BANQUE DE FRANCE
EUROSYSTÈME

"Economic and Financial Regulation in the Era of Big Data"

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Closing remarks by François Villeroy de Galhau,

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I am very pleased to close this Conference on "Economic and Financial Regulation in the Era of Big Data". I was in London this morning and I therefore regret having missed your discussions on an issue which I consider of paramount importance. Let me thank warmly all speakers, in particular Benoit Coeuré, member of the Board of the ECB, who opened this Conference and Philip-Hans Franses, Professor at Eramus School of Economics, who I am told gave an outstanding lecture.

Big Data indeed deserves a global view, from a number of angles. It was the objective of this Conference and I am grateful to all of you, presenters and participants, to have made this possible.

In closing this Conference, I will not come back to the specificities of Big Data and its numerous usages. All presentations have given a fresh look on Big Data and I am sure that on such an excellent basis, discussions will continue beyond this one day Conference on issues which are of key importance for all of us.

I would rather like to focus on the consequences of Big Data for the economy in general and for central banks in particular. I will develop this into three parts:

I. Big Data will have significant economic effects. It will in particular change the relationships between the members of the financial community and between this community and the non-financial world

II. Regarding Big Data, central banks will have to switch from an observer status to a user or player position, which implies significant changes in performing part of their activities

III. Big Data raise regulatory issues that cannot be solved within a national context but require a global reflection from public authorities.

I. Big data will have significant economic effects. Entry costs for carrying out financial transactions have already been reduced and will be lowered further in the future. Customer knowledge, in particular regarding the conditions applied by financial institutions, will be enhanced and more generally information asymmetries between clients and providers of financial services will narrow. Big Data can be a powerful card to play by GAFAs or other native non-financial firms to develop new activities. The financial industry has therefore to adapt rapidly to face the data revolution and compete with the new entrants, while protecting privacy against increasing cyber risks in particular. All in all, competition will increase, which is beneficial to the economy. The flip side can be enhanced risks for financial stability, implying a new form of vigilance for central bankers in particular. I will elaborate a bit more on this later on.

II. Terabytes of data are available and more will be coming soon. Central banks will collect more and more granular data. This is a clear opportunity for better forecasting and even nowcasting. But to reap all the benefits, central banks have to be up to the technological challenge, which is huge. They have also to face a much larger competition in the new data Era, with a view to maintaining trust in public information. They have therefore to become Big Data players and not only observers. This requires significant efforts. Let me illustrate this in five avenues to adapt to the digital evolution.

a) The Big Data era implies large changes in the IT infrastructure and a strong determination to address novel technical challenges and to build a forward-looking data management and analysis scheme. At the Banque de France, we are building a Data Lake that covers all the new data functionalities, from data collection to machine learning.

b) Central banks should also organise themselves to answer the legitimate request from academics to have access to a wide range of granular data, in a modern and researcher-friendly way. At the Banque de France, we opened just one year ago a Data Room which gives access to 600 million of anonymized series, and it has already attracted more than 30 research teams. Harvesting Big Data capacities is only beginning and central banks should be in the race.

c) Data quality should be maintained at the same time. There should not be with central banks input/output process any 'garbage in, garbage out'. Managing huge volumes of data, carrying out machine or deep learning requires investing in human and automatic data technology, in training and hiring data analysts and scientists. Indeed, Big Data requires novel and significant human resources, and this has to be anticipated and properly managed.

d) The appetite for real time intelligence, the "short-termism" that can be inflated by the Big Data Revolution, entails risks that "bad data chase good ones", thereby impeding the understanding of economic and financial developments by the general public and the media. We must do our best to kill fake news, and there is also economic fake news. But, in a society of communication more than of information, delivering data of good quality, which will always be a trademark of central banks, can hardly be the only answer. Central banks need to make their publications clearer, more readable, and more visible. In particular, if we want sound data to be shared and used, we should speak to each and every one and not just to experts. We should be more "B to C" and not only "B to B": this is a cultural shift beyond mere technology change.

e) Central banks and I would say public authorities in general can no more work in silos. Data sharing is a must. In France, we have an excellent cooperation with the national statistical institute and we do share on a day-to day basis many data between supervisors and central bankers but the issue is deeper and wider.

Which brings me to my last point.

III. Big data raise issues that cannot be solved in a national context but require a public global reflection.

Very large worldwide corporates are hugely leveraging on Big Data. Public authorities have to forge answers to concerns that may arise on an international level. Which themes should be addressed? I would like to propose a few leads.

1) Data sharing has to be developed on a worldwide basis, as rightly underlined by the IMF in the 'Data Gaps Initiative' that has been launched by the G20. In Europe, existing legal provisions that authorize data sharing between supervisors and central bankers could become more prescriptive and be more largely implemented in practice in all countries concerned. Data sharing between tax authorities and other public administrations should be facilitated, subject to the respect of individual privacy of course.

2) Private innovation is fostering growth and is increasing economic efficiency. It should therefore not be discouraged by disenabling regulations. At the same time, it would be beneficial to the economy in the long run, and to financial stability more specifically, that the global actors that handle enormous volumes of data on physical persons as well as on private entities, comply with 3 core principles: security, transparency, accountability. In a fully interconnected world, it cannot be effectively addressed at the country level. I therefore believe that it would be useful for the International Organizations to carry out a reflection and issue recommendations in this regard.

Let me thank you for your attention and wish you a pleasant weekend and for those who are not Parisians a pleasant journey back home... today or I hope for some of you on Sunday!