Luis de Guindos: Implications of the transition to a low-carbon economy for the euro area financial system

Speech by Mr Luis de Guindos, Vice-President of the European Central Bank, at the European Savings and Retail Banking Group Conference "Creating sustainable financial structures by putting citizens first", Brussels, 21 November 2019.

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Introduction

Climate change is not new. Scientists have been warning of the risks of rising global temperatures for decades. Recently, these risks have gained greater prominence in public discussions, leading to enhanced international action. The Paris Agreement of December 2015 aims to keep the rise in global temperatures below 2°C above pre-industrial times, and to pursue efforts to limit it to 1.5°C. Without further mitigating action, that increase will more likely than not exceed 4°C by the end of the century in most scenarios.[1]

Central banks need to understand better the impact of climatic events on output, labour markets and prices over the medium term.[2] The disruption to economic activity and changes to the industrial composition are likely to be substantial.

While the global economic implications of climate change are significant, on the whole they are poorly understood. Today I will focus my remarks on the risks for the financial system. Knowledge in this area is somewhat more advanced and central banks and supervisors have been working closely over recent years to share their knowledge and best practices.

Risks to financial stability

Climate change-related risks have the potential to become systemic for the euro area financial system, particularly if markets are not pricing the risks correctly. Rapid crystallisation of risks, or of market repricing, could lead to substantial disruption.[3] The literature identifies two main risks for financial stability:

Physical risks occur from exposures to more frequent and more devastating disasters caused by natural hazards.

Transition risks arise from uncertainties surrounding the timing and speed of the transition to a low-carbon economy.

I will focus on the latter, on financial institutions' exposures to transition risks.

Efforts have so far mostly concerned investments in certain industrial sectors. Typically, the most climate-sensitive sectors are selected on the basis of an aggregate environmental metric, such as a measure of carbon emissions for the sector. Assets in these sectors are at risk of a sharp repricing since the transition to a low-carbon economy may not be smooth.

Assets in other sectors are similarly vulnerable to changes in regulation, to the introduction of new technologies and to shifts in consumer sentiment away from products that are viewed as environmentally unfriendly. If the transition to a low-carbon economy is unsuccessful, changes in climate will likely harm a number of sectors, such as agriculture and tourism.

While examining sector-level data on emissions represents a useful first attempt to gain insight into exposures to transition risks, it is an overly simplistic approach. Far more granular information is needed on the exposures of individual counterparties to transition risks, which may vary sharply across companies even within narrowly defined sectors. Mandatory and harmonised

firm-level reporting would enable better pricing and monitoring of financial firms' exposures to climate-related risks.

Private sector efforts have demonstrated the difficulties for investors in assessing exposure. For example, market data providers have developed environmental scores for financial institutions according to the quality of their disclosure. But there is little correlation between the scores from different providers, signalling significant discretion in environmental scoring. There is some evidence of these scores having an impact on price-to-book ratios for insurers, but not for banks, perhaps reflecting a better understanding of insurers' exposure to physical risks.[4]

Recent analysis of the 12 largest banks and 14 largest insurers in the euro area shows that information on financial institutions' climate-related risks is scarce and inconsistent. While a majority disclose the impact of their business travel, commuting and other energy usage, most of a financial institution's exposure to climate-related risk likely stems from its financial activities. Only five of these large banks and insurers partially disclose the impact of their financial assets, and none of them provide full disclosure.[5]

That is why regulators have pushed for much greater disclosure. In 2017, the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) issued recommendations for comparable and consistent disclosures about the risks and opportunities of climate change. This work should help companies understand what financial markets want from disclosure and encourage firms to align their disclosures with investors' needs. It is clear that before making it mandatory we need to determine what constitutes high-quality disclosure. The Network for Greening the Financial System (NGFS) – a group of central banks, supervisors and international organisations – has also recently issued recommendations.[6]

Unless disclosures improve, market discipline is unlikely to incentivise financial institutions to address transition risk. In this regard, the work currently undertaken by the European Commission to develop a taxonomy is crucial. The taxonomy lays down criteria for identifying activities that actively contribute to sustainability and environmental objectives. This should facilitate the development of standards and labels for green financial products such as green bonds.

For our part, the ECB is carefully studying the potential impact of climate-related risks for the euro area financial system.

We are currently developing an analytical framework for carrying out a climate risk stress test analysis for the euro area banking sector. The pilot test framework will be macroprudential in nature, and allow us to analyse the system-wide materiality of transition risks for banks' solvency, along with their lending capacity and the implications for the overall economy. The eventual aim is to incorporate both physical and transitional risks, and investigate how these two types of risks interact with each other.

This type of analysis still faces some major barriers. There is no consistent classification of firms' activities and the data on banks' exposures is not granular enough. We expect this to improve, however, since banks clearly need to treat risks from climate change in the same fashion as other financial risks.

These stress tests analyses will be challenging to design and implement, but may greatly increase our knowledge about the financial impact of climate risks, environmental policy trade-offs and overall economic resilience.

The financial system's role in facilitating the transition

These are areas that are obviously important for the ECB, given our concern for the stability of

the euro area financial system. Yet I would like to take a broader perspective for the remainder of my remarks today. Climate-related risks also represent a significant threat to prosperity in the economy more widely.

Governments must shoulder the greater part of the burden of driving the transition.[7] Effective carbon taxes and cap and trade schemes, such as the EU emissions trading scheme, force companies and consumers to pay a more representative cost for their activities, and incentivise them to find the most efficient way to reduce emissions. Beyond carbon emissions, global solutions are needed to ensure polluting activity cannot arbitrage between jurisdictions.

Nonetheless, I believe that the financial sector can play a vital role in enhancing overall welfare, by helping to smooth the transition in two important ways.

The first way is by enabling risk-sharing notably through insurance. Indeed, a high degree of insurance coverage can mitigate the negative economic impact of disasters.[8]

Second, the financial sector can help smooth the transition by funding new technologies. Reaching the Paris Agreement goals in full and on schedule requires carbon-efficient technologies that are yet to be invented, and the widespread adoption of some that already exist, but have not yet been extensively taken up.

When it comes to financing new technologies, equity funding may prove more appropriate than bank lending. Banks may be concerned that green technologies involve innovation that is intangible and firm-specific, resulting in little residual collateral value in the case of failure. Equity investors also typically have a longer-term investment horizon, putting greater weight on both future value gains and the risk of stranded assets.

Empirical evidence confirms the importance of equity finance in supporting the transition. Equity finance appears to be superior to debt finance both in reallocating investment towards relatively greener sectors, and in pushing carbon-intensive sectors to develop green technologies and become more energy-efficient.[9]

So in order to successfully meet the aims of the Paris Agreement, we need to see changes in how funding flows to the real economy. In the EU, this adds a further environmental motivation to the already substantial merits of completing the capital markets union (CMU).

Deeper equity markets can greatly benefit Europe by helping to fund new technologies, including those needed for the transition to a low-carbon economy and for other purposes, such as digital innovation. Indeed, well-functioning capital markets can be agile, tailoring funding sources to firms along different stages of development. They also complement the banking sector by providing additional channels to mobilise the large existing pool of savings towards financing the economy.

Conclusion

Let me conclude.

The necessary transition to a low-carbon economy entails risks for the financial system that, at present, are insufficiently understood. Correctly assessing these risks requires a higher quantity and quality of disclosures. Global and European efforts and guidance in this direction are extremely valuable. The ECB is contributing to the development of an analytical framework for climate risk assessment, and developing methods to gauge exposures to climate-related risks on the balance sheets of financial institutions.

Equity investors, with a typically longer investment horizon and a greater appetite for projects that are both high risk and high potential return, might be better placed to finance environmentally

sustainable innovation than credit investors. This is especially true in the current context of uncertainty and data that are scarce and lacking in harmonisation. In my view, this adds further urgency to developing CMU.

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1 Intergovernmental Panel on Climate Change (2014), *Climate Change 2014 Synthesis Report – Summary for Policymakers*, Geneva, Switzerland.

2 See Noy, I. (2009), "The macroeconomic consequences of disasters", *Journal of Development Economics*, Vol. 88, No 2, pp. 221–231; Parker, M. (2018), "The impact of disasters on inflation", *Economics of Disasters and Climate Change*, Vol. 2, No 1, pp. 21–48.

3 See Giuzio M. et al. (2019), "Climate change and financial stability", *Financial Stability Review*, ECB, May.

4 See Carbone S., Giuzio M. and Mikkonen K. (2019), "Climate risk-related disclosures of banks and insurers and their market impact", *Financial Stability Review*, ECB, November.

5 Carbone S., Giuzio M., Mikkonen K. (2019), ibid.

6 These recommendations cover monitoring climate risks, developing taxonomies, promoting disclosures, and incorporating climate-related risks into prudential frameworks.

7 See Krogstrup, S. and Oman, W. (2019), "Macroeconomic and Financial Policies for Climate Change Mitigation: A Review of the Literature", *IMF Working Papers*, No 19/185, International Monetary Fund.

8 Von Peter, G., von Dahlen, S. and Saxena, S. (2012), "Unmitigated disasters? New evidence on the macroeconomic cost of natural catastrophes", *BIS Working Papers*, No 394, Bank for International Settlements.

9 De Haas, R. and Popov, A. (2018), "Financial development and industrial pollution", *Working Paper Series*, No 217, European Bank for Reconstruction and Development.