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Central banks' preferences and banking sector vulnerability☆

G. Levieuge[a,b,*], Y. Lucotte[b,c], F. Pradines-Jobet[b]

[a] Banque de France DGEI–DEMFI–RECFIN (041-1391), 31, rue Croix des Petits Champs, 75049 Paris Cedex 01, France
[b] Univ. Orléans, CNRS, LEO, UMR 7322, F-45067 Orléans, France
[c] PSB Paris School of Business, France

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ABSTRACT

According to "Schwartz's conventional wisdom" and what has been called "divine coincidence", price stability should imply macroeconomic and financial stability. However, in light of the global financial crisis, with monetary policy focused on price stability, scholars have held that banking and financial risks were largely unaddressed. According to this alternative view, the belief in divine coincidence turns out to be benign neglect. The objective of this paper is to test Schwartz's hypothesis against the benign neglect hypothesis. The priority assigned to the inflation goal is proxied by the central banks' conservatism (CBC) index proposed by Levieuge and Lucotte (2014), here extended to a large sample of 73 countries from 1980 to 2012. Banking sector vulnerability is measured by six alternative indicators that are frequently employed in the literature on early warning systems. Our results indicate that differences in monetary policy preferences robustly explain cross-country differences in banking vulnerability and validate the benign neglect hypothesis, in that a higher level of CBC implies a more vulnerable banking sector.

1. Introduction

Since the public authorities in industrialized countries entrusted newly independent central banks with disinflation policies in the 1980s, price stability has become the main objective of monetary policy. The advent of the inflation targeting framework and the considerable support it has received among central bankers and academics can be viewed as the culmination of this orientation (King, 1997).

This top priority assigned to the control of inflation stems from the adherence of numerous economists and central bankers to Schwartz's "conventional wisdom" (Schwartz, 1995), according to which price stability implies macroeconomic and financial stability. It was widely accepted as a "divine coincidence" that having a monetary policy focused primarily on price stability would ensure output stability and maximum welfare, provided that distortions are composed solely of price rigidities (Woodford, 2003). The idea that price stability is a sufficient condition for guaranteeing financial stability was a leitmotiv in the 2000s. The conclusion of Bernanke and Gertler (2000, p. 46) is representative of this perspective: "*Given a strong commitment to stabilizing expected inflation, it is neither necessary nor desirable for monetary policy to respond to changes in asset prices, except to the extent that they help to forecast inflationary or deflationary pressures*". The second part of this quote refers to the "Jackson Hole Consensus", which says that central banks should respond to financial developments only if they threaten price stability. In practice, this led most central banks to adopt a strategy of "cleaning up (the bust) afterwards", rather than a strategy of "leaning against the wind".

Certainly, a high level of inflation is not conducive to macroeconomic and financial stability. By showing that high-inflation countries are more subject to financial crises, some empirical studies such as Bordo et al. (2001) Bordo and Wheelock (1998) and Demirgüç-Kunt and Detragiache (1998) are in some ways in accordance with the Schwartz's conventional wisdom.

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* Corresponding author.
E-mail addresses: gregory.levieuge@banque-france.fr (G. Levieuge), ylucotte@gmail.com (Y. Lucotte), florian.pradines-jobet@univ-orleans.fr (F. Pradines-Jobet).

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However, many recent financial crises were not preceded by periods of price instability (White, 2006), and typically, the recent financial crisis occurred in the context of the Great Moderation. This has shed some doubt on Schwartz's hypothesis. Many upstanding authors and institutions now argue that with monetary policies focused primarily on inflation, financial stability was largely ignored.[1] In turn, financial instability has undermined macroeconomic stability, despite a low and stable inflation rate. In this alternative view, the belief in the divine coincidence has, in retrospect, been revealed to be benign neglect. The following quotation of Mishkin (2017, p. 256) is representative of this reversal: "*central banks' success in stabilising inflation and the decreased volatility of business cycle fluctuations, which became known as the Great Moderation, made policy-makers complacent about the risks from financial disruptions. The benign economic environment leading up to 2007, however, did surely not protect the economy from financial instability. Indeed, it may have promoted it. Although price and output stability are surely beneficial, the recent crisis indicates that a policy focused solely on these objectives may not be enough to produce good economic outcomes*".

This alternative view benefits from theoretical support. In particular, it can be demonstrated that the "divine coincidence" does not hold when real rigidities are present (Blanchard and Galí, 2007), as well as in the presence of financial imperfections (Lambertini et al., 2013; Reis, 2013; Woodford, 2012). Christiano et al. (2010) show that as inflation is stable during periods of stock market booms while credit increases sharply, a central bank that focuses excessively on inflation overlooks the financial imbalances that such a policy exacerbates. Overall, because of its impact on welfare – beyond its effects on inflation and output forecasts – financial stability deserves to be a goal in itself. The problem is that monetary policy and financial stability policy may sometimes be conflicting and both may have negative externalities on each other.[2] This suggests the existence of a trade-off between those two objectives in certain circumstances. Given the legal mandates of central banks, priority is often given to the inflation goal to the detriment of financial stability.

On empirical grounds, to the best of our knowledge, only Blot et al. (2015) have recently addressed the issue of the Schwartz's hypothesis frontally. Using various methods, they reject the hypothesis that price stability is positively correlated with financial stability. Nevertheless, it is a policymakers' decision, namely their relative preferences and objectives, and not the inflation rate *per se*, which defines whether they turn away from the financial stability objective. As inflation is potentially subject to shocks and exogenous trends, beyond the will of policymakers, it only constitutes a rough proxy of what fundamentally underlies the Schwartz's hypothesis and the benign neglect hypothesis (i.e. policymakers' decision).

Against this background, the objective of the present paper is to extend this very scarce literature by testing the Schwartz hypothesis against the benign neglect hypothesis: Does assigning a higher priority to inflation stabilization reduces or increases the vulnerability of the banking sector? To this end, we go further than the existing evidence by directly addressing the link between policymakers' preferences and financial stability, with different methodologies, with a genuine measure of the preferences of central banks, and over a period that includes the global financial crisis (GFC hereafter) years.

The preference of central banks for price stability is proxied by the *CONS* index of central banks' conservatism (CBC), suggested by Levieuge and Lucotte (2014) and based on the Taylor curve (Taylor, 1979). We consider six alternative measures for banking sector vulnerability that are widely used in the literature on early warning systems as determinants of financial crises[3]: credit volatility, the credit-to-GDP gap, the credit-to-deposit ratio, nonperforming loans, the *Z*-score, and the capital-to-asset ratio. In essence, these factors primarily concern the credit cycle and the structure of the banks' balance sheets. Our results, from a sample of 73 countries over the period 1980–2012, indicate that the degree of CBC robustly explains banking sector vulnerability, which is in line with the benign neglect hypothesis. On this respect, if the inflation targeting (IT) framework implies a narrower focus on the inflation stabilization objective, our results are in line with papers concluding that IT has some adverse financial and real effects (Petreski, 2014; Frappa and Mésonnier, 2010; Lin, 2010).

The remainder of this paper is organized as follows. Section 2 reviews the Schwartz's and the benign neglect hypotheses. Section 3 is dedicated to the way we measure central banks' preferences, using the *CONS* index of CBC, which we extend to a broader set than that initially proposed by Levieuge and Lucotte (2014). Data for the dependent and control variables are also detailed in Section 3. Section 4 describes the methodology we implement and presents the results. Robustness checks are performed in Section 5. Section 6 concludes and discusses the implications and extensions of our results.

2. The Schwartz's and benign neglect hypotheses: a review

According to the Scwhartz's conventional wisdom, by focusing on the objective of price stability, policymakers contribute not only to achieving high levels of economic activity and employment, but also foster financial stability. The main reason is that inflation creates uncertainty and disturbs the information contained in prices. Future real returns of asset prices and investment are thus incorrectly valued. As a consequence, asset accumulation and lending decisions are imperfect. Finally, the banking sector stability is threatened by increasing non-performing loans and default risks. Conversely, price stability promotes a sound and appropriate intertemporal allocation of resources, and thus sound lending operations. This view has found a more formal theoretical underpinning through the so-called "divine coincidence": in the absence of real imperfections, stabilizing inflation in standard new Keynesian models is found equivalent to stabilizing the welfare-relevant output gap (Blanchard and Galí, 2007; Woodford, 2003).

However, real imperfections matter in practice, implying a trade-off between inflation and output. Furthermore, it has been proven that financial imperfections may reduce welfare by themselves and not only through their impact on output and inflation (Lambertini et al., 2013; Reis, 2013; Woodford, 2012). To this view, as reducing the effects of financial distortions makes the economy operate more efficiently, financial stability should be an objective on its own. A single inflation goal is not enough. Similarly, many authors and institutions have expressed their doubts about the conventional view in the wake of the GFC.

In practice, institutional and legal arrangements governing monetary policy in every country assign an overriding priority to the inflation stabilization objective. According to the comprehensive survey led by Oosterloo and de Haan (2004) and the exhaustive report published by the BIS (2009), the objectives and powers of the financial stability function are not clearly and explicitly stated in legal texts. Even when legal statutes mention a financial stability objective, the understanding of what it entails is quite diffuse. For

[1] See for instance Bayoumi et al. (2014), Borio (2014a,b), Bernanke (2013) and Whelan (2013).

[2] See Laséen et al. (2017) and Ioannidou (2005).

[3] See, e.g. Schularick and Taylor (2012).