OCCASIONAL PAPER 230

Financial Stability in Dollarized Economies

Anne-Marie Gulde, David Hoelscher,
Alain Ize, David Marston, and Gianni De Nicoló

INTERNATIONAL MONETARY FUND
Washington DC
2004

OCCASIONAL PAPER 230

Financial Stability in Dollarized Economies

Anne-Marie Gulde, David Hoelscher,
Alain Ize, David Marston, and Gianni De Nicoló

INTERNATIONAL MONETARY FUND
Washington DC
2004

Production: IMF Multimedia Services Division

Cataloging-in-Publication Data

Financial stability in dollarized economies / Anne-Marie Gulde . . . [et al.] —
Washington, D.C.: International Monetary Fund, 2004.

p. cm. — (Occasional paper; 230)

Includes bibliographical references.
ISBN 1-58906-296-5

1. Dollar, American. 2. Banks and banking. 3. Monetary policy. I. Gulde, Anne-Marie. II. Occasional paper (International Monetary Fund); no. 230

HG230.3.F35 2004

Price: US$25.00
(US$22.00 to full-time faculty members and
students at universities and colleges)

Please send orders to:
International Monetary Fund, Publication Services
700 19th Street, N.W., Washington, D.C. 20431, U.S.A.
Tel.: (202) 623-7430 Telefax: (202) 623-7201
E-mail: publications@imf.org
Internet: http://www.imf.org

recycled paper

Contents

Figures

The following symbols have been used throughout this paper:

. . . to indicate that data are not available;

— to indicate that the figure is zero or less than half the final digit shown, or that the item does not exist;

– between years or months (e.g., 1998–99 or January–June) to indicate the years or months covered, including the beginning and ending years or months;

/ between years (e.g., 1998/99) to indicate a fiscal (financial) year.

"Billion" means a thousand million.

Minor discrepancies between constituent figures and totals are due to rounding.

The term "country," as used in this paper, does not in all cases refer to a territorial entity that is a state as understood by international law and practice; the term also covers some territorial entities that are not states, but for which statistical data are maintained and provided internationally on a separate and independent basis.

Preface

This Occasional Paper addresses the challenges to prudential supervision in highly dollarized economies where central banks and supervisors may be constrained in the use of standard monetary and financial policy tools. Based on a 2003 IMF Executive Board Paper, *Financial Stability in Dollarized Economies* is part of the policy development work conducted by the IMF's Monetary and Financial Systems Department. Its conclusions are the basis of an ongoing policy dialogue with member countries, standard-setters in the financial area, and academia.

The paper is the result of a group effort. It was prepared by Anne-Marie Gulde, David Hoelscher, Alain Ize, David Marston, and Gianni De Nicoló, with important contributions from Socorro Heysen, R. Armando Morales, and Marina Moretti. The authors thank all contributors, internal reviewers, and the various country authorities who responded to a survey on prudential practices. They are also grateful to Kalin Tintchev for providing excellent research assistance, Tsegereda Mulatu for expertly coordinating the preparation of the manuscript, and Archana Kumar of IMF's External Relations Department for editing the paper and coordinating its publication.

The opinions expressed in the paper are those of the authors and do not necessarily reflect the views of the national authorities, the IMF, or IMF Executive Directors.

I Introduction

Dollarization, a common feature in many developing and transition countries, can have important implications for financial stability. In a bid to promote financial intermediation and deepening, many countries around the world have openly encouraged or accommodated the growth of financial dollarization—the use of a foreign currency, mainly the dollar, to denominate financial contracts. Neither the phenomenon itself nor the specific financial sector risks that may be associated with it, such as the limitations it poses on the central bank's lender-of-last-resort functions or the added constraints it may impose on banks' liquidity management, are new. However, the recent rapid growth in dollarization in many parts of the world (Box 1), the ongoing financial crises in several highly dollarized Latin American countries, and the attendant visible problems for some countries' banking systems suggest that allowing financial dollarization to spread might involve important trade-offs between financial development and stability.

The main purpose of this paper is to contribute to the emerging debate regarding an adequate prudential and crisis management framework for dollarized economies. From a current policy perspective, two issues deserve particular attention. Do the additional financial sector risks in dollarized countries require adaptations to the commonly recommended prudential framework, particularly when viewed from a systemic perspective? Equally important, in the case where a country does face a financial sector crisis, is the recommended response different for dollarized countries? The associated issues in the area of prudential oversight have not yet been fully resolved among economists and supervisors, and no clear guidelines from relevant standard-setting bodies, such as the Basel Committee on Banking Supervision (BCBS), have yet been worked out. Against this background, our preliminary conclusions are intended to be first steps that may need to be revisited in the context of further analysis of country experiences and more in-depth discussions with supervisory and standard-setting bodies.

Dollarization is both a reflection of and has key implications for macroeconomic policies, especially monetary policy. While this paper recognizes these

Box 1. Dollarization Types and Trends

Dollarization can take multiple forms. Official (de jure) dollarization occurs when the U.S. dollar is adopted as the predominant or exclusive legal tender. *Partial (de facto)* dollarization occurs when the local currency remains the exclusive legal tender but financial and payments transactions are allowed to be denominated in dollars, effectively allowing a bicurrency system to take hold. It is useful, in turn, to distinguish between *payments* dollarization (the use of foreign currency for transaction purposes), *financial* dollarization (residents' holding of financial assets or liabilities in foreign currency), and *real* dollarization (the indexing, formally or de facto, of local prices and wages to the dollar). Financial dollarization can also be classified as *domestic* (e.g., the use of the dollar in claims between residents) or *external* (e.g., the use of the dollar in claims between residents and nonresidents). While the U.S. dollar is by far the dominant currency used in bicurrency systems, other currencies can be (and are being) used as complements to the local currency. The term "dollarization" should thus be taken in a generic sense.

Partial dollarization affects a wide set of countries and has increased in recent years. The set of partially dollarized countries includes a large number of developing, emerging, and transition countries (see Table 1). The ratio of onshore foreign currency deposits to total onshore deposits increased substantially in Latin America (defined as South America, Mexico, and Central America) and the transition countries. It has also increased, albeit somewhat more moderately, in Africa, Asia, and the Middle East. It remained constant on average (and low) only in the Caribbean region and the industrial countries.

Table 1. Average Foreign Currency Deposits to Total Deposits
(In percent)

Regions	Number of Countries	1996	1997	1998	1999	2000	2001
South America	8	45.8	46.1	49.4	53.2	54	55.9
Transition economies	26	37.3	38.9	43.5	44.3	46.9	47.7
Middle East	7	36.5	37.2	37.7	37.5	38.2	41.9
Africa	14	27.9	27.3	27.8	28.9	32.7	33.2
Asia	13	24.9	28	26.8	28.8	28.7	28.2
Central America and Mexico	7	20.6	20.8	22	22.1	22.5	24.7
Caribbean	10	6.3	7.6	6.8	6.7	6.1	6.2
Industrial countries	14	7.4	7.5	7.5	6.7	7	6.6

Sources: National authorities; IMF, International Financial Statistics database; and IMF staff estimates.

two-way linkages, it addresses macroeconomic issues only inasmuch as they have a direct bearing on financial sector stability. Moreover, although this paper takes a stance on the macroeconomic policies that need to accompany an effort to limit the financial vulnerabilities deriving from dollarization, its main focus is on how to limit these vulnerabilities given the macroeconomic environment.

The primary focus of this paper is on economies that have a local currency but where a high proportion of domestic financial transactions involving residents is denominated in dollars. Based on the analysis, such highly dollarized economies pose the most serious risks and constraints. This paper refers to marginally or fully dollarized economies only to the extent that they provide a benchmark and does not directly address stability issues associated with large, dollarized, offshore financial centers, where transactions with residents account for only a small fraction of banks' balance sheets and where prudential concerns are of a different nature. In addition, this paper mostly focuses on the domestic component of financial dollarization (e.g., transactions between residents) and refers to external dollarization (e.g., transactions between residents and nonresidents) only when it has a direct bearing on the stability of the domestic financial system.

While examples are drawn more heavily from the Latin American region, the issues addressed are equally relevant to dollarized countries in other

Box 2. Dollarization Levels Versus Dollarization Risks

While high financial dollarization characterizes Latin American countries as well as transition economies and some (non–Latin American) low-income countries, the levels and nature of financial intermediation differ substantially among these three groups. Dollar intermediation in Latin American countries, as measured by the ratio of foreign currency deposits to GDP, is substantially higher than in transition economies and (non–Latin American) low-income countries (see Table 2). The more limited scope for financial intermediation in transition economies and (non–Latin American) low-income countries is reflected in higher ratios of foreign assets held by banks to foreign currency deposits (e.g., local foreign currency funding is primarily held abroad rather than loaned out locally) and higher ratios of cross-border deposits to foreign currency deposits (e.g., the public holds a large proportion of its foreign currency assets abroad rather than in the local banking system). While data limitations restrict the scope for similar cross-country comparisons of dollar cash holdings, there are indications that these are particularly important in many of the transition economies (see Havrylyshyn and Beddies, 2002).

These differences, which are likely to have important differential implications for financial stability, could erode over time as dollar financial intermediation deepens in the transition economies and the (non–Latin American) low-income countries. Liquidity risk is likely to be less of an issue in countries where local dollar deposits are small in magnitude and are not held as substitutes for funds abroad or under the mattress. In addition, both liquidity risk and solvency risk are clearly more limited when a large fraction of foreign currency deposits is held by local banks in the form of liquid assets abroad rather than loaned out locally.

Table 2. Indicators of Domestic Financial Intermediation in Foreign Currency, 2001
(In percent)

Regions	Foreign Currency Deposits to GDP	Foreign Assets to Foreign Currency Deposits	Cross-Border Deposits to Foreign Currency Deposits
Latin America[1]	21.1	53.7	124.0
Transition economies[2]	8.8	104.1	130.9
Low income[3]	7.8	260.7	472.1

Sources: National authorities; Bank for International Settlements (BIS), *International Financial Statistics;* IMF, International Financial Statistics database; and IMF staff estimates.

[1]Includes 15 South and Central American countries.

[2]Includes 23 transition economies.

[3]Includes 13 African and 12 Asian countries.

regions of the world. The greater number of examples in Latin America reflects that banking crises or near-crises have been more frequent or more directly related to dollarization in this region. While the reasons underlying the relatively lower frequency of financial crises, or the lesser role played by dollarization in aggravating the crises, in other parts of the world with equally dollarized financial systems are complex, the lower level of financial intermediation and less open capital accounts are probably important explanatory factors (Box 2 and Table 2). If so, highly dollarized non–Latin American countries could become more vulnerable to such crises as their financial systems deepen and they become more integrated with the international financial system. Hence, the experiences of the highly dollarized Latin American countries provide useful lessons for other regions.

The remainder of this paper is organized as follows: Section II examines the specific risks for financial soundness associated with dollarization; Section III discusses approaches to stopping bank runs and stabilizing liquidity conditions in the wake of a banking crisis in a dollarized economy; Section IV proposes measures to limit the risk of banking crises in dollarization-prone economies; and Section V concludes.