

GLOBAL MARKETS INSTITUTE



The Top Five Risks Conference: Key Takeaways

“Top Five Risks: Critical Perspectives on the Global Economy”

News

On June 4, 2008, the Global Markets Institute at Goldman Sachs (GMI) convened some of the leading experts in the world on economics, demographics, resources and the environment for a full-day conference.

The meeting was hosted in London, in collaboration with the London School of Economics and Political Science (LSE) and the Guanghua School of Management at Peking University. The audience included nearly 200 senior clients and business leaders, together with policy specialists and academic experts.

Panel discussions

The following five concerns were highlighted as key challenges to sustainable economic development, capital markets, and effective risk management:

- *Resource scarcity: Competition for water, food and energy in an era of climate change*
- *Income inequality: The implications of exclusion from growth*
- *Financial integration: Is the model of "originate-to-distribute" permanently damaged?*
- *Managing demographic transition: Strains on labor supply and financing gaps*
- *Rising protectionism: From trade to investment*

There were several overarching themes

- *Growth of the global middle class and the impact on natural resource usage, especially in emerging economies*
- *Need for enhanced health care security and educational opportunities in all countries*
- *Focus on multinational cooperation on several related issues (e.g., trade, climate, regulation and financial market oversight)*

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Overview

This was the second “Top Risks” conference hosted by the Global Markets Institute at Goldman Sachs. As before, we partnered with highly-regarded external organizations, in this case the LSE and Peking University, to convene top-flight leaders on critical issues facing the global economy, markets and government policymakers.

The discussions in London on June 4, 2008 focused on the factors linked to sustainable economic growth and smooth functioning of capital markets, with a particular emphasis on challenges and risks. Although current difficulties, such as the crisis in global credit markets and disruptions in commodity markets, set the stage, the key takeaways reflect a somewhat longer-term view on risks and risk mitigation in several areas.

A critical observation by several panelists was that emerging economies, such as the BRICs and N-11, are not well represented in existing institutions of global governance. This is despite the dramatic impact that these countries already have on global economic and financial conditions. Further, problems related to the availability and distribution of natural resources, including food, water and energy, affect these countries in a considerable way and they in turn have a notable impact on the global environment. Multilateral organizations, such as the World Bank and the International Monetary Fund, are striving to more properly address these and other imbalances.

Resource scarcity

The current surge in commodity prices, ranging from food to energy, is closely linked to multi-year shortfalls in building new supplies and distribution systems. Scarcity in these markets also reflects a number of structural changes, including population growth and rising per-capita demand in several regions. As such, the panelists expected prices to continue to rise. The greatest concern centered on the availability of crucial resources, mainly food and water, for people in poorer countries. Further, the panelists agreed that the negative effects of climate change would exacerbate the shortages of potable water and affordable food, and would fall most heavily on these same populations. Approximately 800 million people are today facing food “insecurity.”

Income inequality

The panel discussed income inequality within and between countries. Global income inequality has narrowed somewhat as a result of the economic development of China, India and other high-growth, high-population countries. At the same time, data indicate that income gaps have widened within many countries, including several developed economies. Panelists identified technological change and related shifts in job creation as the leading drivers of this dynamic. Uneven access to education was seen as a contributing factor, with improved education and vocational training essential to addressing the risk to political stability.

Financial integration

There was active discussion of shifts in the “originate-to-distribute” model of financial intermediation, in which financial institutions develop new risk transfer instruments, allowing credit and interest rate risks to be dispersed to the capital markets. Global financial integration has accelerated the manner in which these investment risks (and opportunities) can be transmitted. As a result, the global coordination of regulatory oversight, policymaking, and accounting regimes will be essential to smooth functioning of capital markets. This, in turn, will be critical to future growth in the global economy.

Demographic transition

This panel explored the challenges presented by demographic transition, building on the earlier discussion of income inequality. The combination of falling fertility rates and rising longevity is leading to an older and smaller working-age population in many countries. Increases in life expectancy, without corresponding adjustments to the funding of post-retirement programs including health care, were viewed with concern. This raises critical questions for corporate leaders and government policymakers, including how to best provide for longer retirement periods and related strains on pension and older-age health care systems. There is the potential for intergenerational discord. At the same time, some countries remain quite young, on average, due to high fertility rates and, perhaps, inward migration. Challenges arise with regard to education and job creation; there is the potential for notable political unrest if these challenges are not successfully met.

Rising protectionism

Panelists strongly agreed that open trade and investment are critical to future economic development – both within countries, and globally. However, there are some emerging signs of economic nationalism and other protectionist measures. In the United States, for example, this has recently taken the form of election campaign rhetoric and contentious new legislation involving agricultural subsidies. However, the trade experts on the panel do not anticipate any broad-based retreat from an internationalist economic policy in either the United States or Europe. This is despite near-term difficulties for the Doha Round and other multilateral trade negotiations.

Key takeaways from opening remarks

Richard Gnodde, Co-CEO of Goldman Sachs International, framed the conversation, raising important questions about the pricing of risk and the ability of existing institutions to manage this risk. He emphasized the need to go beyond perception to identify **real** risks, and the ways in which financial markets can be used to address them. Richard's remarks further underscored the importance of partnership: a reflection of the widening dispersion of economic activity and growing participation by a range of actors throughout the world.

Abby Joseph Cohen, President of the GMI and Senior Investment Strategist at the firm, reminded the audience that when the *Top Risks* conference was first organized (2005), clients identified ten headline concerns. Among those top ranked were avian flu; climate change was near the bottom. Since then, the perception of investors regarding risks to markets, economies and suitable government policies has shifted. The interdependence of economies and financial systems around the world remains in sharp focus, and the challenges of resource allocation and the environment have risen as concerns.

Key takeaways from panels

Panel 1: Resource scarcity

Moderator

Nicholas, Lord Stern, IG Patel Chair and Director, Asia Research Centre, LSE

Panelists

Anthony, Lord Giddens, Professor Emeritus, LSE and Life Fellow, King's College, University of Cambridge

Donald Kennedy, President Emeritus, Stanford University and Bing Professor of Environmental Science and Policy, Emeritus Senior Fellow, Stanford University

Arjun Murti, Managing Director and Co-Business Unit Leader, Energy, Power & Materials, Goldman, Sachs & Co.

Key takeaways

(1) Economic expansion in the BRICs (Brazil, Russia, India, China) and other high-growth economies has contributed to increased demands on the global resource base. Global population growth, inter-commodity linkages and climate change further complicate the sustainable use of global resources, from energy supply to clean water and affordable food.

The world's poorest regions are particularly vulnerable to the risks associated with resource scarcity, due to their geography (often coastal areas, subject to storms and flooding), heavier reliance on agriculture and more limited capacity to adapt.

(2) In energy markets, the combination of a forecasted long-term flattening of non-OPEC oil supply growth and secular demand growth in China, the Middle East and India suggests that market oil prices will need to rise further. Heavy use of subsidies in China and other countries, including Russia and the oil-producing states themselves, often distort decisions governing energy use. The 2007-2008 spike in energy prices has already dampened demand in the United States and elsewhere, freeing some supply for growth in non-OECD regions.

There is gathering momentum for policy intervention on climate change; much focus is on China and the United States, the world's two largest emitters of greenhouse gases (GHG). Panelists were of the view that carbon pricing, likely in the capital markets, will be essential in converging expectations around true long-term costs. In addition to high market prices for hydrocarbons, policy may be used to provide incentives for the development of abatement and adaptation technologies, further increasing the appeal of alternative energy sources, especially renewables.

(3) In agricultural markets, there are concerns that commodity prices could go meaningfully higher. The expansion of the global middle class has led to shifting patterns in food consumption, towards more expensive protein which requires higher volumes of grain and water to produce. The use of corn for ethanol is one, albeit less important factor. In addition to accommodating structural demand expansion, the main concerns center on the availability and cost of arable land, and yield-enhancing equipment and GMO seeds, the distribution of which have been stalled by global trade disagreements.¹

(4) In water markets, there is gathering scientific consensus that water is the key conduit through which climate change impacts energy and agricultural markets, reinforcing the

¹ Andrew Howard, Sarah Forrest, Marc Fox, Sandra Lawson, "GS SUSTAIN: Long-term opportunities in a changing world", Goldman Sachs Global Investment Research, April 18, 2008.

structure of rising prices. The challenges this presents are most acute in emerging economies in which agriculture contributes a large share of national GDP, average incomes are low and the ability to adapt to weather crises at the household level is limited. Water scarcity is exacerbated by suboptimal resource management in various regions.

(5) Investors are increasingly concerned that inflationary pressures are building. These are related to structural developments in resource markets, such as the fact that long-term growth in demand for energy and food is outpacing supply. Further, the disinflationary impact of manufactured imports from China and other low-cost countries is now reversing.

At present, however, there are few signs of wage inflation in the United States or many other developed economies. Hence, fears of a 1970s-style stagflation, which was characterized by a wage-price spiral, seem overdone. Overall inflationary pressures are currently most acute in commodity-intensive economies (as measured by energy intensity, or energy used per unit of GDP) and commodity importers. Energy intensity is relatively low among the G7 and much higher among the BRICs and N-11 countries.

(6) The prospect of catastrophic climate change was on the mind of most panelists. The Stern Review, published last year, noted that climate change and its impact are most effectively, and inexpensively, mitigated if addressed sooner rather than later. In the absence of meaningful action, scientists expect rises in the global mean temperature in the coming decades that would alter weather patterns, and also affect food production, energy consumption, and the spread of disease.

Panelists supported the role of the capital markets in setting a price for carbon and, perhaps, other GHGs. A liquid market in international emissions trading could reduce the cost of mitigation by spreading emission reductions over those sectors and countries where they are least costly. The role of national governments in setting standards was also strongly encouraged.

Panel 2: Income inequality

Moderator

Jim O'Neill, Managing Director and Head, Global Economic Research, Goldman Sachs International

Panelists

Alan Krueger, Bendheim Professor of Economics and Public Affairs, Princeton University

Branko Milanovic, Lead Economist, Research Department, World Bank and Associate Scholar, Carnegie Endowment for Peace

Peter R. Orszag, Director, US Congressional Budget Office

Ngairé Woods, Professor of International Political Economy and Director, Global Economic Governance Programme, University of Oxford

Key takeaways

(1) Global income inequality has narrowed somewhat as a result of the economic development of China, India and other high-growth, high-population countries. At the same time, data indicate that income gaps have widened within many countries, including several developed economies.

(2) The leading driver in developed economies is the shift in job creation linked to technological change, and the diffusion of information technology in particular. Contributing factors include uneven access to education. The roles of globalization and trade were seen as generally overstated.

(3) Income inequality is a challenge to sustainable economic growth both within and between countries. In the United States, income inequality appears to widen towards the top of the income distribution. Since 1979, average real income has risen by 20% for the middle 20% of income earners in the United States, but it has risen by 155% for the top 1%.² The declining relative position of the middle class has garnered political attention in the United States and may add to support for redistributive measures such as tax changes.

Panelists observed gathering momentum around pre-market intervention (e.g., labor market restrictions) at the expense of after-market adjustment (e.g., social insurance, progressive taxation). Recent experience in Scandinavia demonstrates the appeal of a “flexicurity” approach – balancing a flexible labor market with financial security.

(4) One risk associated with income inequality within countries is that widening disparity could trigger domestic political pressures and encourage protectionist policymaking rather than measures aimed at enhancing aggregate economic growth. The recent decline in global inequality suggests that countries which view economic development more broadly can benefit from gains in growth in other countries. For example, US exports have grown rapidly and have doubled as a percentage of US GDP in recent years.

(5) A related risk is the increased volatility in personal income. While macroeconomic volatility, as measured by swings in GDP growth, has fallen in recent decades, the volatility of household earnings has increased in many countries. When combined with the widening gap in life expectancy across socioeconomic strata, this can be viewed as a source of intensifying political and policy interest. In the aggregate, rising life expectancy puts pressure on post-retirement systems, both pensions and health care, increasing long-term liabilities. Publicly-financed systems seem to be less well-funded than private (corporate) plans at this point. And the likelihood that wealthier individuals will collect benefits for a longer time makes these plans less progressive.

(6) Improving access to education and achieving gender equality in employment are viewed as attractive solutions. Recent Goldman Sachs research indicates that narrowing the gap in employment by gender across the BRICs and N-11 countries could push national income per capita as much as 14 percent higher than baseline projections by 2020.³ The increased participation of women in the labor force of developed economies has been one factor mitigating the relative decline of middle class incomes.

(7) Improving the representation of emerging economies in international institutions would likely enhance their ability to manage risk. Multilateral organizations, such as the World Bank and the International Monetary Fund, are striving to address this challenge through governance reform and greater flexibility in approaches to systemic issues.

Panel 3: Financial integration

Moderator

Abby Joseph Cohen, President, Global Markets Institute and Senior Investment Strategist, Goldman, Sachs & Co.

Panelists

E. Gerald Corrigan, Managing Director, Goldman, Sachs & Co.

Jim O’Neill, Managing Director and Head, Global Economic Research, Goldman Sachs International

Roy Ramos, Managing Director and Head, Asia Financials Research, Goldman Sachs (Asia) LLC

² US Department of Commerce. See also Dirk Schumacher, Jan Hatzius and Tetsufumi Yamakawa, “Rising Income Inequality in the G3”, Goldman Sachs Global Economics Paper No. 158, July 6, 2007.

³ Sandra Lawson, “Women Hold Up Half the Sky”, Goldman Sachs Global Economics Paper No. 164, March 4, 2008.

Key takeaways

(1) There was active discussion of shifts in the “originate-to-distribute” model of financial intermediation, in which financial institutions develop new risk transfer instruments, allowing credit and interest rate risks to be dispersed to the capital markets.

(2) Global financial integration and innovation in financial markets have accelerated the manner in which these investment risks (and opportunities) can be transmitted.

(3) Panelists identified three structural drivers of recent financial market turbulence:

- the collective misjudgment of credit risk;
- macroeconomic imbalances and the “reach for yield” phenomenon, in which historically low real interest rates and abundant liquidity drove risk taking; and
- limitations in regulatory arrangements and their contribution to the growth of unregulated exposures.

(4) A number of lessons emerge from experience in Asia during the 1990s, including the importance of up-front loss recognition and the need for expedient recapitalization of financial firms. The Asian crisis also points to the dangers associated with heavy reliance on a commercial banking model, supporting the notion that the originate-to-distribute model should be repaired and improved, not scuttled.

(5) Risks associated with errors made by financial intermediaries have multiplier effects across the financial and real economies. Firms in the financial sector have taken write-downs in excess of \$380 billion to date, with financial system weakness contributing to further deterioration in prospects for the real economy.

(6) The model of originate-to-distribute is not permanently damaged. Despite decisive action already taken by central bank authorities, reform is likely in several areas, including:

- a closer look at risk concentration and greater stress-testing of off-balance-sheet commitments by corporate managements, accompanied by review of related standards by accounting authorities;
- stricter rules governing complex structured products, including enhanced transparency in valuation and changes in the credit ratings process; and
- increased use of central bank warning indicators, with more robust arrangements for dealing with stress in the financial system including those at the state and local level (United States), specifically with regard to mortgage and consumer lending.

Policy reform already under discussion and ongoing private sector initiatives are aimed at a number of these areas. Improved global coordination of regulatory oversight, policymaking, and accounting regimes will be essential to smooth functioning of capital markets. This, in turn, will be critical to future growth in the global economy.

(7) Panelists expressed a view that returns to equities will exceed those for fixed income products in many developed capital markets. With reference to the United States, real interest rates are well below normal levels and will likely rise when economic growth is revitalized; hence absolute returns to bonds may not be favorable on a multiyear basis. The S&P 500 and indices in several other major markets were viewed as undervalued at current levels, despite currently disappointing economic fundamentals and sluggish profits.

Regarding alternative asset classes, recent strong performance and low volatility relative to other assets may not continue to the same degree. Newer asset classes almost always perform well and with reduced volatility due to sizable inflows as they are being established. Future returns to private equity and venture capital may be somewhat constrained due to changing patterns in the use of leverage; however, many managers report the availability of strong entry opportunities at this time.

Panel 4: Managing demographic transition

Moderator

Sandra Lawson, Senior Global Economist, Global Markets Institute, Goldman, Sachs & Co.

Panelists

Willem H. Buiter, Professor of European Political Economy, European Institute, LSE and Advisor, Goldman Sachs International

John Hills, Professor of Social Policy and Director, Centre for Analysis of Social Exclusion, LSE

Otmar Issing, President, Center for Financial Studies, University of Frankfurt and Advisor, Goldman Sachs International

Alice M. Rivlin, Senior Fellow, Economic Studies, The Brookings Institution

Key takeaways

(1) Changing demographics is a global reality, but the challenges vary considerably. For example, the pressures associated with aging populations are most pronounced in Europe and Japan, and are less acute in Africa and the Middle East where some countries instead face the challenges of very young populations and their differing needs. Further, there is wide variation by country with regard to the support structures in place, including government and private programs, for pensions, health care and education.

(2) Panelists noted that the positive aspects of increased longevity are often overlooked by policymakers who focus on the associated costs. Longer life spans are a measure of success. Life expectancy in countries currently in the OECD has increased by an average of 2.5 years per decade since the mid-1800s, thanks to improved food, sanitation, water quality and health care. This trend is projected to continue.

(3) The combination of falling fertility rates and rising longevity is leading to an older and smaller working-age population (as a percentage of the total) in many countries, in particular across the OECD. These developments affect the organization of work and the structure of product demand, as well as the financing of pensions and health care. Pay-as-you-go systems, in which current workers finance the assistance for retired workers are under enormous stress and may not be sustainable. In the long term, aging of the population may threaten economic competitiveness if significant current national income is diverted to expenses that might have been prefunded.

(4) At the same time, some countries remain quite young, on average, due to higher relative fertility rates and different migration pressures. This presents a different challenge, and is felt most acutely in the developing world. Demographic transition in this context leads to a significant "youth bulge," challenging education and job creation. There is the potential for notable political unrest if these challenges are not successfully met.

(5) Global aging and shifting labor market structures raise critical questions for corporate leaders and government policymakers, including how to best provide for longer retirement periods and related strains on pension and older-age health care systems. In the United States, retiree health care obligations represent the biggest retiree liability, several times larger than pensions. While defined benefit pension plans of S&P 500 companies are collectively overfunded, retiree health care plans remain underfunded by almost \$300 billion. This concern is greatest in the public sector, where we now have increased information on these liabilities, and it would appear that many plans are underfunded.

Across the G7 countries, health care spending now represents over 10% of GDP. At current rates, the cost of health care provision by the public sector is projected to outpace

government revenues. And as aging populations consume more and increasingly expensive health care, demographic transition is likely to exacerbate this shortfall.

(6) The fiscal risk associated with health care expenditures is that, in the absence of change, the costs of current programs will automatically increase, in some cases substantially. Given the current deficits in many governments' budgets across the OECD, one related risk is the crowding out of growth-enhancing investments such as education, infrastructure and environmental protection. There is also the potential for intergenerational discord.

There was active discussion among the panelists regarding the need for comprehensive change in the delivery of health care to the entire population, not just retirees. Some countries aim for universal provision under a single-payer system and other favor greater competition among private plans. In all cases, there was a call for efforts to moderate the growth of future expenditures through market-oriented and regulatory reforms and efficiency improvements.

In most countries, the future of health care is one of the most essential of domestic challenges. Solutions will require a move toward political consensus, especially given the inter-generational stresses.

(7) Several policies must be considered when viewing the full set of risks associated with demographic change. These include:

- Encouraging an increase in savings and allowing work life to extend alongside life expectancy.
- Reforming pension policies to enable individuals to continue working without a diminution of cumulative benefits, reversing the current disincentives of many current programs. Consider the gradual rise now occurring in the "retirement age" for Social Security in the United States. It was originally set at 65 in the mid-1930s when average life expectancy was 63 years.
- Enhancing the economic vitality of the working population through orderly and skills-based immigration, enhanced education, training and retraining of the workforce, and closing the gender gap in employment. A key goal is the maximization of the population's labor force participation.

(8) Goldman Sachs research forecasts rising pricing pressure on health care providers in the near term. Historically, demand for health care services has been resilient to signs of slowing economic growth. While sustained weakness is likely to slow demand for elective and near-elective procedures and treatments, several sectors remain attractive (e.g., medical devices, large-cap biotechnology and pharmaceutical services).⁴

(9) There may be a significant role for the private sector in the management of health care-related risk. Critical among these will be improving the effectiveness of health care delivery, including digitized information systems for health care professionals to track patients. So-called longevity bonds may help smooth the financial impact on insurance and health care providers. Financial instruments aimed at individuals of differing ages and needs could be customized for the purpose of funding their long-term expenses. Finally, effective professional management of financial instruments in pools set aside to prefund health care and pension liabilities could ease the stresses when those monies are needed in the future.

⁴ May-Kin Ho, *et al.*, "Healthcare trends and the weak economy", Goldman Sachs Global Investment Research, Healthcare Investment Strategy: Americas, May 14, 2008.

Panel 5: Rising protectionism

Moderator

Peter Sutherland KCMG, Chairman, Goldman Sachs International and Chairman, BP plc

Panelists

Ambassador Charlene Barshefsky, Senior International Partner, WilmerHale

Mario Monti, President, Bocconi University and Chairman, Bruegel; Advisor, Goldman Sachs International

Razeen Sally, Director, European Centre for International Political Economy, Brussels and Senior Lecturer in International Political Economy, LSE (on academic leave)

Key takeaways

(1) Panelists strongly agreed that open trade and investment are critical to future economic development – both within countries, and globally. International trade exhibits a stabilizing influence on national economies, particularly during periods of sluggish growth. The strong growth of US exports during recent months confirms this influence. In the past year, trade improvement in the United States has contributed an average of a percentage point to GDP growth, partially offsetting weakness in domestic sectors such as housing.

Sovereign wealth funds (SWFs) have recently come into focus. While they have grown markedly in recent years, these vehicles have been around for more than 50 years. In addition to providing necessary funds to address fiscal imbalances, SWFs allow developing countries to diversify reserve holdings and/or profits from sales of natural resources.⁵ Their increasing prominence reflects ongoing shifts in the distribution of global growth and wealth. This is yet another area that highlights the need to reform institutions of global governance in order to broaden representation.

(2) There are some emerging signs of economic nationalism and other protectionist measures. Following a “Golden Decade” of consolidation around the market-based model of economic integration, nascent protectionism can be seen in both developed and developing economies. This is occurring against the backdrop of economic and political uncertainty, and is brought into focus by prevailing election cycles in several countries.

In the United States, for example, this has recently taken the form of election campaign rhetoric and contentious new legislation involving agricultural subsidies. Recent opposition in Ireland and elsewhere to the Lisbon treaty governing reform of an expanded European Union is another indication of potential obstacles to integration.

(3) Panelists identified the following three key challenges to worker acceptance of globalization in developed economies:

- the shifting global balance of power (e.g., the reintegration of Asia around a strengthening China);
- the disruption of settled industries (e.g., manufacturing in developed economies), the sense that job losses have been hastened by globalization, and recent weakness in aggregate job creation; and
- rising income inequality.

(4) The trade experts on the panel do not anticipate any broad-based retreat from an internationalist economic policy in either the United States or Europe. This is despite near-term difficulties for the Doha Round and other multilateral trade negotiations.

⁵ Jim O’Neill, Erik F. Nielsen and Saleem Bahaj, “In defence of Sovereign Wealth Funds”, Goldman Sachs Global Economics Paper No. 167, May 21, 2008.

Protectionist forces in these regions are constrained by the increasingly global nature of sovereign finance, WTO commitments and processes of financial integration. The near-term political influences are not expected to persist.

(5) The success of economic integration in Europe underscores the importance of lowered trade barriers and the potential power of multilateral governance. The panelists emphasized that there is room to build on progress in this area, and that economic weakness and financial market distress will test the current model.

(6) Sustainable growth requires greater involvement by the BRICs and other emerging powers in global economic governance. This is particularly true given the dramatic impact that these countries already have on global economic and financial conditions. Reform in this area will require decisive political input from the European Union and the United States, and a commitment to an open trade and investment regime.

Recent experience with liberalization in telecommunications and financial services demonstrates the value of national leadership. Given near-term difficulties for multilateral trade liberalization, a sectoral approach by like-minded countries is seen as an effective complementary effort to the WTO and other international institutions.

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