

UI Bonds vs Global Bonds: A Risk and Return Analysis

The budget that was agreed upon in September is based on projections of the main macroeconomic variables, some of which are of great relevance when one wants to evaluate the expected return of different investment opportunities.

The assumptions for inflation, salary increases and exchange rates allow us to project the inflation measured in dollars, the variations of “real salary” and salary when measured in dollars. The following chart shows the projections and resulting calculations for the period 2005-2009.

	2005 ¹	2006	2007	2008	2009	Average	Accumulated
Inflation-CPI (%)	1.2%	6.3%	4.9%	4.4%	4.0%	4.2%	22.5%
Dollar (%)	-5.6%	1.4%	1.3%	1.7%	1.5%	0.1%	0.1%
Nominal Salary-IMS (%)	2.0%	10.8%	8.4%	7.8%	7.0%	7.2%	41.3%
Inflation measured in dollars (%)	6.8%	4.9%	3.6%	2.7%	2.5%	4.1%	22.1%
Real salary (%)	0.8%	4.2%	3.3%	3.3%	2.9%	2.9%	15.3%
Salaries measured in dollars (%)	7.5%	9.4%	7.1%	6.1%	5.5%	7.1%	41.0%

Expected return for investments in Letras UI and Global bonds

Based on the above mentioned projections, we can estimate the expected yield measured in dollars for investments in Letras denominated in UIs. The table below shows the situation of an investor who buys 5 year Letras in UI with a 4% annual yield:

Year	Date	UI CFs	UY\$ CFs	USD CFs
0	28-Sep-05	-100	-148.7	-6.17
1	1-Jan-06	1.04	1.57	0.07
2	1-Jan-07	4.00	6.40	0.28
3	1-Jan-08	4.00	6.71	0.29
4	1-Jan-09	4.00	7.01	0.30
5	1-Jan-10	104.00	189.50	7.90
Yield to Maturity		4.00%	9.11%	9.37%

¹ Taken from September 15 until the end of 2005

The third column shows the cash flows in UI's which happen to be fixed. By using the inflation projections we calculated the cash flows expected in Pesos, which are shown on the next column. The last column shows the flows expected in Dollars, taking into account the expected devaluation for the period. Hence we can conclude that the expected returns are: 9.11% in Pesos and 9.37%² in Dollars.

In order to compare the yield of the Letras in UI's with the Global bonds, we chose the Global 2011 denominated in dollars, coupon 7.25%, maturity Feb/15 /2011 for its liquidity and similar term to the Letras. It is currently yielding 6.36% in Dollars.

When comparing the yields of both instruments using the government's projections, we observe that the Letras in UI offer an expected yield in Dollars that exceeds by approximately 300 basic points that of the Global Bond.

If market prices properly reflect the inputs, this higher expected return should reflect greater risk in Letras in UI than in Globals in Dollars. We shall now proceed to evaluate the main sources of additional risk:

Credit risk:

The Letras in UI's are issued in Pesos by the Treasury, while the Globals are issued in dollars, also by the Treasury. Therefore, it is difficult to argue that the former represent greater repayment risk, and so the explanation for the yield spreads must be sought elsewhere.

Liquidity Risk:

The Global is clearly more liquid than the Letras in UIs given the size of the issues and the diversification of its holders. Consequently there should be a risk premium against the Letras, and this might explain the greater expected return. However, the idea of an excess in yields of 44% based on this premise would seem to be exaggerated.

Market Risk:

An US Dollar investor runs the risk that devaluation be higher than inflation, and this would translate into a lower yield in Dollars of the Letras in UIs. It is our belief that this risk explains to a great extent the extra yield and thus we will devote some time to analyze why.

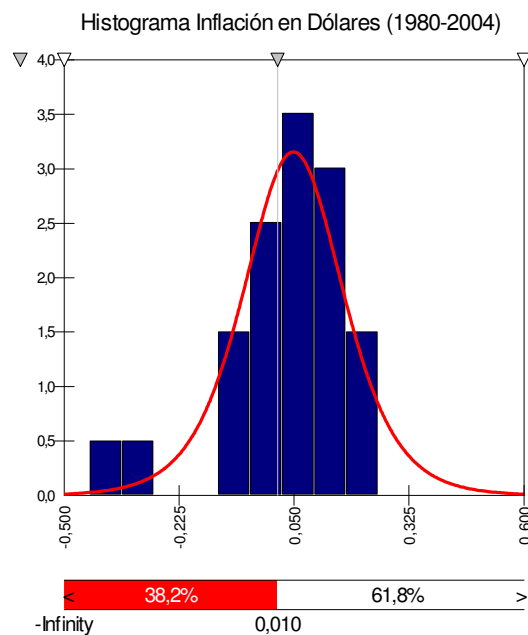
Market Risks for Letras in UI's and Global Bonds

In order to evaluate the risk posed by the market, a first approach could be to determine the level of inflation in Dollars that equals the expected yields in both instruments. In this way, the decision maker can clearly identify the breakeven scenario and assign a subjective probability that will help him to make his choice.

² The expected yield measured in dollars is higher than that expected in Pesos as a consequence of inflation in dollars. This means that if you think from a dollar perspective, you will have an additional return when inflation exceeds nominal devaluation.

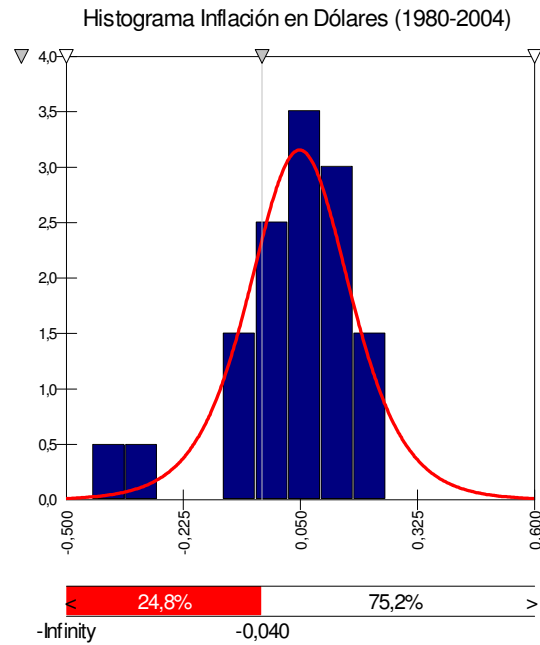
In our case, the breakeven point corresponds to an annual inflation in dollars of 1.1%, inferior by 3% to the central scenario. This means that the Letras in UI's can bear an inflation in dollars of up to 3% beneath the one estimated before its yield measured in dollars goes below the global yield.

A second approach would be to estimate the variance of inflation in dollars, so as to estimate a probability of occurrence in the breakeven scenario where both instruments offer the same expected return. In order to do so, we adjust a logistic distribution to the inflation in dollars from the last 25 years. It has an annual mean of 4.8% and thus can be compared to the average annual inflation in dollars projected of 4.1% for the term and an annual standard deviation of 7.9%.



From the distribution it can be concluded that the probability of an annual inflation in dollars inferior to the 1.1% is 38%. If this distribution reflected the real distribution it would mean that in 62% of the cases the Letras in UIs would show a yield in dollars above those for the Globals.

On the other hand, as shown in the following graph, we calculated the probability of a deflation of 4% in dollars, a figure that would show an annual average yield of 0% for the letras in UI's. As we can see, the probability is 25%, that is, in 75% of the cases, the average yield measured in dollars is going to be above zero.



Conclusion

It is our understanding that as the market begins to absorb the implications of the government's projections, the relative demand for the instruments in UIs should continue to increase in line with recent growth. The same result should occur with the instruments in UR which will benefit from the increase projected for salaries in dollars. In the latter, however, the issue of such instruments depends almost exclusively on the strategy to be followed by the BHU, its natural issuer.