

**REMARKS BY JAVIER GUZMÁN CALAFELL, DEPUTY GOVERNOR AT THE BANCO DE MÉXICO, AT THE PANEL ON “DEVELOPING SUSTAINABLE CAPITAL MARKETS: MAPPING THE CHALLENGES AND SETTING PRIORITIES”. OMFIF–DZ BANK, Washington, DC, October 19, 2019.<sup>1</sup>**

I thank the organizers for the invitation to participate in this panel.

Mainly as a result of increasing carbon dioxide and other greenhouse gas emissions that have come about as a byproduct of economic activity at large, but particularly in sectors heavily reliant on fossil fuels, global temperatures are at present higher relative to pre-industrial levels, and are projected to rise further in coming decades. In addition to the environmental, health and broader welfare costs that such damage is already impinging, climate-related risks are among the main threats faced by the world in the medium- to long-run, especially in view of scenarios with potentially catastrophic and irreversible consequences, which are currently envisaged as plausible.

Given the complex and multidimensional nature of the issue at hand, as well as the extensive and, to a significant degree, unknown ramifications that may ensue, any sensible proposal with realistic chances to effectively contribute to a solution must contemplate the simultaneous and coordinated action of diverse, albeit complementary, policy tools. In addition, even though unilateral efforts at the domestic level are essential, international cooperation is needed to successfully overcome these challenges.

Why is the involvement of central banks in these issues important?

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<sup>1</sup> The views and opinions expressed in this document are the sole responsibility of the author and do not necessarily represent the institutional position of the Banco de México or of its Board of Governors as a whole.

To start with, climate change is expected to have substantial macroeconomic consequences in coming decades, as it will adversely affect output in a number of sectors. The most severe impact will fall on climate-sensitive sectors, such as agriculture, forestry, coastal real estate and tourism. This may also be reflected on global inflation, to the extent that agricultural and other prices fluctuate more widely, as a result of more frequent and more severe extreme weather events. It is also worth noting that although vulnerabilities vary across countries, those that will likely be most exposed to these risks are among the group of developing economies, in view of the sectoral composition of their GDPs, their geographical location, their poverty levels and a more limited capacity to adapt.

Average estimates of the impact of a 3 degrees Celcius increase in world temperatures point to a 2 percent decline in potential global GDP by the end of this century.<sup>2</sup> However, these estimates are surrounded by considerable uncertainty. In addition to the complexities of modelling and calculating the impact of climate change on the environment and then on the economy, most of them are based on historical data, and do not consider neither extreme events nor the potential non-linearities that could substantially accentuate the economic consequences of climate change. In this respect, it is worth to mention, for instance, the migration pressures and conflict risks that could derive from global warming.

A proper consideration of the consequences of climate change is also important for central banks in view of their implications for the financial

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<sup>2</sup> See Farid, Mai et al. (2016): "After Paris: Fiscal, Macroeconomic, and Financial Implications of Climate Change", IMF Staff Discussion Note No. 16/01, January.

sector. Beyond those related to the above-noted macroeconomic consequences, this has two dimensions.

On the one hand, at the microprudential level, central banks and other financial authorities ought to undertake a continuous and careful evaluation and monitoring of the risks for individual financial institutions deriving from their exposure to assets, projects, entities and/or income streams that are directly affected by climate-related developments. Efforts have been carried out in this regard both at the national level and internationally through institutions such as the Financial Stability Board and the International Association of Insurance Supervisors.

However, this process is only in its early stages and more work is needed in a number of areas. For instance, climate change scenarios are not typically considered in financial sector stress testing. Furthermore, action is needed to ensure that financial institutions incorporate environmental scenario analysis into decision making, and to support this process through a more active disclosure of data on the environmental sources of risk for the financial sector and a better understanding by regulators both of these risks and the tools needed to face them.

Due to their potential magnitude and overarching scope, possibly amplified by ensuing market responses, climate-related shocks to individual financial institutions may easily propagate and give rise to system-wide disruptions. Therefore, climate change also poses financial stability risks, an issue incorporated in the mandate of many central banks. As a result of the apparent long-term characteristics of these risks, and insufficient awareness both

among investors and financial institutions of the climate-related nature of some of their assets, they rarely incorporate them in their risk management frameworks. Under these circumstances, the potential for contagion and market disruption resulting from a climate shock may be substantial.

Assuming that these risks will materialize only in the long run is mistaken. For instance, losses for insurance companies as a result of climate-related events are today almost 10 times larger than the average observed during the 1980s.<sup>3</sup> Moreover, an evaluation of these risks is extremely complex, and more so in a context of the existing data constraints. Therefore, major efforts will still be needed to develop a set of data, indicators and models that can allow a proper assessment of the financial stability implications of global warming. Increased disclosure of firms' carbon footprints, prudential requirements for the insurance sector, addressing possible misalignments within financial regulation and practices, and the use of financial instruments that reduce and better allocate climate-related risks would also enhance financial stability in the transition to a low-carbon economy.

On the other hand, the investment needs to hold the increase in global average temperature below 2 degrees Celsius relative to pre-industrial levels are substantial. According to recent estimates, some additional USD 600 billion per year will be needed, on average through 2030, in order to keep infrastructure investment across transport, energy, water and telecom systems consistent with the above-noted limits on global warming. This is on top of the resources required in these areas to sustain growth and meet the basic population

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<sup>3</sup> According to data from Munich Re NatCatService (as of October 2019).

needs, estimated at around USD 6.3 trillion per year during this period.<sup>4</sup> The challenge will be how to finance needs of this scale.

Clearly, financial markets can help to meet this goal, by increasing the capital channeled to these projects. In particular, with financing requirements significantly exceeding the resources available through the banking and corporate sectors, the need for a major role of bond markets is underlined. In this context, although not unilaterally, but rather in coordination with other authorities and stakeholders, central banks have a role to play. Green finance has grown substantially in recent years, but there certainly is ample potential for further development as significant gaps vis-à-vis the resources required for the fulfillment of international commitments on the matter remain. With this purpose in mind, a number of actions and strategies can be harnessed.

Among these, it is worthwhile noting that notwithstanding the significant progress achieved over the last years in terms of the definition, standards and best practices in relation to green activities and finance, additional efforts in this direction are needed, with particular attention towards their improved adoption, compliance and monitoring. Naturally, more transparency and clarity regarding the projects that are being financed, as well as the associated risks, would result in increased confidence and, thereby, interest from the broad investor community. Importantly, this would also help overcome important barriers for institutional investors who, owing to their more strict criteria and requirements, may have been impeded to resort to this type of instruments due to insufficient visibility of the projects and activities to which

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<sup>4</sup> See Organisation for Economic Co-operation and Development (2017): “Investing in Climate, Investing in Growth”, May.

resources are being channeled. Additional barriers for the development of the green bond market are the absence of a developed domestic debt capital market and the insufficient number of bankable and standardized green projects.

Closely related to the above, significant efforts must still be made in order to bridge remaining data gaps.<sup>5</sup> The better equipped investors are to more accurately assess returns and risks associated to green financial instruments, the more likely they are to partake. To this end, central banks and other authorities, not exclusively in the financial sector but perhaps also in the environmental and related realms, must join efforts to gather, generate and publicize relevant, dependable statistics of trusted quality.

More directly, central banks themselves can “lead by example”, specifically by evaluating the possibility to systematically incorporate sustainability considerations as part of their portfolio allocation decision process. The potential for action in this front is ample, in view of both the amount of financial resources (i.e. international reserves) managed by these institutions, on the one hand, and the still-low extent to which they take action along these lines, on the other. For instance, in a recent BIS survey, nearly two thirds of the respondents answered “no” to the question “Does your central bank include sustainability considerations in the pursuit of its policy objectives?”.<sup>6</sup> An increased demand by central banks of green bonds may have the added

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<sup>5</sup> Although the nature of said data gaps is diverse and, in most cases, activity- or project-specific, they are in general related to information that can be needed to efficiently price externalities (both negative and positive), assess and manage risk-return trade-offs, and evaluate the extent to which market-based mechanisms have aided to allocate resources and risks optimally.

<sup>6</sup> For further details, see Fender, Ingo et al. (2019): “Green Bonds: The Reserve Management Perspective”, BIS Quarterly Review, September.

benefit of contributing to the development and a more generalized adoption of standards and best practices in this market. Naturally, it is also important to consider that investment in green bonds by these institutions is not free of constraints such as, for instance, those related to accessibility and liquidity.

Lastly, and rounding all this up, it is important to raise awareness and help develop the sense of commonality required to achieve greater adherence to a collective strategy. To this end, sustained collaboration among all relevant parties geared towards capacity building and knowledge sharing is essential, while the establishment of frameworks conducive to the wider diffusion and disclosure of the issues and actions undertaken, including to the general public, further adds to these objectives.