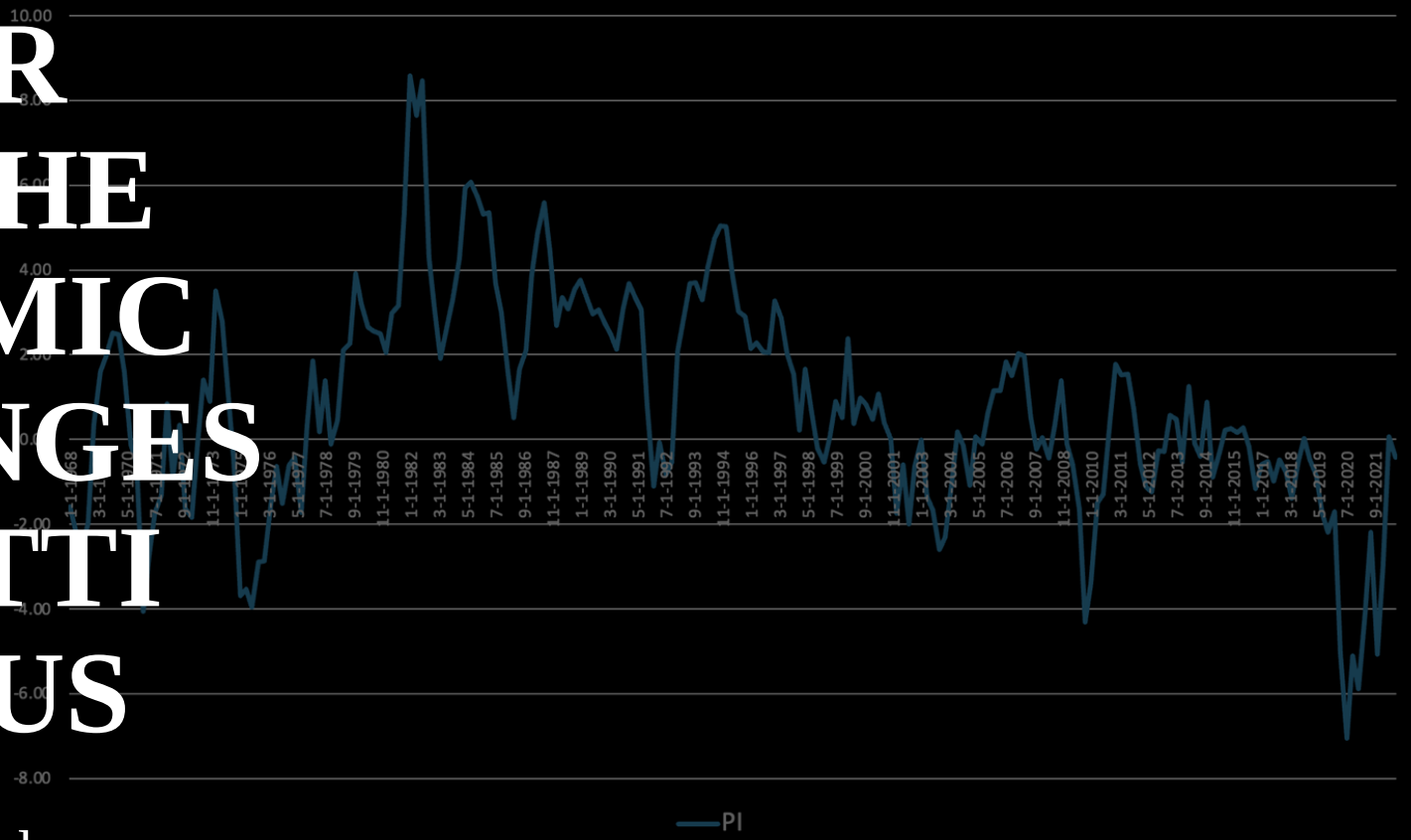
A NON-LINEAR ANALYSIS OF THE MACROECONOMIC IMPACT OF CHANGES IN THE PASINETTI INDEX IN THE US



Pedro Clavijo, Sylvio Kappes and Louis-Philippe Rochon

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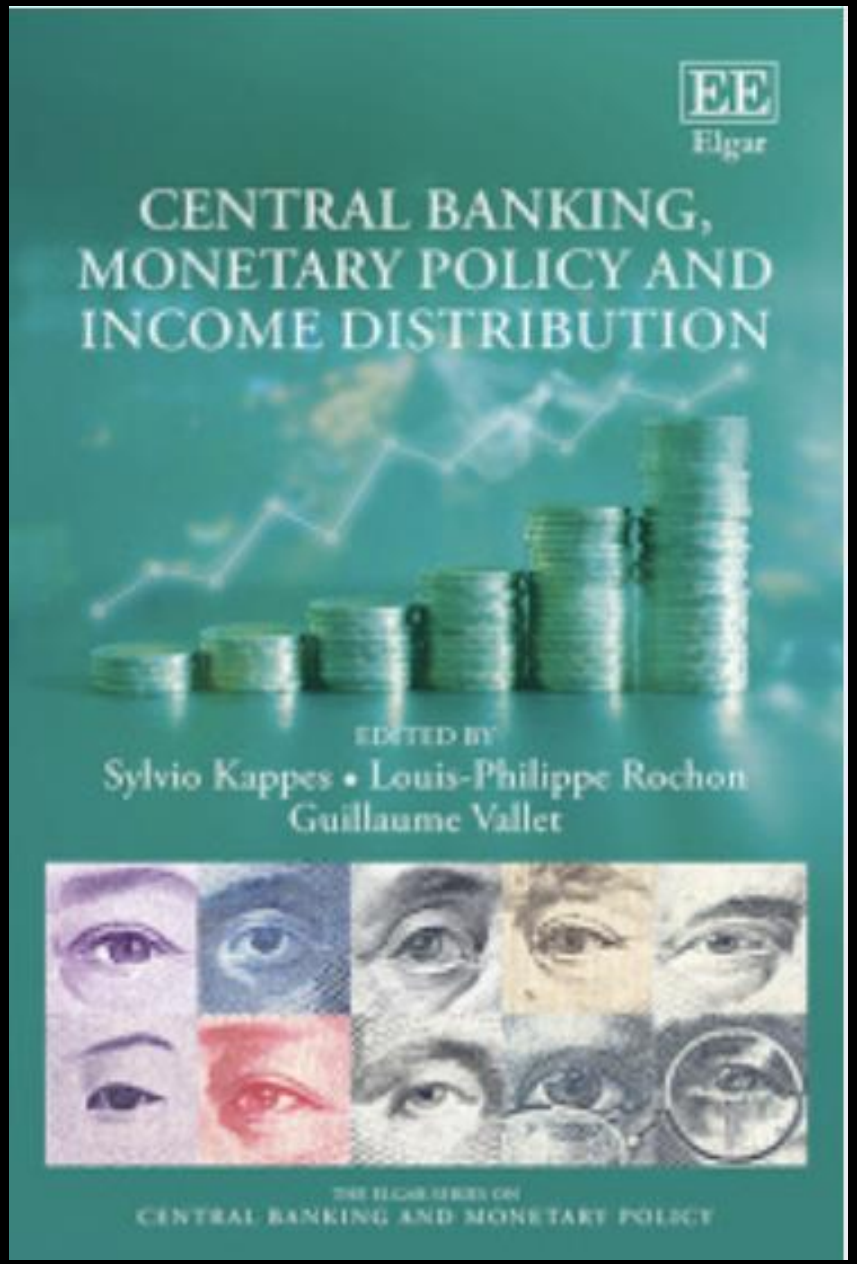
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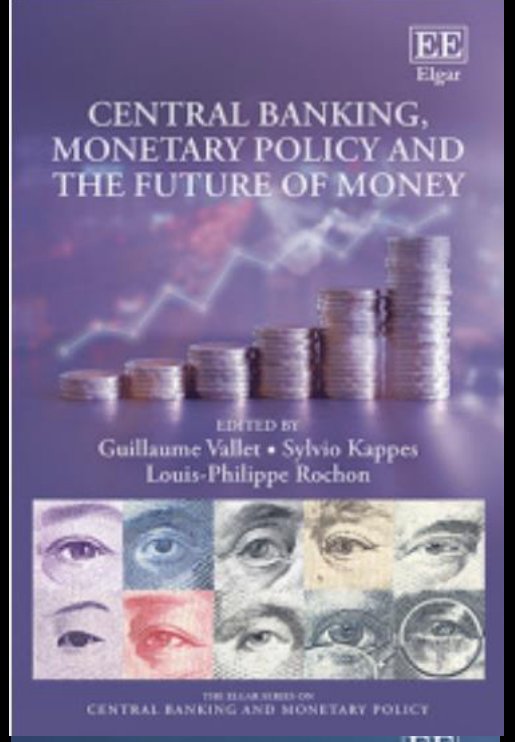
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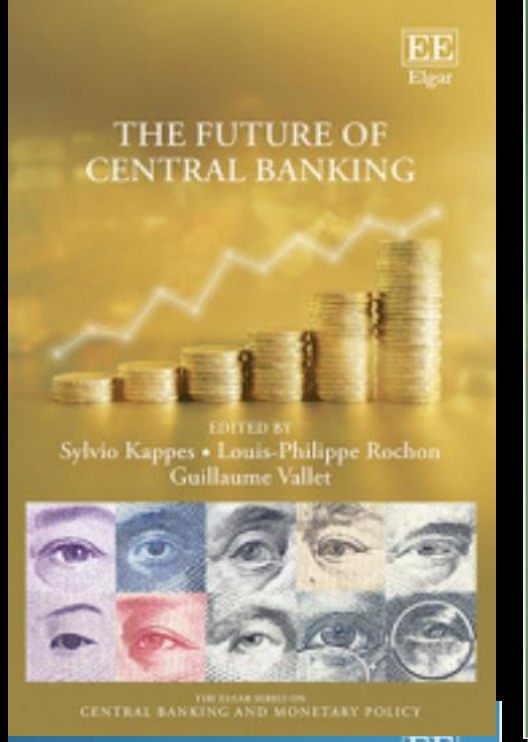
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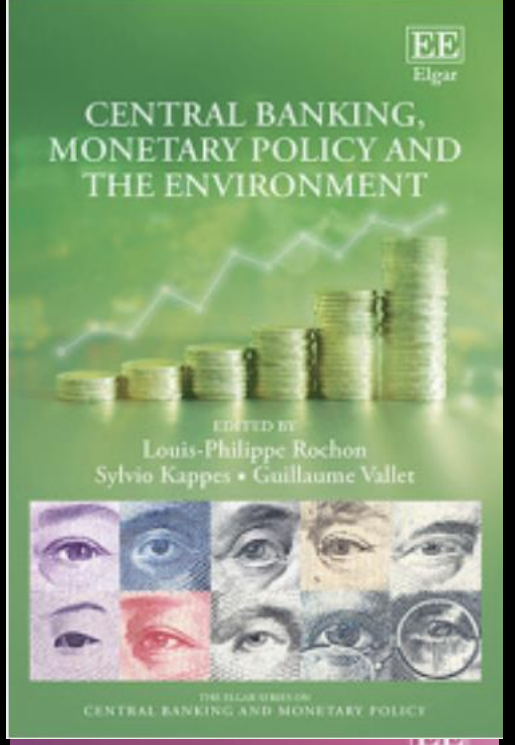
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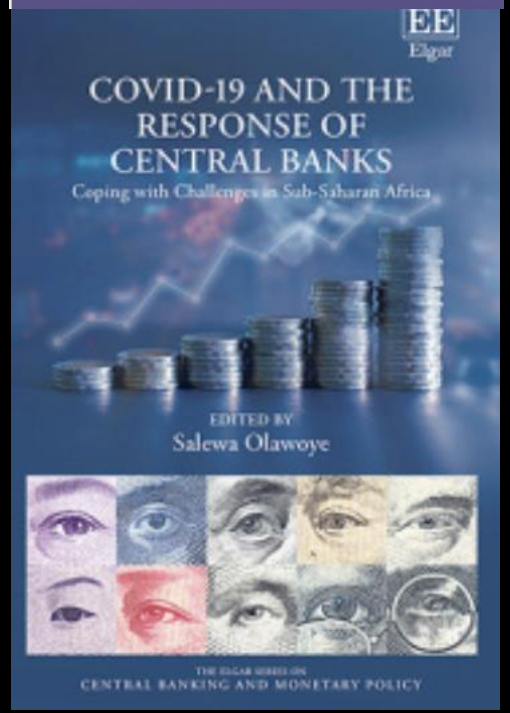
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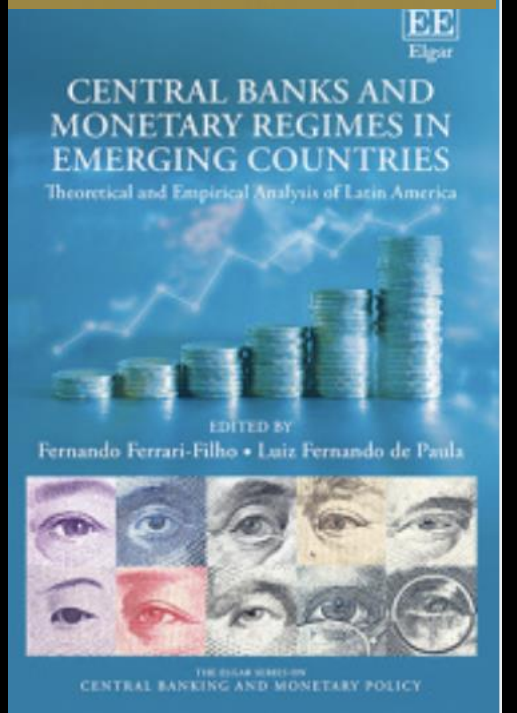
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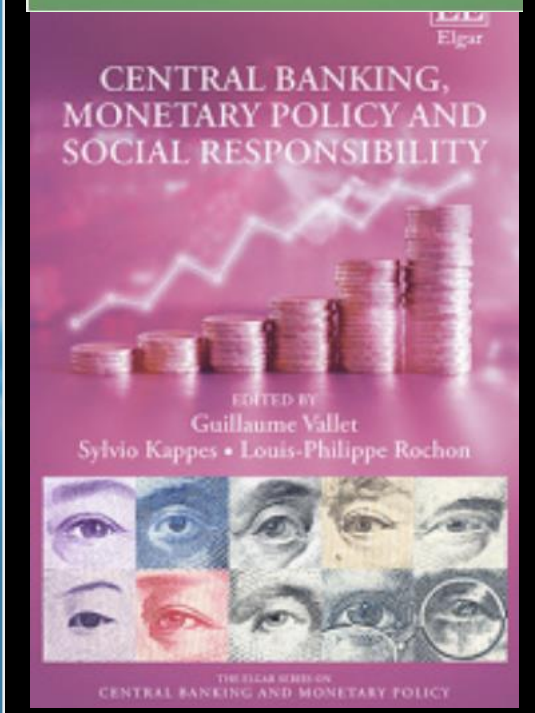
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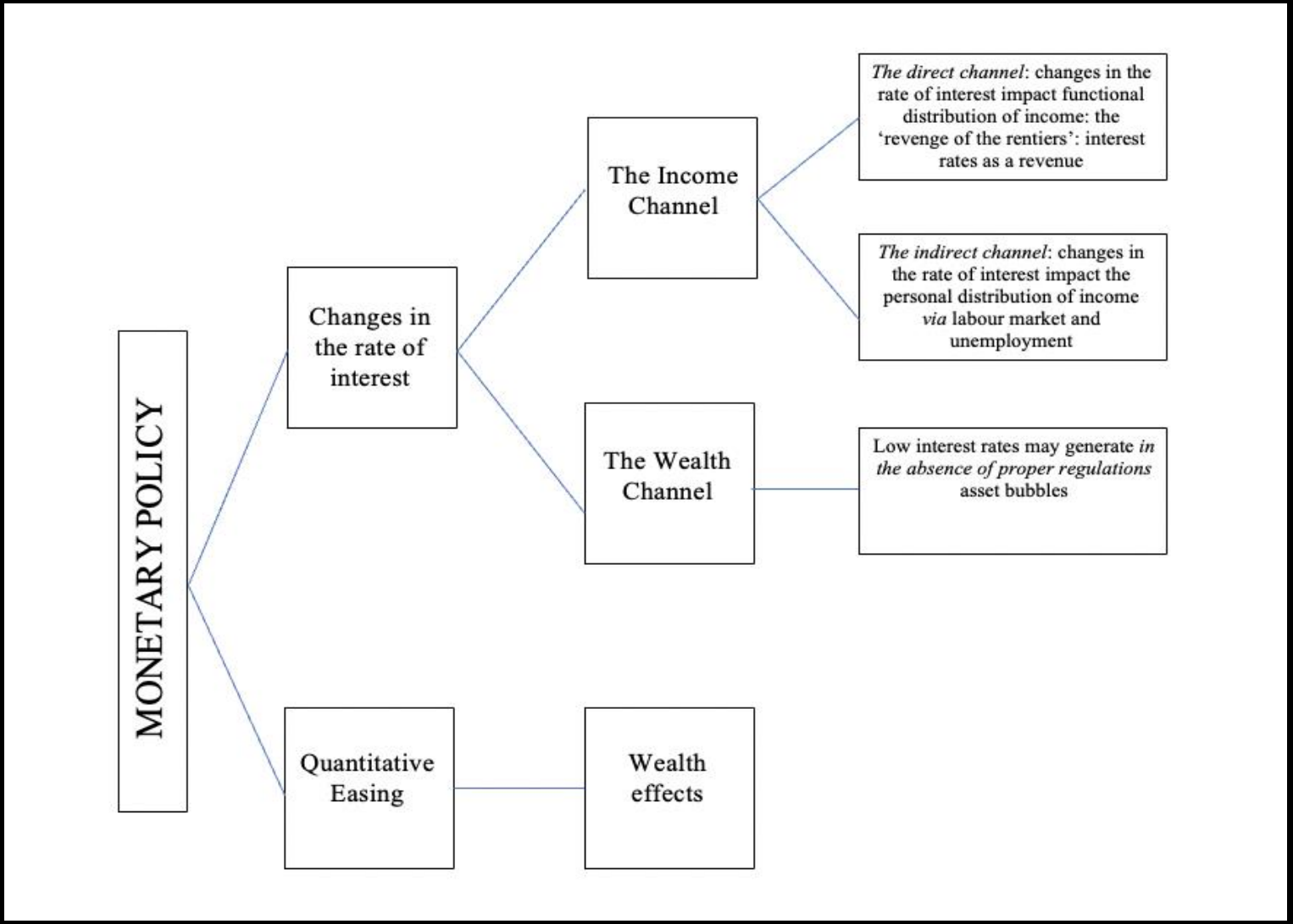
INTRODUCTION

- The link between monetary policy and income (and wealth) distribution is fairly well established in post-Keynesian economics;
- Certainly goes back to Keynes (the *euthanasia of the rentier*), even to Joan Robinson (1937, p. 251):
  - “when capitalism is rightly understood, the rate of interest will be set to zero, and the major evils of capitalism will disappear”.
- But the post-Keynesian revival bega in the late 1980s; a reaction to the Volcker policy shock;
- In contrast, the mainstream interest in this topic begins in earnest after the financial crisis, largely as a result of the obvious distributive consequences of Quantitative Easing (see Kappes, 2022).

POST-KEYNESIAN ECONOMICS AND INCOME DISTRIBUTION

- Niggle (1989, pp. 818-9):
  - “The processes connecting monetary policy to changes in the distribution of personal income through the transmission mechanism of the level of interest rates are complex, with at least three causal sequences operating: 1) changes in interest rates can affect the functional distribution of income, and thus the personal distribution; 2) changes in interest rates change the market values of financial assets, effecting capital gains or losses; 3) interest rates influence investment, aggregate demand, employment and income” (Niggle, 1989, pp. 818-9).

POST-KEYNESIAN ECONOMICS AND INCOME DISTRIBUTION



Source: Rochon, L.-P. and M. Seccareccia (2023), "A primer on monetary policy and its effect on income distribution: a heterodox perspective", in Kappes, S., L.-P. Rochon, and G. Vallet (eds), Central Banking, Monetary Policy and Income Distribution, Cheltenham: Edward Elgar

MONETARY POLICY

- Has consequences for the conduct of monetary policy;
- “It would be difficult to exclude the role played by this redistribution of income in affecting macroeconomic performance and this would be so primarily for the reasons described by Keynes in the General Theory, that is, by affecting the aggregate consumption/saving behavior of the economy” Lavoie and Seccareccia (2016, p. 216).
- “For Keynes, interest rates played a much more crucial role via the income channel or what we may describe as the income distribution transmission mechanism. … interest rates accordingly affected aggregate effective demand through the income channel certainly much more so than through the interest cost channel” (Lavoie and Seccareccia, 2016, p. 208).

MONETARY POLICY

- The inefficiencies associated with fine tuning;
- Is monetary policy efficient in fighting inflation? (weak Phillips curve; weak IS-type relationships); even weakness of inflation expectations;
- Kumar et.al (2015), NBER paper: *Inflation Targeting Does Not Anchor Inflation Expectations*: “Managers of these firms display little anchoring of inflation expectations, despite twenty-five years of inflation targeting by the Reserve Bank of New Zealand … Similar results can be found in the U.S. using currently available surveys as shown in Binder (2015)”.
- Paul Rudd (Fed researcher), ROPE, 2022: *Why do we think that inflation expectations matter for inflation?*

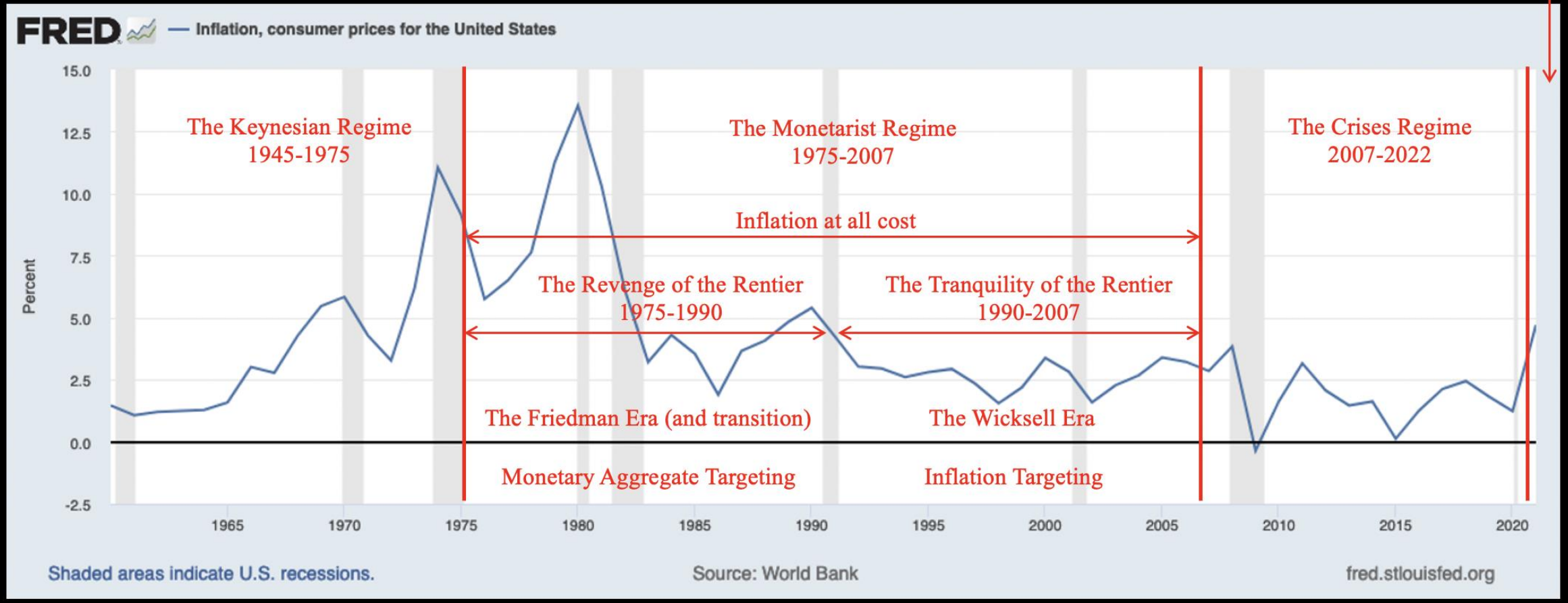
MONETARY POLICY

- Rethinking monetary policy dominance;
- Lavoie (1996, p. 537):
  - “It then becomes clear that monetary policy should not so much be designed to control the level of activity, but rather the find the level of interest rates that will be proper for the economy from a distribution point of view. The aim of such a policy should be to minimize conflict over the income shares, in the hope of simultaneously keeping inflation low and activity high.”

THE PASINETTI INDEX

- Lavoie and Seccareccia (1988, p. 151) claimed that “changes in the rate of interest have both a direct and indirect impact on the distribution of income between rentiers and the ‘active earning class’ of workers and entrepreneurs.”
- They discuss what would eventually become the Pasinetti Index, defined as the difference between the *real* rate of interest and labour productivity growth. If the former is higher than the latter one, income is redistributed toward the rentier class (from a monetary policy perspective); later, they (2019) discuss the *Labour Command Pasinetti Index* where they refer to the growth rate of nominal wages rather than productivity growth; here, *nominal* interest rates are set to growth rate of nominal wages;
- From 1975-1990, monetary policy is pro-rentier, what Smithin called ‘the revenge of the rentier’

The Post-Pandemic Regime
2022 -



THE PASINETTI INDEX

- In other words, it preserves the existing distribution of income: it leaves “unchanged the distribution of income between interest and non-interest income groups, regardless of lending and borrowing activities” (Lavoie and Seccareccia, 1999, p. 543).
- This arises because “all individuals, when they engage in debt/credit relations, should obtain, at any time, an amount of purchasing power that is constant in terms of labour” (Pasinetti, 1981, p. 174);

CONCLUSION 1

- Similarities with the mainstream approach: direct and indirect effects;
- But some important differences:
  - M: personal income distribution;
  - PK: functional distribution of income;

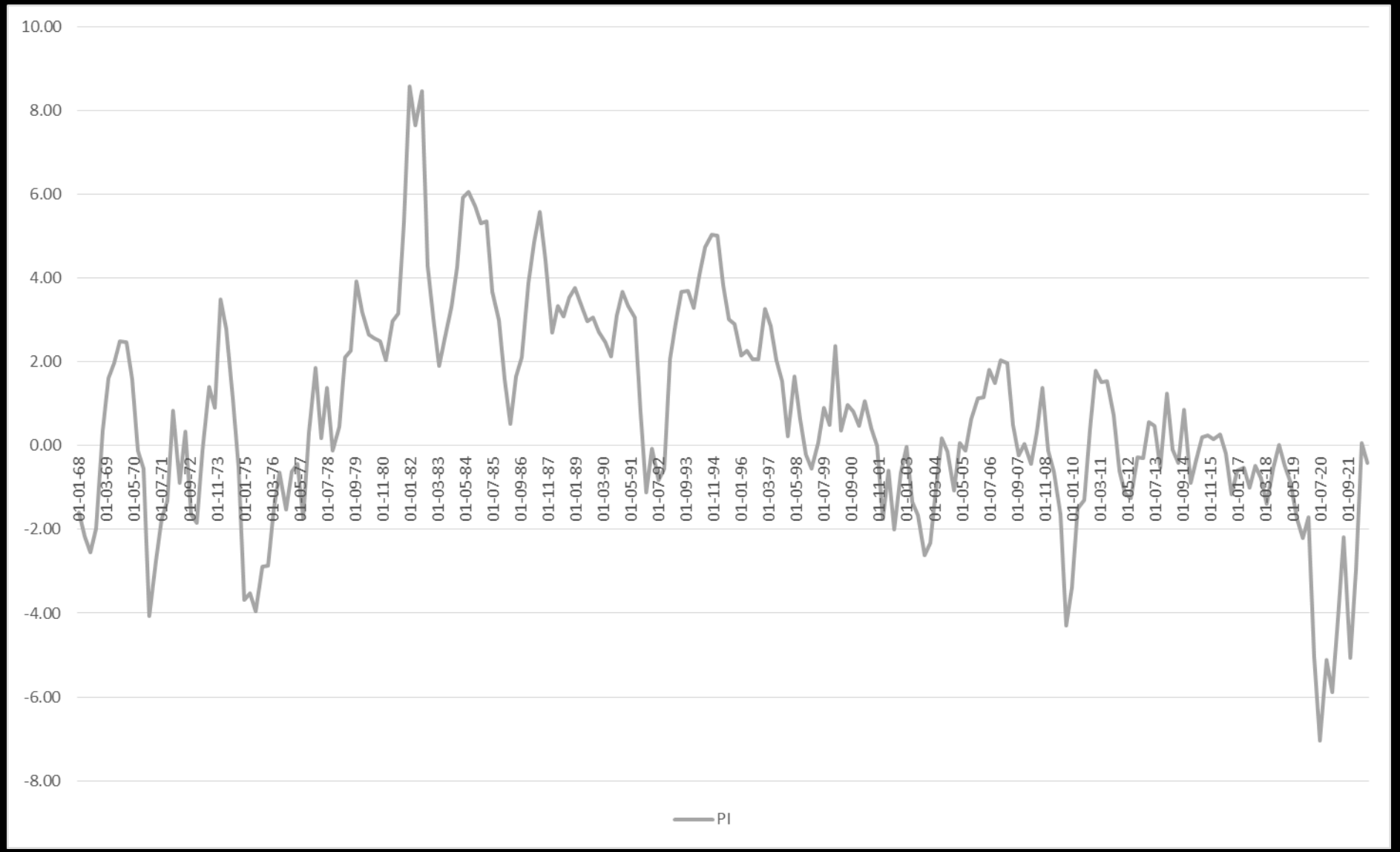
  - M: short-term effects (long run policy neutrality); side effects of ‘proper’ monetary policy in the context of IT
  - PK: long-run distributional effects;

DATA

- US quarterly time-series from 1968:Q1 to 2022:Q3:
  - Pasinetti Index.
  - Capacity Utilization.
  - Labor Share.
- Sources:
  - OECD.
  - Federal Reserve Bank of St. Louis’s FRED

DATA

- US quarterly time-series from 1968:Q1 to 2022:Q3:
  - Pasinetti Index.
    - Long term real interest rate – labor productivity.
    - 10-year government bond interest rate – growth rate (YoY) of personal Consumption Expenditures Excluding Food and Energy - labor productivity (YoY).
  - Capacity Utilization:
    - Capacity Utilization: Total Index (YoY).
  - Labor Share:
    - Business Sector: Labor Share for All Workers (YoY).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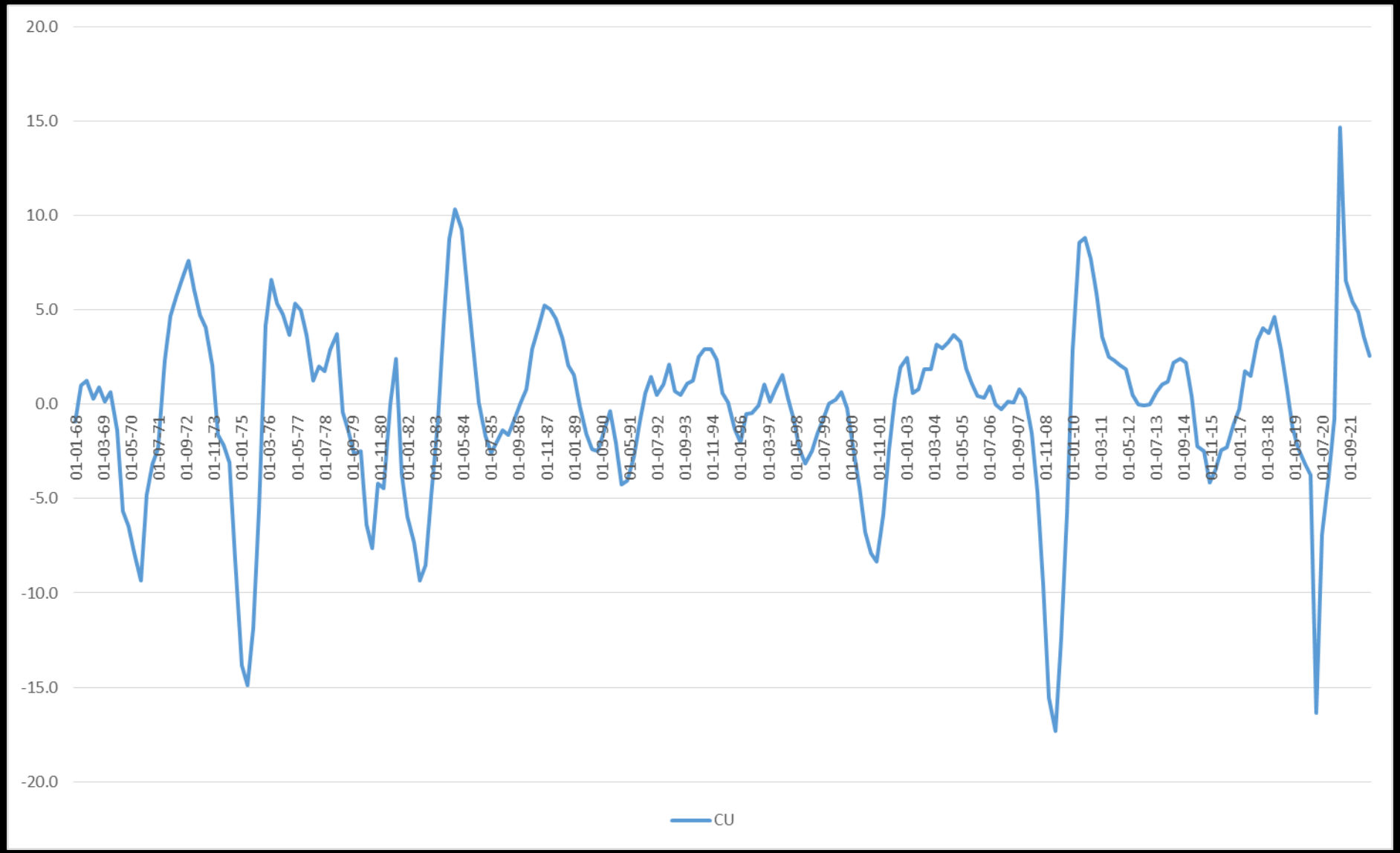
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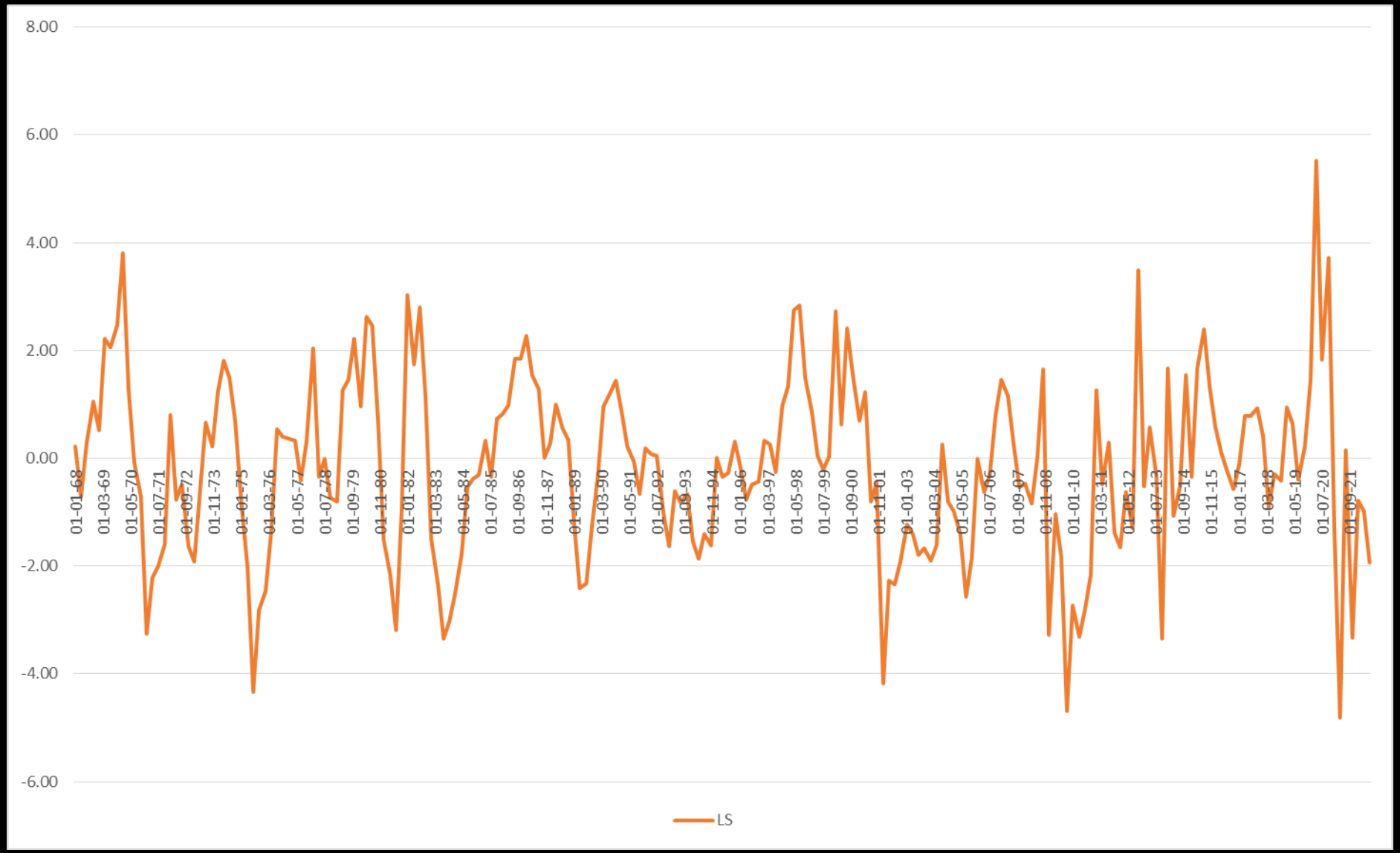
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LS

STRUCTURAL BREAKS

- We use Perron et al. (2020) algorithm.
- We follow Seccareccia's (2019) work that suggests 4 different regimes for the US Economy:
  - The Keynesian era until the 1970s;
  - The monetarist age until the 1990;
  - The inflation targeting regime until 2008;
  - The flexible inflation targeting regime from the Recession onwards.

STRUCTURAL BREAKS

- Jointly testing for breaks in the mean and in the variance, we find that:

Table I. Number and dates of breaks in mean and variance for the three selected variables

	Breaks in mean	Breaks in variance
PI	1979Q1; 1997Q3	1985Q2; 2009Q3
LS	2012Q3	2008Q3
CU	--	1982Q3; 2014Q3

THE MODEL

- We employ a threshold vector autoregressive model (TVAR) that incorporates the structural breaks.
- Identification through Cholesky decomposition: $PI_t \rightarrow LS_t \rightarrow CU_t$.
- Estimation through Bayesian machinery.

$$y_t = \left[\Pi_{c,1} + \sum_{j=1}^{p} \Pi_{p,1} y_{t-p} + e_{t,1}\right]\left(\mathrm{I}_{\{Z_{t-d}^{*} \leq \gamma^{*}\}}\right) + \left[\Pi_{c,2} + \sum_{j=1}^{p} \Pi_{p,2} y_{t-p} + e_{t,2}\right]\left(1 - \mathrm{I}_{\{Z_{t-d}^{*} \leq \gamma^{*}\}}\right) \quad (2)$$

THE MODEL

- Threshold variable: the Pasinetti Index.
- In theory, the threshold value should be zero, since:
  - A positive PI is income flowing to rentiers.
  - A negative PI is income flowing *away* from rentiers.
- We do not impose such restriction.
- The model estimation is that the threshold occurs when PI = 0.6.
  - PI > 0.6: rentiers-biased regime.
  - PI < 0.6: workers-biased regime.

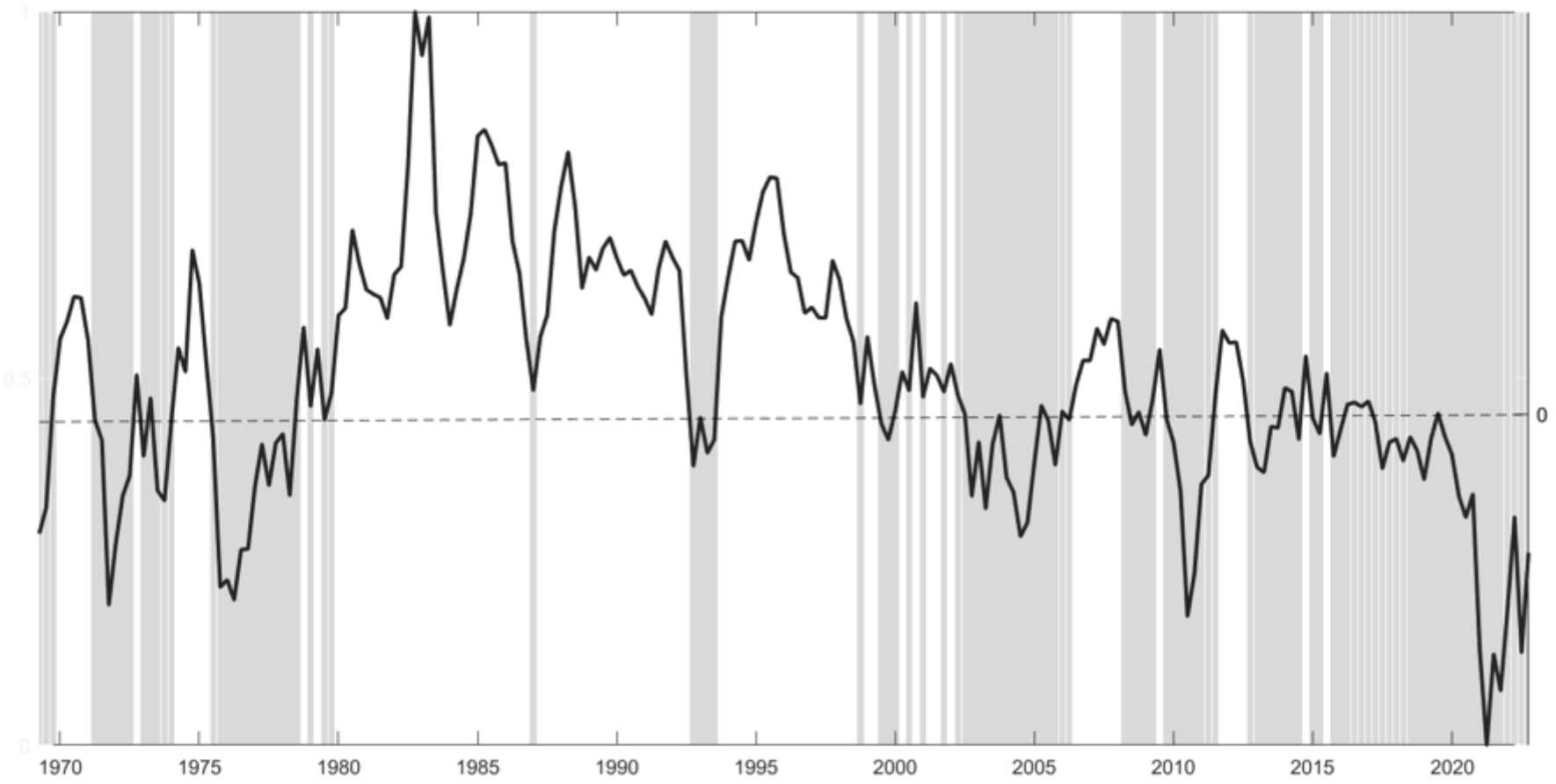
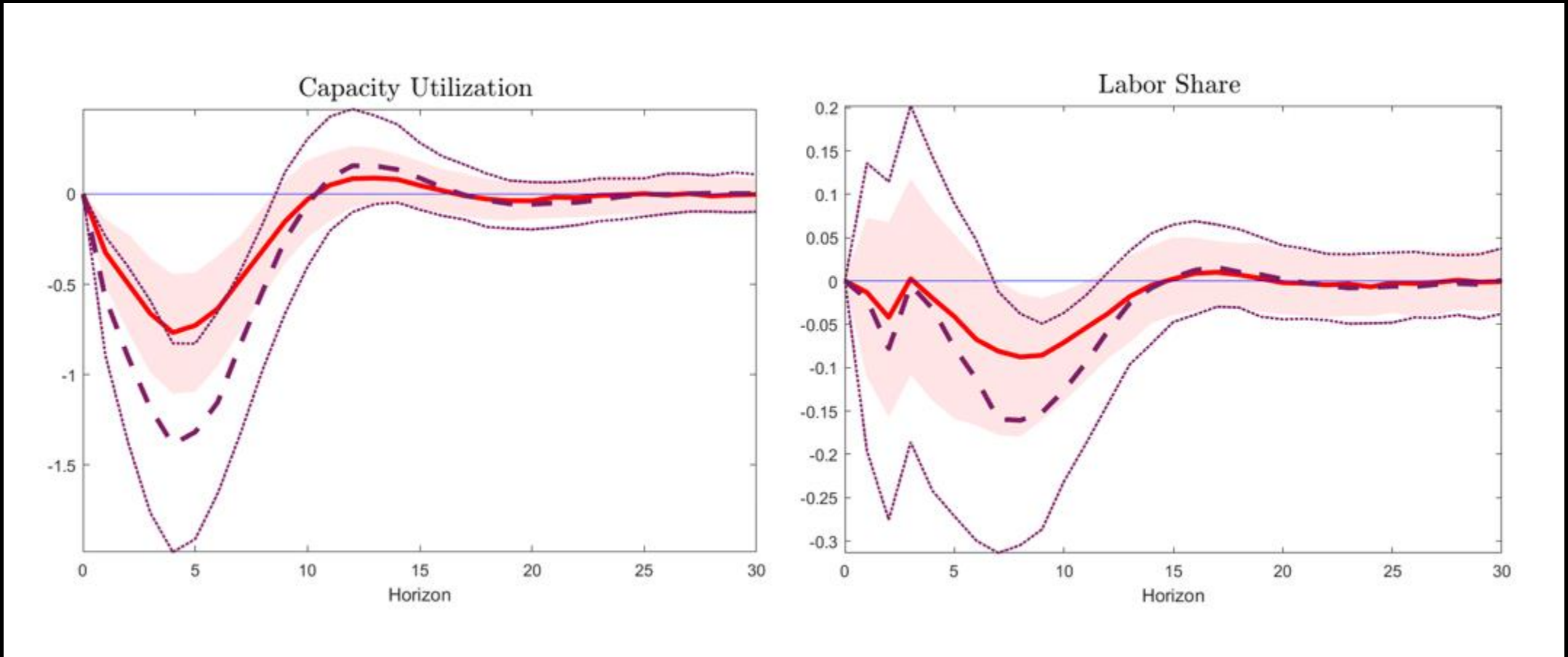
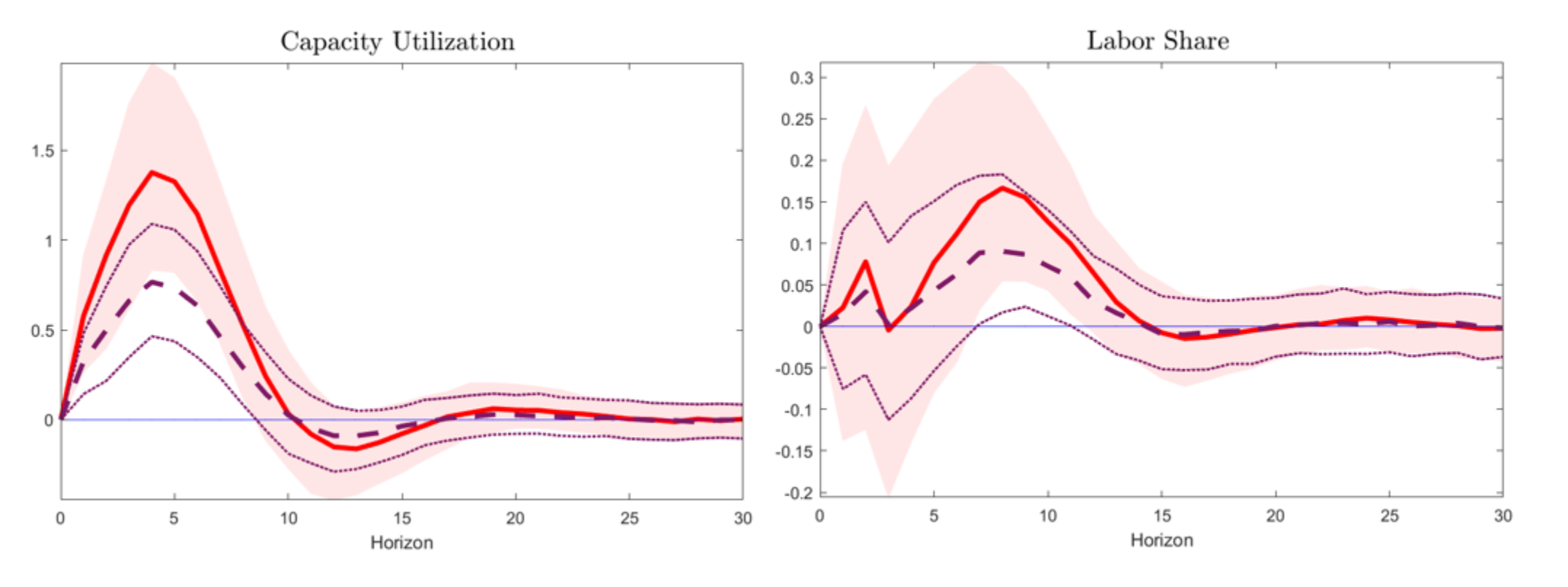


Figure 1. Distributive regimes in the US. Gray bands identify periods when the US economy is estimated to be in the working-biased regime by the TVAR described in equation (2). The series represents the PI, which is assumed to be the threshold variable.



- One positive st. dv. shock to PI (2.53)
- Red solid line: working-biased regime.
- Black dotted line: rentier-biased regime.
- 68% confidence band.



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