Journal of International Economics 71 (2007) 294–323
Journal of INTERNATIONAL ECONOMICS
www.elsevier.com/locate/econbase

One cost of the Chilean capital controls: Increased financial constraints for smaller traded firms

Kristin J. Forbes *

MIT-Sloan School of Management, Room E52-455, 50 Memorial Drive, Cambridge, MA 02142, United States

Received 6 July 2004; received in revised form 6 February 2006; accepted 31 March 2006

Abstract

There is growing support for taxes on short-term capital inflows in emerging markets, such as the *encaje* adopted by Chile from 1991 to 1998. This paper assesses whether the Chilean capital controls increased financial constraints for different-sized, publicly-traded firms. It uses an Euler-equation framework and shows that during the *encaje*, smaller traded firms experienced significant financial constraints. These constraints decreased as firm size increased. Both before and after the *encaje*, however, smaller firms did not experience significant financial constraints, and there is no relationship between firm size and financial constraints. Although Chilean-style capital controls may yield some benefits, any such benefits should be weighed against this cost of increasing financial constraints for small and mid-sized firms.

Keywords: Capital controls; *Encaje*; Chile; Firm-financing constraints

JEL classification: F3; F21; G1; G32; O16; O54

1. Introduction

In the early and mid-1990s, most international economists and Washington-based policy-makers supported rapid capital account liberalization for emerging markets. Many countries followed this advice. The initial results were generally positive — increased capital inflows, investment booms, and impressive growth performance. In the last decade, however, several countries with recently liberalized capital accounts experienced severe financial crises, such as Mexico, Thailand, Korea, Russia, and Argentina. These experiences, especially when combined

* Tel.: +1 617 253 8996; fax: +1 617 258 6855.
E-mail address: kjforbes@mit.edu.
URL: http://web.mit.edu/kjforbes/www.

0022-1996/$ - see front matter © 2006 Elsevier B.V. All rights reserved.
doi:10.1016/j.jinteco.2006.03.005

with the recent backlash against globalization, have caused many people to question the benefits of unrestricted capital flows.[1] Could controls on capital flows have prevented these crises, or at least reduced their virulence? This question gained renewed attention when the U.S. government insisted that free-trade agreements with Singapore and Chile include strict restrictions on their ability to use capital controls in the future.

Although there continues to be widespread disagreement on the desirability and feasibility of certain types of capital controls, such as a Tobin-style tax on currency transactions or limits on capital outflows during crises, there is fairly widespread support for market-based taxes on short-term capital inflows. For example, *The Economist* concluded a survey on global finance with the statement: "…some kinds of restriction on inflows (not outflows) of capital will make sense for many developing countries."[2] The most well known example of a market-based tax on capital inflows is the *encaje* adopted by Chile from 1991 to 1998. Even the IMF, formerly the bastion of capital market liberalization, has cautiously supported these sorts of controls. For example, Stanley Fischer, former First Deputy Managing Director of the IMF writes: "The IMF has cautiously supported the use of market-based capital inflow controls, Chilean style."[3] IMF officials have even suggested that other emerging markets, such as Russia, could benefit from adopting similar capital controls in certain circumstances.[4]

A series of empirical studies have supported this sea-change in attitudes by providing fairly positive or neutral assessments of the Chilean capital controls. Although there is some variation in the results, most studies conclude that the capital controls shifted the composition of capital inflows to a longer maturity and provided a small increase in monetary policy flexibility, but had minimal effect on other variables (such as the total volume of capital inflows or exchange rate). These studies suggest that the only costs of the controls were relatively minor, such as any deadweight loss from the government establishing and monitoring the system, or from firms attempting to evade the controls. In other words, the general interpretation of this body of empirical work is that the Chilean capital controls generated some small economic benefits, but no significant economic costs.

Managers of small and medium-sized companies in Chile, however, have a different interpretation. They claim that the capital controls made it substantially more difficult to obtain external financing. Edwards (1999) reports that between 1996 and 1997 (during the *encaje*) the costs of dollar borrowing for smaller firms exceeded 20% per year, while larger firms could access international markets at a cost of only 7–8%. It is not surprising, however, that smaller firms in Chile faced a higher cost of external capital than larger firms. A large body of theoretical literature explains why asymmetric information problems, which tend to be greater in smaller and younger firms, will raise the cost of external capital relative to that for internal capital. Moreover, a large body of empirical literature documents that firms' investment decisions tend to be affected by their internal sources of funds in a range of countries, especially for smaller firms.

There are a number of reasons, however, why the Chilean capital controls may have increased financial constraints for smaller firms. First, many Chilean firms responded to the controls by adopting alternate forms of financing that were not subject to the tax (such as issuing ADRs or obtaining direct credit from foreign suppliers). These alternative financing sources were not only

[1] For an excellent study on the effects of financial globalizations, see Prasad et al. (2003).

[2] *The Economist,* "A Cruel Sea of Capital: A Survey of Global Finance." 05/03/98, pg 24.

[3] Fischer (2002).

[4] For example, see the interview with John Odling-Smee, Director of the IMF's European II Department, in the March 17, 2003, *IMF Survey.*