

# The Dismantling of Capital Controls After Bretton Woods and Latin American Productivity

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The recent economic history of global integration has been characterized by a dismantling of capital controls and increased foreign direct investment (FDI). This paper explores the role of impediments to international capital mobility, foreign direct investment, and technology diffusion in shaping Latin American economic growth. I will summarize the effects of the Bretton Woods international financial system in Latin America, which was in place from 1949 to 1973 and attempted to support international economic and political stability through regulations that governed international trade, payments, and currency values. Then, I will study the consequences of capital controls—and their dismantling—on FDI and trade-induced technological advancements in shaping local development, especially in the 1990s after the implementation of trade liberalization policies in the region.

## I. International Financial Integration in the 20th Century

The era of the classical gold standard, circa 1870-1914, witnessed highly free global movements of capital, labor, and commodities. During the period preceding the Great Depression, monetary policy had a secondary role as compared with maintaining the gold standard. The World War I (WWI) featured financial controls that were later relaxed, and the Gold Standard was restored until 1930s, when the Great Depression occurred (Obstfeld and Taylor, 1998).

During the Great Depression, the world network collapsed and capital mobility sharply decreased, mainly as an effort to

maintain gold parities. Defaults on external debt became widespread in Latin America (Cardoso and Dornbusch, 1989), where countries depreciated their currencies and implemented foreign exchange and capital controls.<sup>1</sup> These controls were intended to alleviate balance-of-payments crises, which in turn emerged from a fall in export prices, exports, and debt service.<sup>2</sup>

Restrictions to capital movements became more prevalent once WWII started, and during the interwar years, the gold standard lost credibility and policymakers sought stability, which set the stage for the Bretton Woods System. Bretton Woods was intended to lead to international economic and political stability via regulations of international payments, trade, and exchange rates. In a time period characterized by increased global trade, pegged exchange rates consistent with this system posed a challenge. The end of the Bretton Woods System in the early 1970s and the divergence from fixed dollar rates were accompanied by higher capital mobility in the U.S. and Europe, which was echoed later in Latin America, mainly in the 1990s. Since then, capital mobility, FDI, and foreign trade have raised steadily, after countries followed the policy recommendations prescribed by the Washington Consensus (Ferreiro, Correa and Gomez, 2008).<sup>3</sup> In

<sup>1</sup>These defaults had long-lasting consequences, as most settlements were not finalized until the 1940s and 1950s (Díaz-Alejandro, 1984).

<sup>2</sup>Latin American countries that adopted controls in the 1930s include Argentina, Bolivia, Brazil, Chile, and Colombia, Costa Rica, Nicaragua, Paraguay, Uruguay, Ecuador, Honduras, and Venezuela (Obstfeld and Taylor, 1998).

<sup>3</sup>Edwards (2003) points out that the initiative behind liberalizations in Latin America came in many instances from policymakers, without pressure from the International Monetary Fund (IMF). Nevertheless, participation in IMF programs was highly correlated with capital account liberalization in emerging markets in the

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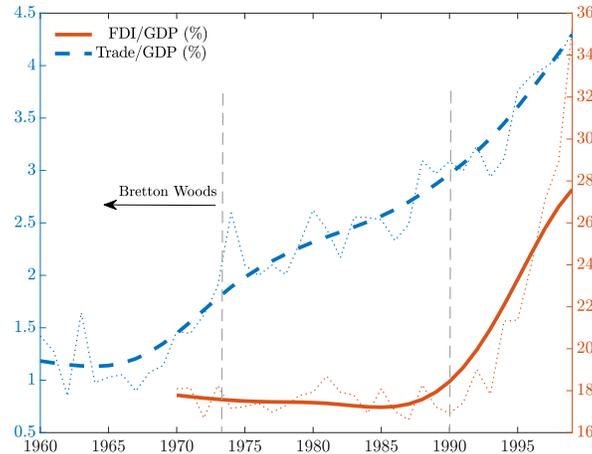


FIGURE 1. FOREIGN DIRECT INVESTMENT AND TRADE OVER GDP IN LATIN AMERICA (%)

*Note:* The figure shows, on the right-hand-side axis, FDI defined as the net inflows in the reporting economy from foreign investors divided by GDP; and on the left axis, trade defined as the sum of exports and imports of goods and services as a share of GDP. *Source:* International Monetary Fund, International Financial Statistics and Balance of Payments databases, World Bank, International Debt Statistics. World Bank national accounts data, and OECD National Accounts data files.

fact, as shown in Figure 1, FDI in Latin America as a share of GDP was on average 2.18 times larger between 1990 and 2000 than in the preceding two decades, while trade as a share of GDP increased 25% in the same time period.

It is a challenge to study the level and dynamics of the restrictions imposed by the Bretton Woods system, as they span many dimensions. To measure this, one alternative is to use an accounting framework that captures impediments to international capital mobility through wedges. This capital flow accounting method was initially developed by Ohanian, Restrepo-Echavarria and Wright (2018) and extended by Ohanian et al. (2021) to analyze the consequences of Bretton Woods. In particular, it is possible to estimate an international wedge that affects the cost of foreign financial transactions between regions, and is equivalent to a tax on international borrowing. This wedge can be identified from the following equation:

$$(1) \quad \frac{C_{jt+1}/N_{jt+1}}{C_{jt}/N_{jt}} = \frac{\beta}{q_{t+1}} (1 - \tau_{jt+1}^B),$$

1990s (Joyce and Noy, 2008).

where  $\tau_{jt+1}^B$  represents impediments to international capital mobility that change the incentives to trade foreign assets in region  $j$ ,  $q_{t+1}$  is a risk-adjusted world bond price,  $\beta$  is the discount factor and the left-hand-side represents the growth of per-capita consumption in region  $j$ . It is possible to leverage on this methodology, and apply it to Latin America to analyze the impacts of this system in this particular region for the purposes of this paper. Figure 2 shows the evolution of  $\tau_{jt+1}^B$  in Latin America relative to the U.S. since 1960. According to this accounting method, one of the main goals behind the design of the Bretton Woods system—gain stability after a very convoluted time period—was accomplished, as the Bretton Woods era was characterized by a much smaller variance in the international wedge—this wedge was 1.7 times larger in the post-Bretton Woods period—and a relatively similar mean. The sharp increase in restrictions in the 1980s reflects how the debt buildup during the Bretton Woods period and the oil-price shocks of the 1970s led to crisis and threats of defaults in Latin America in this time period, after hints of a global downturn hit along with higher interest rates. Moreover, the

decrease in the wedge in the 1900s is mirrored by higher FDI and bank lending to governments and private agents in the region (Obstfeld and Taylor, 1998). The correlation between this wedge and the Chinn-Ito index (Chinn and Ito, 2006) is of 0.7.<sup>4</sup>

The methodology also allows to calculate the welfare implications of Bretton Woods for a particular region. Ohanian et al. (2021) document that Bretton Woods capital controls were quantitatively very important, as they substantially impeded the flow of capital across countries. In their absence, there would have been large capital flows out of Latin America and Asia and into the U.S., which would have increased global output by 6%. For the case of Latin America and Asia, the authors also find large welfare effects—a perpetual consumption-equivalent welfare benefit of about 4-5%. Assuming U.S. policymakers could foresee the consequences of the system, this “subsidy” from the U.S. to other countries can be interpreted as a proxy of how they valued geopolitical stability.

## II. Capital Controls and Trade-Induced Technological Advancements

Even back in 1944, the Bretton Woods conference acknowledged the link between capital controls and international trade. Capital controls affect trade through many channels (for instance, through the intertemporal rate of substitution, uncertainty, and domestic import prices), and they raise transaction and trade costs, reducing trade.

Countries can experience substantial welfare gains from trade. These gains can be static in nature, and come in the form of access to more markets and cheaper goods, or they can be dynamic. A recent growing literature in economics has studied how dynamic gains from trade can be very large, and lead to benefits especially in developing countries (e.g. Alvarez, Buera and Lucas (2013), Perla and Tonetti (2014), Buera and Oberfield (2020)).<sup>5</sup> In particular, gains

emerging from learning and technological transfers that result from trade were recently highlighted by Buera and Oberfield (2020), and shown to be quite large.

A question that emerges from this discussion is how developing countries learn to adopt and use new technologies. Van Patten (2019) documents that productivity grows systematically faster for countries that trade with partners with better technologies, but that this effect is decreasing *in the gap between local and foreign productivity*. In other words, there is a trade-off between having a partner that is very technologically advanced—but from whom it is harder to learn—and a partner that has only slightly more advanced technology than one’s own—from whom it is easier to learn, even though the maximum learning potential is lower. Thus, developing countries learn less from trade partners that are far away in the development ladder, than from those ahead but relatively close. In particular, the author incorporates “heterogeneous learning” to a general equilibrium framework, where the probability of learning from trade is a function of productivity differences between trading partners. Models with “homogeneous learning” that ignore absorptive capacity constraints (e.g. (Buera and Oberfield, 2020)), and where gains from learning are increasing in the trading partner’s level of technology, may then overestimate the impact of exposure to high-TFP trading partners.

Therefore, the missed learning opportunities that might emerge from hampered trade represent an additional—and potentially large—cost of implementing restrictions to international capital mobility. How large was this loss in Latin America, during and after the dismantling of capital controls and the Bretton Woods system? To explore this, I use the methodology from Van Patten (2019) described above and apply it to the Latin American region between 1960 and 2000. Figure 3 shows the evolution of total factor productivity (TFP) under

<sup>4</sup>This index is based on restrictions on cross-border financial transactions reported by the IMF.

<sup>5</sup>Parente and Prescott (1994) and Klenow and

Rodriguez-Clare (2004) show that in the absence of externalities, growth models struggle with matching the data.

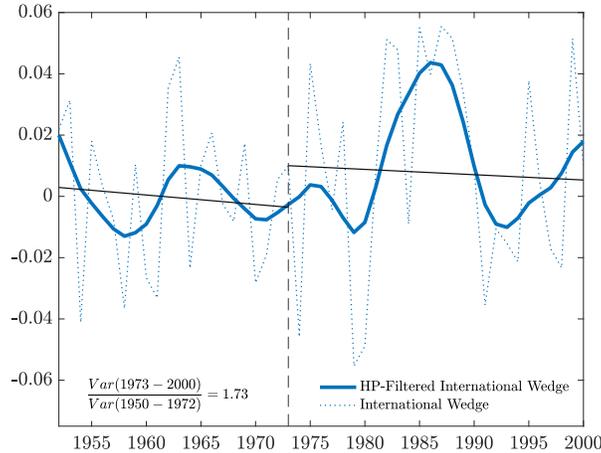


FIGURE 2. INTERNATIONAL WEDGE IN LATIN AMERICA BEFORE AND AFTER BRETTON WOODS

*Note:* The figure shows the international wedge for Latin America, relative to the U.S., calculated following the methodology developed in Ohanian, Restrepo-Echavarría and Wright (2018) and Ohanian et al. (2021) in blue. The black lines show the fitted line for each sub-period, before and after Bretton Woods. The variances for each sub-period are also reported.

different models of learning through trade. Several facts are worth noting. First, the volatility of TFP—and its level—increased substantially in the post-Bretton Woods period. Second, upon comparing Figure 3 with Figure 2, it is evident that the very high international wedge and high restrictions to capital mobility in the region in the 1980s were accompanied by a large decrease in TFP and learning. Finally, in the aftermath of Bretton Woods, the role of learning in explaining TFP dynamics becomes larger.

### III. Dismantling of Capital Controls and Opportunities of FDI

The analysis above is silent about the potential gains of dismantling capital controls emerging from increased FDI. In Latin America, one of the consequences of the capital account liberalization process was a recomposition of capital inflows in favor of FDI inflows Edwards (2007).<sup>6</sup> This increase was stark following the trade liberal-

ization policies implemented in the 1980s in several Latin American countries, as shown in Figure 1. According to work on the effects of FDI on local TFP growth, higher levels of FDI could be contributing to the increase in TFP shown in the dashed yellow line of Figure 3 after the late 1980s, for instance via knowledge spillovers or knowledge transfers from multinationals to its local suppliers (e.g., Blomstrom 1986; Blomstrom and Wolff 1989; Irwin and Klenow 1994 Smarzynska Javorcik 2004; Lipsey 2006; Harrison and Rodríguez-Clare 2009; Giorcelli 2019; Alfaro-Ureña, Manelici and Vasquez 2019). For example, early work by Blomstrom (1986) documented that foreign presence in Mexican industries was positively correlated with structural efficiency, and more recent findings by Alfaro-Ureña, Manelici and Vasquez (2019) show that four years after a local firm starts supplying to a multinational in Costa Rica, they have a 4 to 9% higher TFP.

Moreover, besides the effects of FDI on local productivity, it can have long-lasting effects on other dimensions. Méndez-Chacón and Van Patten (2021b) study the case of the infamous United Fruit Company, and find that exposure to the multinational firm

<sup>6</sup>From a long-term growth and stability perspective, the literature has highlighted the lower volatility of FDI, as compared with other types of capital like portfolio flows, and its potential benefits for GDP growth.

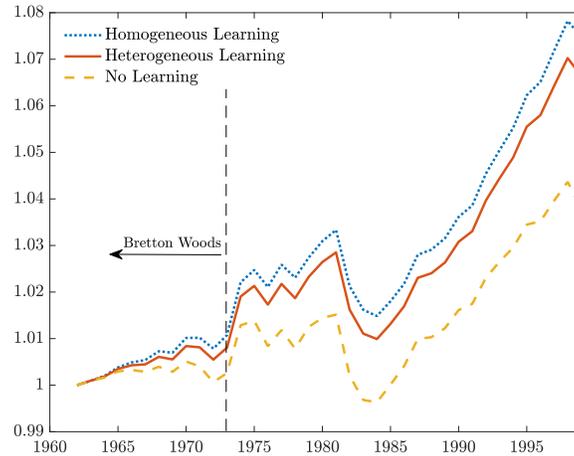


FIGURE 3. EVOLUTION OF TFP IN LATIN AMERICA UNDER DIFFERENT MODELS OF LEARNING THROUGH TRADE

*Note:* The figure shows the evolution of TFP in Latin America under different assumptions of learning through trade, before and after Bretton Woods. The countries included in the analysis are: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Mexico, Peru, and Venezuela.

had positive effects on local economic development; households directly exposed to the firm were 29% less likely to be poor than nearby counterfactual locations while it was operating, and only 56% of the income gap closed over the four decades following the company's exit. In the same context, Méndez-Chacón and Van Patten (2021a) document that exposure to FDI can also have long-lasting inter-generational consequences on civic engagement and political views.

#### IV. Conclusion

In this paper, I examine the effect of restrictions to international capital mobility on Latin American growth during the 20th Century. The end of the Bretton Woods system was accompanied by higher impediments to mobility and volatility in the region until the end of the 1980s. Moreover, the evolution and dismantling of capital controls towards the end of the century were accompanied by increased levels of FDI and trade. This increase in trade can be associated with higher observed productivity growth related to technology transfers, and beyond increases in local productivity, the higher levels of FDI can lead to persistent

improvements in living standards.

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