The New Approaches to Economic Challenges (NAEC) initiative develops a systemic perspective on interconnected challenges with strategic partners, identifies the analytical and policy tools needed to understand them, and crafts the narratives best able to convey them to policymakers and citizens.

Decision makers often cite “whole of government approaches”, “policy coherence” and similar principles as central to designing good policy. NAEC’s work on systems thinking, anticipation and resilience provides an evidence-based approach to translate these values into actionable strategies using the best science, data, knowledge and techniques available. NAEC is working with OECD Committees and Directorates and outside partners to define and develop a framework to translate the approach into a policy tool that will help governments meet the interconnected challenges facing them already and in the future.

Systems Thinking, Anticipation and Resilience

An overview of the potential of the framework is presented in *Systemic Thinking for Policy Making - The Potential of Systems Analysis for Addressing Global Policy Challenges in the 21st Century*, the first fruit of the collaboration of nine OECD directorates and the International Institute for Applied Systems Analysis (IIASA) in the IIASA-OECD Task Force. Experts from both organisations pooled their experience in systems analysis to propose innovative methodologies, models and tools to address critical global issues and guide policy choices. The OECD Secretary General and the Director General of IIASA will launch the final report on 27 February 2020.

Resilience is identified as a central characteristic of the systems policymakers have to govern, given that it is impossible to predict and prevent the consequences of all the risks faced by interconnected economic, social, environmental and health systems. NAEC and researchers from the United States Army Corps of Engineers (USACE) worked together to produce *Resilience Strategies and Approaches to Contain Systemic Threats*. The report defines concepts related to systemic threats and reviews the analytical and governance approaches and strategies to manage these threats and build resilience to contain them. This will help policymakers reinforce safeguards, buffers and ultimately resilience to physical, economic, social and environmental shocks. The report builds on the findings of *Resilience Activities at the OECD: Current Practice and Future Directions* and was produced with the support of the Slovak Republic.

NAEC, IIASA and USACE argued for an ambitious agenda of more radical systematic approaches to policy at the NAEC Group Conference *Averting Systemic Collapse*. Their findings were presented for comments and contributions from policy communities to stimulate discussion on how systems approaches could be implemented in policymaking.

The OECD-IIASA strategic partnership on systems approaches, and in particular the Task Force on systems thinking, anticipation and resilience, is encouraging OECD Directorates to engage in the debate on systems thinking as a means to improve their policy analysis and advice. On 4 July we held the ECO-NAEC workshop on The Concepts, Methodology and Applications of Systems Thinking to Address Global Challenges and discussed their application to a range of economic problems. The workshop provided a primer on systems thinking, including how it can offer a rigorous and coherent framework for analysing and understanding economic and other systems and how economic, financial, social and environmental challenges can be addressed in an interconnected way.

Three external experts - Dr Stefan Thurner, professor of Science of Complex Systems, external professor at the Santa Fe Institute and part-time senior researcher at the IIASA; Mr Martin Lees, Chairman of the OECD-IIASA taskforce; and Dr Alan Kirman, Chief Advisor to NAEC and Professor Emeritus of Economics at the University of Aix-Marseille III and...
the Ecole des Hautes Etudes en Science Sociales - presented the key components of systems analysis and provided examples of applications in international finance, investment, and climate change, emphasising interdependencies, systemic risks and resilience in the analysis of economic performance. They focused on practical examples such as the prospects for a systemic risk tax on financial firms, integration of the economic and environmental facets of policy, and transforming the economy to avert destabilisation of the climate.

The workshop showed that there is considerable scope for cross-Directorate co-operation on this theme, and highlighted the need for such co-operation to enable the OECD to develop a convincing narrative on growth and climate. Deep structural changes in economic and energy systems will be required and the incremental improvements in energy, agriculture, production and transportation systems timidly advocated by traditional thinking will not be sufficient to reduce emissions fast enough to ensure a viable future.

**NAEC Seminar Series**

On 20 November, Martin Wolf, Associate Editor and Chief Economics Commentator at the Financial Times, gave a popular seminar on *The Crisis of the Global Order*. Wolf described the post-war world economy as being in an era of profound transformation where institutions and assumptions have become fragile. The central characteristics of this new transitional era are: the rise of China (a non-western and non-democratic power), the rise of populism, demagogy and nationalism and the “democratic recession”, and the break-up of the post-war western alliance. In response we need to create a stable, global and co-operative order based on multiple values and shared commitments.

The Co-Chairs of the Friends of NAEC and the Friends of Gender Equality Plus hosted a joint meeting, on 20 November, with Alison Wolf, Sir Roy Griffiths Professor of Public Sector Management at King’s College London and cross-bench peer in the House of Lords. Amongst other issues Baroness Wolf discussed her book *The XX Factor: How working women are creating a new society*, which argues that direct discrimination is now extremely rare in developed economies; that parenthood and other caring responsibilities are the driver of major gender-related differences and not about to disappear; and also underlines the huge differences between highly educated and other women.

On 30 October, Martine Durand, OECD, Jean-Paul Fitoussi, Sciences Po, and François Bourguignon, Paris School of Economics, presented the key findings of the two reports of the OECD-hosted High-Level Expert Group on the Measurement of Economic Performance and Social Progress (HLEG), created five years ago to pursue the work of the Stiglitz-Sen-Fitoussi Commission. NAEC contributed to the production of the two reports, *For Good Measure: Advancing Research on Well-being Metrics Beyond GDP* and *Beyond GDP: Measuring What Counts for Economic and Social Performance*.

The traditional approach to measuring a country’s performance and well-being has relied heavily on GDP. But GDP is a measure of output, not of well-being. The HLEG argues that we need to develop dashboards and tools to examine the factors that determine what really matters for people and the places in which they live: who is benefitting from growth, whether that growth is environmentally sustainable, how people feel about their lives, and what factors contribute to an individual’s or a country’s success. The HLEG also looked at issues such as trust and security, that
can affect well-being and emphasized the important interactions between objective measures and subjective metrics. The need for a systemic approach is supported by the HLEG’s discussion of how to better measure the resources needed to ensure economic, environmental and social sustainability and the extent to which we are approaching (if not trespassing) critical “tipping points” and planetary boundaries.

On 14 October Tyler Cowen gave a stimulating NAEC talk offering a “contrarian” defence of big-tech firms such as Google, Amazon and Facebook. Tyler has been profiled by Bloomberg Businessweek as “America’s Hottest Economist”, Foreign Policy named him as one its “Top 100 Global Thinkers,” and according to an Economist survey he was one of the most influential economists of the last decade. The talk emphasised that tech firms produce services that we enjoy and consume, enabling us to satisfy our creative desires and improve our lives. He suggested that privacy concerns about big tech were overblown. He dismissed the idea that big tech uses data on us in inappropriate ways, arguing that it would be less secure if there was less market concentration. He also saw monopoly power as a positive thing. However, this is not universally true. Cowen was sharply critical of Huawei and likened outsourcing 5G to Chinese firms to engaging the Russians to install telephone lines during the Cold War. Income inequality was also dismissed on the basis that global inequality is falling.

While loss of trust in business is a problem, this is just a symptom of a more general loss of trust in institutions, with the US Congress scoring even lower than business in a 2016 Gallup poll on trust. Low trust among countries would prevent the OECD tax plan on digital from working (along with a lack of binding mechanisms). The US delegation defended the plan, though insisted it was not an OECD plan, but one developed by governments. Cowen praised the OECD for its important work and “sane” perspective on policy issues.

On 5 September Nobel Prize Winner Robert Shiller met the Friends of NAEC for an informal Q&A with Ambassadors and gave a popular seminar. He opened his remarks with positive comments on NAEC: “I’m glad to be connected to NAEC; I’ve been doing something like that all my life but it’s good to make the connection and come to the OECD”. Shiller’s seminar provided excellent preparation for the NAEC Group Conference on Averting Systemic Collapse and the discussion of the NAEC narrative report, Beyond Growth: Towards a New Economic Approach as he discussed his new book, Narrative Economics: How Stories Go Viral and Drive Major Economic Events. He talked of the spread and dynamics of popular narratives and how these change through time, to understand economic fluctuations. The stories people tell - about economic confidence or panic, housing booms, the American dream, or Bitcoin - affect economic outcomes. Shiller explains how we can begin to take these stories seriously. He would like to work with NAEC further on narratives and narrative economics and to try to understand the role of others’ stories and theories in economic dynamics and why some narratives are taken up in policy. New technology will affect contagion of narratives and new data availability (digitised text and speech) will open up new ways of analysing narratives and their diffusion.

On 25 June Catherine Rampell, journalist at The Washington Post and a politics and economics commentator for CNN, gave a well-attended seminar on Data and Democracy: Recent Developments in the War on Statistics. Catherine discussed issues of data and their usage in public policy, in particular how this is affecting our democracies and attacks on the integrity and credibility of official statistics. She provided a number of examples of questioning data, censoring reports, rigging the data and punishing the number crunchers. She presented the case that sowing distrust in government data reduces the ability of policymakers, businesses and voters to make informed decisions. This is a very important issue for the OECD and our statistics work and will be a theme for NAEC’s agenda going forward.
To help prepare the September NAEC Group meeting, we drew on the expertise and insight of Professor Hal R. Varian, Chief Economist at Google, at a Friends of NAEC meeting on 5 June. He has been involved in many aspects of the company, including auction design, econometric analysis, finance, corporate strategy and public policy. His recent research includes many issues being actively discussed in NAEC, including the economic impacts of machine learning and AI, and the potential of nowcasting. The session featured a closed door, informal Q&A and provided an opportunity for Members to engage with Professor Varian on their topics of interest. Professor Varian was optimistic about the overall impact of automation on the worldwide economy believing that automating routine, predictable tasks will help mitigate the effects of a tight labour market over the next decade.

Some of the key lessons from NAEC seminars during 2018-19 will be compiled in a volume on Understanding the New Economy due for completion in 2020.

A New Growth Narrative – Beyond Growth: Towards a New Economic Approach

Launched in May 2015, OECD Secretary-General Angel Gurría’s ‘21 for 21’ proposal called for consolidation and further transformation of the OECD by ‘redefining the growth narrative to put the well-being of people at the centre of our efforts.’ To contribute to this debate, in 2018 the Secretary-General commissioned an Advisory Group on a New Growth Narrative to examine how economic, social and environmental considerations could be integrated in a coherent approach. Acting in a personal capacity, the Advisory Group comprises Andy Haldane, Michael Jacobs, Alan Kirman, Nora Lustig, Mariana Mazzucato, Robert Skidelsky, Dennis Snower and Roberto Unger. The Group has brought together in a single, short and readable document the various strands of new economic thinking curated over recent years by the NAEC initiative. Beyond Growth: Towards a New Economic Approach is their draft report.

The report sets out a new set of goals and measures of economic and social progress; new frameworks of economic analysis; and new kinds of policies. It discusses the nature of the profound issues policymakers now face and whether the progress in analysis and policy advice since the onset of the Global Financial Crisis has gone far enough or is still too anchored in the basic historical premises of economic theory.

The draft was discussed at the NAEC Group Conference Averting Systemic Collapse which highlighted that our societies are subject to highly-interconnected risks with complex causal structures and non-linear cause-effect relationships. The OECD through its Committees is working on these major systemic issues and upgrading its analytical capabilities to do so. However, as argued in the report, the depth of the issues we now face makes it clear that these processes have not yet gone far enough. Though modified and improved, policymakers are essentially still operating with the pre-crisis economic model and its accompanying forms of policy.

The objective of this draft report is to receive feedback and comments from the different OECD Policy Committees and Members and to continue the dialogue with NAEC partners and thinkers outside the OECD.

NAEC joint work with Partners

Following the 10 Years After the Crisis this NAEC Group met to discuss Averting Systemic Collapse: the potential for financial, economic, environmental and societal collapse and crucially the interconnections between these different systems and the policies that could place these systems on a sounder footing. The NAEC Group provided a platform to debate, discuss, experiment with and disseminate: new approaches to economic theory and policy, new tools and techniques to understand systems (financial, economic, environmental, social and political) and strategies to address systemic threats as well as new narratives on where we want to go and how to get there. A variety of new approaches to environmental, social and economic issues were also explored.
Systemic or cascading effects are difficult to model and analyse with traditional tools of economic analysis. To address this, NAEC is promoting multi-disciplinary economics and discussions were enriched by contributions from a range of disciplines, including economics, political science, engineering, physics, and biology. Committee Chairs from ELSAC, EDRC, CSSP, CIIE, INV and DAC contributed to the discussions on these major systemic issues and how to upgrade the OECD’s analytical capabilities to understand the economy as a complex adaptive system.


The Group called for a stronger scientific basis for policy, a systems approach to better link the different dimensions of policy problems, better understanding of dynamics, feedback loops, tipping points, system collapse, a better connection between the “science” and “engineering” of economics (economics and economic policy), and the development of new analytical tools and techniques such as network models and agent-based modelling.

We live in a rapidly changing world. It is still the case that most analysis of the evolution of our socio-economic system is based on what Samuelson called the “ergodic hypothesis”. Tomorrow will be like today. Many of the interventions cited the difficulty this poses. This is a real challenge for the future.

NAEC and OECD Committees


The NAEC Innovation LAB and one of the projects on machine learning and economic forecasting was presented at the lunch of EPC-WP1 on 8 November. Alan Kirman, Senior Advisor for NAEC, addressed the bureau of the Investment Committee on 21 October. Martin Lees, Chair of the OECD-IIASA Task Force, will address the OECD Council on systems thinking on 15 January 2020.

To find out more please visit the NAEC website: www.oecd.org/naec/ or please contact:

Gabriela Ramos, Chief of Staff, G20 Sherpa – gabriela.ramos@oecd.org
William Hynes, NAEC Co-ordinator – william.hynes@oecd.org