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# TINKER, TAILOR, SOLDIER - AWRY? ASSIGNMENT PROBLEM IN DISINFLATION ENDEAVOURS\*

ABSTRACT: Overcoming macroeconomic hurdles as a trade assumes that branches of government are almost continuously charged with various assignments, or particular tasks attached to a finite set of resources and talents owned by organizational subunits with decision rights in corrective policy-making. Even though open-economy cases of disinflation programs reminded us quite a while ago that one task need not be assigned to one single resource exclusively, the overwhelming belief in mainstream macro to this day is that monetary policy remains chiefly responsible for both causing and stopping harmful inflation spirals. This paper, however, follows a novel wave of literature that doubly questions the aforementioned notion. It appears that the usual suspects for the recent rise of inflation worldwide are found not guilty; hence, we stand by the rare few who advocate that inflation in a modern non-Ricardian setting, when it finally spiralled out of control, represents but a legitimate and inevitable consequence of irresponsible fiscal

policies and unsustainably high public (and private) debts.

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Moreover, due to the familiar if reversed Fisherian effect, intermediated monetary restriction via interest rate hikes turns out to be an unsafe, rather controversial reaction of central banks when it comes to reasonably swift and reliable preference for an outcome of such disinflation endeavours.

*Keywords:* (dis)inflation, monetary and fiscal policies, accumulated debt, fiscal theory of price level, interest rate hikes...

"So in order to obviate this problem," he continued, "and effectively revalue the leaf, we are about to embark on a massive defoliation campaign, and...er, burn down all the forests. I think you'll all agree that's a sensible move under the circumstances."
— Douglas Adams, The Ultimate Hitchhiker's Guide to the Galaxy"I do not think it is an exaggeration to say history is largely a history of inflation, usually inflations engineered by governments for the gain of governments."
-Friedrich von Hayek-

#### INTRODUCTION

From 2021 onwards, more than half of the developing countries on the planet have recorded inflation above 7% p.a., which is the highest chronic level of CPI increase in over two decades. With that in mind, firstly, we venture to examine whether the usual suspects (in the media, periodicals, and central banks' reports) for the global resurgence of inflation really represent the key determinants of its incitement. Furthermore, if it turns out that several chronic political or economic aberrations additionally burden already irresponsible yet recently unsustainable public finances around the world, we proceed by subjecting the contemporary macroeconomic constellation to the methodological framework of the so-called fiscal theory of price level, in order to check if it is conceivable that the main disinflationary lever, in fact, has all along rested outside the monetary realm, and to that end whether nominal interest rate hikes as a stand-alone restrictive policy instrument always and everywhere deliver a net positive effect of suppressing inflation. The rest of the paper is organized as follows: Section 2 offers examination of both usual and controversial suspects for the resurgence of inflation; Section 3 introduces the main intellectual facets of the fiscal theory of price level; Section 4 questions the theoretical narrative of interest rate hikes as the

Section 4 questions the theoretical narrative of interest rate hikes as the standard toolkit for taming inflation; Section 5 distils several concluding remarks.

#### THE USUAL SUSPECTS VS. DISCOVERED LEADS

Generally speaking, there are four allies of inflation propagation in the open economy: 1) impact of changing prices onto other prices; 2) impact of rising prices on wages and salaries; 3) impact of price dynamics on exchange rate (inflation lowers purchasing power of national currency thereby altering its relative price), coupled with boomerang effect of exchange rate pass-through (so-called imported inflation) and 4) impact of changing price level on interest rates [Malovic, 2014]. In addition, much depends on the particular type of inflation expectations governing behaviour of representative agents (neoclassical are by and large backward-looking whereas neo-Keynesian are forward-looking) as well as on size and degree of nominal rigidities and residual sensitivity parameters [Svensson, 2013, p.13], [Woodford, 2003, pp.158-187]. Moreover, inflation dynamics can be summarised as the interplay between expected inflation rate (which may or may not be represented by the targeted core inflation), imported supply-side shock  $u^{S}$  and constantly evolving outcome of both price- and wage markups applied [Malovic, 2014]:

$$\pi = \pi^E + \varDelta (1 + M^P) (1 + M^W) + u^S \tag{1}$$

On the other hand, the ongoing war in Ukraine, broken supply chains as a legacy of COVID, cumulatively unleashed aggregate demand after the global quarantine, a jump in nominal wages, and even the purchasing power catch-up effect achieved by emerging markets in recent years, are all typically mentioned as the usual suspects for the resurgence and apparent robustness (at least in the European theatre) of contemporary inflation. Of those five, only the fifth determinant comes from afar and resonates longtermish; the former four being fairly novel and obviously intermittent, shortlived phenomena. Notably, one can hardly imagine global supply chain jams or delays to cement themselves indefinitely, regardless of their short-term validity in explaining imported inflation or price spikes owing to shortages. Be that as it may, structural trends suggest that for quite a while now the inflation menace has grown secular, rather than transitory. Specifically, many countries are now engaged in various "wars" - some real, some metaphorical - that will lead to even larger fiscal deficits, more debt monetization, and higher inflation in the future [Roubini, 2022].

When it comes to the conflict in Ukraine as an inflation determinant, arguably the EU bears the largest economic burden of implementing the sanctions imposed on the Russian Federation, which reinforces both stagnation and inflation on the 'eldest' continent. Russia is one of the key producers of several primary products essential for international competitiveness in agriculture, construction, and the entire economy when one takes energy into account; hence, trade restrictions in fuel provision by the EU can be considered a self-inflicted wound of geostrategic origin [Malovic-Petrovic, 2023]. By the same token, the USA might be seen as the apparent short-run winner of the great economic divide imposed by economic sanctions of the collective West. Nevertheless, inflation has had a much longer if silenced runaway on both sides of the Atlantic, so that the war in Ukraine appears to serve merely as a perfect excuse for inflation that would have been brought about anyway.

Furthermore, the aggregate demand accumulated through the quarantine (state aid plus pent-up demand) was everywhere relatively limited in its duration and of relatively narrow scope (hospitality, travel, conventional shopping), while a more pronounced speculative bubble in the real estate market could be in part attributed to COVID, the spin-off stemming from the desire for more residential space [Konczal, 2023] as well as from a rational attempt to preserve the value of lifelong savings, which began to decline across all leading currencies with the very first tremors of worldwide inflation: investment activity also known as flight to safety due to the shortage of safe financial assets in the crisis environment of financial contagion. Nersisyan and Randall Wray (2022) maintain that there is little evidence of excess demand causing inflation, although it goes without saying that less expansionary government policy would result in both a considerably slower recovery and more timid lower inflation. Besides, Agarwal and Kimbal (2022), upon observing OECD countries sample, rightly pointed at probably persistent pandemic shift from demand for services in favor of demand for goods, which made goods inflation dominant over most of the lockdown period(s), while the price of services curiously declined very little if at all and readily made up (in subsequent inflation) for falling behind through the quarantine once the worst of COVID was behind us [Konczal, 2023]. Anecdotal evidence suggests similar albeit less volatile development of inflation in small open transition economies.

With regard to labor and wages, it is important to debunk irresponsible claims that wage jumps delivered post-pandemic inflation. Notwithstanding certain frictional unemployment issues in businesses with face-to-face performed services in jeopardy of being discontinued due to contemporary or some future pandemic, whose proprietors did cut such employment during lockdown rather hastily and were later unable to fill these posts with new labor force, there is no evidence whatsoever that wages and employment had been a considerable inflation determinant, much less that they ought to decline to defuse inflation [Bernanke-Blanchard, 2023]. First, in respect to the Eurozone, any serious jump in wages was pretty much non-

existent until the second quarter of 2023 [Malovic-Petrovic, 2023]. In many small open developing countries, wages had long been stagnant or even slightly reduced during the COVID crisis, with only a handful of sectoral outliers picking up more recently. In the U.S. case, however, partly thanks to much quicker macroeconomic recovery (non-negligibly aided by the geopolitical inertia), to the extent some workers have finally seen a more pronounced wage growth amidst tighter labor markets, this wage growth is far less responsible for current greedflation than steep corporate profits (aftertax profit margins of non-financial companies in the U.S. are the highest in the previous 70 years), coupled with tireless stock buybacks at historic levels [Schweitzer-Khattar, 2022], [Konczal, 2023]. According to Schweitzer and Khattar (2022), not only do scatter diagrams doubtlessly show the absence of a significant correlation between wage acceleration and price acceleration even for the US data during the pandemic (tested across 94 industries), but moreover, American CPI had been continuously above average hourly earnings of non-supervisory personnel throughout 2022, which stood consistent with the real growth rate of the median household wage in the USA of a modest 8.8% over the last 40 years! Even though inflation expectations in the U.S. remain well anchored, Bernanke and Blanchard (2023) express concern that the current nominal wage growth rate in America, should they persist, may prove to be unsustainable and thus a more serious inflation determinant in the near future.

The ultimate question remains: if the usual suspects bear little to no accountability for detected magnitude and duration of general price increases across the globe, where and when have all the inflation come from? In our opinion, the real culprit for the global return of inflation is the irresponsible fiscal policy and the long-term growth of public and private debts of alarming proportions. Namely, for years, right-wing governments cut taxes without immediately cutting spending, while left-wing governments spent more and more generously on social programmes without providing them with adequate fiscal income [Roubini, 2022\*]. In addition, quantitative easing and systematic deregulation of credit conditions have been utilised for decades to artificially maintain the borrowing capacity and repayment potential of both sovereigns and large influential corporations to the level of *de facto* dependence on dramatically low (real) interest rates. Consequently, total planetary private and public-sector debt as a share of the world GDP rose from 200% in 1999 to 350% in 2021! The ratio is now 420% across OECD economies, 330% in China, while in the U.S. it has also reached 420% which is higher than during the Great Depression or the post-WWII era [*Ibidem*]. Total emerging market developing economies' debt is around 207% of its respective GDP, out of which public debt occupies 64 percentage points of GDP that places it at its highest level in three decades; about one-half of it is denominated in foreign currency, and more than two-fifths are held by nonresidents [Kose et alia, 2022]. The share of private and public debt in the Eurozone's GDP exceeds 170%, and in many member states (such as Italy or Greece) it is significantly higher [Malovic-Petrovic, 2023]. Sheer size of the ECB's balance sheet reached almost 9 trillion euros already in 2022, since the volume of bonds purchased by the ECB alone accounts for about 56% of the GDP of the Eurozone [Issing, 2023]. Only in the fourth quarter of 2022 can we observe a more significant annual change of course in public finances for the Eurozone towards fiscal restriction, both through the size of the deficit and through the size of the public debt in relation to GDP (by 1.7 percentage points and by 4 percentage points less, respectively) [Eurostat, 2023]. It is yet to be seen how determined and sustainable this course is when all those weapons, ammunition, and other supplies, donated or cheaply sold via longterm loans to Ukraine, provoke often import-dependent replenishment requests by national defence ministries throughout the E(M)U. This is especially doubtful considering that the Eurozone has recently officially entered recession [Malovic-Petrovic, 2023].

Nonetheless, this chronically high indebtedness in terms of government and/or publicly guaranteed private debt has gained a lot of traction more recently (but long before pandemic) from the globally imposed green transition, which is not only inflationary *sui generis*, unachievable and unsustainable in its current form,<sup>2</sup> but also fiscally unfair, since it is almost entirely passed onto the taxpayer. It is inflationary since it champions much more expensive technologies instead of thus far used ones, since it raises opportunity costs of diverting many inputs from its traditional deployment and potentially provokes shortages, and at last but not least since new technologies will also bear non-trivial indirect carbon footprint, plus the fact that regular maintenance&servicing of- and dispensing with allegedly green new technologies shall cost us dearly long after initial transition.

While in most cases inflation appears as a bitter if unavoidable outcome of stubbornly pushing for new technologies (that aren't properly thought through), in some auxiliary instances globally induced inflation can serve as a handy excuse for introducing new technologies (equally deprived of a sober second thought) that are supposed to mend it in the green and digital future. Croitoru (2023), for example, has also identified too loose fiscal policy, technologies that indirectly diminish economic freedoms, and environmental reforms as mutually reenforcing determinants of inflation, which in turn gets (mis)used as a convenient exhaust for politically debatable social redistribution.

 $<sup>^{2}</sup>$  For more details on just why green transition is sadly unachievable and unsustainable in its present form and agenda, see Spence (2022\*).

#### THE FISCAL THEORY OF PRICE LEVEL

Therefore, economists have no right to ignore the mounting evidence that inflation in fact isn't always and everywhere a purely monetary phenomenon as M. Friedman would put it, neither in terms of origin nor the most effective treatment. The so-called fiscal theory of price level (hereafter FTPL) generally argues for appreciating much more sophisticated way in which monetary and fiscal policies interact in determination of macroeconomic results [Lubik, 2022], rather than performing *ex ante* divided tasks in isolation from one another, while under certain pretext claims that the price level may be determined by government debt and fiscal policy in particular, with monetary policy playing at best a minor, indirect role [Leeper, 1991], [Sims, 1994], [Woodford, 1995], [Bassetto, 2006].

The long-standing price determination ideology has rested on the classical quantity theory of money, where general price level is outcome of nominal money supply, money velocity and output dynamics:

$$P_t = M^s_t V_t / y_t \tag{2}$$

FTPL, however, takes more encompassing view of inflation creation in which independent monetary and fiscal policies are intertwined via consolidated government budget constraint, established by integrating the central bank's and treasury's budget constraint, respectively:

$$(O_t^{CB} - O_{t-1}^{CB}) + \tau_t^{CB} \equiv i_{t-1}O_{t-1}^{CB} + (H_t - H_{t-1})$$
(3)

$$G_{t} + i_{t-1}O_{t-1} \equiv T_{t} + (O_{t} - O_{t-1}) + \tau_{t}^{CB}$$
(4)

Summing up yields (5)=(3)+(4):

$$G_t + i_{t-1}O_{t-1}^{\circ} = T_t + (O_t^{\circ} - O_{t-1}^{\circ}) + (H_t - H_{t-1})$$
(5)

On the expenditure side of equation (5), current government consumption is augmented with interest due on net (residual) government debt,  $O^o = O \cdot O^{CB}$ , while on the right-hand side public revenue is supported by new net public debt and an increase in monetary base (high-powered money).

However, since seignorage generally doesn't coincide with the inflation tax, because headline inflation draws from total money supply growth, in what follows we shall substitute H for  $M^S$ , so that the general price level in the latter period is adjusted in such a manner that the real value of the

government debt corresponds to the net present value of expected primary surpluses, which keeps the intertemporal budgetary constraint of the consolidated government sector in check. After Cochrane (2023), the government's budget limitation reads:

$$D_{t-1}^{I} = P_{t}b_{t} + M_{t-1}^{S} - M_{t-1}^{S} + p^{o}D_{t}^{I}$$
(6)

Of newly introduced variables,  $D^{J}$  is total public debt, b is primary budget surplus and  $p^{o}$  is the price of a government bond.

On the other hand, representative household maximizes the expected net present value of the cumulative income available for consumption, namely

$$\max E_{i} \sum_{j=0}^{\infty} \beta^{j} b_{t+j} \tag{7}$$

where  $\beta$  denotes discount factor and  $y^D$  real disposable income, subject to its own budget constraint (household's) and transversality condition, respectively

$$M^{s}_{t,i} + D^{J}_{t,i} + P_{t} y_{t} = P_{t} c_{t} + P_{t} b_{t} + M^{s}_{t} + p^{o} D^{J}_{t}; \forall M^{s}_{t}, D^{J}_{t} \ge 0$$
(8)

$$\lim_{T \to \infty} E_t(\beta^T D^I_{T-1} P_t^{-1}) = 0 \tag{9}$$

Consequently, the essential reason for eventually erupting inflation is apparently a watershed moment in which a critical mass of creditors (and perhaps the sovereign himself) doubt(s) the possibility of generating future fiscal surpluses sufficient to eliminate the amount of accumulated debts:

$$D_{I-1}/P_{i} = E_{j=0} \sum_{j=0}^{\infty} \beta^{j} b_{t+j}$$
(10)

The simplest multi-period version of FTPL, thus, claims that rock-bottom demand for money in private sector view is determined solely by the obligation to regulate the tax levy that must be paid periodically with officially declared fiat money [Cochrane, 2023]. Greater than minimal demand for money is feasible provided that government exerts fiscal prudence (intertemporal solvency; no partial monetisation of public debt) and available assets offer households a reasonable remuneration (return). Overall money demand, however, as well as unique price level must be consistent with given present value of primary surpluses and the nominal debt inherited from the past. Thus, FTPL defines price level dynamics not as the inverse of the pecuniary value (which is traditional view), but as the inverse of the value of government debt. Since lending (the mirror image of public indebtedness)

for non-state sector is voluntary unlike payment of taxes, if private agents are reluctant to lend, government is forced to a fiscal adjustment. Under the FTPL, it is the price level that responds to realised future fiscal shock and thereby alters the real value of public debt on the left-hand side of equation (10) [Bassetto, 2006].

Criticism thus far uttered against FTPL boils down to two main dimensions: first is the treatment of intertemporal accounting (solvency) identity as an exceptional equilibrium condition in the likes of Buiter (2002), McCallum and Nelson (2006) or Storm (2022); second is concerned with FTPL's alleged lack of empirical relevance in the second half of XX century according to, for instance, Bohn (1998) or Canzoneri *et alia* (2001). Nonetheless, in retrospect it seems that both strands of criticism stem from the same misconception: namely if economic environment prevalently rejects behaviour implied by the so-called Ricardian equivalence, endogenous price level adjustments are clearly necessary to accommodate the lack of fiscal discipline in as much as fiscal policy framework is non-Ricardian and economy operates under regime of fiscal dominance. This was either not understood well enough, underappreciated<sup>3</sup> or wasn't fulfilled as an empirical precondition at the end of the last century [Ballabriga, 2004], [Lubik, 2022], [Cochrane, 2023].

Sure enough, objective difficulty in empirical verification of FTPL is the fact that the power of theory rests on a forward-looking present-value relationship which may require a lot of extrapolation (not least of interest rates used for discounting) [Lubik, 2022] and may bring about gradually sneaking inflation as a result of bad fiscal news identified in a fairly distant future [Cochrane, 2023]. Still, more recent studies deliver more promising results. By utilising a novel method for quantile panel regressions with fixed effects, Banerjee et alia (2023) find statistically significant and positive impact of cumulative fiscal deficits on near-term inflation in a bundle of developed and developing countries, caveat being that surge in budget deficits exhibit highly non-linear repercussion for inflation rate: i.e. larger impact on the upside tail risks than on average inflation and more so for emerging markets & developing countries than for OECD members. In addition, financial openness and (effectively) fixed exchange rate apparently weaken this positive link between budgetary deficits and subsequent inflation for subsample of developing countries. Also, Barro and Bianchi (2023) have

<sup>&</sup>lt;sup>3</sup> For example, Buiter and Sibert (2018, p.18) argue that violation of intertemporal budget constraint provokes jump in private consumption rather than jump in general price level and henceforth call improved versions of FTPL models by C. Sims and J. Cochrane the fiscal theory of the level of economic activity. Effectively, of course, risen consumption *caeteris paribus* gives instantaneous birth to more or less classic demand-pull inflation before level of output could be pushed upward.

lately published a study which establishes a substantial explanatory power of composite government spending variable (40-50%) in determining future inflation for 37 OECD countries (20 of which are EMU members) through 2020-2022 pandemic period. Brandao-Marques *et alia* (2023) similarly show that debt surprises raise long-term inflation expectations in a persistent way among emerging markets but not in advanced economies. The impact appears to be stronger the heftier initial debt level was, the more dollarised debt is and the higher initial inflation happened to be. However, debt denomination is irrelevant to a first order. According to Cochrane (2023, p. 240), relevant is the ability to obtain reserves when they are unconditionally desired. Governments don't back their total debts with FX reserves or gold for that matter. Alas, when debt becomes due, if governments cannot pay them off or roll them over, they must print fiat money in order to avoid defaulting. Surprise inflation reduces the value of nominal liabilities and therefore improves the fiscal stance of the consolidated government [Lubik, 2022].

Be that as it may, in the event of real present value of accumulated debts ending up greater than the estimated fiscal potential in the foreseeable future, the surplus of current money in circulation can go either to the purchase of risk-free domestic securities (which is less likely in case of tainted fiscal credibility) or to the acquisition of real assets /safe financial assets (e.g. foreign currency) which causes and hence determines the increase in the general price level [Cochrane, 2023]. In this way, apart from the fiscal origin of unanticipated inflation, it is also possible to explain why neither the multi-year cutting of nominal interest rates on both sides of the Atlantic nor the (politically, ergo fiscally motivated) monetary expansion were able to produce the desperately needed inflation for such a long while. Hence the inevitable question, what exactly guarantees us that raising benchmark interest rates this time around will produce desired disinflation?

# DO INTEREST RATE HIKES ALWAYS AND EVERYWHERE DECREASE INFLATION?

The question posed is but a slice of broader picture regarding the socalled assignment problem (going back to Tinbergen and Mundell), that investigates which instruments of macroeconomic policy not only can but most efficiently do tackle which macroeconomic disturbances. Having in mind that central banks often manipulate the exchange rate too in executing their monetary strategies, external balance is additionally assigned to monetary policy, whereas fiscal policy typically remains responsible for restoring the real internal equilibrium. However, in an open economy context, Tanner (2019) exerts that if the fiscal authority is unwilling to cooperate and central banks pursue disinflation on a "go it alone" basis, their disinflation effort may be thwarted by deteriorating external variables: more external debt, higher risk premia and exchange rate passthrough, which all act inflationary! Thus, it goes without saying that in cases when monetary authority lacks credibility or acts in the Non-Ricardian context, it must rely even more on fiscal authority to bring down inflation. And yet, therein -less obviously perhaps- lies a more fundamental issue: in a constellation where the dominant cause of price jumps isn't demand-pull inflation, raising interest rates is not an optimal or harmless reaction of the monetary authorities, but a forced reflex that arguably does more harm than good over the long run [Malovic-Petrovic, 2023].

Back in the day when monetary restriction used to be carried out through reduction of money supply, quick shortage of liquidity lubricant would promptly slow down real activity and so regain monetary equilibrium. Nowadays when central banks give their best to control monetary supply at best indirectly by tweaking short term interest rates as instrumental variables, traditional and until now apodictic explanation supposedly goes something like this: raising nominal interest rate doesn't affect inflation immediately for its stickiness, hence real interest rate also jumps thereby cooling down the economy (via IS curve) and at last brings down inflation too (via Phillips curve), if oftentimes with considerable time lag. However, in very recent articles, Nersisyan and Wray (2022), Cochrane (2023\*) and Fix (2023) persuasively demonstrate not only that such a pattern is nowhere near to be confirmed by actual real-world data in modern macroeconomic history, but furthermore that half a century of formal econometric tests leaves the aforementioned narrative on rather shaky grounds, to put it mildly. What's more, contemporary New Keynesian macroeconomic theory doesn't lend intellectual support for such a transmission mechanism either. Namely, New Keynesian Phillips curve posits that inflation expectations are forwardlooking, as in Malovic (2014, p. 100), so that bearing in mind its algebraic evolution.

$$\pi_t = \beta E_t \pi_{t+1} + \gamma(y_t - y_{natural}) \tag{11}$$

if monetary authority raises interest rate, provided that doing so indeed lowers output or increases unemployment, one shouldn't be perplexed with end result - today's inflation drops down [Cochrane, 2023\*]. The unpleasant monetary arithmetic being when current inflation falls relative to future inflation as a consequence of pulling up short term interest rate, it means that raising rate of interest manifestly causes inflation surge rather than intended deflation. Finally, as correctly observed by Cochrane (2023\*), if serially correlated monetary shock is persistent, inflation could swell up momentarily notwithstanding any given amount of price stickiness. Although the claim of inflation actually rising with interest rate bumps (and falling with interest rate cuts) automatically puts mainstream economists and government officials (central banks included) into war mode, this covariation is not a new discovery: it simply reminds us of inflation being the variable which upregulates interest rates rather than the other way around [Fix, 2023]. Nevertheless, this does not imply that in today's world of fiscal dominance there is no use or role for central bank in respect to disinflationary ambitions, on the contrary, monetary authority chooses and then targets the policy rate of interest, which indirectly determines the expected inflation, while fiscal shocks determine its unexpected component [Cochrane, 2023].

However, no one is adamant that interest rate hikes couldn't conceivably produce deflation under any conditions, for minimum two reasons: 1) perhaps there's a missing evidence in a transmission puzzle, along the lines of Cochrane's (2023\*) experimenting with adaptive expectations (rather than rational forward-looking ones) in both IS and Phillips curve, or Azizirad's (2023) underlining the importance of liquidity premium on nearmoney assets, and 2) because you can always claim your mechanism takes a bit more time and torture the data with lags henceforth [Fix, 2023].

No doubt about it, monetary authority still controls the expected inflation component via policy interest rate, but the trouble with the first argument is that history tells us inflations are predominantly brought down by paradigm shift (or a rule change) rather than by impulse response to the interest rate hike. In other words, there's a limit to which one can mend and re-anchor inflation expectations by jedi-mind tricks, dot plots or verbal interventions and quick enough at that, in as much as it might be reconciled with the real-world data [Cochrane, 2023\*]. To that end, Azizirad (2023) allows for the very short disinflationary effect of interest rate rise, as opposed to Nersisyan and Wray (2022) dismiss it by maintaining that tighter monetary policy would be an ineffective way to reduce price pressures, with lots of room for pain and little gain in the short run. As a matter of fact, in a realm where the central bank no longer has more direct control over the money supply, but introduces restriction via raising the reference interest rate, such a monetary tightening may be decomposed into essentially two induced effects: 1) recession through the effect of more expensive money and credit on economic activity and 2) fiscal loosening, to which monetary contraction lends itself by means of aggravated public (and guaranteed private) debt. The first effect can suppress inflation in the short term, but the second almost invariably worsens it in the medium term [Malovic-Petrovic, 2023].

The trouble with the second argument is that when one lags the data sufficiently, given the high cyclicality of both inflation and interest rate movement, one risks artificially inverting a clearly positive correlation [Fix, 2023]. In conclusion, not only does the Fisherian effect of raising nominal interest rates cause a highly probable medium-term increase in inflation [Cochrane, 2023], rather than inflation decline, but moreover, data for 17 developed countries over the past 150 years show that a sharp rise in interest rates seriously increases the probability of a financial crisis, especially if interest rates have previously gone through a period of undercutting [Korinek-Stiglitz, 2022]. The same latent predicament -but for developing countries- is pointed out ever more nervously by Obstfeld (2022). At the end of the day, if increase in the nominal interest rate is to suppress inflation in the long term, it should necessarily cause an above-average growth of the real interest rate, which is not entirely certain in a situation where real rates are not only lower than inflation but also lower than expected real growth rates in the foreseeable future. Therefore, Blanchard (2022) believes that, once the ongoing crisis is over, we will continue to live in a world of long-term low real interest rates. However, Rogoff (2023, p.1) warns that it may take a while after all, because even if inflation slows down, already soaring debt levels, deglobalization, and populist pressures will prop interest rates higher over the next decade, than they were in the decade following the 2008 financial crisis.

# **CONCLUDING REMARKS**

Although the inflation rates have recently been visibly reduced all over the globe, they still remain unacceptably high, outside the target ranges, and as such threaten the purchasing power of the population as well as macroeconomic stability by and large.

In this paper we have argued against prevailing let alone exclusive responsibility of monetary authority for causing- or capability of putting an end to undesirable inflation. In addition, we have dealt with and dismissed each of the usually proclaimed main suspects for resurgence and apparent robustness of the contemporary inflation: ongoing war in Ukraine, broken supply chains as a legacy of COVID, cumulatively unleashed aggregate demand after the global quarantine, jump in nominal wages, and even purchasing power catch-up effect achieved by emerging markets in recent years. In our opinion, the real culprit for the global return of inflation is the irresponsible fiscal policy and the long-term growth of public and publicly guaranteed private debts of unprecedented proportions. In this way, apart from stressing predominantly fiscal origin of unanticipated inflation, it is also possible to explain why neither the multi-year cutting of nominal interest rates on both sides of the Atlantic nor the (politically, ergo fiscally motivated) monetary expansion were able to produce the desperately needed inflation for such a long while. Hence the inevitable question, what exactly guarantees us that raising benchmark interest rates this time around will produce desired disinflation?

Be that as it may, economists have no right to ignore the mounting evidence that inflation in fact isn't always and everywhere a purely monetary phenomenon as M. Friedman would put it, neither in terms of origin nor the most effective treatment. In view of the well-known assignment problem, this paper favours the so-called fiscal theory of price level which generally calls for appreciating much more nuanced way in which monetary and fiscal policies interact in determination of macroeconomic outcomes. Thus, it goes without saying that in cases when monetary authority lacks credibility or acts in the Non-Ricardian context, it must rely even more on fiscal authority to bring down inflation. However, therein -less obviously perhaps- lies a more fundamental issue: in a constellation where the dominant cause of price jumps isn't demand-pull inflation, raising interest rates is not an optimal or harmless reaction of the monetary authorities, but a forced reflex that arguably does more harm than good over the longer run. For the latter part of the paper, we have reviewed in some detail both theoretical and empirical arguments for such an unorthodox if not bold proposition. Indeed, it looks as if central banks' policy rates govern the expected inflation only, while the unexpected inflation, which makes a bulk of the re-allocative and redistributional difference, nowadays dwells in the fiscal realm.

### REZIME KOTLOKRPA, KROJAČ, VOJNIK - NAOPAKO? PROBLEM DODELJIVANJA ZADUŽENJA PRI DEZINFLACIONIM PODUHVATIMA

Prevazilaženje makroekonomskih prepreka kao zanat pretpostavlja da su grane vlasti gotovo kontinuirano zadužene raznolikim zadacima, tj. određenim zaduženjima vezanim za ograničen skup resursa i talenata u posedu organizacionih podjedinica sa pravima odlučivanja u korektivnom kreiranju politike. Iako su nas antiinflacioni programi u otvorenim privredama odavno podsetili da jedan zadatak ne mora biti dodeljen isključivo jednom jedinom resursu, preovlađujuće uverenje u tradicionalnoj makroekonomskoj misli do danas glasi da je monetarna politika i dalje glavna odgovorna i za izazivanje i zaustavljanje štetne inflacione spirale. Ovaj rad, međutim, prati novi talas literature koji dvostruko dovodi u pitanje pomenuto uverenje. Čini se da su uobičajeni osumnjičeni za nedavni porast inflacije širom sveta proglašeni nevinim, pa stoga stojimo uz još uvek retke ekonomiste koji smatraju da inflacija u modernom nerikardijanskom

okruženju, kada je konačno izmakla kontroli, predstavlja tek legitimnu i neizbežnu posledicu neodgovorne fiskalne politike i neodrživo visokih javnih (i privatnih) dugova. Štaviše, zbog poznatog, iako u rikverc posmatranog Fišerovog efekta, posredno monetarno ograničenje kroz povećanje kamatnih stopa pokazuje se kao nesigurna, prilično kontroverzna reakcija centralnih banaka kada je u pitanju razumno brza i pouzdana preferencija u pogledu ishoda ovakvih dezinflacionih poduhvata.

*Ključne reči:* (dez)inflacija, monetarna i fiskalna politika, akumulirani dug, fiskalna teorija nivoa cena, povećanje kamatnih stopa

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