



## Economic Policy Papers

### EXECUTIVE SUMMARY

We offer a theoretically based narrative that attempts to account both for the formation of the European Monetary Union (EMU) and for the challenges it has faced. Lack of commitment to policy plays a central role in this narrative and leads to four policy implications for EMU redesign.

#### 1. *Should the union be dissolved?*

No, the union was formed for good reasons, and dissolving it might lead to high and variable inflation.

#### 2. *Should the union have a bailout fund, and, if so, how large should it be?*

Yes, but making this fund large runs the risk of increasing the likelihood of crises in which countries need bailouts.

#### 3. *Should bank regulations be centralized?*

Yes.

#### 4. *What constraints on fiscal policy are desirable?*

Constraints on the maturity structure of debt are desirable and perhaps enforceable, while constraints on the total amount of debt are clearly not.

# Reforming the European Monetary Union

*The lack of policy commitment that led to the EMU also created its challenges. Addressing those challenges, not dissolving the Union, is the way forward*

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### Introduction

In this essay, we set forth a framework to think about the forces that led both to the formation of the European Monetary Union and to the challenges it has faced.<sup>1</sup> Our analysis also holds four policy implications for EMU redesign.

The framework's central driving force is that national governments and their central banks lack commitment to future policies: A policy commitment made at one stage may later be broken when circumstances change. This time inconsistency can make institutions like the EMU desirable and simultaneously create challenges for such unions.

We develop three themes from this framework. First, forming a monetary union can be desirable if national central banks lack commitment, even when the union's monetary authority also lacks the ability to commit. Second, when a union's monetary authority cannot commit, unions create

policy externalities in other areas, including fiscal policy and bank supervision policy. Third, addressing these externalities requires unionwide cooperation in these other policy areas. These themes allow us to develop a coherent narrative that links the forces that led to the EMU's formation and explains the challenges the union has faced.

Chari, DAVIS and Kehoe (2016) show that if benevolent central banks lack commitment, monetary unions can be a useful commitment device. That paper implies that inflation rates in unions are less volatile than they would be with flexible exchange rates. This feature is broadly consistent with EMU experience. After the breakdown of the Bretton Woods system of fixed exchange rates, European economies faced stubbornly high and variable inflation rates. Our theory suggests that the founders of the EMU perceived these inflationary outcomes as due in part to the inability of national central bankers to commit to their policies. They realized that forming a union could help stabilize prices (in addition to other benefits). Their belief is supported by the fact that inflation rates in Europe have been low and stable since the EMU's formation.

Chari and Kehoe (2007, 2008) show that when the monetary authority in a union cannot commit to its monetary policy, externalities arise in other policy areas. In choosing the optimal inflation rate, a monetary authority that can't commit balances the costs of ex post inflation against the gains of reducing the real value of outstanding nominal debt through inflation. This implies a higher ex post inflation rate when the stock of nominal debt is greater. In such a situation, union members have incentives to issue more sovereign debt than they would with flexible exchange rates, because the cost of ex post inflation is partly borne by other member countries. All countries are therefore better off if they can limit total debt by restricting each other's fiscal policies.

## **EMU externalities**

From this perspective, the EMU's founders understood that commitment by the newly formed European Central Bank (ECB) could not be taken as a given and that externalities, especially in fiscal policy, were likely to arise. To address these externalities, the Maastricht Treaty and the Stability and Growth Pact imposed national restrictions on fiscal policies, in particular, on deficits and the level of government debt relative to output. After Germany and France violated the deficit limits in the early 2000s, it became increasingly apparent that the restrictions would not be strictly enforced. The stage was set for excessive deficits and debt issue by union members.

However, our framework also suggests that while founders anticipated fiscal policy externalities, they underestimated the externalities in banking policy. Consider a situation during a financial crisis. If the monetary authority lacks commitment to maintain its interest rate, it will bail out banks and print money to raise the revenues needed to finance the bailouts. Such printing results in inflation. Seeing such bailouts as probable, banks will be encouraged to take on socially excessive risk, making future financial crises more likely.

Individual countries have weaker incentives to supervise bank risk levels if they perceive that the union will bail out their banks.

These factors, in our view, contributed to the severity of the recent European debt and financial crisis. The ECB's expression of resolve "to do whatever it takes" may well have ameliorated the immediate crisis, but might also have reinforced public belief that future bailouts are now more possible. Such expectations may make future crises more likely.

A key aspect of the theories described so far is that the central bank is benevolent—its only concern is the welfare of its member countries. A benevolent central bank that lacks commitment has strong incentives to engage in inflationary bailouts of governments of distressed countries in financial crises, even if the inflation imposes costs on residents of less-distressed countries.

In Chari, DAVIS and Kehoe (2016), we show that the mere presence of a benevolent monetary authority may induce governments of less-distressed countries to engage in bailouts via debt forgiveness or fiscally financed transfers. Indeed, such fiscal bailouts may be large enough that the benevolent bank ends up not engaging in any inflationary bailouts at all.

Anticipation of such fiscal bailouts induces governments of countries in a union to borrow inefficiently large amounts from other member countries. In this sense, the mere presence of the benevolent central bank introduces externalities in other policy areas, yet it may seem not to change its policies at all.

Bulow and Rogoff (2015) argue that Greece received substantially more external funding during its crisis from the EMU, the European Commission, and the International Monetary Fund than essentially any emerging-market economy received during its respective crisis. Our theory is consistent with—and supported by—this empirical evidence. Viewed through the lens of our model, the EMU, EC and IMF acted rationally to forestall the ECB from acting on its own.

## **Redesigning the EMU**

Our theory's broad consistency with the European experience suggests that it may prove a useful framework for thinking through policies for EMU and ECB redesign. Doing so leads to four implications in particular.

The first is that, contrary to the assertions of some economists, the union should not simply be dissolved. That stance misses the essential point that the union's founders correctly anticipated that forming a monetary union would help solve the problems of high and variable inflation. Our theory lends support to this belief.

The second policy implication regards the role of the ECB or the European Stability Mechanism (a fund with dedicated resources that can be used to maintain financial system stability) as lenders of last resort and the size of the EMU bailout fund. The third policy question concerns the extent to which bank regulations should be centralized. And the fourth

regards the desirability of Union constraints on members' fiscal policy.

Interestingly enough, a recent volume has collected the views of 18 leading economists on these and other policy questions.<sup>2</sup> The vast majority of these economists think the EMU needs a lender of last resort with even larger resources than currently exist. Essentially all of them agree that bank regulations should be centralized. And given the historical experience, they are generally pessimistic about enforcing constraints on fiscal policy.

Our framework provides further perspective on these views. On the lender of last resort, we believe that the union should have a bailout fund, but it should not be too large or generous. For reasons outlined above, a bailout may exacerbate the problem it is intended to solve by encouraging risk-taking through increased bailout expectations.

On bank regulation, the externalities are real, and centralization is desirable. The devil, however, is in the details.

In terms of constraints on fiscal policies, we offer one thought. The sovereign default literature suggests that excessive amounts of short-term debt can exacerbate rollover crises.<sup>3</sup> Without a monetary union, countries balance this additional cost of short-term debt against other benefits in determining the optimal maturity structure of debt.<sup>4</sup> But in a union, externalities could arise for reasons similar to those discussed earlier: Union authorities lacking commitment may engage in bailouts during a rollover crisis, thereby reducing member countries' concern about rollover crises and tilting their sovereign debt maturity structure toward short-term instruments. Given these externalities, constraints on the maturity structure of debt are desirable and might well be more enforceable than constraints on the aggregate amount of sovereign debt.

## Endnotes

\*This paper is based in part on “A Journey Down the Slippery Slope to the European Crisis: A Theorist’s Guide,” forthcoming in a volume edited by John Taylor and Michael Bordo. The authors thank the National Science Foundation for supporting this research. The views expressed herein are those of the authors and not necessarily those of the Federal Reserve Bank of Minneapolis or the Federal Reserve System.

<sup>1</sup> This framework has been more fully developed in a series of academic papers by Chari and Kehoe (2007, 2008, 2016) and by Chari, Dovis and Kehoe (2016, 2017).

<sup>2</sup> See Baldwin and Giavazzi (2016).

<sup>3</sup> See Cole and Kehoe (2000).

<sup>4</sup> See Bocola and Dovis (2016).

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