Entender cómo funciona la economía y cómo hacerla trabajar en beneficio de todos

Understanding the economy and how to make it work better for people

Madrid, 25 y 26 de octubre / October 25-26 2016

ABSTRACT

Session 2: How can we better understand the complexity of modern economies and societies?

The world is made up of complex systems whose resilience is central to how these systems will evolve. Systems of systems are interacting with each other, and changing each other by that interaction and the links between them. The global economy, for example, now has a greater number of financial, economic, trade, information, policy, institutional, technological, military, travel and human links than ever before. The increasing complexity of supply chains in trade and manufacturing, ever-greater outsourcing of services, the global nature of new technological advances, increasing migration, as well the rise of the internet and telecommunications traffic across the world have all greatly increased the number of connections. Complexity arises from this interconnectedness, and we have to understand the main features of complex systems to anticipate how they may evolve and build resilience to negative shocks. We should also move away from traditional analytical frameworks whose tenants were not representing reality.

The crisis, however, showed that many policymakers and those who advised them failed to understand the dynamics and structure of the new economy. Most of the models and data underpinning policy choices were based on the assumption that the economy was basically a system characterised by equilibrium (or equilibria) occasionally disturbed by exogenous shocks, and that the workings of this system could be understood by extrapolating from averages and representative agents with access to full information. This approach failed to warn us of the tensions that the system itself was creating and how a shock to one part of the economy could propagate to the rest, and to the social and political systems it interacts with. Indeed, the financial sector played little or no role in many traditional economic approaches, and the level of interconnectedness of the global economy was not well understood or captured in these models. The heterogeneous results of policy choices in different income groups was insufficiently captured, and the unintended consequences of the policy choices understated, partly because governments worked in silos, partly due to the oversimplification of

complex phenomena and unrealistic assumption of representative agents, rational choice and maximization of the benefits of growth.

There was also an over-reliance on a limited set of economic indicators that focused on aggregates and flows, neglecting stocks and distribution, and that did not adequately describe the interactions between the financial sector and the economy. GDP was often used as a proxy for well-being, something it was not designed for, so the policy discussion was inadequately informed on key issues including the distributional aspects of growth or its impact on the natural resource base. Metrics that included measures of the increases in economic insecurity among many sectors of the population after 2008 could have alerted governments to the fact that the downturn was deep and governments may have responded more strongly to mitigate the negative impacts of the crisis. Instead, in many countries that government debt was considered to be the main challenge and austerity the best response. In some countries this led to the fact that fiscal action was generally short-term or too modest to avoid an increase of poverty.

A revolution is underway in the physical sciences, social sciences and policy to better understand this complexity. This revolution, driven by technological and analytical improvements, is breaking down the barriers between disciplines and stimulating new integrated approaches to numerous pressing and complex challenges. Advances in computing power are opening up possibilities for integrating systems models, agent-based modelling and computationally facilitated network analysis. New sources of big or smart data are also emerging. These approaches and data can provide a more realistic way of thinking about the world as it really is and help policymakers to better address inequality, financial instability and economic resilience. Traditional and new dimensions of the issues can be explored including policy interactions, complex systems, non-rational behaviour, multi-dimensional outcomes, network phenomena, non-linear responses, distributional impacts and geospatial effects.

New Approaches to Economic Challenges (NAEC) encourages experimentation with and adoption of new and innovative data and analytical methods across the OECD to address new policy questions and yield new policy insights. Horizontal team-working, peer learning and connections to the wider research community will help foster a culture of experimentation and collaboration and leverage experience and support from across the OECD to promote innovative projects. New tools and techniques should help to provide innovative, accurate and targeted analysis to support concrete and targeted policy advice. This session will discuss how to bring economic analysis and policy-making into the 21st century in order to better inform and advise governments.

As the complexity of societies and economies increases, systemic risk, vulnerabilities and uncertainty are on the rise, even in the financial system, despite the lessons to be drawn from the causes and consequences of the crisis. Policymakers will be increasingly challenged to understand complexity and take decisions under conditions of uncertainty in an interconnected, non-linear, systemic world, where the same driver can have positive and negative characteristics at the same time, as shown for

example by digitalisation that offers great possibilities but also poses new challenges. As scale, increases and crucial variables pass safe boundaries and thresholds, the risks of irreversible destabilisation rise. In addition, as researchers studying complex physical systems have found, sometimes attempts to optimise (or "harden") a complex system, can make it even more unstable.