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Financial dollarization and systemic risks: New empirical evidence☆

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A B S T R A C T

This paper explores the persistence of financial dollarization in a group of 79 economies with different levels of development. Our main hypothesis is that a high level of domestic debt combined with default risk explains this persistence, even after a decline in inflation rates. Using the generalized method of moments (GMM) in a panel data analysis, our results show that inflation risks caused by increasing probability of default account for financial dollarization more than inflation rate itself. After the decrease in inflation rates, the foreign currency-denominated deposits remain large because of the high debt-to-GDP ratios, particularly in speculative-grade economies. High public indebtedness leads to expectations of default. Dollarization is a rational response to the future inflation associated with investors' expectations of default observed in highly indebted economies.

1. Introduction

Since the early 2000s, a growing number of countries have fully or partially adopted foreign currencies, such as the European Monetary Union (EMU) euro or the United States (US) dollar, or have

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maintained a large portion of their bank deposits in another country's currency. Europe provides the clearest example because countries within the region abandoned their domestic currencies to become members of the EMU.

Nearly 60 small countries or territories are former or current members of some type of monetary union or use a large country's currency. In Africa, 14 countries are members of the African Financial Community (CFA). The Eastern Caribbean Currency Union has eight member countries, including Antigua and Barbuda, Dominica, Grenada and Santa Lucia, and uses a single currency, the Eastern Caribbean dollar. Some countries, such as Panama, Ecuador and El Salvador have adopted the US dollar as their official currency.[1] Other countries, including Argentina, Peru, China, Hong Kong, Bulgaria and Lithuania, have embraced strict currency-board-based monetary regimes without abandoning their own currencies. Furthermore, some countries (e.g., Bolivia, Uruguay and Angola) have more than 65 percent of their bank deposits in a foreign currency such as the US Dollar, the Euro or another strong currency.

The dollarization of an economy is always strongly associated with inflation. All of the previous studies confirm this relationship. Furthermore, studies have been performed concerning dollarization remaining relatively high even after inflation rates have dropped. In this case, inflation and the risk of inflation explain dollarization. Many countries that witnessed declines in their inflation rates to low levels maintained high demand for US dollar deposits or US dollar-denominated assets or liabilities, both domestically and internationally, because of the risk that inflation might return.

For this study, the determinants of financial dollarization for 79 developed and developing economies were examined to assess how relevant the risk of default is to the risk of inflation. The core hypothesis is that high indebtedness combined with systemic risks, including inflation volatility and the risk of default on debt, explains the persistence of financial dollarization in the affected economies, even after inflation decreases. In addition, the paper controls for persistent dollarization in a dynamic panel data model. Our results show that dollarization persists and remains high despite a reduction in the inflation levels because growing levels of domestic public indebtedness increases the risk of sovereign default, especially in non-investment-grade economies. Highly public indebtedness generates investor's expectations of a government default, which leads to future inflation expectation even in a low-inflation environment.

After the decrease in inflation rates, the foreign currency-denominated deposits remain large because of the high debt-to-GDP ratios, particularly in speculative-grade economies. High public indebtedness leads to expectations of default. Dollarization is a rational response to the future inflation associated with investors' expectations of default observed in highly indebted economies. According to our results dollarization is a rational response to the default risk, specially in speculative-grade countries. Therefore, because history of default is close associated with history of inflation (Reinhart et al., 2003), capital flight leads to a currency depreciation and also leads to inflation through exchange rate pass-through. However, this second part is only a plausible story in which we have no empirical findings.

Then, persistent dollarization is explained by the measure of sovereign risk, which indicates the country's investment grade, reflecting the risk perception that international agencies use to rate sovereign states. Economies that have not yet attained investment-grade status pose higher risks of sovereign default than those that have, and investment-grade status tends to improve the rates and terms that can be obtained in the global financial market. Therefore, international agencies and investors regard an investment-grade economy as a safe investment that would honor its financial obligations, encouraging the purchase of domestic assets in local currency and reducing dollarization.

The paper is structured as follows. Section 2 reviews the theory of financial dollarization, describing the causes and consequences of dollarization according to the four primary viewpoints. Section 3 analyzes the relationship between dollarization, inflation risks and debt, and shows that drops in inflation are not followed by reduced financial dollarization, and that high levels of dollarization are

[1] In 2000, Ecuador adopted American Dollar as a legal tender, and El Salvador did the same one year later. Then, the data for dollarized deposit in both countries are only for the previous period of adopting Dollar as a local currency. Panama is out of our sample.