RISK GOVERNANCE
and
SCIENCE POLICY

Their hypothetical future and their interactions out of equilibrium

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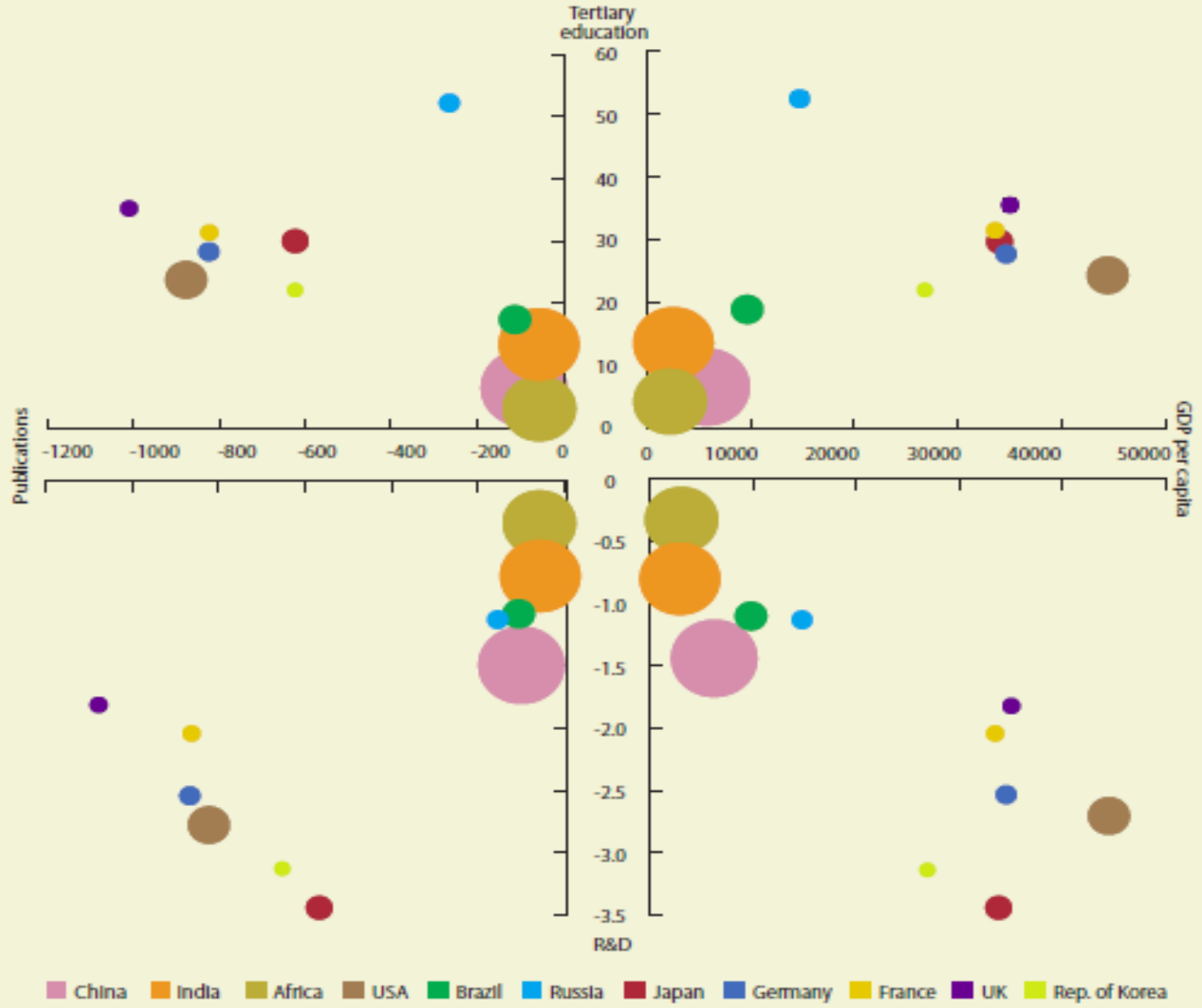
Figure 5. The systemic matching between key S&T indicators
Selected countries and regions



Note: The size of the circles reflects the population size for each country or region studied.

Source: UNU–MERIT based on data from the UNESCO Institute for Statistics and World Bank

The world of knowledge is changing rapidly (1)

a larger fraction of humanity aspires to education and higher education is increasingly perceived as tomorrow's general education

in 2010: 177 M (+77% since 2000)
students enrolled outside their country of origin: 0.8M in 1975, 2.1M (2.1%) in 2000, 4.1M in 2010 (2.3%)

HE has become an aspiration for all, and not exclusively for the social elites

HE is increasingly perceived as a social, economic and political driving force for progress in developing countries – providing a renewed constituency for scientific development, political democracy and justice, and for the quality of general education
higher education is becoming a major political actor

The world of knowledge is changing rapidly (2)

science is increasingly global and increasingly perceived as linked to human, social and economic progress

2002 > 2007
5.7 > 7.1 M researchers (+25%)
780 > 1150 b US$ (+45%)
1.1 > 1.6 M publications (international cooperation: 8% in 1987, 20% in 2007)
Where? Asia, Latin America, Africa

The world of knowledge is changing rapidly (3)

changes in the constituencies for knowledge and renewed science policy agendas:

.Risk Governance (prevention, mitigation, response, trust) is a new driver of science policies: health, natural and industrial disasters, industrial and other major public risks, quality and availability of water and food, energy (But: political and economic competition, war – risk governance for whom?)

.Data intensive science has spread from particle physics and astrophysics to the biological and environmental sciences and many other areas. ICT and Science become closely interlinked. (But: infrastructure, IPR, increasing inequalities)

. Science & Academic networking at world level: institutional networking for capacity building is becoming key; new patterns of institutional capacity building programmes are now added to the traditional fluxes of individual students.

DIGRESSION 1

On the future of Risk Governance

Renn and others have suggested successive approximations on the nature of Risk Governance, highlighting (implicitly) the difficulty of combining their own (moral) drive for prescriptive action with their scientific ethics, leading (in my view) to the impossibility of avoiding the understanding of the scientist himself as a (concrete, specific, engaged) political actor in this field.

"Risk governance can be defined in 2 ways: 1 – A critical study of complex, interacting networks in which choices and decisions are made around risks, and; 2 - As a set of normative principles which can inform all relevant sectors of society how to deal responsibly with risks"

"(…) in the context of risk, the notion of 'governance' is used in a descriptive and in a normative sense: both as a description of how decisions are made and as a model for how to improve decision-making structures and processes"

And finally:

"(…)We cannot provide a model in the strict sense of the word (…) We propose to synthetize the state-of-the-art thinking on risk governance in a set of principles: the communication and inclusion principle; the integration principle; the reflection principle (…) They should be used as synthesis of what seems wise to do, or at least what needs to be seriously considered"

In my view, a more realistic and operational definition should therefore be adopted :

"Risk Governance can be tentatively described as two broad sets of practices:

1 Critical studies based upon specific case studies of the processes leading to choices and decisions about risks; 2 The (actual) processes of elaborating and promoting diverse views and proposals for action, as well as their implementation, in matters related to risks"

DIGRESSION 1
On the future of Risk Governance 2

1 – The future of independent critical studies will be strongly dependent on the future of academic R&D work on sensitive risk controversial issues, namely in the framework of international collaborations (IRGC – China, and the whole IRGC international academic network may provide important contributions only if relevant case studies, on politically sensitive issues, are effectively addressed in depth, with scientific independence.

2 – Meaningful "guiding principles" for risk governance are neither neutral nor universal . Critical studies should help unveiling conflicting actors and conflicting interests: Who is at risk? Who will benefit from specific choices? Is risk governance possible without open political controversy, free speech? How may academic research on risk governance issues help providing some help for political and social reform? – Those questions may open new opportunities for social progress.

3 -Two distinct views:

A Happy Steady-State View (HaS2View) of Risk Governance "in a steady-state", applicable to some extent in rather "stable" periods and whenever commonly accepted values shape the regulation of conflicting interests and the legitimacy of government;

A Critical Unsatisfied View of Risk Governance "out of equilibrium", aimed at providing a deeper understanding of the conflicting factors and actors at play, namely in major crisis, in fast growing economies, or in disruptive and fast adaptive national and international contexts (paying attention to their "dark" sides (repression, corruption, organized criminality, self-deception politics, terrorism and war).

DIGRESSION 2

On the future of Science Policy

Shaping factors…

. Fast growing demand of education (and of Higher Education), fast expansion of S&T and S&T intensity .

. When growth of HE is unable to deliver (nationally) its (expected) social and economic benefits, it delivers disruptive social and political change.

. HE as a new major political actor of the XXI century. In parts of the world, Universities may become religious, political, deadly battlefields.

. Science policy as a possible source of commonly acceptable values in fast growing economies: but academic science policy studies may not be prepared for this new role.

Shaping actors…

Social and political constituencies for scientific development become key actors. Some scientists and Universities may engage in new forms of citizen political action (equating scientific development with societal and political change and social progress). Science agenda setting will have to respond to social requirements of risk prevention and mitigation.

Organized Stakeholders will increasingly contribute both for the production of knowledge (eg, Health) and for the decision-making processes based upon expert knowledge. But scientific independence and public interest are at odds with stakeholders' private views and lobbying, and wide "consultation" processes increasingly discredited as sources of legitimacy.

Will the growing networking and human involvement of scientists and academics internationally help reducing the (overwhelming) risks of national stereotyping and war ?

I am pessimistic: I am afraid that we (as academics) are not working hard enough in that direction.

Risk Governance and Science Policy

Joint Challenges and Opportunities:

One example (personal choice)

"Formal" (legal, administrative) and
"Informal" (triggered by political and economic competition, and by the media) regulatory processes are both to be analyzed and are part of the new role of risk governance in modern societies.

Both have contributed and may increasingly contribute to a growing (informal) involvement of Universities (and scientists) in public (citizen) political action (in specific circumstances)

Informal "regulation" through denunciation based upon available scientific expertise may become a political opportunity (addressing risk governance as well as science and academic policy issues), namely in major crisis or in fast growing economies.

Academic independent research might therefore be closely linked to the future credibility and relevance of international scientific cooperation networks on risk governance.

Thank you!