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Globalisation at the Crossroad: An "International Panel on Systemic Risks in the Global Economy" is Needed

The global economic crisis creates the chance to build a more stable, sustainable and fair global economic governance structure. The financial as well as the climate crisis demonstrate that human mankind is confronted with a growing number of global systemic risks. Guided by the experience gained with the "International Panel on Climate Change" (IPCC), we advocate for the establishment of a standing *International Panel on Systemic Risks in the Global Economy* and outline possible tasks for this international network of researchers in support of global governance processes.

From the simultaneity of the global financial and economic crisis, accelerated climate change and emerging challenges in international energy and food security policy it is clear that the international community will have to make considerable progress in the management of world problems in the 21st century if global systemic crises are to be defused. In the closely integrated global economy and society the emergence of workable global economic governance structures is becoming vital to the survival of humankind.

An important building block in coping with these challenges consists in the establishment of an *International Panel on Systemic Risks in the Global Economy*. This Panel should learn from the IPCC's experience and lay scientific foundations for avoiding the main economic, social, ecological and political systemic risks in the global economy of the 21st century. The Panel's reports might become a globally recognised basis for the continuous improvement of coherence and effectiveness in the system of global governance. Should a UN Economic Council for Sustainable Development be formed in the future, by analogy with the Security Council, the Panel should be attached to this central UN body without having its scientific independence restricted.

Learning from the IPCC

The IPCC has shown that the global pooling of knowledge on vital aspects of humankind's survival can help to draw the attention of politicians, businessmen and society to future global challenges and to generate pressure for political action. The Fourth IPCC Assessment-Report, published in 2007, has triggered a global debate on the disastrous impacts of global warming.

The IPCC's success is based on a number of factors: it is a unique global network of several thousand leading scientists organised and represented in public by outstanding scientific personalities (chairs/co-chairs). This scientific community does not stand for any "school" of climate research, but for the heterogeneous research scene as a whole. From this design the IPCC derives its reliability, impartiality and balance. The IPCC does not undertake any research work itself, but pools, documents and assesses the state of humankind's knowledge of the dynamism of climate change and the potential risks it harbours. It does not take sides in the international climate debate: it is the most relevant source of information.

Moreover, the IPCC not only draws up scientific progress reports, but also presents its findings to the international community (www.ipcc.ch). The IPCC's *Summaries for Policymakers* are prepared in collaboration with political actors. On the one hand, this approach has led to criticism on the ground that "scientific findings must not be the subject of political negotiation." On the other hand, this mechanism forces policymakers to take note of the conclusions drawn in the IPCC reports, and the scientific community is urged to make itself understood to policymakers and to refrain from publishing nothing but complex reports that are incomprehensible to the layman, academically ambitious, but politically ineffective. Another important factor that has helped to ensure that the IPCC's voice is heard by the general public is that, as a result of the work of the scientific network, two "either-or" questions of relevance to the world's future need to be answered:

(a) Is global warming due to human beings themselves (anthropogenic)?

(b) Is climate change giving rise to social, economic and political problem constellations which are of significance to humankind?

To these key questions the IPCC has been able to give answers that are clear and also easily understood by the general public. Climate change is man-made and is caused by the emission of greenhouse gases. The consequences of climate change are far-reaching and pose unprecedented challenges for the global economy, global politics and global society. Given these unambiguous conclusions, it is now for policymakers, businessmen and society to develop and implement an effective global climate policy.

Tasks of the *International Panel on Systemic Risks in the Global Economy*

The Panel should not add yet another progress report on the global economy to the many world economic reports [published by the World Bank, the International Monetary Fund (IMF), the International Labour Organization (ILO), the regional development banks and United Nations Conference on Trade and Development (UNCTAD), for example]. Instead, it should focus on a thorough analysis of major systemic risks in the global economy and far reaching threats to human development and generate approaches to their political management. It should answer three sets of questions:

1. From what dynamics do systemic risks arise for the global economy? What are systemic risks in the global economy of the 21st century?
2. Is it possible to designate five to ten major systemic risks in the global economy of the 21st century and criteria for their selection (e.g. significance, impact, irreversibility)? What can be done to contain these systemic risks?
3. What provisions can the international community make so that it may learn to react to unforeseen global systemic risks?

To be able to answer these questions, the Panel should concentrate its work on four dimensions:

1. Long-term global trends, their interdependencies and their risk potential

As a rule, world economic reports have focused on current issues. The Panel should devote itself to long-term dynamics of the 21st century (2040–2075–2100) that are of outstanding importance for the global economy and so for global society and politics, such as demography and population trends, global warming, international power shifts in the global economy and politics, the development of ecosystems of vital importance for the survival of humankind (e.g. agricultural land, drinking water resources, forests and oceans), migratory movements, long-term technological trends and the interference liability of global logistical networks (such as the world wide web, IT networks). The Panel's task would be to identify the main long-term drivers of global change (prioritisation), to analyse their interactions and to formulate statements on the greatest systemic risks for the global economy. The Panel would take on an early-warning function in this context and act as a conduit for systematically bringing long-term risks to the policymakers' attention. This is an especially important point because not only are markets blind to the future, but political systems, national and international, are similarly led by the demands and logic of the short rather than the long term. Controlling long-term trends and risk is, however, one of the keys to the successful shaping of globalisation.

Box 1:

Global Risk factors

Economic
food price volatility
oil and gas price spike
major fall in US$
slowing Chinese economy (6 %)
fiscal crises
asset price collapse
retrenchment from globalization (developed countries)
retrenchment from globalization (emerging countries)
underinvestment in infrastructure

Geopolitical
international terrorism
US/Iran conflict
US/North Korea conflict
collapse of Afghanistan/ Pakistan
transnational crime and corruption
spreading violence: Iraq, Israel, Palestine
global governance gaps
tensions China, US, Europe

Environmental
dangerous climate change beyond 2°C
loss of fresh water and soils
cyclones, earthquakes, inland and coastal flooding
air pollution
biodiversity loss
tipping points in the Earth system

Societal
pandemics
diseases
liability regimes
collapsing states
migration

Technological
breakdown of global logistics
nanotechnology risks
data fraud/ loss

Source: WEF (2009), page 3

2. The Panel's inter- and transdisciplinary orientation

Global systemic risks for the global economy and threats to human development and the environmentally acceptable rise of affluence result not only from purely economic processes, but also from the interplay of extremely varied dynamics of global change (global warming, food crises, the collapse of nations; population growth, the overuse of natural resources, migration; financial crises, employment crises, political fun-

damentalism; global population growth, the global advance of land-intensive dietary patterns, the unregulated use of bioenergy, degradation of agricultural land due to climate change, agricultural land as a scarce global good).

Box 2:

Risk assessment in social sciences

"This new challenge of risk management is accompanied by the emergence of a new concept of risk, called systemic risk. This term denotes the embeddedness of any risk to human health ant the environment in a lager context of social, financial and economic risks and opportunities. Systemic risks are at the crossroads between natural events (partially altered and amplified by human action such as the emission of greenhouse gases), economic, social and technological developments and policy driven actions, both at the domestic and the international level. These new interrelated risk fields also require a new form of risk analysis, in which data from different risk sources are either geographically or functionally integrated into one analytical perspective. Systemic risk analysis requires a holistic approach to hazard identification, risk assessment and risk management. Investigating systemic risks goes beyond the usual agent-consequences analysis and focuses on interdependencies and spillovers between risk clusters."

Source: Klinke / Renn (2006), page 12

Like science, the global economic governance institutions are, however, sectorally organised and inadequately prepared for the early recognition of interdependence problems and resulting systemic risks in the global economy and for the development of appropriate problem-solving strategies. Specialisation in politics and science increases professionalism and knowledge of dynamics in subsystems, but conceals systemic risks that are due to the interplay of different factors and subsystems and to complexity – the current global financial market crisis being an example of how highly qualified experts revolutionised complex products and subsegments of the financial system and, in so doing, destroyed the foundations of the system as a whole.

The Panel should dismantle these "silo problems" and bring together the members of the various disciplines needed for an appreciation of future systemic risks. The dominance of economics, often with a very narrow perception of economic dynamics and processes, in the advisory bodies of the leading international organisations (such as the World Bank and the IMF) in the past 30 years has led the global economy and the international community into an impasse. No scientific discipline on its own can make the complex and multicausal systemic risks in the global economy understood. Given the wide-ranging economic and social effects of the changes in the Earth system due to climate change, particular importance should be attached to cooperation between the natural and social sciences. There are many indications that the greatest innovations in science in the future can be expected at the interfaces between the disciplines. The international community depends on these innovations, since potential global systemic risks do not respect the lines traditionally drawn between areas of policy and scientific disciplines.

3. The "360-degree view" of global problem constellations and risks

By analogy with the IPCC, one of the Panel's core principles should be adequately to involve scientists from OECD countries, newly industrialising and anchor countries, poor developing countries and all regions of the world – and so to ensure global scientific pluralism. Firstly, this "360-degree view" of global socio-economic problems and systemic risks and of strategies for managing and resolving them will increase the Panel's cognitive faculty. Workable solutions for stabilizing globally integrated financial systems or strategies for preventing global food crises cannot be found by largely OECD-based and dominated networks of scientists: what is needed is the pooling of the world's knowledge and of the various local knowledge pools that are essential for the management of many cross-frontier problems.

The Indian cultural historian Homi Bhabha developed a very strong idea, saying that *"in a globally networked world, dialogue on an equal footing is possible only if we succeed in comprehending our national and regional interests and identities as radically incomplete"*. We agree and would like to add, that all our knowledge pools are radically incomplete too. That's why the "360-degree view" is needed.

Secondly, the "360-degree view" will reinforce the Panel's international legitimacy, which is often denied the two Bretton Woods organisations, for example, their expertise being largely derived from graduates of Anglo-Saxon universities. Thirdly, the "360-degree view" will reveal the emergence beyond the OECD of considerable potential for innovation and know-how, of which greater use should be made in the shaping of globalisation.

4. Normative principles underlying workable solutions to global problems – cooperation, fairness, conciliation of interests, justice

Its long-term orientation, interdisciplinarity and "360-degree view" should enable the Panel to undertake an appropriate analysis of the causes, dynamics and consequences of systemic risks in the global economy. Identifying and appraising economic, social, ecological, political and institutional "tipping points" in the global economy would make a major contribution to global risk prevention. *Solving* global problems, however, may be thwarted not only by ignorance of complex systemic risks, but above all by barriers to collective action, by national interests and by power structures in the international system.

Box 3:

Tipping points in the Earth System in times of global warming

In discussions of global change, the term tipping point has been used to describe a variety of phenomena, including the appearance of a positive feedback, reversible phase of transitions, phase transitions with hysteresis effects, and bifurcations where the transition is smooth but the future path of the system depends on the noise at a critical point. We offer a formal definition: introducing the term "tipping element to describe subsystems of the Earth system that are at least sub continental in scale and can be switched – under certain conditions – into a qualitatively different state by small perturbations. The tipping point is the corresponding critical point – in forcing a feature of the system – at which the future state of the system is qualitatively altered. ...Societies may be lulled into false sense of security by smooth projections of global change. Our synthesis of present knowledge suggests a variety of tipping elements could reach their critical point within this century. ... examples are: the Artic sea-ice, the Green and sea-ice, the Amazon Rainforest, the Indian Summer Monson, the Atlantic Thermohaline Circulation. ... Policy analysis ... will be extremely challenging, given the nonconvexities in the human-environment system, that will be enhanced by tipping elements, as well as the need to handle intergenerational justice and the interpersonal equity over long periods and under conditions of uncertainty. A rigorous study of potential tipping elements in human socioeconomic systems ... would be welcome ..."

Source: Lenton et al. (2008), page 1786/1792

In the three hundred years since the beginning of the industrial revolution, policymakers and political systems have observed and interpreted the world very largely though nationalist spectacles – and taken decisions accordingly. It is only in recent decades that international and global perspectives of the have gained ground. The current global economic crisis is again making it clear how thin the blanket of this process of global civilisation still is: there is again a danger throughout the world of economic nationalism and protectionism growing in importance and of international investment in development cooperation declining. Under conditions of increasing global interdependence, however, this pattern of action is no long fit for the future. It would itself become a driving force of global instability and so a global systemic risk.

From the perspective of global risk prevention it is obvious that cooperation, fairness, international conciliation of interests and justice (interpersonal, international, intergenerational) must form the foundations for effective global governance. This statement is as plausible as it is far-reaching. It shows that managing global systemic risks entails not only technological, economic and institutional challenges, but above all learning processes and innovations relating to norms, culture and civilisation. Consequently, when it comes to defusing global risks, the Panel should always give thought to the need for fair and just solutions and for workable forms of the conciliation of interests. It may then establish normative standards against which policymakers should be measured. *The Charter for Sustainable Economic Development* proposed by the Federal German Government takes precisely these interrelated factors into account.

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