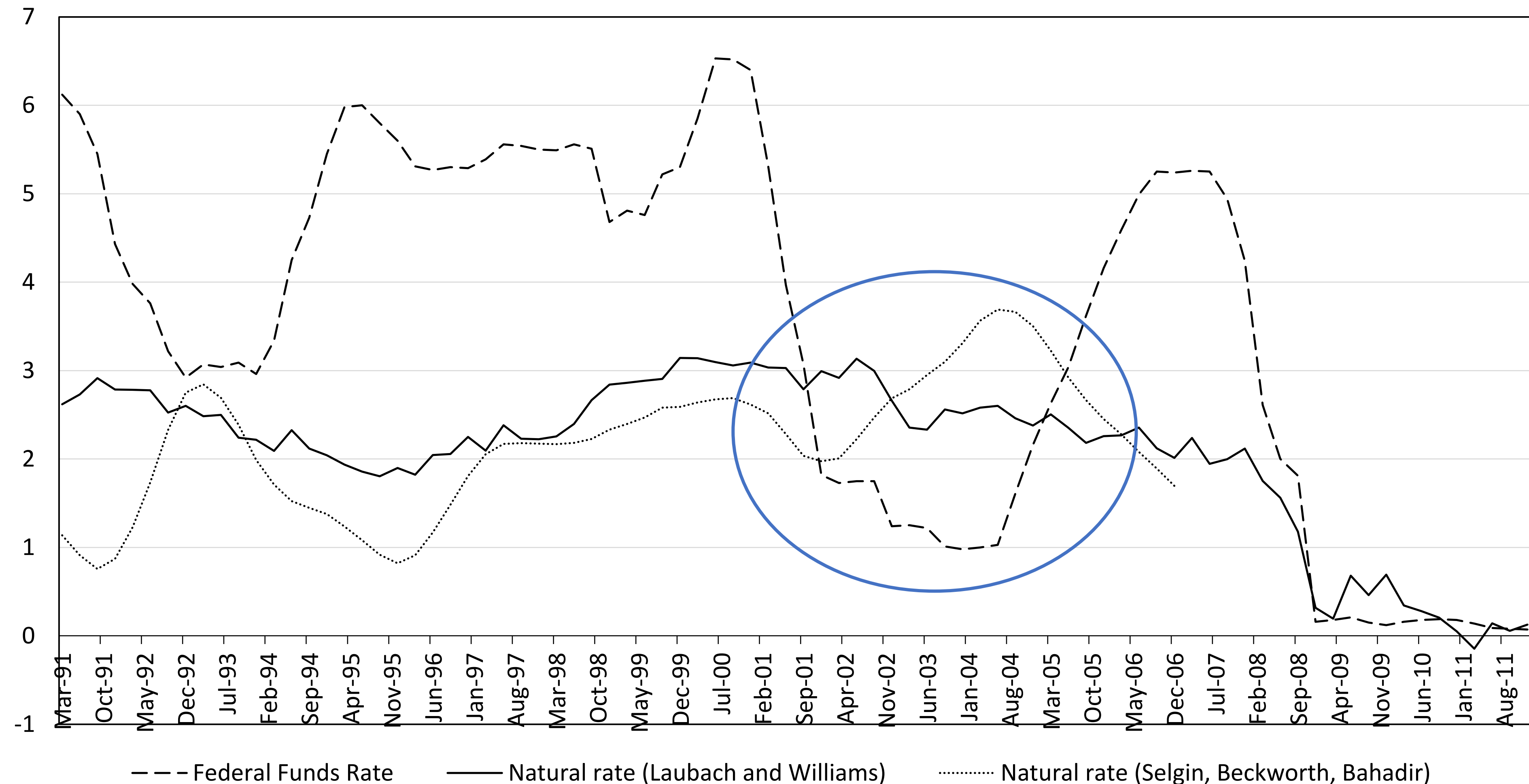


(4) Federal Funds rate and the natural rate of interest

- I use two estimations of the natural rate of interest
  - Laubach and Williams (2003) [updated series]
  - Selgin, Beckworth, Bahadir (2015)

- Two comparisons:
  - (1) The federal funds rate versus the natural rate of interest estimations
  - (2) An “adjusted” Taylor Rule versus the federal funds rate

(4) Federal Funds rate and the natural rate of interest

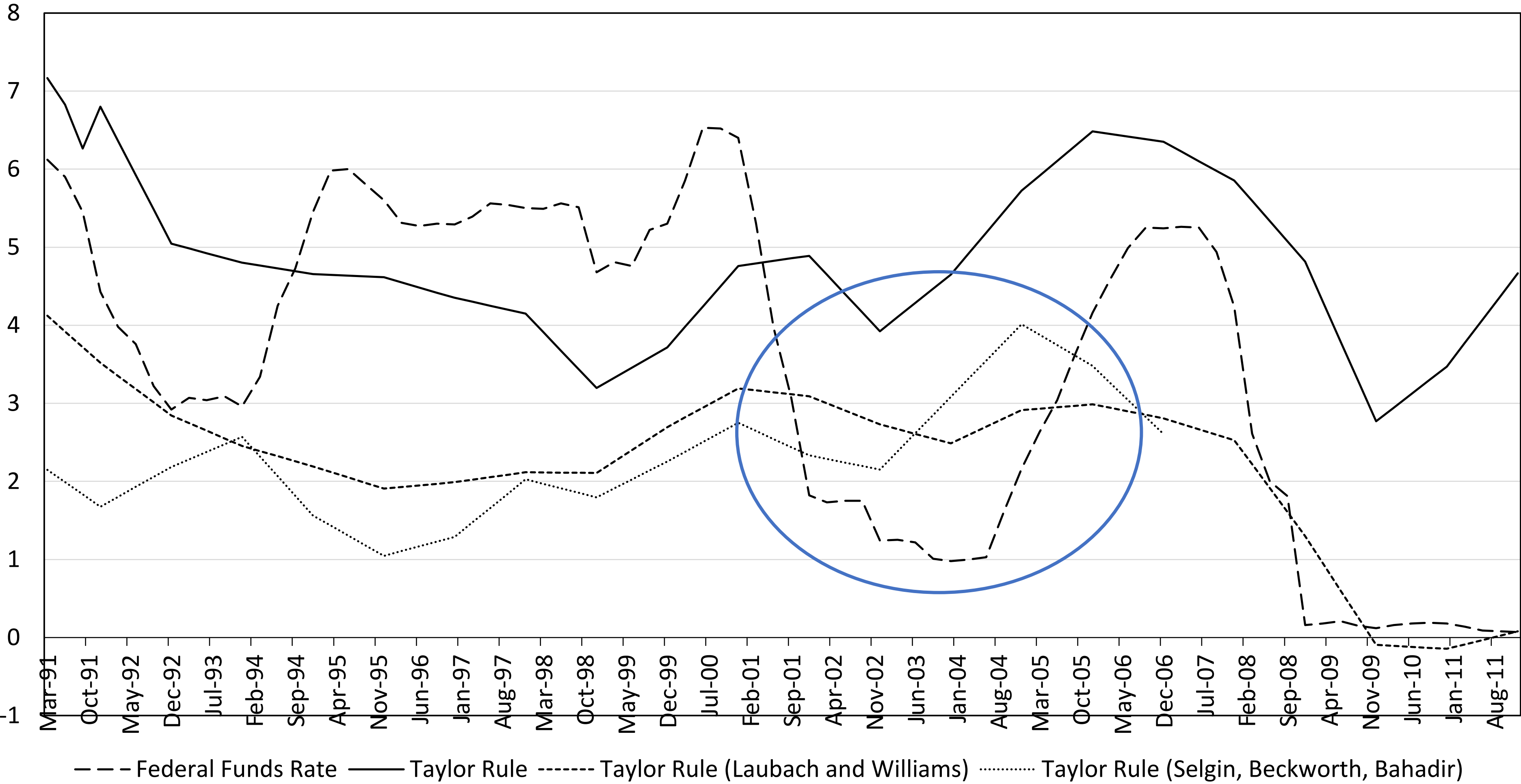


(4) Federal Funds rate and the natural rate of interest

- Classic Taylor rule
  - $i = (r + \pi) + \frac{1}{2}(\pi - \pi^*) + \frac{1}{2}(y - y^*)$

- Adjusted Taylor rule
  - $i = i_N + \frac{1}{2}(\pi - \pi^*) + \frac{1}{2}(y - y^*)$

(4) Federal Funds rate and the natural rate of interest



Conclusions

- The four comparisons suggest that monetary policy was “too loose” at some point in time before the 2008 subprime crisis
- This suggests that the 5% NGDP growth rate before 2008 might been too much
- This analysis questions the 5% target, not the NGDP Targeting rule

The end.