

THE “RISE OF THE REST”, AS THE RENOWNED JOURNALIST FAREED ZAKARIA CALLS IT, HAS PROFOUND IMPLICATIONS NOT ONLY FOR THE “REST” BUT ALSO FOR THE UNITED STATES, EUROPE, JAPAN AND OTHER RICH COUNTRIES AND REGIONS THAT ARE TODAY’S LEADERS IN TERMS OF WEALTH AND SCIENTIFIC AND TECHNOLOGICAL CAPABILITIES.

Northern countries that have led the world throughout the post-World War II era will be ceding ground to an expanding group of countries in the South in the years ahead. How this profound transition plays out may be among the most critical challenge the world now faces. If we get the transition right, we have the potential to put in place an “enabling” process that could dramatically affect strategies for solving the broad range of problems confronting the world. If we get it wrong, global international relations are likely to spiral downward, trapped in a vortex of resentment, pride and division that will make it virtually

impossible to address our shared problems.

Science can play a critical role in easing the transition on several fronts.

## Raising the profile of science in the G20

First, it can help ensure that progress among developing countries will continue. A growing number of the “rising” developing countries, including Brazil, China, India and South Africa, spend at least 1% of their gross domestic product (GDP) on research and development (R&D). These countries have reached a ‘positive tipping point’ in investments in R&D that has set them on a path towards sustainable economic growth, which is likely to accelerate in the years ahead.

Second, the deeply rooted culture of science among today’s leading Northern countries can help mitigate the impact of unfavourable demographic and economic trends that now confront the world’s developed countries. Europe, for example, will suffer a comparative loss of population (by 2025, only 6.5% of the world’s population will reside in Europe compared

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to 60% in Asia). It will also have to confront the challenges posed by aging populations (by 2025, 30% of Europe's population will be more than 65 years of age, the highest percentage in the world). Moreover, even in good times, annual increases in GDP are unlikely to exceed 3% among the mature economies of Western Europe and the United States. And then there are the psychological ramifications of losing ground to 'upstart' countries. Yet, despite those worrisome trends, investments in science, technology and innovation will undoubtedly ensure the future prosperity of Northern countries.

Third, the emergence of information and communication technologies and such other frontier technologies as nanotechnology and genomics now make it possible to build world-class scientific and technological capabilities quickly – indeed, in less than a generation, as has been illustrated by the most successful developing countries. Emerg-

ing fields in science and technology can help level the playing field. When combined with the ease of rapid information exchange, such trends will likely allow a growing number of developing countries to participate in cutting-edge science as equal partners.

In a world scarred by divisions in knowledge, wealth and scientific capability, one of the greatest challenges we face may be to convince rich and poor countries alike that the "rest" can continue to "rise" without causing today's leading countries to stumble, and without creating a yawning South-South gap between countries on the fast track to science-based development and those that are in danger of being left behind.

The G8 has recently been transformed into the G20. Brazil, China, India, South Africa and other newly emerging – indeed surging – countries will now have a seat at the table at the world's top economic forum.

We would like to make a modest proposal: That the G20, working with the InterAcademy Panel (IAP), call on its





*national science academies to create a standing forum where science-based development issues of importance to the G20 can be discussed. The forum, upon request, could also provide reports and statements to the G20 and serve as an expert advisory panel for a wide range of issues that will likely shape the G20's agenda in the years ahead. In addition, and again working with IAP, the G20 science academies could liaison with the Network of African Science Academies (NASAC) to pursue joint initiatives that would assist Africa, a continent that was a focal point of concern with the G8+5 and one that is likely to remain so under the expanded G20 framework that has been put in place. ■*

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