Bradesco Asset Management measures the impact of possible carbon pricing on company profits

Signatory to the United Nations Principles for Responsible Investment (PRI), Bradesco Asset Management (BRAM) presents processes and methodologies that consider the risk and opportunity assessment of environmental, social and corporate governance (ESG) issues on the performance of its assets since 2013.

Considering the relevance of the effects of climate change on business and, consequently, on investment portfolios, BRAM initiated in 2018 a pilot project to analyze sensitivity to carbon pricing, in conjunction with the *Empresas Pelo Clima* (Companies for the Climate, in a free translation) (EPC) platform, an initiative by the Sustainability Study Center (FGVces) of the Fundação Getulio Vargas´s São Paulo School of Business Administration of (FGV EAESP).

OBJECTIVE

This exercise aimed to broaden BRAM's understanding of the magnitude of any economic impacts on the net income of companies in its investment portfolio in the last 5 years (2014-2018). The impacts considered here would result from a possible adoption, by the Brazilian government, of economic instruments aimed at carbon pricing and, consequently, the induction of the reduction of greenhouse gas (GHG) emissions in the Brazilian economy, as a result of the internationally commitments undertaken by the country.

SAMPLE

Initially, the scope of analysis was all companies in the equity and credit of BRAM's investment portfolio. However, because there is no public information about the GHG inventories of some companies, this sample was reduced. Thus, to reach the final analysis sample, companies that published their GHG emissions in at least one year in the period 2014-2018 were considered, either through a GHG inventory or through sustainability reports or other reporting mechanisms. This selection resulted in a portfolio of 54 companies analyzed in this pilot study.

METHOD

In this context, an analysis was made in terms of the risk of incidence of an economic instrument on certain sectors and, more specifically, on some types of emission sources of organizations in these sectors (for example, the burning of fossil fuels or emissions related to industrial processes). The premises for this cut are based on the way in which the GHG emission pricing instruments in force in other parts of the world address the emissions of each economic sector and also in the discussions conducted by the Ministry of Economy with the private sector and civil society within the scope of the PMR Brazil project[1].

1 PMR Project (Partnership for Market Readiness) is a global initiative that helps countries prepare recommendations on carbon pricing instruments and adjustments to public policies that should be adopted to meet the commitments to reduce greenhouse gas emissions assumed under the Paris Agreement.

After that, among the different existing approaches for internal carbon pricing (PIC) exercises, in this pilot study a shadow price approach was applied, using four hypothetical price scenarios for GHG emissions (R$/tCO2e).

SCENARIOS

The scenarios were based on studies of price estimates for the Brazilian economy and also on prices practiced in regulations of the type cap-and-trade in other countries/regions, such as California, Europe and Chile.

That said, three price scenarios were adopted for the whole economy (economy-wide) and a pricing scenario using emission mitigation costs for each sector (sector-specific). It is noteworthy that in the case of economy-wide, it was considered that prices will be applied uniformly for the different sectors of the economy.

Economy-wide

1. Optimistic scenario: lower price level for GHG emissions
2. Trending scenario: intermediate price value for GHG emissions
3. Pessimistic scenario: highest price level for GHG emissions

Sector-specific:

4. Sector scenario: estimates for emission mitigation costs for economic sectors in Brazil

RESULTS

In analyzing the risk of the incidence of an economic instrument on certain sectors, it was identified that 63% of the companies in the variable income and credit of BRAM's investment portfolio would not be subject to regulation via taxes. Only 3% of the portfolio would be directly impacted and the remaining 34% companies would be indirectly affected, via the taxation of fossil fuels. If Brazil opted for the Emissions Trading System, 75% of BRAM's portfolio would not be impacted, 21% would be and 4% would have the opportunity to be carbon credit sellers. However, it is noteworthy that the premise used is based on other regulations in the world, which does not guarantee that Brazil will legislate in the same way.

In the analysis of the three price scenarios in the economy-wide approach (optimistic, trending and pessimistic), the results showed that the steel, oil refining and chemical industry sectors may be the most affected. The difference between the scenarios is due to the magnitude of the impact, for example, in the steel industry, the average impact on companies' net income becomes ten times greater in the pessimistic scenario versus the results of the optimistic scenario.

In the analysis of the price scenario in the sector-specific approach, which considers different prices for each sector, the results showed that the transport, services and food sectors would be the most impacted. It is noteworthy that the impact on companies' net income in this approach is substantially lower when compared to the economy-wide. For example, while the transport sector will have just over a third of its net profit impacted by

taxation of GHG emissions in the sectorial scenario, the steel sector already surpasses this same level of impact in the optimistic scenario.

It is important to highlight that the difference in the impacted sectors between the economy-wide and sector-specific methodologies takes place because there are relevant differences between the marginal cost of reducing GHG emissions in different sectors of the economy.

FINAL CONSIDERATIONS

Based on the carbon pricing sensitivity study, BRAM will integrate this information into each company's ESG analysis. In future analyzes, sectorial proxies may also be used for those companies that were not included in the sensitivity study due to the lack of information availability.

Another opportunity for progress in future studies is the expansion of analyzes for the impact of pricing on projected emissions for companies, and not exclusively on past emissions, expanding the temporality component considered in this pilot project.

Finally, although Brazil still does not have a regulation focused on the pricing of GHG emissions, which is currently the subject of discussions within the scope of the PMR Brazil project, BRAM believes that climate change will impact companies in the medium and long term and, therefore, it has been improving its processes to integrate the climate dimension into its assessments of companies.