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# Inflation targeting and financial stability: Does the quality of institutions matter?☆

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## ABSTRACT

Inflation targeting (IT) has recently been seen as one of the main causes of the authorities' unresponsiveness to the build up of financial imbalances during the recent financial crisis. We take data from banks from 66 countries for the period of 1998–2014 and compare how institutional quality as perceived by the national population impacts financial stability in countries that adopted IT with those that did not. We find that, while banks from IT countries with high quality of institutions do not have their stability significantly enhanced by this policy (the “paradox of credibility”), countries with average levels of quality of institutions seem to benefit from it. In addition, in the estimations, IT and financial stability are negatively associated in countries with low levels of institutional quality, which is consistent with the fact that governments must have at least some trust of their population in order to conduct effective economic policies. This inverted U-shaped relationship between IT and financial stability as function of the institutional quality reflects the two opposing views in the literature regarding this topic.

## 1. Introduction

The quality of institutions gains significant importance during financial crisis (Klomp and de Haan, 2014). Countries with high quality of institutions should be able to formulate policies to deal more effectively with adverse shocks than countries that suffer from low institutional quality. Recent discussion triggered by the financial crisis has pointed inflation targeting (IT) as one important reason for the failure of the government authorities to respond to developing financial imbalances and rising financial instability for several reasons. First, by focusing in achieving the inflation target, governments may have overlooked the situation in the financial market (Blanchard et al., 2010). Second, low and stable inflation coupled with a credible anti-inflationary policy can make it harder for financial imbalances, such as asset bubbles, to show up in inflation indexes. In fact, Amato and Shin (2003) argue that in a model in which agents have imperfect information on the state of the economy (such as inflation), but in which they fully believe in a public signal issued by the government (i.e.

high credible signal), agents beliefs might be distorted, since they might put more weight into this public signal than in actual fundamentals. In this case, inflation levels would lose its informativeness about economic (demand and cost) conditions and thus financial imbalances might develop. Therefore, governments can be a victim of their own success, phenomenon of which the literature terms as the “paradox of credibility” (Borio and Lowe, 2002; Borio, 2005, 2006; Montes and Peixoto, 2014). Third, a commitment to low inflation levels makes the economic policy too loose during normal times. Thus, the policy rate approaches the zero lower-bound, reducing the margin for any adjustment on the interest policy rates should any economic downturn arise. We contribute to the literature by evaluating the relationship between IT and financial instability while controlling for quality of institutions.

Notwithstanding this criticism, a traditional view (the Schwartz, 1995 hypothesis) argues that periods of unstable price levels can lead to incorrect inferences about the future real returns of investments. This may result in flawed lending/borrowing decisions, increasing loan defaults, compromis-

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**Table 1**  
Countries, Regions, Legal Origins and Adoption of Inflation Target.

Country	Region	Legal Origin	IT?	Adoption	Country	Region	Legal Origin	IT?	Adoption
Ghana	Africa/ME	English	Yes	2007	Hungary	Eurasia	German	Yes	2001
Israel	Africa/ME	English	Yes	1997	Poland	Eurasia	German	Yes	1998
Kenya	Africa/ME	English			Poland	Eurasia	German	Yes	
Kenya	Africa/ME	English			Slovakia	Eurasia	German	Yes	2005 to 2008
Nigeria	Africa/ME	English			Slovenia	Eurasia	German		
South africa	Africa/ME	English	Yes	2000	Bolivia	Latin America	French		
Tanzania	Africa/ME	English			Brazil	Latin America	French	Yes	1999
Egypt	Africa/ME	French			Colombia	Latin America	French	Yes	1999
Jordan	Africa/ME	French			Costa rica	Latin America	French		
Mauritius	Africa/ME	French			Dominican republic	Latin America	French		
Tunisia	Africa/ME	French			Ecuador	Latin America	French		
Turkey	Africa/ME	French	Yes	2006	El Salvador	Latin America	French		
Australia	East Asia	English	Yes	1993	Guatemala	Latin America	French	Yes	2005
Bangladesh	East Asia	English			Guatemala	Latin America	French		
Bangladesh	East Asia	English			Mexico	Latin America	French	Yes	2001
Hong kong	East Asia	English			Panama	Latin America	French		
India	East Asia	English			Paraguay	Latin America	French		
Malaysia	East Asia	English			Peru	Latin America	French	Yes	2002
Nepal	East Asia	English			Canada	North America	English	Yes	1991
Pakistan	East Asia	English			United states	North America	English		
Thailand	East Asia	English	Yes	2000	Ireland	West Europe	English		
Indonesia	East Asia	French	Yes	2005	United kingdom	West Europe	English	Yes	1992
Philippines	East Asia	French	Yes	2002	Belgium	West Europe	French		
China	East Asia	German			France	West Europe	French		
Japan	East Asia	German			Italy	West Europe	French		
Korea	East Asia	German	Yes	2001	Luxembourg	West Europe	French		
Armenia	Eurasia	French			Portugal	West Europe	French		
Kazakhstan	Eurasia	French			Spain	West Europe	French	Yes	1993 to 1998
Moldova	Eurasia	French			Austria	West Europe	German		
Romania	Eurasia	French	Yes	2005	Denmark	West Europe	German		
Russia	Eurasia	French			Finland	West Europe	German	Yes	1995 to 1998
Ukraine	Eurasia	French			Germany	West Europe	German		
Bulgaria	Eurasia	German			Latvia	West Europe	German		
Croatia	Eurasia	German			Sweden	West Europe	German	Yes	1993
Czech republic	Eurasia	German	Yes	1997	Switzerland	West Europe	German		
Croatia	Eurasia	German							

ing the banking system's loan portfolio, and increasing bankruptcies. Inflation targeting improves the predictability of economic policy and reduces the degree of uncertainty about the price level over the long run (the price stability channel). [Bordo and Wheelock \(1998\)](#) argue that among the several financial crises that occurred during the XIX and XX centuries, the most severe financially distressing events occurred after unexpected and substantial disinflation.

Empirical papers that test how the quality of government institutions and inflation targeting in different countries impact financial stability are surprisingly rare.<sup>1</sup> Using bank-level data from 66 countries over the period of 1998–2014, and measures of quality of government institutions as perceived by the national population, our paper provides empirical evidence that attempts to bridge this gap in the literature. We employ two measures of quality of institutions: the Corruption Perception Index of the Transparency International, and the Government Effectiveness Index of World Bank's Governance Indicators (WGI). We interact these variables with dummies that flag whether a specific country adopted IT, as defined by the International Monetary Fund<sup>2</sup> in a triple DiD approach. Banks in IT countries

<sup>1</sup> Among the papers that are close to our approach, we highlight ([Fouejieu, 2017](#)), [Kim and Mehrotra \(2017\)](#), and [Hove et al. \(2017\)](#). However, they do not explore the non-linearity between the quality of institutions and the adoption of an IT regime as we propose in this paper.

<sup>2</sup> According to [Mishkin \(2004\)](#) and [Heenan et al. \(2006\)](#), inflation targeting consists of four elements: (i) an explicit CB mandate to pursue price stability as the primary objective of monetary policy and accountability for performance in achieving the objective; (ii) explicit quantitative targets for inflation; (iii) policy actions based on a forward-looking assessment of inflation pressures that considers a wide range of information; and (iv) increased transparency of monetary policy strategy and implementation.

(treated) are compared with those in non-IT countries (control) for different levels of quality of institutions. Our benchmark specification controls for time-invariant bank characteristics, and both bank- and country-level controls.

Among the advantages of our proxies to institutional quality are the fact that they are publicly available and are calculated by international trusted institutions. This avoids subjective data mining issues and improves the accountability of the paper. Moreover, these measures are related to the agents' trust in government's communication about their economic policies. We argue that the population of a non-corrupt country put more trust in their government than the population of a highly corrupt country. Thus, we can test whether the IT impact on financial stability depends on the quality of national governments. Intuitively, there must be a lower bound for the trust in the authorities in order for any economic policy to be effective. In addition, we can also test if there is also an upper bound, i.e. when the institutional quality is so high that the benefit to financial stability might not be significant anymore as [Amato and Shin \(2003\)](#) highlight. Finally, we minimize endogeneity concerns because government authorities cannot change these measures in the short term. In addition, since governments cannot easily manipulate agents' perception on corruption nor institutional quality, we believe that our measures are safe from this manipulation.

We find that banks from IT countries perceived as having high quality of institutions are neither more nor less stable than their non-IT counterparts. Thus, trust in the government policies by itself does not appear to increase financial stability of IT countries, which is consistent with [Borio and Lowe \(2002\)](#)'s "paradox of credibility." Second, banks from countries that have institutions perceived as being of low quality seem to underperform under an IT policy. It appears that for an IT

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