

Esteban Jadresic  
Director of the International Division  
Central Bank of Chile

## **ON DE-DOLLARIZATION AND FINANCIAL INDEXATION<sup>1</sup>**

I thank the Interamerican Development Bank's Research Department for the invitation to participate in this panel. It is a pleasure to have the opportunity to share with you some thoughts on de-dollarization strategies.

Let me disclose at the outset that Chile is not and has never been a significantly dollarized country. Therefore, it may be somewhat of a puzzle why did the organizers of this seminar invite an official of the Central Bank of Chile like me to this panel.

The organizers know better, but I think I know the answer: for the purposes of this panel, the fact that Chile has never been a dollarized country is pretty interesting. Today Chile is considered as a stable and soundly managed emerging market economy. In earlier decades, however, it suffered the same problems of high and volatile inflation, implicit exchange rate guarantees, and poor financial regulation that led to financial dollarization in other countries. Why is it that significant dollarization did not show up in Chile?

In my following remarks, I will first provide a response to this question, emphasizing in the answer the key role played in Chile by financial indexation. Then, given that developing indexed debt markets has been recommended as a main ingredient for a strategy for de-dollarization, I will comment on some considerations that Chile's experience suggests in this regard. I will conclude with an overall assessment.

Prior to getting into the above issues, let me add a disclaimer. I am speaking here on my own behalf, and that what I will say may not represent the views of the Central Bank of Chile.

### **Indexation as an alternative to dollarization**

Why is it that in Chile there was no significant dollarization? As I already mentioned, in previous decades, the standard ingredients that led to dollarization in other Latin American countries were present there too.

Providing a full answer would take me longer than the time I have assigned in this panel, but there is one key factor that stands out in the response: my country developed a pretty good alternative for dealing with price volatility. Namely, this is the indexation of loans and debts to the CPI, or, to be more precise, their indexation to the "UF." This is a unit of

---

<sup>1</sup> Remarks offered at a Panel on "De-dollarization Strategies and Domestic Currency Debt Markets in Emerging Economies," with occasion of a seminar on the same topic held in April 8, 2005 in Okinawa, Kapan, during the 46<sup>th</sup> Annual Meeting of the Board of Governors of the Inter-American Development Bank.

account published daily by the Central Bank, which changes every day in a proportion equal to  $1/30$  of last month's change in the CPI. UF stands for "Unidad de Fomento," or "Unit for Fostering." This curious name is explained by the fact that it was created to foster ("fomentar") financial savings.

In principle, indexation to the CPI provides an excellent alternative to dollarization because it directly provides protection against inflation volatility. If one abstracts from indexation lags and other measurement issues, it dominates dollarization as a hedge, as it insulates lenders and borrowers from real exchange rate risk, and not only the nominal risk. In particular, with indexed rather than dollarized debt, the average borrower is better prepared to deal with a substantial depreciation of the currency.

In Chile's local financial market, indexation has indeed dominated dollarization. For several decades and until now, indexation to the UF has been much more important than dollarization. In fact, until recently, denomination of debts and assets in terms of the UF also has been the most common practice in Chile's financial markets, even above denomination in pesos. This has been the case for the majority of bank loans and deposits, as well as mortgages, public sector bonds (issued by the Central Bank), and corporate bonds. Only recently, peso denominated financial contracts have started to prevail above indexed contracts, among short and medium term instruments.

There is little doubt that public policies contributed significantly to Chile's financial indexation. One initiative that stands out is the creation and preservation of the UF, introduced in 1967, and which the executive, legislative and judicial powers have always respected religiously. Another key policy component was the creation of a significant supply and demand for indexed debt. This included large issues by the Central Bank, initially to finance the resolution of the banking crisis of the early eighties, and the creation of a sizable institutional investor base for those instruments, comprised by private pension funds and insurance companies.

### **De-dollarization and the promotion of financial indexation**

Dollarization is mostly a consequence rather than a cause, and thus I share the view that a key component of the first-best solution is to strengthen institutions that promote monetary credibility. In addition, I think it is important to develop institutions that ensure a proper regulation and supervision of the financial sector. This is needed to minimize the adverse effects of moral hazard due to explicit or implicit guarantees, which contributes to currency mismatches. Also, it is also important to allow for sufficient exchange rate movements in order to provide the incentives and signalling needed to de-dollarize.

First best solutions, however, are not always feasible, and even when they are, it takes time to implement them and to make them credible. Moreover, coordination problems and slow learning may prevent a rapid switch to the preferred equilibrium.

In this context, financial indexation emerges as an interesting component of a de-dollarization strategy. Given Chile's experience, indeed, it is tempting to recommend across the board to dollarized countries to actively try to substitute dollarization with

indexation. The fact that Chile's indexation system has been an exception rather than a rule, however, suggests that one must somewhat temper the enthusiasm. This assessment is reinforced when one takes a closer look at Chile's experience.

First, the success of the UF in Chile is fundamentally tied to the respect that society as a whole has shown regarding the rules by which it is determined. In fact, in past decades, governments in other countries in the region also introduced accounting units and financial instruments akin to Chile's UF and UF indexed debt instruments. When enough problems and pressures emerged, however, the rules by which indexation was supposed to take place were broken.

Second, the degree to which indexation provides protection to volatile inflation is imperfect due to lags and measurement problems, and therefore, it still requires a credible enough monetary regime, so as to avoid hyperinflation or very high inflation.

Third, there is no guarantee that initiatives by the public sector to develop financial indexation like the ones mentioned above will be enough, by themselves, to reduce dollarization significantly. In the Chilean case, public policies in general were organized around the principle of indexation. This included not only debt indexation, but indexation of the exchange rate, wages, taxes, regulated prices, accounting, legal entitlements and penalties, and so on. It is unclear what would have happened with financial indexation in the absence of such a broad impulse to indexation.

Fourth, while a certain degree of financial indexation has its merits, promoting financial indexation could foster the development of less desirable types of indexation. It is important, in particular, that financial indexation does not foster wage indexation, a form of indexation that can make the adjustment of the economy to real shocks, and disinflation policies, substantially more costly.

Fifth, depending on the economic environment, financial indexation may become excessive. In the case of Chile, the indexation of the monetary policy rate was not longer practical once low inflation and interest rates were achieved. Indeed, under negative shocks in monthly inflation, targeting an indexed interest rate implies targeting a zero or even negative nominal interest rate, which destabilizes deposits and the foreign exchange rate. Also, widespread indexation of debt liabilities makes financial integration harder, as the international market for indexed debt exists, but is only a specialized segment of the overall market. In consequence, since August 2001, the Central Bank targets a fixed nominal interest rate rather than an UF interest rate. Also, it has gradually modified the composition of its debt towards substituting out UF bonds for peso bonds.

## **Conclusion**

To sum up, there are a number of reasons why the promotion of financial indexation should not be seen by itself as "the" solution to dollarization, and why, even when considered as in the context of a broader policy package, there may be some countries that may want to refrain from going in that direction.

This said, there are good public policy reasons why, sooner or later, most governments should indeed consider fostering the development of a market for indexed debt if this does not yet exist. Doing so can indeed help to create a market that does not exist due to a coordination problem, providing to private agents an instrument to better hedge the risk of volatile prices, and reduce currency mismatches. At least as important, it also can help to improve public debt management, both in terms of reducing its financing costs and its own currency mismatches.

The assessment that the existence of an indexed debt market is a plus for the economy appears to be shared by the Government Treasuries of number of advanced economies, including the US, Canada, France, the UK, and others, which issue significant amounts of debt indexed to the price level. Furthermore, the recent reduction in the degree of indexation of Chile's debt market does not contradict this assessment, as the Central Bank has no plan to fully substitute with a peso market the indexed debt market.

In conclusion, while Chile's experience suggests some caution regarding the promotion of financial indexation as the fundamental solution for countries that want to de-dollarize, the development of an indexed debt markets in these countries is a policy-goal worth exploring. Such goal, however, should be seen only as one additional component of a full de-dollarization policy package. To get the incentives for de-dollarization right, most important is to strengthen institutions that promote monetary credibility and stability of the financial sector, and to let the exchange rate move.

Thanks.