Analysis of Central Banks Transparency in Countries on the Road to the European Single Currency

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Abstract: This paper aims at analyzing the developments of the last decade and a half of monetary policy transparency followed by the central banks (CBs) in Central and Eastern European countries on the road to the euro adoption and to compare the results with those identified in the case of the European Central Bank (ECB). We approached the transparency level from the perspective of monetary policy strategies they use. The main results indicate increasing transparency within the considered timeframe for all monetary authorities subject to analysis, regardless of their monetary policy strategy, a higher level of transparency in the case of CBs applying a strategy of inflation targeting (IT) compared to those using the exchange rate as nominal anchor; a similar degree of transparency of the ECB and monetary authorities targeting inflation; the existence of a high degree of transparency, low inflation and stronger economic development in CEE states where the CBs target inflation compared to monetary authorities that are geared towards exchange rate targeting.

Keywords: CB governance framework; inflation targeting; exchange rate targeting; Central and Eastern Europe

JEL Classification: E50; E52; E58

1. Introduction

Alongside independence and democratic accountability, transparency of central banks in conducting monetary policy appears to be the third pillar of the monetary authorities' governance framework.

The present paper traces the recent evolutions of the monetary policy transparency degree implemented by central banks in Central and Eastern European countries following a process of convergence towards the euro area, with emphasis on the monetary policy strategies they use. The analysis includes the Czech Republic, Poland, Romania, Hungary (countries where the central banks apply a strategy of inflation targeting), Bulgaria, Latvia, Lithuania (countries where monetary authorities approach the exchange rate as nominal anchor) and the ECB (with its

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distinctive monetary policy strategy based on two pillars). In this regard, the transparency of selected central banks' monetary policy is calibrated by the index built by Eijffinger and Geraats (2006).

Over the last two decades, we note the considerable effort of central banks to increase the transparency of monetary policy, seen as a situation absent of asymmetric information in terms of monetary policy making (Geraats, 2002). This trend manifests due to the benefits of a high degree of transparency, benefits that can be addressed from two perspectives, political and economic. Thus, if from a political standpoint, the transparency of monetary policy appears as an indispensable attribute of central banks accountability (Ortiz, 2009), increased transparency generates a number of obvious advantages including on economic line: diminished inflation and the anchoring of inflationary expectations, credibility, reputation and predictability of central banks (Minegishi and Cournede, 2009).

Especially important for the measuring of CBs transparency is the Geraats (2002) - Eijfinger and Geraats (2006) - Dincer and Eichengreen (2007, 2009) - Siklos (2010) sequence of works, as it provides a specific multidimensional index, a comprehensive database and a common analysis methodology. Geraats (2002) highlighted the central bank transparency components, Eijffinger and Geraats (2006) provided systematic evidence of increased central bank transparency, Dincer and Eichengreen (2009) offered the most comprehensive set of data on banks' transparency emphasizing the upward transparency trend at a global level, Geraats (2009) used their laborious dataset and analyzed the development of transparency with focus on different types of monetary policy strategy followed by central banks, while Siklos (2010) reached an important conclusion for the present approach, showing that unlike other regions, the CBs in Central and Eastern European countries reveal during the considered time span a higher increase in the transparency degree.

The potential impact of the recent financial crisis on the transparency of monetary policy is highlighted by Csávás et al. (2011) study of all five components of Eijffinger-Geraats index. In line with political transparency, currently a major discrepancy may occur in de jure and de facto ordering of central bank objectives, which could lead to the diminishing of their transparency. In terms of the economic transparency and of implemented policy, the loss of confidence in the models used and by default in the forecasting ability of the central banks could generate a decrease in their level of transparency. As regards the procedural transparency and the policy transparency we note that in times of crises, central banks are reluctant to communicating hazards and systemic risks raised given that by doing so they may amplify turbulences. In line with the operational transparency, the involvement of unconventional monetary policy instruments may reduce the

transparency of central banks towards the objectives pursued and the explaining the decisions that motivate the use of such instruments.

2. Methodology

Given the aforementioned benefits (related to the multidimensional existence of a comprehensive database and a common methodology) for analyzing the evolution of the transparency of monetary policy implemented by central banks in the CEE countries acceding to the euro area based on the type of monetary policy strategy followed, we will use the Geraats-Eijffinger index.

This specific indicator addresses the transparency of monetary policy on five components: political transparency, economic, procedural, of the policy and operational transparency. A detailed description of the index can be found in Eijffinger and Geraats (2006). The dataset supporting the analysis is built by Dincer and Eichengreen (2009), later updated by Siklos (2010), and extended by the author until the end of 2012 in the case of selected central banks[1]. We updated the available information on the basis of data found in various documents from selected central banks websites (statute, statements on monetary policy decisions, published projections, minutes, various reports). It should also be noted that we slightly changed the datasets developed by Dincer and Eichengreen (2009) and Siklos (2010).

For obvious reasons of space, a detailed methodology for calculating the index of transparency, of specific elements that justify the award of component scores and criteria, as well as comprehensive results of measuring the degree of transparency can be obtained on request from the author.

3. Evolution of Central Banks Transparency Degree

The analysis of the transparency of central banks in CEE countries acceding to the euro area in relation to monetary policy strategies they use is summarized in Figure 1.

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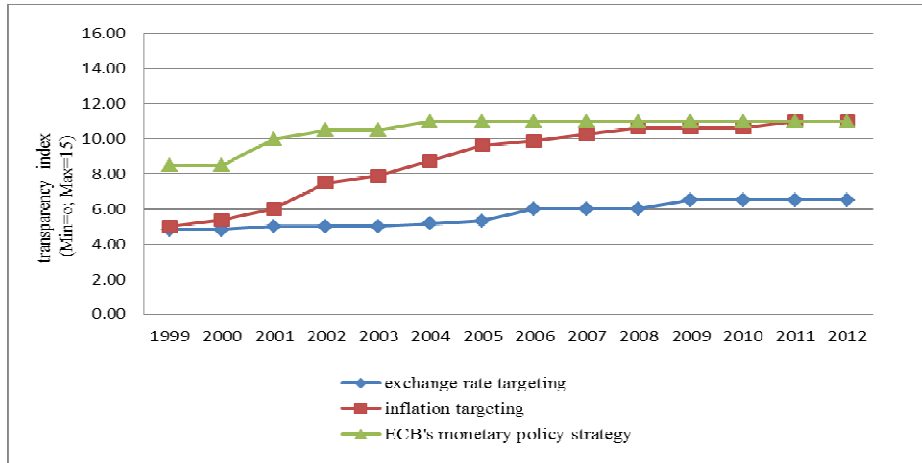
Figure 1. The Evolution of Monetary Policy Transparency Degree between 1999 and 2012

Source: Author's Calculations

Note: The classification of monetary policy strategies followed by the central banks of selected countries in 2012 according to IMF - "Annual Report on Exchange Agreements and Exchange Restrictions 2012", respectively direct inflation targeting: the Czech Republic, Poland, Romania, Hungary; exchange rate targeting: Bulgaria, Latvia, Lithuania.

The analysis results indicated a strong upward trend of monetary policy transparency in selected CEE countries, far exceeding the global average of CBs transparency levels. Monetary authorities in Central and Eastern European countries using a strategy of inflation targeting have a similar degree of transparency to the ECB, while those targeting the exchange rate display a much lower level of transparency. The differences between the two monetary policy strategies appear to be consistent with the literature, central banks using a strategy of targeting the exchange rate, as a consequence of monetary policy independence loss in the context of capital flows free movement, and explain to a lesser extent monetary policy actions. Inflation targeting presents an additional challenge as long as the objective is imperfectly controlled, with an extended and variable lag, thus requiring a higher degree of transparency.

4. The Analysis of the Current Level of Central Banks Transparency

As regards the *political transparency* (Figure 2), formally stated objectives of monetary policy can be found at a generalized level, in the context of all monetary strategies applied by the central banks of countries subject to analysis. At the same

time, an explicit ordering can be identified for monetary policy strategies of considered central banks, taking into account the primary objective of maintaining price stability. Regarding the primary objective quantification, monetary authorities that follow an IT strategy have set a numerical value for inflation, which in fact represents the its distinguishing. Although the European Central Bank does not apply an IT strategy it sets a clear quantitative definition of price stability (lower level, but close to 2%).
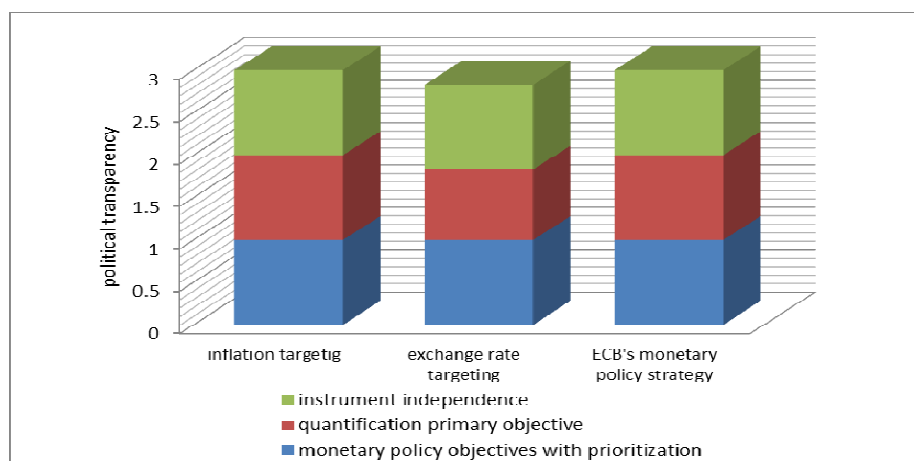

Figure 2. Political Transparency in 2012

Source: Author's Calculations

In the case of central banks using the exchange rate as nominal anchor, the target calibration is approached from a broader perspective, of revealing the presence of an intermediate target (derived from their commitment to keeping its currency fixed against the anchor). However, explicit independence on their instruments is more frequently used for inflation targeting, not in the context of exchange rate targeting (for instance, Latvia). Such a fact appears explicable as long as the lack of any discrete feature specific to exchange rate targeting strategy makes the independence on instruments less relevant.

The inclusion of *economic transparency* (Figure 3) indicates that all central banks in CEE countries committed to joining the euro area, as well as the European Central Bank publish economic data relevant to the conduct of monetary policy (money supply, inflation, GDP, unemployment). Some CBs also public estimates of the GDP gap, but given the difficulties of measuring and forecasting the potential output, such an option is practiced by only a few countries (the Czech Republic, Hungary). At the same time, if CBs subject to research pursuing a strategy of inflation targeting and the European Central Bank design quarterly numerical forecasts for inflation and GDP in the medium term, such a practice

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cannot be identified in the case of all monetary authorities geared towards exchange rate targeting (e.g. Bulgaria). Since inflation forecast plays a vital role under an IT strategy, central banks' macroeconomic forecasts are often the focus of the CBs communication policy.

In addition, the use of an inflation targeting strategy implies that all selected central banks publish macroeconomic analysis and forecasting models, but from all monetary authorities that follows exchange rate targeting only the central bank of Latvia is transparent in terms of techniques it applies.
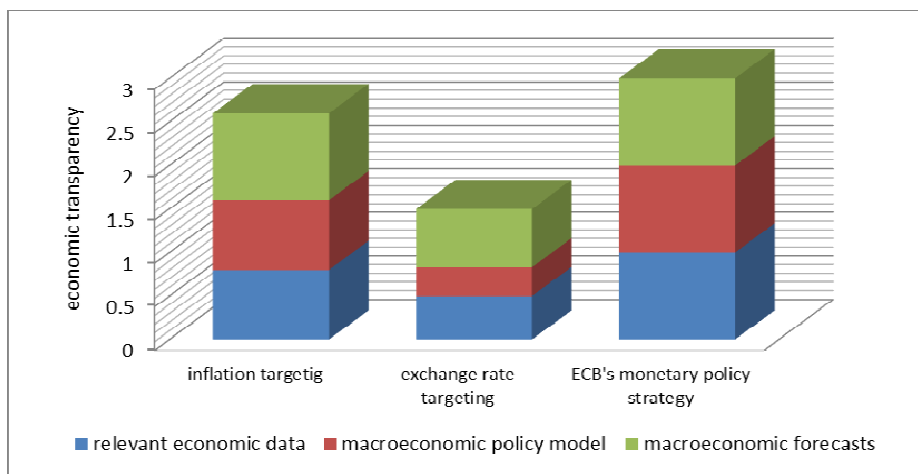

Figure 3. Economic Transparency in 2012

Source: Author's Calculations

The focus on *procedural transparency* (Figure 4) reveals that inflation targeting central banks consider especially important to describe the monetary policy framework through the explicit communication of the rule or strategy applied often explained in a didactical manner (the adjustment of the monetary policy rate is need when medium-term inflation forecasts deviates from the inflation fixed value, taking into account, in fact, the targeting of forecasted inflation). An explicit communication of the monetary strategy can be easily observed in the context of all selected central banks oriented towards the exchange rate targeting, which derives from the automatic nature of monetary policy conducting rule. However, major differences occur in the publication of minutes and individual voting of the members of monetary policy committees.

Such practices are absent both in the context of CBs using a strategy of exchange rate targeting, and of the European Central Bank. They can only be found in most CBs in the CEE region practicing IT strategies, which leads to the conclusion that

this type of monetary policy strategy is characterized by a much greater emphasis on communicating monetary policy deliberations.
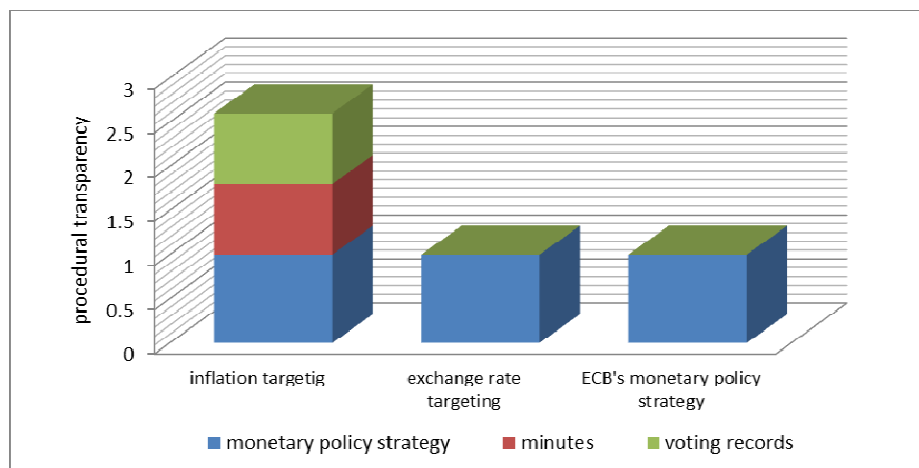

Figure 4. Procedural Transparency in 2012

Source: Author's Calculations

As regards the *transparency of implemented policy* (Figure 5), central banks in CEE countries on the road to the euro adoption that currently use an inflation targeting strategy promptly announce their decisions on the adjustments of the main instrument of monetary policy; however, in most cases the explanations are provided only in the event of changes (and/ or they are superficial).

The European Central Bank distinguishes itself by the immediately explaining of its monetary policy decisions, offering a series of forward-looking evaluations. Instead, the communication and explanation of monetary policy decisions are not identified if CBs target the exchange rate. Publication of the future direction of monetary policy or explicit indications on the most likely actions can be found only in the Czech Republic; from such a perspective CBs geared towards inflation targeting end to remain quite opaque.
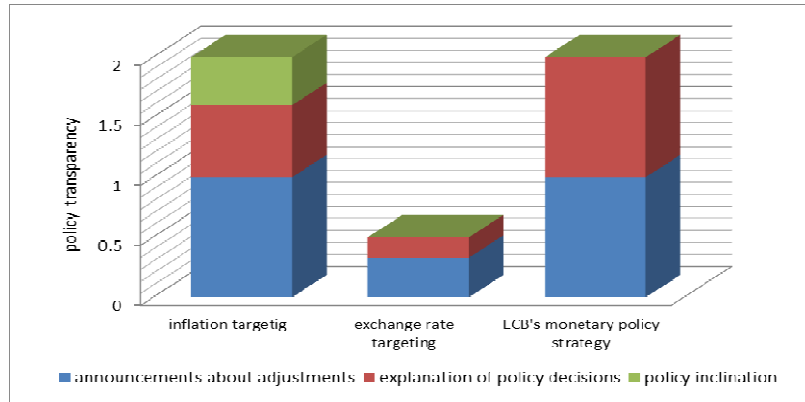
Figure 5. Policy Transparency in 2012

Source: Author's Calculations

The approach of *operational transparency* (Figure 6) indicates that the degree of openness to error control is specific to the European Central Bank and to CBs aimed at targeting inflation. From this perspective, selected central banks applying an IT strategy display high heterogeneity; however, the criterion is only partially fulfilled by Poland and Hungary and absent in the Czech Republic and Romania. The central banks position in the last two mentioned countries is similar to those targeting the exchange rate, with error control not specific to their practice. Nor the provision by the central bank of information on macroeconomic (unanticipated) shocks that affect the transmission of monetary policy appears when targeting the exchange rate.
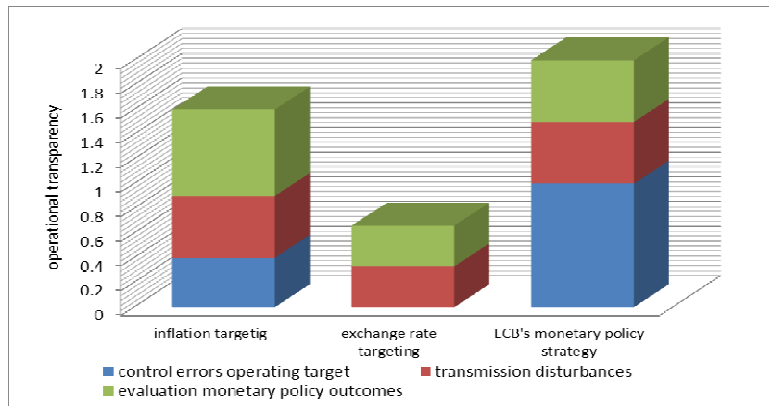

Figure 6. Operational Transparency in 2012

Source: Author's Calculations

Disclosure of information related to macroeconomic shocks affecting the transmission mechanism, drawn from the research of short-term macroeconomic developments occurs in the case of certain central banks using an IT strategy (Poland and Hungary), but the inclusion in the analysis of previous forecast errors can only be identified in the case of the European Central Bank. The evaluation of implemented monetary policy results is more visible under a strategy of inflation targeting and under the ECB's monetary policy strategy compared to the situation of CBs using the exchange rate as nominal anchor.

5. The Relation between the Transparency of Monetary Policy and Macroeconomic Performances

To identify the macroeconomic context of the evolution of monetary policy transparency of central banks in CEE countries acceding to the euro area, Table 1 shows the correlation between changes in the Eijffinger-Geraats transparency index manifested during 1999-2012, and two key macroeconomic variables, inflation and GDP per capita (logarithm, based on PPP) in 1999. The results show that the initial level of inflation is strongly positively correlated with the subsequent increase in the transparency index. Thus, it appears that a higher initial inflation leads to enhanced transparency of the monetary policy.

Table 1. The Correlation between the Initial Value of Certain Macroeconomic Variables and the Subsequent Changes of Transparency

	Inflation (1999)		Log (GDP/per capita, 1999)	
	Correlation coefficient	Probability	Correlation coefficient	Probability
Total transparency (change 1999-2012)	0,892	[0,001]	0,876	[0,000]

Source: Author's Calculations

Note: Pearson correlation coefficients and associated p-value in square brackets. Coefficients in bold are significant at 5%.

In addition, Table 1 shows that the GDP per capita is, in turn, strongly positively correlated with increased transparency, which suggests that central banks of advanced CEE economies have strengthened their monetary policy transparency.

Another relevant issue is the determination of subsequent changes in inflation as a result of the adoption of transparency. Table 2 illustrates that the level of transparency identified for the year 1999 is strongly negatively correlated with subsequent changes in inflation (as the average for the years 2000-2012). Thus, it appears that central banks in CEE countries on the road to the euro adoption have used transparency to improve their credibility and diminish inflation, which falls

within the theoretical arguments and empirical literature stating that a high degree of transparency raises the efficiency of monetary policy.

Table 2. The Correlation between the Initial Transparency Degree and Subsequent Changes in Inflation

	Average inflation (2000-2012)			
	Inflation targeting + exchange rate targeting		Excluding exchange rate targeting	
	Correlation coefficient	Probability	Correlation coefficient	Probability
Total transparency (1999)	-0,737	[0,037]	-0,821	[0,049]

Source: Author's Calculations

Note: Pearson correlation coefficients and associated p-value in square brackets. Coefficients in bold are significant at 5%.

If central banks using the exchange rate as nominal anchor are excluded from the sample, the correlation between the degree of transparency and subsequent average inflation become stronger.

The result is logical if we consider that transparency has a disciplinary effect on discretionary monetary policy reducing the inflation bias and sacrifice ratio. However, this is not present under a strategy of targeting the exchange rate because in this case the central bank's commitment to maintain the exchange rate stability constraints CBs monetary policy actions, as transparency generates a less significant effect (Geraats, 2009).
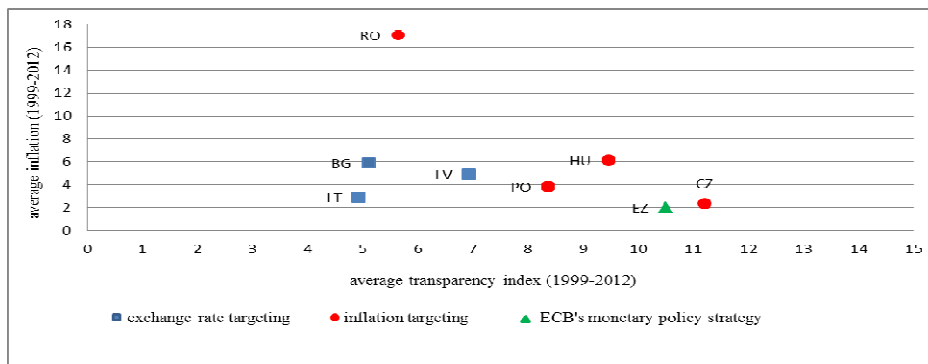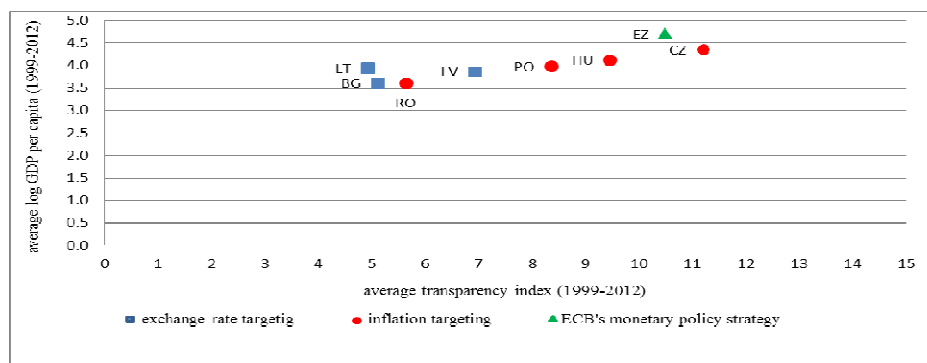
Figure 7. The Relationship between Transparency, Inflation and GDP Per Capita during 1999 – 2012

Source: Author's Calculations

The relations between transparency and inflation on the one hand and the level of transparency and real economic activity on the other hand are highlighted in Figure 7. Central banks applying exchange rate targeting strategies tend to have low levels of transparency and diminished inflation. Their commitment towards maintaining a fixed exchange rate allows for reduced inflation rates and diluted transparency. By contrast, central banks that use an inflation targeting strategy enjoy in most cases a high level of transparency corresponding to a low inflation. The ECB also reveals a high degree of transparency corresponding to depressed inflation. On the other hand, countries where the CB uses a strategy of exchange rate targeting present only limited transparency of the monetary authority and of the GDP per capita. In comparison, CEE states with CBs geared towards inflation targeting have a stronger economic development and transparency of central banks.

6.   Conclusions

Analysis of recent trends in the transparency of central banks' monetary policy in Central and Eastern European countries on the road to euro adoption with emphasis on the types of strategies monetary policy uses has provided five important conclusions: *first*, increased transparency of all selected monetary authorities regardless of the monetary policy strategy; *second*, the existence of higher levels of transparency in case of monetary authorities targeting inflation compared to CBs using the exchange rate as nominal anchor, which is consistent with the anticipatory nature of inflation targeting, transparency and accountability actually representing the essential pillars of the IT strategy; *third*, a similar degree of transparency of the ECB when compared to the average of monetary authorities directly targeting inflation; *fourth*, increasing transparency positively correlated

with the initial levels of inflation and the economic development; *fifth*, the presence of a significant negative correlation between the transparency of monetary policy implemented by central banks and inflation, countries where central banks have a higher transparency tend to experience a lower level of inflation thereafter; *sixth*, the existence of a high degree of transparency, low inflation and a strong economic development altogether in countries where CB is geared towards inflation targeting compared to countries where monetary authorities uses the exchange rate as nominal anchor. Given the severe impact of the recent financial on central banks transparency levels we propose as future research direction the investigation of these implications on the five elements that define the transparency of monetary policy implemented by central banks.

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