THE ART AND SCIENCE OF PATIENCE: RELATIVE PRICES AND INFLATION

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CORE AND HEADLINE INFLATION US AND EA
GENEVA REPORT RECAP

Report was written in Spring 2023 – when central banks were still on tightening mode

It advocated patience (esp. for the EA) on the basis of following main argument:

- Large relative price shocks create lagged reaction in core inflation via the goods’ market (indirect effects)

- Second-round effects via wage-price spiral and expectations subdued
  - Wage growth lagging inflation notwithstanding tight labor market
  - Expectation anchored
  - Monetary policy at the time was tight enough
The argument against additional tightening was stronger in EA because:
- Weaker GDP, I and C
- Negative TOT shock
- Weaker fiscal policy stance

Historical comparison shows that:
- For many countries, the energy shock was bigger than the seventies
- The tightening harsher than in Volcker's times.

Lags of monetary policy are long
THE SUPPLY SHOCK HAS BEEN LARGE IN HISTORICAL PERSPECTIVE
GLOBAL SUPPLY CHAIN PRESSURE INDEX

Source: Federal Reserve Bank of New York.
LARGE CHANGES IN RELATIVE PRICES (US)
IMMUGSE
RESPONSES TO OIL
SHOCK
Instrument = OPEC announcements
Uneven shocks behind the recent rise in inflation: energy shocks (oil and natural gas), supply chain disruptions

**Simple 2-sector model:** a supply shock that hits different sectors differently generates lagged waves of sectoral inflation that make aggregate inflation response persistent

Key: the transmission mechanism depends on the input-output structure of the economy and on sectoral price stickiness

One sector uses oil directly and responds right away

The other sector uses oil indirectly, through intermediates, and responds with a lag

[Diagram: Level shock to oil price → Inflation in goods]
OIL PRICE SHOCK
US VS EURO AREA: DIFFERENT TERMS OF TRADE

Source: Haver Analytics.
WEAKER DEMAND IN EURO AREA: CONSUMPTION

Source: Haver Analytics. The pre-pandemic linear trend is computed on the sample Q1-2015:Q4-2019.
WEAKER DEMAND IN EURO AREA: INVESTMENT

Source: Haver Analytics. The pre-pandemic linear trend is computed on the sample Q1-2015:Q4-2019.
INFLATION RESPONSE TO OIL SHOCK: US VS EURO AREA

**US**

**Euro Area**

![Core Inflation Graph US](image1)

![Core Inflation Graph Euro Area](image2)
US VS EUROPE

Closed economy

Open economy

$P_{zt}$
LOOSE VS TIGHT MONETARY POLICY

Loose monetary policy

- Energy price
- Employment
- Sectoral inflation
- Relative price of sector B (goods)
- Consumption
- Sectoral Consumption

Tight monetary policy

- Energy price
- Employment
- Sectoral inflation
- Relative price of sector B (goods)
- Consumption
- Sectoral Consumption
WELFARE LOSS DUE TO RELATIVE PRICES
CONCLUDING: WHERE ARE WE NOW?

- Supply shock is unwinding, pushing down inflation and supporting activity.
  - Core following headline with some lag, as in historical data
  - Tight labor market but no wage-price spiral
  - Inflation expectations remain stable

- Monetary policy will have an increasing impact on the economy as positive impulse from supply shock unwinds.
  - For the Fed and for markets, “high for longer” already morphed into “not so high and not for longer”. ECB?
BACKUP SLIDES
BUT DISINFLATION HAS NEVER BEEN SO RAPID: COMPARING 4 EPISODES IN THE US
VOLCKER’S DISINFLATION KEPT INFLATION BETWEEN 3.5 AND 4 FOR 10 YEARS

Figure 37: Federal Funds Rate and Inflation Rate - 1960:2023

Source: Haver Analytics
INFLATION EXPECTATIONS – A MEDIUM-TERM LOOK AT THE US

Source: Bloomberg
Sectoral Phillips curve:

\[ \pi_{st} = \rho \pi_{st-1} + \lambda_s (mc_{st} - p_{st}) + (1 - \rho) \beta \pi_{st+1} \]

- \( \rho \) = inertia parameter (can be microfunded introducing a form of indexation)
- \( \lambda_s \) = degree of price stickiness in the sector
- \( mc_{st} \) = marginal cost in the sector

\[ mc_{At} = \alpha_A w_t + (1 - \alpha_A) p_{Bt} \text{ and } mc_{Bt} = \alpha_B w_t + (1 - \alpha_B) p_{Zt} \]
CHANGING PRICE STICKINESS

US (less sticky)

EA (more sticky)