Responses to questions from Chairman Grijalva to Prof. Dr. Martin Guzman (Columbia University Business School and Espacios Abiertos)

1. In your testimony, you mentioned that "delays in concluding debt restructurings make economic recessions longer and deeper". What specific changes should the FOMB, the government of Puerto Rico, and Congress implement in the short-term to ensure that Puerto Rico's debt restructuring process is successful and does not result in a longer recession?

Martin Guzman (MG): First, there should be a debt restructuring plan that assesses the restructuring needs comprehensively and seeks a deal with bondholders that is consistent with the computed restructuring needs. This is not happening. Puerto Rico's FOMB is still supporting too much debt service and is addressing one piece of the debt puzzle at a time in a way that will likely prove inconsistent.

Second, the fiscal plan must be based on more realistic assumptions about the effects of fiscal austerity policies and structural reforms, in order to be able to serve as a reasonable basis for the computation of the debt restructuring needs.

2. According to your testimony, the FOMB and the Government of Puerto Rico have overstated the savings of the COFINA deal and understated the risks of those negotiations. Can you further explain how your assessment of the COFINA deal differs from the assessment performed by the FOMB?

MG: The Puerto Rican government's announcement that the deal entails savings of $17 billion is wrong. That figure assumes, first, that the future payments scheduled for the old and the new COFINA bonds should be discounted at the same rate; and second, it assumes a discount rate of zero. None of those assumptions make sense.

One measure that is often invoked in restructuring episodes is the haircut, defined as the ratio between (i) the difference between the present discounted value (PDV) of the old defaulted bond and the PDV of the new bond that creditors receive in the debt exchange, and (ii) the PDV of the old defaulted bond. To compute the present value of future flows, a discount factor has to be selected. If the restructuring is effective in reducing the probability of a future default, the value at which the flows on the defaulted bond are discounted should be higher than the yield at the exit of the restructuring process. A computation of the haircut for different combinations of discount factors sheds light on the actual meanings of the COFINA deal. If both the PDV of the old and the new COFINA were computed using the same discount factor of zero, the haircut would be $16.8 billion—a number that approximates what the government of Puerto Rico has advertised as the actual savings, equivalent to a haircut of 34%. The haircut becomes smaller when, as is reasonable in this case, we use a higher discount factor for the old than for the new bonds. For instance, for a discount factor of 6% for the new bond and 9% for the old bond, the haircut is just 16%. For a discount factor of 5% for the new bond and 9% for the old bond, the haircut is 2%. These are more reasonable choices of parameters.

It must also be noted that the COFINA deal is not a simple exchange of old bonds for new bonds with lower value. While the old bonds were a mix of senior and junior bonds, the new bonds are all senior. The old junior bonds get the largest reduction but they gain seniority. In effect, the deal has improved rather than decreased the bondholders' expected recovery, as reflected by the increase in the prices of those bonds over the last year due to increasing optimism over the expected recovery—an optimism that was confirmed by the exchange.

3. According to your calculations, the COFINA agreement can be sustained if the debt reduction on the rest of the public debt is between 85% and 95%. Have other jurisdictions reached this type of debt restructuring and is it practical to achieve it?

MG: According to the calculations that my coauthors and I performed[1], a conservative estimate of the sustainable stock of public debt under the assumption that the primary fiscal surplus could stabilize at the values forecasted by the FOMB was between $14.9 billion and $19.9 billion. Thus, with a COFINA debt legacy of $12 billion implied by the deal, the necessary reduction on the remaining stock of public debt would have to be between 85.4% and 95.3%.

[1] Gluzmann, Pablo A., Martin M. Guzman, and Joseph E. Stiglitz (2018). "An Analysis of Puerto Rico's Debt Relief Needs to Restore Debt Sustainability." *National Bureau of Economic Research* Working Paper No. 25256.

I am not aware of a haircut of that size on an entire stock of municipal debt in the U.S but there are antecedents of groups of creditors receiving a haircut in that interval. A haircut of that size on Puerto Rico's other bondholders would certainly entail large inter-creditor inequities.

4. The 2018 Fiscal Plan certified by the FOMB required a Human Capital and Labor Reform that implements employment at-will and a reduction of mandated paid leave. Does research support the implementation of labor-market reforms to achieve economic development during a recession?

MG: No. Puerto Rico's economy is in a demand-constrained regime. Thus, the assumption that those structural reforms will be a driver of economic recovery in the short-term is not well-founded. Besides, its political status and the possibility of its citizens to migrate to the U.S. mainland means that the appropriate models for assessing the effects of labor-market reforms that affect wages are not the same as those that apply to most sovereign countries.

5. Are you aware of any other case of massive primary surpluses projected in the first ten years of a debt restructuring deal, that is then followed by declining negative ones? If Puerto Rico's economy continue to wither, what are the implications of the current debt restructuring deals down the line, say in about 15-20 years?

MG: The IMF[2] recognizes that sustained large surpluses are not common and it incorporates this constraint in its debt sustainability analyses.

Besides, there is no evidence that supports the premise that targeting sustained high primary fiscal surpluses has been associated with recoveries in situations of debt distress.

When it comes to Puerto Rico, if the debt reduction provided by the restructuring proves insufficient to restore the sustainability of the public debt position, the citizens of Puerto Rico will end up suffering the consequences of a new state of debt distress, in the form of a higher tax burden, more austerity, depressed economic activity and fewer opportunities in the island,

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[2] IMF (2011). "Modernizing the Framework for Fiscal Policy and Public Debt Sustainability Analysis." Prepared by the Fiscal Affairs Department and the Strategy, Policy, and Review Department. Approved by Carlo Cottarelli and Reza Moghadam.

with the consequent outmigration that reduces the tax base even more, implying an even larger burden for those who stay. Such a situation would eventually end up in another costly restructuring.