Distinguished guests,

Dear colleagues,

Ladies and gentlemen, good morning,

I am pleased to welcome you to Romania and to the National Bank of Romania, for the Sixteenth meeting of the Financial Stability Board Regional Consultative Group for Europe. We are delighted to be able to host such a meeting. Looking over the participants’ list, which is full of respected contributors and speakers from central banks and European financial institutions, I understood why we are going to debate such diverse, ample and very interesting topics: Artificial Intelligence, Machine Learning and Big Data; assessment of global and regional financial vulnerabilities; leveraged loans and collateralized loan obligations; indebtedness after the global financial crisis.

I will not go into detail regarding the topics to be discussed today, which I am sure will create stimulating debates. I wish you fruitful further discussions.

Let me say a few words about the informal seminar concerning Artificial Intelligence, Machine Learning and Big Data, a topic which partially surprised me, as it is not a typical central banking issue. During my career as a central banker, I have not come across this topic in debates quite often. However, in recent years, I have seen that there has been an increasing interest in this matter and in other issues, once considered exotic for central banking. Let me give you two examples.

**First.** A few years ago, at a Central Banks’ Governors’ Club of the Central Asia, Black Sea Region and Balkan countries meeting in Shanghai, there was a presentation about the role the central banks could play in reducing pollution.

**Second.** Early this year, in Bruges, within the IMF Dutch-Belgian Constituency, the National Bank of Belgium gathered central bankers to discuss policy challenges related to doing business in the digital era.

So, it is not a real wonder that we talk today about Artificial Intelligence here, in Bucharest, at the National Bank of Romania.

It is good for central banks to review from time to time what they are doing. As Agustin Carstens, the head of the Bank for International Settlements, has recently said that central banks are ‘acutely aware of the need to adapt’ their frameworks. That opens the way to new ideas, such as allowing inflation to temporarily overshoot to compensate for past years of weak price growth.

I will not go into detail regarding inflation and all the variables that allow us to acknowledge and deal with it. Deputy governor Liviu Voinea thoroughly addressed the inflation puzzle and the present whereabouts of Phillips Curve, during dinner last night.

Allow me to return to the first topic of the day and say a few considerations about Artificial Intelligence, Machine Learning and Big Data. The interconnected use of new technologies is
already a common practice in many operational fields, such as the defense industry, the automotive industry or the healthcare sector. It is, therefore, natural that new technologies would penetrate the financial sector.

Their applications are diversified in design and scope, examples of which are: algorithmic trading, portfolio optimization, scoring and pricing models.

Moreover, the use of these new technologies receives more and more attention in the financial and economic areas, as the transition from classical banking sector products and services is growing exponentially. In this context, the focus moves from the individual to more general issues and the question arises about the effects that the trinity described by artificial intelligence, machine learning and big data analytics, have on the financial system. Implicit answers to this question are formulated as considerations of financial stability. In other words, the key question is related to the costs and benefits that the new technologies listed above have on financial stability.

The answers to this question are quite varied, given that this issue has not been thoroughly investigated up to this moment. Among the best-known benefits, some of the areas where progress can be made by using the specified technologies are: regulatory compliance, systemic risk monitoring, fraud detection and supervisory effectiveness. In contrast, the associated disadvantages could be linked to explanatory issues, the need for human resource adaptation, new data related concerns (privacy issues), or increased dependence on third parties. Nevertheless, as consumers and companies are embracing these new technologies, it is the policymakers’ role to identify potential risks and vulnerabilities and to formulate adequate policy responses and tools in order to adequately address them.

Then again, Big Data is not the only example where views have dramatically changed over time – other relevant cases are the negative interest rates employed by the European Central Bank, an unthinkable measure in the pre-crisis era, or the unconventional monetary policy programs implemented by central banks worldwide.

A valuable lesson to be learnt here is to always challenge preconceptions and the “status quo” in an ever-changing financial system.

I will stop here saying that I believe financial stability should always look towards the future. In this direction, significant progress has been made recently through the development of Environmental, Social and Governance – or ESG – investing. In this new paradigm, policy makers should first and foremost learn to assess and monitor new types of risks, such as climate change, and evaluate their growing impact on financial sector stability.

In an open letter published three weeks ago on climate-related financial risks from the Governor of Bank of England Mark Carney, Governor of Banque de France François Villeroy de Galhau and Chair of the Network for Greening the Financial Services Frank Elderson, the significant effects of climate change are highlighted and a call for action from central banks and supervision is issued, with specific recommendations where central banks are encouraged to integrate sustainability into their own portfolio management. In closing, the authors recognize that “climate change is a global problem, which requires global solutions, in which the whole financial sector has a crucial role to play”.

Today we have unlocked the gates towards exotic, yet newsworthy debates here, in Bucharest. Therefore, permit me to extend an open invitation to you all for further discussions at the National Bank of Romania about the impact of climate changes on economies, finance and central banking. We will be honored to host such a conference in Bucharest.

Thank you for your attention.