

Inflation targeting: From “constrained discretion” to singularity¹

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Abstract

In recent years, inflation targeting has become a staple of international monetary policy. The paper considers different challenges this monetary policy regime faces with regard to suppressed inflation, attaining the zero lower bound on the policy interest rates, and committing central banks to simultaneously pursue additional objectives such as financial stability. Inflation targeting has proved inefficient in raising inflation to the target zone from below, and unorthodox monetary policy tools have not proved their validity in this regard yet. As a result, monetary authorities are more inclined to discretion allowing them to compromise different aspects of “pure” inflation targeting. The value of this discretion is based on asymmetric information and boosted by additional functions assumed by central banks. However, it might bring about serious problems of dynamic inconsistency, compounded political uncertainty, and bureaucratic misconduct. Since none of the alternatives to inflation targeting currently looks fully satisfactory, it is concluded that the inflation targeting regime should be transformed to take into account the current situation, but a necessary precondition for the effectiveness of the new regime is enhanced accountability of central banks.

Keywords: central banks, discretion, global financial crisis, monetary policy, inflation targeting, lower zero bound, macroprudential policy, central bank’s independence, accountability.

JEL: E31, E52, E58, E61.

Introduction

The period from the 1990s up to recent years can be described as the time of the triumphal march of *inflation targeting*. Starting with New Zealand, which was the first to get “baptized” into the new faith in inflation in 1990, the number of adherents of this regime is increasing. This is hardly surprising (for a description of inflation targeting advantages,

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see, for example, (Bernanke, 2003)). A monetary policy modernized in this direction is considered one of the major prerequisites of the “Great Moderation,” a decrease of inflation rates, and stabilization of the global economic dynamics – both in developed and developing countries (Bernanke, 2004).

The first notable cracks covered the almost impeccable reputation of inflation targeting after the global financial crisis of 2007–2009 when the effectiveness of this monetary regime disappointed many observers; it was no coincidence that it was at once attacked by both academic scholars and market experts (CEPR, 2013). The main reason was that under the conditions of the zero lower bound (ZLB) on the policy interest rate reached by several economies, it became impossible to use this monetary policy tool effectively. As David Beckworth (2014) opined, the initial success of inflation targeting was partly due to the absence of major supply and demand shocks under which it cannot display adequate robustness. In addition, heavy reproach was related to the formation of financial bubbles and other features of financial instability ignored by “pure” inflation targeting, which even allowed Frankel (2012) to announce its “death.”²

But despite the harsh criticism, it was recognized that there was no adequate replacement for inflation targeting at the moment, and this regime would need to be adapted accordingly, rather than resolutely rejected (Woodford, 2013). As a result, after the global financial crisis, the number of countries that adhere to this version of monetary policy has almost doubled (to 41³ according to the (IMF, 2020)).

In our view, today, a decade after the global financial crisis, inflation targeting policy is once again facing an existential crisis, and a much more serious one. Over the past years, it has become obvious that for a number of economies, achieving the stated goal was almost impossible, and the implementation of central banks’ policies under the aegis of inflation targeting, in fact, implied a completely different set of principles and actions than had been previously understood by this term.

However, most monetary regulators continue to swear allegiance to inflation targeting and are not going to change it for anything else. Moreover, on a global scale, contemporary monetary policy demonstrates a kind of “inflation targeting singularity”: not a single departure from inflation targeting has been registered so far. In other words, having started to practice this regime, central banks of very different countries see no plausible alternative to it. What is the reason for this? Is it only in the absence of a suitable replacement, or maybe the underlying cause goes much deeper?

1. Inflation targeting as a distinct mode of monetary policy

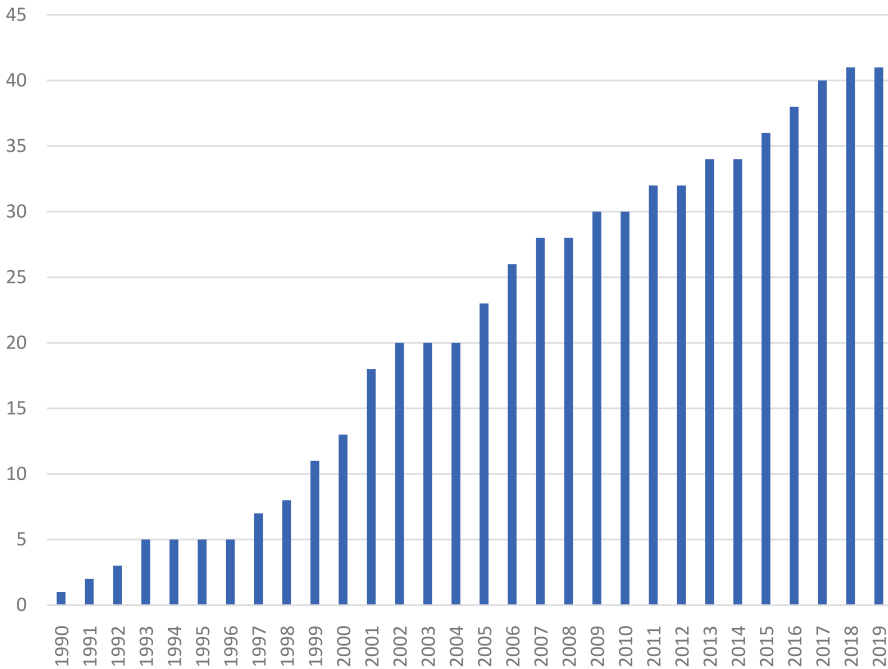
According to the IMF, inflation targeting is characterized by two main features: the public announcement of the inflation target and the commitment of the central bank to achieve it with all its available policy tools (usually in the medium-term time horizon). Thus, a

² Frankel, J. *The death of inflation targeting*. Project Syndicate blog, 16 May 2012. <https://www.project-syndicate.org/commentary/the-death-of-inflation-targeting?barrier=accesspaylog>

³ Including 4 out of 5 BRICS countries (China is the only outsider).

deviation of current (or forecast) inflation rates from the target operates as a trigger for appropriate actions of the central bank, while an inflation forecast explicitly or implicitly serves as an intermediate goal of monetary policy. In addition, inflation targeting provides for permanent communication of the central bank aimed at explaining its actions to the general public (IMF, 2020, p. 6).

The number of countries (Figure 1) using inflation targeting (according to the IMF definition) was steadily increasing during the three decades of its history.



Source: IMF AREAER Database.

Figure 1. Number of countries practicing inflation targeting

In addition to the “official” definition, there exist other related classifications. Thus, Cobham (2020) offers a much more detailed categorization of 32 potential monetary policy regimes, based on data from consultations of the IMF member states on Article 4 of the Charter. This classification covers a significant number of developed and developing countries and takes into account not only the declared de jure regime, but also the instruments available to central banks and actual achievement of the goal. In addition, the United States and the Euro zone are often classified as inflation targeting jurisdictions since the applied monetary policy regime is characterized by a public announcement of the target and an obligation to control inflation within the appropriate limits (for example, Agenor and Pereira (2019)).

Inflation targeting is based on the theoretical understanding that there is no stable long-term relationship between inflation and output (Friedman, 1968), and therefore the

requirement for central banks to focus on controlling inflation, as well as the principle of “dynamic inconsistency” (Kydland & Prescott, 1977), whereby a long-term commitment of monetary authorities to sustaining low inflation can generate adequate expectations among the public (Whelan, 2013). The ability of central banks to influence primarily nominal indicators determines the choice of such a transparent and easily interpreted target indicator as the rate of inflation. It has important advantages in view of creating an appropriate reputation for a monetary regulator in the course of undertaking a rules-based policy (Taylor, 1993).

Inflation targeting also fits well into the “one goal — one instrument” Tinbergen-Mundell concept of economic policy (Mundell, 1960; Tinbergen, 1952) when a central bank responsible for stabilizing price growth independently of other authorities applies a (usually) short-term policy interest rate for this purpose. As Russian researchers (Trunin et al., 2019, p. 10) state, “...the presence of additional long-term priorities of the monetary authorities, in addition to controlling price growth, increases inflationary expectations.”

Quite a number of studies have been published on the impact of the inflation targeting regime on inflation and other macroeconomic indicators, and they mostly confirm the positive impact (see review by Kartaev (2017a); Agenor and Pereira (2019)).

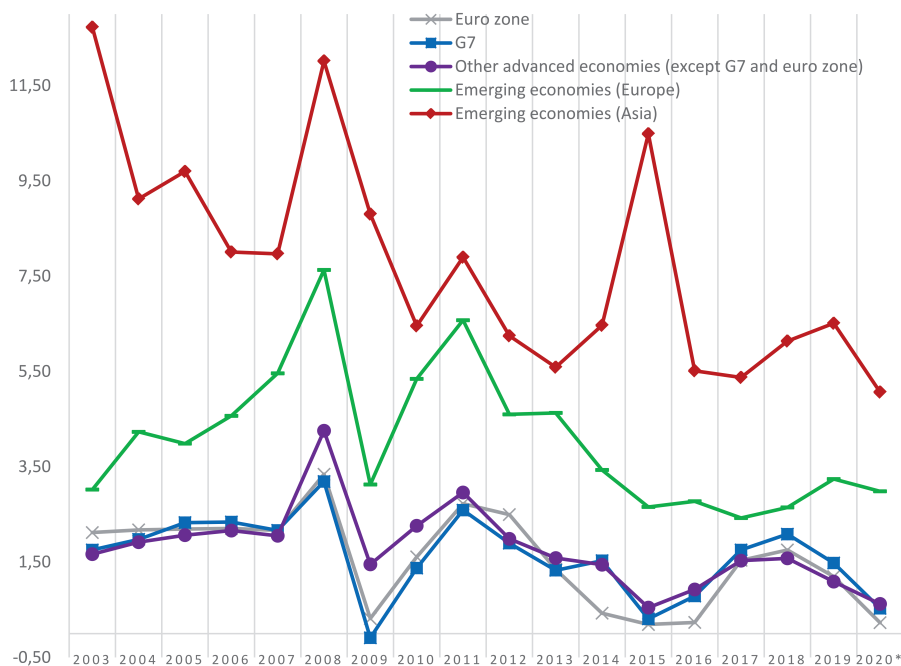
However, the results of the analysis are usually highly dependent on the period and sample. The general pre-crisis verdict (Ball, 2010; Walsh, 2009) is usually as follows: for developed countries, there is no special impact on the rate of inflation, while for developing countries, it is significantly positive. The positive effects of inflation targeting demonstrated in several papers (for example, Hu (2003); Mishkin & Schmidt-Hebbel (2007) are interpreted by Ball (2010)) as a result of endogeneity. Thus, the initial high level of inflation undoubtedly affects the very introduction of a new prospective monetary policy regime, and, therefore, estimates of its effectiveness are biased. For instance, in Russia, inflation targeting policy was adopted during the acute macroeconomic crisis at the end of 2014, against the background of growing inflation which was mainly due to exogenous shocks (Trunin et al., p. 38–40). Thus, the assessment of macroeconomic progress measured in comparison with the starting point of the “crisis” is often overstated.

Indeed, using the “differences in differences” methodology from the work (Ball, 2010) to address the problem of endogeneity and a refined “de facto classification” (Cobham, 2020), the authors of a recent paper (Cobham & Song, 2020) show that for developed countries, positive effects exist, but they are small, while for developing countries, the impact of inflation targeting on inflation and economic growth is actually insignificant.

2. Inflation targeting and the global financial crisis (2007–2009)

The events of the global financial crisis became a serious challenge for inflation targeting. The main factors for this can be attributed to three closely related categories — goal, instrument and focus. Each of these inconsistencies add to the need for adjustment or enhancement of inflation targeting regime.

Goal. In several developed countries, the implementation of inflation targeting policies encountered a major obstacle: inflation fell after the global financial crisis and, while at about 1.5 percentage points lower than before the crisis, did not oscillate significantly. Consumer prices continued to decline, and their volatility decreased in developing countries (Figure 2), where, with a few exceptions (notably, Argentina and Turkey), inflation also became much more moderate.



Note: * forecast.

Sources: IMF, World Economic Outlook Database, April 2020.

Figure 2. Average annual rates of inflation, advanced and developing countries, 2003–2020 (%)

It has important ramifications for inflation targeting practices. Consumer prices index (CPI) in 27 out of the 41 inflation targeting countries (as defined by the IMF) was below the middle of their target interval, including 16 cases where it even went beyond the limits of this interval.⁴ In other words, more than one third of inflation targeting countries is characterized by substantial undershooting of inflation, and this group includes not only advanced but also developing economies. Standard accountability practices today are quite tolerant to these divergences from the target.

Indeed, one of the key criticisms usually made about the implementation of the inflation targeting regime in most countries is its asymmetry: designed principally to moderate

⁴ For countries with only upper inflation limit, the midpoint of the interval is taken between the limit and zero percent; for countries with only a central target without this interval, it is assumed to be ± 1 p.p. (data from national statistic offices and national central banks as of July 2020).

inflation, inflation targeting works well when the price index exceeds the target; otherwise, the efforts of central banks might be much less energetic. A slowdown in consumer prices growth to a minimum means that inflationary dynamics cannot play an equally significant role in the policy of central banks. El-Erian aptly called this phenomenon the “reverse Volcker moment,”⁵ contrasting the current stance of the Federal Reserve Board Chairman Paul Volcker’s determination to defeat high inflation in the 1970s. In any event, “horizontal” of the Phillips curve⁶ does not formally give a policymaker valuable information about what to undertake in the new environment. Researchers examined the reasons for this situation, as well as possible adjustments to the inflation targeting regime designed to correct this asymmetry and avoid the economy falling into a deflationary trap (Bianchi et al., 2019; Matsukawa et al., 2014).

Instrument. But it is not only that the policy goal looks like it has been achieved, but also that the instruments available to central banks are limited under the conditions of the ZLB.⁷ Global monetary easing is progressing rapidly, as indicated by the Global Monetary Policy Rate index⁸ which is 182 basis points lower in August 2020 (4.22%) than just a year ago. It is no accident that the authors of the column⁹ decisively state that “central banks cannot always set inflation rates through monetary policy.” Despite Bernanke’s optimism regarding the ultimate inclusion of post-crisis unorthodox instruments (quantitative easing, purchases of public and private debt and equity, yield curve management, forward guidance) into the arsenal of monetary policy (Bernanke, 2020), there is no confidence that inflation targeting policy should not be subject to significant adjustments in this regard.

It is likely that a further reduction in the policy rate (beyond small negative values) can also be used in the zero lower bound/effective lower bound situation, but most central banks are not yet ready for such a policy. In all fairness, it should be noted that there is no consensus among researchers on whether this is justified; there are both arguments in favor of negative rates well beyond the effective lower bound (Lilley & Rogoff, 2019), and the opposite point of view, for instance (Palley, 2018).

We should also note that sensitivity to inflation surprises as the indicator of the degree of consolidation of inflation expectations has stopped decreasing since the mid-2000s and has even increased in countries where central bank policy rates have approached the ZLB (primarily in developed economies). Although the magnitude of this change is small, it means that the assumed ability of monetary policy to cope with the constant phenomena of falling/stably low inflation in these economies may be declining lately, despite the use of unorthodox monetary methods (IMF, 2016; Sussman & Zohar, 2018).

⁵ El-Erian, M. Introducing the “Reverse Volcker Moment.” *Financial Times*, September 20, 2012.

⁶ As stated by (Del Negro et al., 2020), the flattening of the curve is the main reason for current inflationary dynamics in the US.

⁷ Or, rather, Effective Lower Bound (ELB) in terms of (Gourinchas & Rey, 2019).

⁸ The average key policy rate of 99 leading central banks, <http://www.centralbanknews.info/p/highlights.html>.

⁹ Summers, L. H., & Stansbury, A. *Whither Central Banking?* Project Syndicate blog, August 23, 2019. <https://www.project-syndicate.org/commentary/central-bankers-in-jackson-hole-should-admit-impotence-by-lawrence-h-summers-and-anna-stansbury-2-2019-08?barrier=accesspaylog>

In the end, the principle of "one goal — one instrument" seems to be violated, although now we face a situation opposite to a standard problem of economic policy when the number of available instruments is less than the number of policy goals (Tinbergen, 1952). With an immobilized interest rate at the ZLB, several tools from the unorthodox toolkit are combined in various proportions in order to achieve a single goal — to hit the inflation target from below. But with the uncertain impact of each of these instruments — not to mention its combinations — this problem does not get any easier, and since achieving the goal as a whole cannot be considered satisfactory so far, the quest for an optimal instrumental combination is continued.

Focus. In fact, pure "textbook" inflation targeting is hardly possible as prices could be influenced by many factors, which can be — to a different extent — also controlled by the monetary regulator. The idea that the inflation targeting policy focused exclusively on inflation is suboptimal has been around for a long time (Saborovsky, 2010; Svensson, 1997). These factors include exchange rate movements, cross-border spillovers, and financial stability issues. Hence the drive towards "improved," "hybrid" or "integrated" inflation targeting (Agenor & Pereira, 2019; Woodford, 2013).

Accordingly, though inflation targeting formally implies a free-floating regime of the national currency, in fact, this is not always the case¹⁰ and not by accident. For instance, exchange rate volatility due to the so-called "pass-through effect" on prices can torpedo the central bank's efforts to control inflation via standard policy rate manipulations. Therefore, it might take much bigger a change of the interest rate than would be necessary otherwise — with negative consequences for economic development.¹¹ One of the possible solutions would imply relatively mild foreign currency interventions to assist achieving the target (Kartaev & Luneva, 2018), and it can provide for a better macroeconomic performance (Kartaev, 2017b). Certainly, there is generally no contradiction between the price and exchange rate stability, and stabilizing interventions can play an important role, especially for less developed countries, as shown in (Aiurado et al., 2018). Indeed, the volume of interventions in both inflation targeting and non-targeting countries has increased after the global financial crisis, see (Gadanecz et al., 2014). In other words, exchange rate management is increasingly considered a worthwhile part of central banks' inflation targeting mandate.

The last but not the least controversial issue which came to the forefront after the global financial crisis was the intersection between the price and financial stability. On the one hand, it goes without saying that regulatory measures applied to fight systemic risks under the aegis of macroprudential policy alter the monetary transmission mechanisms and therefore cannot but influence the price dynamics. On the other hand, monetary policy can sharpen (or mitigate) certain macroprudential risks; for example, the persistence of low interest rates near the ZLB incentivize economic agents to take on

¹⁰ In 6 (developing) countries out of the 41, inflation targeting regime is compatible with a stabilized or crawl-like currency arrangement (IMF, 2020).

¹¹ There also exist other channels of transmitting exchange rate movements on prices, especially in the more open economies (Hofman et al., 2020).

more risks that can fuel excessive leverage and contribute to creation of market bubbles (Borio & Zhu, 2012).

In any case, coordination of monetary and macroprudential policies that differ in instruments, time horizons, institutional frameworks, and political implications is anything but easy. The goals of price and financial stability are not only distinct in principle, but their interactions can vary dramatically over time. Indeed, none of the distributed institutional arrangements between independent monetary and financial regulators described by (Agénor & Flamini, 2016) dismisses all possible contradictions. Even after the lessons of the global financial crisis have been learned, it remains to be seen whether the trade-off between these goals can be successfully internalized within the central bank, which nowadays most often assumes the macroprudential function single-handedly (Buklemishev & Vatolin, 2019).¹²

3. Inflation targeting and increased discretion

So far, the success of inflation targeting in both advanced and developing countries (including the ones with the recent history of high inflation) was based on a straightforward and publicly verifiable focus on the trajectory of price dynamics to be controlled mostly by a single policy tool with a comprehensible mechanism of impact. In our opinion, the main current problem of inflation targeting stems from the growing ambiguity of the motives, rules and procedures of its conduct. Instead of pursuing clear agenda of controlling the current (and sometimes also expected change of) CPI with the help of their here-and-now interest rate policy, many central banks following inflation targeting become entangled in much more intricate dealings.

First, they give up simple, well-specified and measurable CPI metric in favor of less transparent indicators (such as various versions of “core” inflation or its longer-term averages). Second, they choose their “firearm” each time as a new combination of differentiated “non-orthodox” policy tools with uncertain medium- and long-term effects. Third, they are in fact guided in their activities by settling publicly unknown trade-offs between a broader set of goals that go beyond purely inflationary considerations (even if they are not willing to openly admit it). In addition to policy uncertainty, as Goodhart and Lastra (2018) rightly state, “the existence of several unranked objectives – or an unspecific mandate – complicates the exercise of performance accountability.”

An early paper about inflation targeting (Bernanke & Mishkin, 1997) emphasizes its advantages not as a “rule” in the conventional sense of the word, but as a regime of “constrained discretion” that simultaneously improves public communication and enhanced discipline and accountability of monetary policy. But since then, inflation targeting policy has evolved from a mechanism of “constrained discretion” to an ultra-

¹² As of 2016–2017, in at least 25 out of the 41 inflation targeting countries, the central bank (or its committee) was directly involved in setting and conducting macroprudential policy (calculated on the basis of (IMF, 2018)).

flexible regime that allows adherent central banks to choose their operations more or less freely based on what they consider beneficial for the economy at any given time. But any "improvement" (increased discretion) of simple and transparent inflation targeting rules is not without cost; it is compensated by defocusing market expectations exactly as described in (Kydland & Prescott, 1977).

Thus, foreign exchange interventions undertaken within the framework of inflation targeting policy can occasionally be beneficial indeed, but also carry two important risks (mostly, but not only) in developing and emerging market economies. On the one hand, interventions can entrench structural inefficiency and hamper market development by creating a moral hazard for players who might expect prompt central bank involvement if any market crunch of notable size occurs. On the other hand, they might undermine credibility of the inflation targeting regime itself by compromising its main goal in the eyes of the general public (see Hofman et al. (2020)).

It is well known that many modern central banks (including those that de jure/de facto target inflation) are responsible not only for monetary policy, which is considered their primary responsibility. Monetary regulators are often involved in developing and implementing macroprudential measures, regulating and supervising banking organizations or even the financial sector as a whole, developing the payment system, etc. Other things being equal, the value of any central bank's monetary policy discretion (in terms of its objective function) can be increased by the accessibility of exclusive data stemming from these additional activities.¹³ The effect of "asymmetric information" here implies that these quanta of knowledge are not always available to the general public or can be objectively analyzed by it.

Whatever the central bank communicates to the market before or after discretionary actions based on such information, members of the public can interpret this behavior in several ways. First, they can ignore the surprise as a temporary deviation from the conventional rule and disregard it as a possible new trend. Second, they could accordingly tilt expectations and introduce new variables in their forecasting model. Third, without knowing exactly how to change the model, they can just assume that the level of uncertainty in the future is increased. On the basis of inevitably asymmetric information, different segments of the public can draw their own varying conclusions about the current and future state of the economy, which would not necessarily coincide with reality and/or the central bank's intentions. Thus, expectations will be more dispersed than before the act of discretion.

Generally speaking, intuition tells us that the more functions the monetary regulator accumulates, the greater will be its relative informational advantage and, consequently, the potential benefits of discretion based on it. Thus, one can hypothesize that the less significant the monetary policy component is in the spectrum of activities of a particular "flexible inflation targeter," the greater (all other things being equal) will be its tendency

¹³ According to the "integration model" (Masciandaro & Quentin, 2015), the main driver of involvement of central banks in banking supervision is precisely the two-way information synergy between monetary and macroprudential policies.

to increase the degree of discretion.¹⁴ Relative significance of achieving the inflation target itself in this case will be lower, especially in the case when current rate of inflation is not an immediate cause for concern. If inflation returns abruptly (it cannot be excluded at the moment), this regime will require another adjustment before the public gets used to the central bank's new stance: it means that higher inflation and state of uncertainty will last longer than otherwise.

Of course, monetary policy is more of an art rather than a strict procedure. Central banks with their solid resource of unique professional expertise should be able to respond flexibly and sometimes digress from the main inflation targeting paradigm in the face of sudden unexpected shocks, such as the global financial crisis or pandemic emergency (see Athey et al. (2004)). But there exists an important condition that must be met if these digressions are to continue to serve the main purpose of maximizing public welfare: it is essential to preserve transparency and accountability of an independent monetary regulator in the new environment.

For instance, changes undertaken in the framework of the policy review by the US Federal Reserve (Powell, 2020) considering the overall level of its accountability in this regard are not a cause for concern so far.¹⁵ But the willingness of different central banks to increase the degree of their discretion is almost universal today, and not everywhere this trend would be balanced by appropriate political and professional checks. As (Masciandaro & Quintyn, 2016) rightly mention, the greater the concentration of powers in an unelected body, such as a central bank, the greater the risk of bureaucratic hindrances and misconduct.

Currently, the concept of central bank independence and its main factors are undergoing a major revision (Balls et al., 2016; Moiseev, 2018). The fact that many central banks have opted for inflation targeting and are reluctant to drop it reflects not only its alleged superiority in fighting inflation or a kind of international fad, but also a high degree of discretion enjoyed by the monetary regulator within this framework. As we can see, this can lead to serious problems unless a central bank's independent action is restrained by appropriate system of checks and balances.

Conclusion

It should be admitted that today, after the global financial crisis, we live in an entirely new environment where inflation as an economic phenomenon (and a social problem) is significantly different from what it was before. If, nevertheless, it is deemed rational to continue pursuing the policy directly focused on inflationary processes (such as inflation targeting), then it should be altered to match this novel reality. We also cannot ignore

¹⁴ Further directions of research can focus at measurement of central banks' dynamic positioning at the axis "rules versus discretion" on the basis of modeling (see, for instance, Nikolsko-Rzhevskyy et al. (2013)) or along the lines of linguistic analysis undertaken in Japan by Keida and Tokeda (2019).

¹⁵ Though Danilov et al. (2020) specify that a kind of implicit capture of monetary regulators by the interests of financial markets might have already taken place in the US.

the fact that the key instrument of this policy (the policy interest rate) ceased to operate, as its level in many cases approached or even crossed the ZLB/ELB. Moreover, a recent paper (Jorda et al., 2020) asserts that the current pandemic crisis is further suppressing the interest rates, and these conditions are likely to persist for years to come.

As a reaction to the new environment, while hoping to nevertheless return the inflationary dynamics to the target zone from below, central banks started to apply several largely untested alternative policy instruments instead of their standard toolkit. Basically, these efforts were moderately successful in avoiding outright deflation, but not enough to bring inflation steadily closer to the target.

This failure brings to life expanded applications of different non-orthodox instruments and new promises under the same aegis of inflation targeting. Moreover, various actions are under way to alter this monetary regime's characteristics (for instance, its time horizon or benchmark index) or embed additional diverse elements into it (such as macroprudential policy). Whatever the benefits of the "new quality" of inflation targeting, these innovations introduce additional uncertainty and compromise its intertemporal consistency as a policy. Integrated inflation targeting is inexorably ambiguous by itself and involves loosely constrained discretion on the part of the monetary regulator.

If not balanced with increased accountability of the central bank, inflation targeting threatens to undermine its credibility. We might suppose that after the global financial crisis, central banks with increased regulatory responsibilities are more likely to engage in discretionary behavior due to their informational advantages. Moreover, many of the current actions of central banks (e.g., quantitative easing with purchases of private debt or even equity) create massive distributional consequences that need to be properly addressed in the political context (Goodhart & Lastra, 2018; Populism, 2020).

Inflation targeting faces numerous challenges, and its continued existence in an unchanged form is hardly possible. But its immediate replacement is also unclear. We are not convinced that widespread alternatives, like targeting nominal income or average price levels, could be any better (for reasons, see Agénor and Perreira (2019, section 2.5)). In particular, both imply increased discretion on the part of the monetary regulator.

Therefore, we expect to observe various ongoing experiments to transform inflation targeting through trial and error – both in developed and developing countries. Anyway, if increased discretion is unavoidable in the current environment, then central banks should admit that they pursue anything but "pure" inflation targeting policy, and public surveillance and control procedures should be modified accordingly, involving expanded professional discussions with the academic community and reinvigorated public communications to moderate the effects of asymmetric information.

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