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Import Shocks, Inflation Propagation and Distribution: Lessons from the Italian Experience

Recent geopolitical events and fuel price shocks could reshape inflation dynamics. This article analyses them from a cost-push perspective with a focus on distributive effects. This framework shows how rises in imported input costs can generate persistent inflation and increases in the profit share, even without changes in markups or profitability. Using evidence from Italy in 2021-2023, the article examines how energy shocks propagate through production networks. Recent energy volatility and assessments of the European Central Bank confirm the ongoing relevance of these channels.

Recent fuel price hikes have reignited fears of cost-driven inflation across Europe, fuelled by escalating geopolitical tensions. The European Central Bank warns that these shocks hit not just directly via energy costs, but through indirect, second-round effects across prices (Lagarde, 2026). US data echo this: inflation lingers above target due to slow sectoral spillovers (Ho, 2026). Italy – deeply reliant on energy imports – mirrors its 2021-2023 surge, where import shocks and muted wage growth drove persistent pressures. In March 2026, the Federal Open Market Committee raised similar concerns: energy price shocks generate lagged transmission, particularly through manufacturing channels (Powell, 2026). The International Monetary Fund (IMF) projects an EU inflation rate of 5% by 2027, reinforcing the view that these pressures may prove durable (Kammer, 2026).

This contribution extends Romaniello and Stirati (2024) to today's shocks, spotlighting cost-push channels and expected distributive shifts. Imported input spikes trigger persistent inflation through production-chain propagation – no wage-price spirals or markup hikes needed. Crucially, profit shares rise and real wages fall, even with flat profitability.

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The purpose here is to demonstrate that this mechanism remains highly relevant in the current context. The recent increase in fuel prices, and the associated policy responses, such as temporary reductions in excise duties, suggest that inflationary pressures may once again originate from external cost shocks. While such measures may mitigate the immediate impact on consumer prices, they do not eliminate the underlying propagation mechanisms that can sustain inflation over time.

Understanding these mechanisms is therefore crucial for timely and effective policy intervention. In particular, distinguishing between cost-driven and demand-led inflation is key to avoiding improper responses. If import costs and their propagation dominate – as our framework suggests – then demand-compression or wage-restraint policies risk being both ineffective and costly in terms of output and employment. Identifying cost-propagation channels is thus vital to tame inflation without excess macroeconomic damage.

The current increase in energy prices can be interpreted as a new instance of the same mechanism identified for the 2021-2023 period, suggesting that inflationary pressures may re-emerge through similar cost-push transmission channels.

Using Italian evidence, this note illustrates how import price shocks fuel persistent inflation and distributional shifts. Cost increases propagate via intermediate inputs, which sustain price pressures, while nominal wages lag and compress real wages in the process.

Analytical framework

To clarify the transmission of import price shocks, we rely on the analytical framework developed in Stirati (2001)

and Romaniello and Stirati (2024). Unlike standard models that represent the economy as a vertically integrated sector, this approach explicitly accounts for inter-industry linkages and the propagation of cost increases across production networks.

An increase in the cost of imported inputs raises production costs both directly (for firms using imported inputs) and indirectly (through intermediate goods traded across sectors). This generates successive rounds of cost increases and price adjustments. Crucially, the cumulative impact of the shock depends not only on its magnitude but also on the structure of production: the presence of domestically produced intermediate inputs amplifies the initial impulse through a chain of cost–price interactions. It can be shown that given a certain initial increase at time t_0 in the cost of imported inputs equal to m, the cumulated effect on the price level will be:[1]

$$\frac{(P^* - P_0)}{P_0} = \frac{\beta m}{(1 - \alpha)} \quad , \qquad (1)$$

where P^* is the price level towards which the economy tends to converge as the result of several rounds of adjustment of prices to changes in the costs of circulating capital; β is the fraction of total costs of production represented by the historic cost of imported inputs at the time of purchase plus the given rate of profit charged on them; α is the fraction of total costs represented by domestically produced inputs at their historic cost at the time of purchase plus the rate of profit charged on their value. For simplicity, we assume all capital to be circulating and lasting one period. Labour costs do not appear since we are assuming there is no change in nominal wages. Since by definition $\alpha < 1$, the denominator of equation (1) acts as a "multiplier" of the effect of the initial impulse from imported inputs (in the case of Italy, on the basis of accounting data, its value is close to 0.5).

Importantly, this mechanism does not require changes in nominal wages or mark-ups. Even with constant nominal wages and a given nominal rate of return on capital, an initial, once-for-all increase in imported input costs leads to both a higher price level, reached through a process of (gradually fading) inflation, and an increase in the profit share (measured on value added).

The increase in the profit share reflects the increased value of circulating capital rather than changes in real profitability. When the relative price of intermediate inputs rises, gross operating surplus increases relative to value added, even if the real profit rate – evaluated at the replacement cost of capital – remains broadly unchanged or even declines. Therefore, increases in the profit share should not be interpreted as evidence of higher mark-ups or increased profitability.

Finally, the propagation process is inherently persistent. Even when the initial shock to import prices is temporary, domestic price adjustments unfold gradually due to production lags, contractual rigidities and the turnover of intermediate inputs. As a result, inflation may remain above target for some time even after the initial impulse has weakened.

Implications for recent inflation dynamics

The analytical framework developed above provides a useful lens through which to interpret recent inflation dynamics in advanced economies. The surge in inflation observed in 2021-2023, particularly in countries with a strong reliance on imported energy, such as Italy, is consistent with a cost-push mechanism originating from import prices. The sharp increase in energy and imported intermediate goods prices initially affected a limited set of sectors but subsequently propagated across the production structure, generating successive rounds of price adjustments. This is in line with the mechanism described above, whereby inter-industry linkages amplify and prolong the impact of the initial shock.

At the same time, nominal wages remained relatively subdued, leading to a substantial decline in real wages. This suggests that wage dynamics did not play a primary role in triggering or sustaining the inflationary process, which instead can be understood as the outcome of a propagation mechanism driven by input costs. This pattern has also persisted in subsequent years, contributing to a marked deterioration in income distribution in several advanced economies (OECD, 2025; International Labour Organization, 2024).

The analysis has several implications for the interpretation of current energy price shocks and for policy interventions that can affect both the intensity of these transmission processes and the resulting distribution of income.

Temporary fiscal measures aimed at mitigating the impact of energy price shocks, such as reductions in excise duties introduced by the Italian government in the first weeks of March 2026, can reduce the initial increase in consumer prices but do not eliminate the underlying propagation process. As long as higher input costs per-

1 See Stirati (2001) and Romaniello and Stirati (2024). Let P_t denote the aggregate price level. The difference between price levels between any time t and t-1 after the change m in the terms of trade is given by: $P_t - P_{t-1} = \alpha^{t-1}\beta m$ so that the cumulative increase is $P_t = P_0 + \sum_{t=0}^{t-1}\alpha^t\beta m$.
Since $0 < \alpha < 1$, for $t \to \infty$, the series converges and $\frac{(P^* - P_0)}{P_0} = \frac{\beta m}{(1-\alpha)}$.

sist, inflationary pressures may continue through successive rounds of cost transmission.

Cross-country evidence highlights the importance of structural interventions. For instance, the introduction of a cap on gas prices in electricity generation in Spain (the so-called Iberian exception) weakened the transmission of energy price shocks to domestic prices. By limiting the pass-through from imported energy costs to electricity prices, the policy reduced both the initial inflationary impulse and its propagation across sectors. In terms of the analytical framework, such measures act not only on the size of the initial shock but also on its transmission across intermediate inputs. More generally, interventions should be aimed at a decoupling between the prices of gas in the highly speculative and volatile European gas market and domestic prices of gas and electricity for households and firms.

The Spanish case suggests that policies aimed at reducing the dependence on imported fossil energy and limiting pass-through mechanisms can attenuate both the initial impact of shocks and their propagation. The ongoing transition towards domestically produced low-carbon energy may further reinforce this effect by reducing structural exposure to international commodity price volatility (Kammer, 2026). By contrast, purely temporary fiscal measures mainly smooth short-term effects without addressing the underlying dynamics.

Recent advice from the IMF (Gourinchas, 2026; IMF, 2026) appears mostly oriented towards preventing any further impulse to inflation arising from nominal wage adjustment to price increases and from firms' responses to rising labour costs. This, however, effectively amounts to suggesting that the burden of increasing import costs should be borne entirely by workers – as has already largely occurred in Italy in the aftermath of the 2021-2023 energy price surge. As the econometric exercise of Romaniello and Stirati (2024) demonstrates, an initial shock to imported intermediate or energy goods can generate long-lasting effects on the consumer price index, a pronounced decline in real wages – reflecting a larger increase in the harmonised index of consumer prices relative to nominal wages – and a consequent persistent increase in the profit share, even in the absence of mark-up adjustments. Without adequate wage policy or countervailing policy intervention, the burden of the current shock is therefore likely to fall disproportionately, if not exclusively, on labour, with potentially adverse consequences for private consumption and aggregate demand. This is particularly concerning in a country where real wages have long been alternating between stagnation and decline, and where low-income groups remain especially exposed. According to Istat (2025), the incidence of absolute poverty among households whose main income earner is a blue-collar worker reached 15.6% in 2024. In this context, policies should be aimed at containing energy prices and the consequent inflationary pressure, and at distributing the costs of adverse terms-of-trade shifts as equitably as possible across firms, employees and social strata.

Conclusions

This paper revisits the implications of the recent shock on oil prices using the analytical and empirical framework developed in Romaniello and Stirati (2024). The analysis shows that import price shocks can generate persistent inflation and changes in income distribution through input-output propagation mechanisms.

In the Italian case, inflation was largely driven by energy prices and was associated with a decline in real wages and a rise in the profit share without a generalised increase in profitability. These results highlight the importance of distinguishing between changes in distribution and changes in profitability, and of accounting for the structural transmission of cost shocks.

In the current context, characterised by renewed volatility in energy prices, these mechanisms remain central for understanding inflation dynamics and for designing policy responses that contain inflation while limiting adverse distributional and macroeconomic effects.

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