

Yannis Stournaras: Climate change - threats, challenges, solutions for Greece

Keynote address by Mr Yannis Stournaras, Governor of the Bank of Greece, at the Symposium on "Climate Change - Threats, Challenges, Solutions for Greece", The American College of Greece, Athens, 3 April 2019.

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It is a great pleasure for me to be here with you today and have the opportunity to share my thoughts on climate change: the threats, the challenges and the solutions for Greece.

Climate change is gradually shaping a new environment. Research so far confirms that the current and projected implications of climate change pose such threats to society and to sustainable development that we cannot continue with a “business as usual” scenario. We need to address challenges and to work on solutions, shifting to a low-carbon economy, managing the risks and adapting to the changing climate.

During the past decade, environmental risks have progressively dominated the global risks landscape. It is telling that in the World Economic Forum’s report¹, in 2019 for the third consecutive year, three of the top five global risks, in terms of both likelihood and impact, are environmental and all three are associated with climate change.

Historically, climate change can be attributed primarily to the actions of the large, industrialised countries. However, its impacts are diffused to all countries, whether small or large, developed or developing. This global nature of climate change means that cooperation and action at international level is important. Therefore, the international community, through long negotiations, has succeeded in reaching global agreements, such as the Kyoto Protocol and the more recent Paris Climate Agreement, in order to address the problem on a global scale.

Greece, along with other small countries in the climate-sensitive Mediterranean region, is expected to incur adverse effects from climate change. Acknowledging this fact, the Bank of Greece has been one of the first central banks worldwide to actively engage in the issue of climate change and invest significantly in climate research. Over the past ten years, the interdisciplinary Climate Change Impact Study Committee (CCISC) of the Bank has been working on all aspects of climate change, from climate science to environmental macroeconomics, highlighting climate change as a key factor that should be horizontally integrated into policymaking as it affects almost all sectors of the Greek economy.

Awareness of the economic value of ecosystem goods and services, which form the basis of the global economy, promotes the sustainable utilisation of natural resources and good management of natural systems. Within the Climate Change Impact Study Committee, environmental and energy economists, working with climatologists, physicists, biologists, engineers and social scientists, study the issue of climate change, analyse the economic, social and environmental consequences for Greece, and advise on the way forward.

The studies highlight the wealth of Greece’s natural resources, but also the risks to the country’s natural and human environment. Climate change appears to be a major threat, as the impact on almost all sectors of the national economy is expected to be adverse. Under an inaction (“business as usual”) scenario, the Greek GDP could, ceteris paribus, fall by 2% annually by 2050 and even further by 2100, while the total cost to the Greek economy could reach a cumulative €701 billion by 2100.^{2,3}

Furthermore, according to a vulnerability assessment⁴ that quantifies and ranks the expected climate risks for Greece, agriculture is the sector expected to be most severely hit by climate

change in Greece, while the impact on tourism and coastal systems will also considerably affect household income and the economy as a whole. Moreover, the adverse impact of climate change on the water reserves sector is also of particular significance, given its implications for agriculture and water supply.

Recognising the importance of well-informed economic policymaking, the Bank of Greece released last year the book *The Economics of Climate Change*, which provides a comprehensive, state-of-the-art review of the economics of climate change and the emerging area of environmental macroeconomics, focusing on the design of economic policy aimed at controlling the climate externality. This publication aims to lay the foundations both for addressing the role of monetary policy under conditions of global warming and for exploring the link between monetary policy and climate change, a topic that remains high on our research agenda. It acknowledges, of course, that monetary policy is not the primary tool for tackling climate change but rather plays a supplementary role alongside fiscal, environmental and structural policies.

Decarbonising the energy system and financing the transition to a low-carbon economy, consistent with the “well below 2 Celsius degrees” goal set out in the Paris Climate Agreement, are among the major challenges of our time. Climate change and global warming are linked to anthropogenic activity, in particular the use of fossil fuels and carbon emissions. Current and future impact on society and sustainable development is such that renders the use of fossil fuels prohibitive. We need to mitigate climate change by rapidly and drastically reducing emissions, adopting appropriate energy management and high efficiency practices, financing green energy, fostering energy-saving investment and promoting a low-carbon economy.

Along these lines, the adoption of policies and technologies leading to a low-carbon Greece, in the context of European policies for climate change, can accelerate a transformation of the Greek economy that offers opportunities for economic activity. Likewise, efficient adaptation programmes, necessary as a damage control measure that has been found to reduce the cost of climate change by almost 30%⁵, could provide a promising opportunity for Greece to boost its growth performance and competitiveness, while implementing climate policies.

In this process, there are certain transition risks arising from the adjustment to a low-carbon economy, for example potential stranded assets, business costs and disruptions. Yet, a careful and timely transition will also open up opportunities, associated with the development of innovative and renewable energy products, investment in energy saving, new infrastructure and new jobs. The transformation of the economy towards decarbonisation cannot but have a positive net outcome, as long-term value creation is a matter of transition to a low-carbon economy and effective climate risk management⁶.

Since January 2019, the Bank of Greece has been a member of the Network of Central Banks and Supervisors for Greening the Financial System (NGFS)⁷. The NGFS brings together central banks and supervisors and comprises 34 members and six observers with the common objective of strengthening the global response required to meet the goals of the Paris Agreement and enhancing the role of the financial system in managing risks and mobilising capital for green and low-carbon investments, in the broader context of environmentally sustainable development. The members of the network aspire to exchange experiences, share best practices, contribute to the development of environment and climate risk management in the financial sector and mobilise mainstream finance to support the transition to a sustainable economy.

NGFS members acknowledge that climate-related risks⁸ are a source of financial risk. It is therefore within the mandates of central banks and supervisors to ensure that the financial system is resilient to these risks. This is why central banks further support transparency and the disclosure of data that will enable markets to lead the transition to a low-carbon economy so that, with the right information, they can price in the cost of doing business, the climate risk and, most importantly, evaluate new business opportunities. The proper assessment and supervision of the

financial risks stemming from the transition to a low-carbon economy are important factors in promoting sustainable development and safeguarding the smooth functioning of the financial system⁹.

In this context, the banking sector can also play an important role in addressing the threats and challenges of climate change. The United Nations, through the Environment Programme Finance Initiative (UNEP FI), sets out sustainability principles in the framework of contemporary banking practice. Currently under consultation, the Principles for Responsible Banking¹⁰ aim to define the role and the responsibilities of the banking sector in a sustainable future, where banks align their business practices with the global community goals and create value for society. The Principles set out the criteria for responsible and sustainable banking, through a holistic evaluation of risks and opportunities stemming from banks' activities. Furthermore, they encourage banks to identify and assess the effect of their asset allocation decisions and be transparent on the resulting positive and negative impacts on society and the environment.

As part of a roadmap towards sustainability, the Principles support and accelerate the fundamental changes needed to achieve shared prosperity for current and future generations. If we are to meet the Sustainable Development Goals of the United Nations and the objectives of the Paris Climate Agreement, the banking sector needs to maximise its contribution and align itself with these goals. Last month, the Bank of Greece officially endorsed the Principles for Responsible Banking and, in its capacity as the national central bank, strongly urges all banks within its remit to do the same and set ambitious targets.

Towards a sustainable future, scientific research and current developments confirm the need for a dynamic strategy and an action plan to adapt to the changing climate. Climate change adaptation, as a process of adjusting to climate effects in order to moderate the negative and enhance the potential positive impacts of climate change, is a crucial issue spanning across multiple economic, social and environmental policy areas.

Therefore, under a memorandum of understanding signed with the Ministry of Environment and Energy and the Academy of Athens, the Climate Change Impact Study Committee drafted in 2015 the National Climate Change Adaptation Strategy, setting out the general objectives, guiding principles and implementation tools for an effective and growth-oriented adaptation strategy, in line with European directives and international experience.

Furthermore, fostering the adaptation process, the Committee is currently working, alongside the Ministry of Environment and Energy and other key national actors, on the Life IP programme "AdaptInGR – Boosting the implementation of adaptation policy across Greece". The programme aims at advancing the implementation process of the National Climate Change Adaptation Strategy of Greece by addressing specific objectives such as the systematisation and improvement of decision making for climate change adaptation, the promotion of adaptation policies and actions in all sectors, the establishment of monitoring mechanisms for the evaluation and review of adaptation policies and the strengthening of the adaptive capacity of the Greek society through awareness and dissemination actions.

Apart from public policies, the process of addressing climate change can undoubtedly be accelerated if established growth models are adjusted in order to ensure long-term sustainability. Under conditions of depletion of natural resources worldwide, a focus on more efficient use of resources and minimisation of waste emerges as the obvious solution. The model of a linear economy prevailing today (sourcing – manufacturing – use – disposal), on which most economies since the Industrial Revolution have relied, is no longer sustainable. Just like nature, which operates in a circular manner, business activity can become sustainable by switching from the linear model to a circular one. Circular economy means that the value of products, materials and resources is maintained in the economy for as long as possible and waste generation is minimised.

This transition to a circular economy requires interventions on the supply side, such as eco-design and longer life cycles of products, as well as on the demand side, through a change in consumption patterns and a more efficient management of waste, with appropriate financial incentives and community engagement. This transition is expected to have a positive effect on production, employment, climate, nature, natural resources and social well-being (11).

Along these lines, consumers can modify their behaviour and favour more sustainable practices, as consumer demand can be a powerful driver, encouraging companies to switch to more sustainable production practices and environmentally-friendly products. Another example is our dietary habits that have a devastating effect on the planet's natural resources, land and water reserves. A lower consumption of meat and dairy products would bring substantial savings on cultivated land and water resources, reduce carbon emissions and help to gradually restore forests and wildlife.

Focusing further on solutions, probably the most important thing we can do is educate the youth. Education is a vital element of the global response to climate change, as it supports young people to understand the impact of global warming, inspires changes in their behaviour and increases climate literacy, limiting the scope for controversy over this serious issue.

It is for these reasons that the Bank of Greece, through the work of the Climate Change Impact Study Committee, addresses climate literacy and has in the past decade organised a large number of conferences, workshops, seminars and round-table discussions, as well as a public consultation on climate and energy issues, ahead of the Paris Convention in 2015.

Furthermore, the Bank of Greece and the Goulandris Museum of Natural History signed in 2018 a memorandum of cooperation for the design and the implementation of an educational programme for young students, based on the research work of the CCISC. By educating the youth we are empowering the next generation, the one that will be facing most of the impact of climate change, to act and address climate-related problems and to build a new sustainable society.

This focus, in part, explains my presence here at the American College of Greece, an educational institution that acknowledges the importance of climate change and is committed to develop a sustainability culture throughout its educational practices. Today's symposium, exploring how Greece can tackle climate change, offers an opportunity for all, and especially for the students, to be exposed to a variety of actors on climate change issues, stakeholders and best practices. I would like to congratulate the organisers for taking this initiative and wish them the best of success.

¹ The Global Risks Report 2019, 14th Edition, World Economic Forum, www3.weforum.org/docs/WEF_Global_Risks_Report_2019.pdf

² GDP contraction relative to base year GDP at constant 2008 prices.

³ CCISC (2011), The environmental, economic and social impacts of climate change in Greece, Bank of Greece, pp. 453–457, available at: www.bankofgreece.gr/BogEkdoseis/ClimateChange_FullReport_bm.pdf

⁴ The vulnerability analysis is included in CCISC (2015), National Climate Change Adaptation Strategy (NCCAS), pp. 7-13, available at: www.bankofgreece.gr/BogDocumentEn/National_Adaptation_Strategy_Excerpts.pdf

⁵ CCISC (2011), The environmental, economic and social impacts of climate change in Greece, Bank of Greece, pp. 453–457, available at: www.bankofgreece.gr/BogEkdoseis/ClimateChange_FullReport_bm.pdf

⁶ Carney, M, "A transition in thinking and action", speech at the International Climate Risk Conference for Supervisors, De Nederlandsche Bank, Amsterdam, 6 April 2018, available at: www.bankofengland.co.uk/-/media/boe/files/speech/2018/a-transition-in-thinking-and-action-speech-by-mark-carney.pdf?la=en&hash=82F57A11AD2FAFD4E822C3B3F7E19BA23E98BF67

⁷ www.banque-france.fr/en/financial-stability/international-role/network-greening-financial-system

⁸ According to Mark Carney (Governor of the Bank of England) and Michael Bloomberg (chair of the Task Force on Climate-related Financial Disclosures), "... financial disclosure is essential to a market-based solution to climate change. A properly functioning market will price in the risks associated with climate change and reward firms that mitigate them. As its impact becomes more commonplace and public policy responses more active, climate change has become a material risk that isn't properly disclosed..", The Guardian, 14.12.2016, available at: www.theguardian.com/commentisfree/2016/dec/14/bloomberg-carney-profit-from-climate-change-right-information-investors-deliver-solutions

⁹ www.ecb.europa.eu/pub/pdf/other/ecb.mepletter171010_Urtasun.en.pdf?utm_medium=email&utm_source=nefoundation&utm_content=8+-+response&utm_campaign=banks-22-Nov&source=banks-22-Nov

¹⁰ www.unepfi.org/banking/bankingprinciples/