



MILKEN INSTITUTE

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OPACITY INDEX 2007–2008:  
*Measuring Global Business Risks*



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*by Joel Kurtzman and Glenn Yago*

The Milken Institute is an independent economic think tank whose mission is to improve the lives and economic conditions of diverse populations in the United States and around the world by helping business and public policy leaders identify and implement innovative ideas for creating broad-based prosperity. We put research to work with the goal of revitalizing regions and finding new ways to generate capital for people with original ideas.

We do this by focusing on *human capital*—the talent, knowledge, and experience of people, and their value to organizations, economies, and society; *financial capital*—innovations that allocate financial resources efficiently, especially to those who ordinarily would not have access to it, but who can best use it to build companies, create jobs, and solve long-standing social and economic problems; and *social capital*—the bonds of society, including schools, health care, cultural institutions, and government services, that underlie economic advancement.

By creating ways to spread the benefits of human, financial, and social capital to as many people as possible—*the democratization of capital*—we hope to contribute to prosperity and freedom in all corners of the globe.

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## Introduction

The current update of the Opacity Index comes as the global economy faces high levels of risk, not only in several sectors, such as finance and housing, but also across regions, including North America and parts of Asia. Under such conditions, individual countries may be tempted to set aside their efforts at domestic economic reform, hoping that a return to the status quo will reignite growth.

But research suggests that the opposite is true. Measurable improvements in economic growth and resilience result from strengthening national institutions to address problems of **C**orruption, **L**egal systems, **E**nforcement policies, **A**ccounting and disclosure standards, and **R**egulatory quality. These five elements, which form the acronym CLEAR, constitute the underlying components of the Opacity Index. By bringing them to world-class standards, a country lowers its capital costs, as well as the risks of doing business there. Greater transparency results in reduced costs for transactions, due diligence, and accounting and legal fees, making a country more competitive on the basis of lower overall business costs. Countries that score better in their CLEAR components enjoy higher levels of portfolio and foreign direct investment.

The Opacity Index measures the costs and preponderance of high-frequency, low-impact risks resulting from corruption, a lack of due process, poor regulatory enforcement, and non-standard reporting practices, each of which adds substantial costs to global business. While these costs are often hidden, they operate like sand in the gears of commerce.

The ability to understand and measure risks that impede commerce enables companies to make better investment decisions, such as what markets to enter, where to base production, which companies to choose as outsource partners, where to execute contracts, and where to locate headquarters. These measures also serve as benchmarks for global portfolio managers looking for superior, risk-adjusted rates of return, and for governments interested in increasing their attractiveness to foreign investors. The Opacity Index can also help companies anticipate and prepare for problems when they must invest in specific geographic areas for long-term strategic reasons.

The index is the result of more than eight years of research by the Milken Institute, its senior fellows, and research partners. The economic and financial model underlying the index draws upon data from forty-one sources, including the World Bank, the International Monetary Fund, the International Securities Service Association, The Political Risk Services Group, IAS Plus, and the regulators and exchanges of individual countries.

In the 2007–2008 Opacity Index, there have been improvements, adjustments, and “fine-tuning” of the underlying data. These adjustments have been made while recognizing the importance of continuity when tracking a country’s changes, shifts, and improvements over time. The index integrates four new variables essential to a well-functioning financial market: strength of auditing and accounting standards, from the World Economic Forum’s *Global Competitiveness Report*; and three indexes—the Extent of Director Liability Index, Extent of Disclosure Index, and Ease of Shareholder Suit Index—from the World Bank’s *Doing Business 2008* online datasets.



In addition, some measures have been revised or replaced with new sources of information that more accurately reflect current conditions. For example, the measure for “whether a country complies with international financial reporting standards” has been replaced with “degree of compliance with international financial reporting standards.” In this way, the index better captures the progress countries make as they transition to International Financial Reporting Standards.

## The Index: An Overview

The forty-eight countries covered in the index account for 65 percent of Earth’s land mass, 77 percent of the world’s population (in 2007), 94 percent of 2007 world GDP, 93 percent of world financial assets, and 99 percent of world equity trading volume.

This Opacity Index shows an overall higher degree of compliance with international accounting standards for listed companies, as well as an increased awareness of good corporate governance and compliance with voluntary codes of conduct, such as the ones agreed to by international garment and toy manufacturers. The changes reflect greater cooperation among governments, exchanges, and financial associations to make financial statements and codes of conduct more coherent and accessible for the investor. Accounting standards scores have improved substantially for many countries, indicating increased levels of transparency in their accounting practices.

Yet even as countries improve accounting standards, global financial transactions are becoming increasingly complex, requiring still greater transparency in accounting systems. Proper and timely valuations of these transactions are necessary in order for investors to form unbiased expectations of the risk/reward trade-offs.

No area of the world—including the most developed countries—is immune from the need to achieve greater financial transparency. This can be seen in today’s financial markets, where tremendous complexity and insufficient information for determining price discovery in the mortgage-backed securities markets have led to a tightening of credit. In the U.S. market, investors have fled complex, securitized products for simpler, more transparent investment vehicles. To a lesser extent, the same trend is occurring in Europe.

## Top Five Country Rankings

Table 1 shows the 2007–2008 Opacity Index rankings of the forty-eight countries covered. Finland returns to the top in this update, after dropping to second place in the 2005–2006 index.<sup>1</sup> Finland’s improved score is the result of strong regulation and the convergence of accounting rules and practices with international standards. Companies in Finland are more transparent to foreign investors and partners, whose due diligence, legal, and accounting costs are reduced. In this manner, a higher-wage country (like Finland) can successfully compete for investment capital with lower-wage countries on the basis of lower overall business costs.

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1. The 2005–2006 Opacity Index is published in the book *Global Edge: Using the Opacity Index to Manage the Risks of Cross-Border Business*, by Joel Kurtzman and Glenn Yago, Harvard Business School Press (2007).



Table 1. Opacity Index 2007–2008

Country	2007–2008					2007–2008 Opacity Score	2005–2006 Opacity Score	2007–2008 Country Rank	2005–2006 Country Rank
	C	L	E	A	R				
Finland	3	13	24	1	5	9	17	1 (↑)	2
Hong Kong	21	10	18	1	12	12	19	2 (↑)	3
Singapore	13	17	22	14	5	14	28	3 (↑)	16
Sweden	10	21	35	1	8	15	25	4 (↑)	9
Australia	16	19	32	1	5	15	24	4 (↑)	7
Denmark	6	19	30	10	16	16	22	6 (↓)	5
Austria	15	12	32	10	14	16	25	6 (↑)	9
Ireland	30	15	31	1	5	16	25	6 (↑)	9
United Kingdom	22	7	37	10	10	17	14	9 (↓)	1
Germany	16	10	33	10	18	17	27	9 (↑)	13
Belgium	30	21	40	2	11	21	27	11 (↑)	13
Canada	14	12	37	32	14	22	24	12 (↓)	7
United States	32	23	34	20	7	23	21	13 (↓)	4
Switzerland	14	23	30	35	16	24	27	14 (↓)	13
France	21	38	37	1	21	24	39	14 (↑)	26
Netherlands	13	23	37	32	19	25	23	16 (↓)	6
Japan	36	20	33	21	17	25	26	16 (↓)	12
Portugal	31	27	37	16	16	25	39	16 (↑)	26
Chile	27	24	36	26	16	26	32	19 (↓)	17
South Africa	45	29	41	1	13	26	32	19 (↓)	17
Spain	33	25	45	19	13	27	36	21 (↑)	24
Israel	37	29	46	23	17	30	34	22 (↓)	20
Hungary	51	34	38	13	13	30	38	22 (↑)	25
South Korea	46	29	31	30	21	31	35	24 (↓)	23
Malaysia	44	29	38	29	18	32	34	25 (↓)	20
Greece	54	33	47	12	16	32	40	25 (↑)	28
Czech Republic	49	40	47	4	19	32	41	25 (↑)	30
Taiwan, China	48	32	38	30	20	34	33	28 (↓)	19
Poland	54	38	53	13	20	35	43	29 (↑)	32
Turkey	52	39	47	12	31	36	43	30 (↑)	32
Thailand	61	40	41	21	23	37	34	31 (↓)	20
Mexico	60	47	47	21	12	37	43	31 (↑)	32
Egypt	63	36	56	4	29	37	47	31 (↑)	41
Italy	49	38	66	22	18	38	44	34 (↑)	35
Russia	67	45	47	26	21	41	45	35 (↑)	39
Indonesia	50	46	51	31	28	41	56	35 (↑)	46
Ecuador	63	58	47	22	22	42	44	37 (↓)	35
Argentina	63	53	53	32	15	43	44	38 (↓)	35
Pakistan	65	46	56	30	20	43	45	38 (↑)	39
India	56	45	58	29	33	44	44	40 (↓)	35
China	58	43	49	41	33	45	48	41 (↑)	42
Brazil	64	51	56	37	21	46	40	42 (↓)	28
Saudi Arabia	64	41	45	63	23	47	52	43 (↑)	45
Philippines	66	49	54	39	28	47	50	43 (–)	43
Colombia	57	52	68	44	17	48	42	45 (↓)	31
Venezuela	76	71	66	4	24	48	50	45 (↓)	43
Lebanon	77	62	60	20	29	50	58	47 (–)	47
Nigeria	71	66	50	64	36	57	60	48 (–)	48

Note: The Opacity Index ranges from 1 to 100. The higher a country's score, the greater its opacity. Each component of opacity—(C) corruption, (L) legal systems, (E) enforcement policies, (A) accounting and disclosure standards, and (R) regulatory quality—is rated separately and contributes to the country's overall opacity rating.



Hong Kong's score has improved sufficiently to move the country into second place, from third in the previous index. Its auditing and accounting standards are among the best in class. In addition, business regulations are straightforward and corruption is low, although still higher than corruption levels in Finland or Singapore. Hong Kong's relatively higher corruption levels indicate that while the city is a vibrant growth center, it will grow faster still if it lowers those levels.

Singapore has moved into third place, up from sixteenth in the 2005–2006 index. This strong showing comes despite the fact that Singapore is the only country among the top five not yet in compliance with International Financial Reporting Standards. Still, the regulations and procedures for opening and closing businesses in Singapore are among the most efficient: on average, it takes only five days to open a business there, compared to an average of forty-three days globally. Singapore's enforcement procedures scored better than those of many other countries, and bankruptcy filing and proceedings are simple and easily carried out.

Australia and Sweden both ranked in fourth place, up from seventh and ninth, respectively. Not only were their accounting standards for listed companies fully in compliance with IFRS rules, but Australia requires IFRS standards for large unlisted firms and encourages compliance from other firms, as well. Despite Sweden's high compliance in accounting standards, the country did not score well in the corruption component and was rated poorly for its burdensome regulatory structure. These scores indicate that opacity, with its overall risks and costs, is based on a multiplicity of factors and that the negatives can be counterbalanced by the positives.

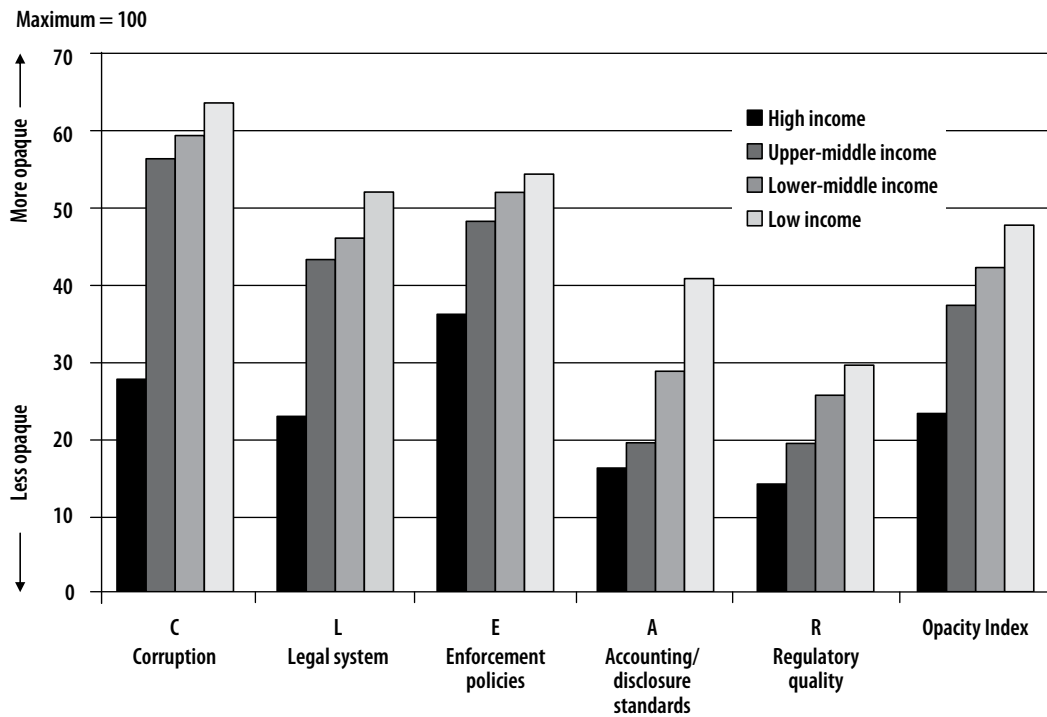
## Correlating Opacity with Other Indicators

To check the efficacy of the Opacity Index, it was correlated with other indicators. When the forty-eight ranked countries are separated into the four World Bank income groups, it is clear that each component of opacity worsens as group income declines (chart 1). For years, accounting was an exception to this trend, with improvements seen worldwide and across all income groups. More recently, European scores have improved as the region embraces uniform codes and streamlined regulations for corporate governance.

Chart 2 reconfirms the relationship between opacity and income level, as measured by gross national income (GNI) per capita. For every unit of increase in the Opacity Index, GDP per capita declines by US\$1,265.



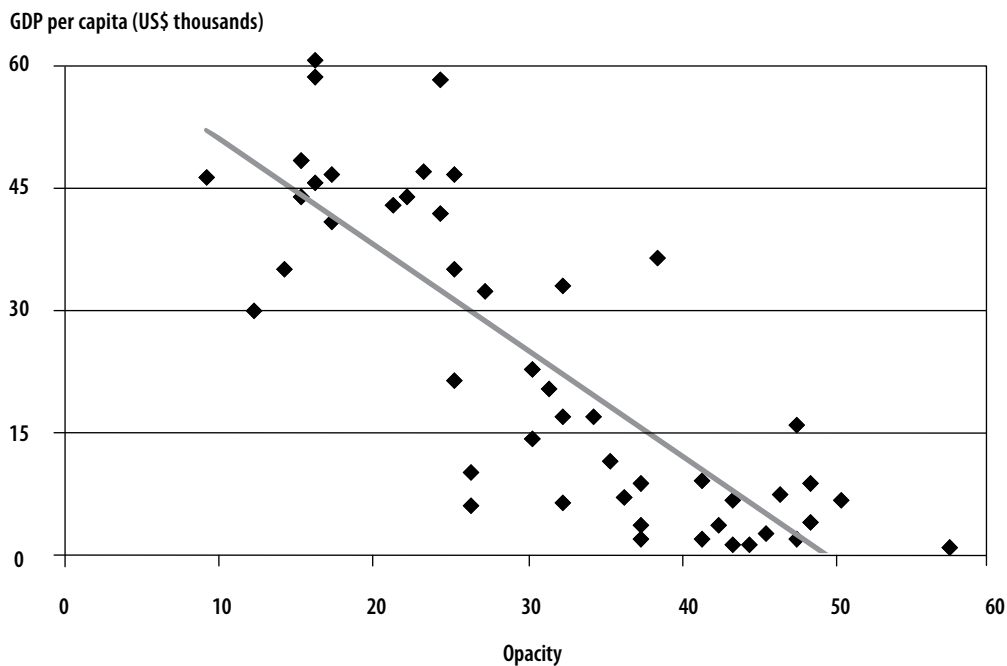
**Chart 1. Opacity Index averages, by World Bank income group**



*Note:* The World Bank’s main criterion for grouping economies is gross national income (GNI) per capita. The groups are: low-income equivalent, US\$905 or less; lower-middle income, US\$906–\$3,595; upper-middle income, US\$3,596–\$11,115; and high income, US\$11,116 or more.

**Chart 2. Opacity vs. GDP per capita**

For every 1-point increase in opacity, GDP per capita decreased by US\$1,265.







As can be seen from chart 3, the overall relationship between opacity and foreign direct investment is negative. The higher the level of opacity, the lower the volume of investment inflows. Investments tend to flow into countries whose financial and economic systems are more transparent. (The exception is China, which attracts investment in large measure because of its size.) Lower investment circulation tends to push capital costs higher. It is estimated that for every unit of increase in the Opacity Index, foreign direct investment decreases by 0.18 percent of GDP.

### Chart 3. Opacity vs. foreign direct investment

For every 1-point increase in opacity, foreign direct investment as a percent of GDP decreased by 0.18 percentage point.

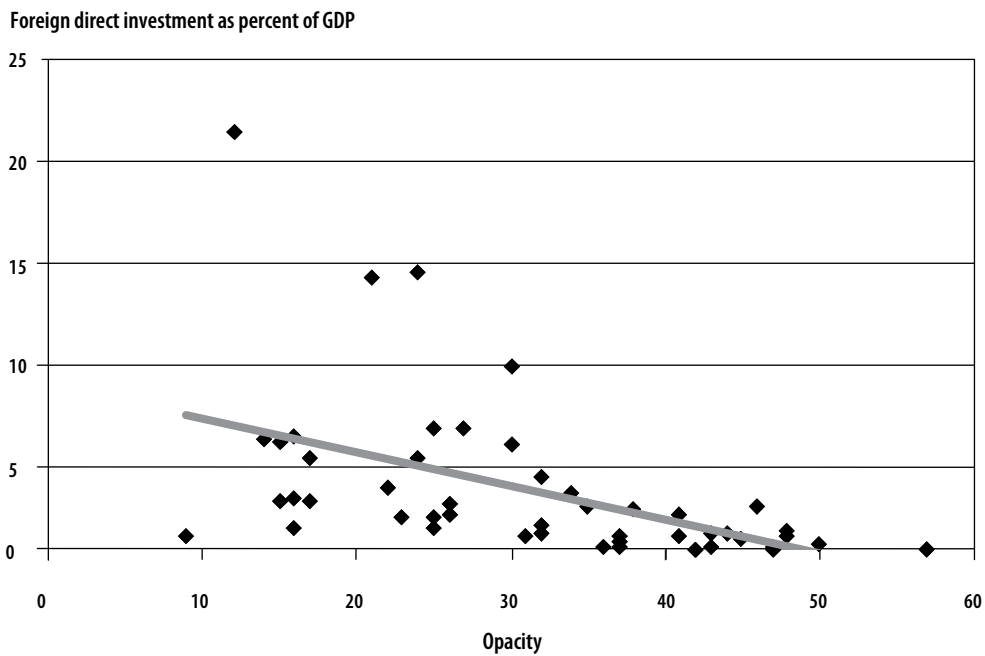
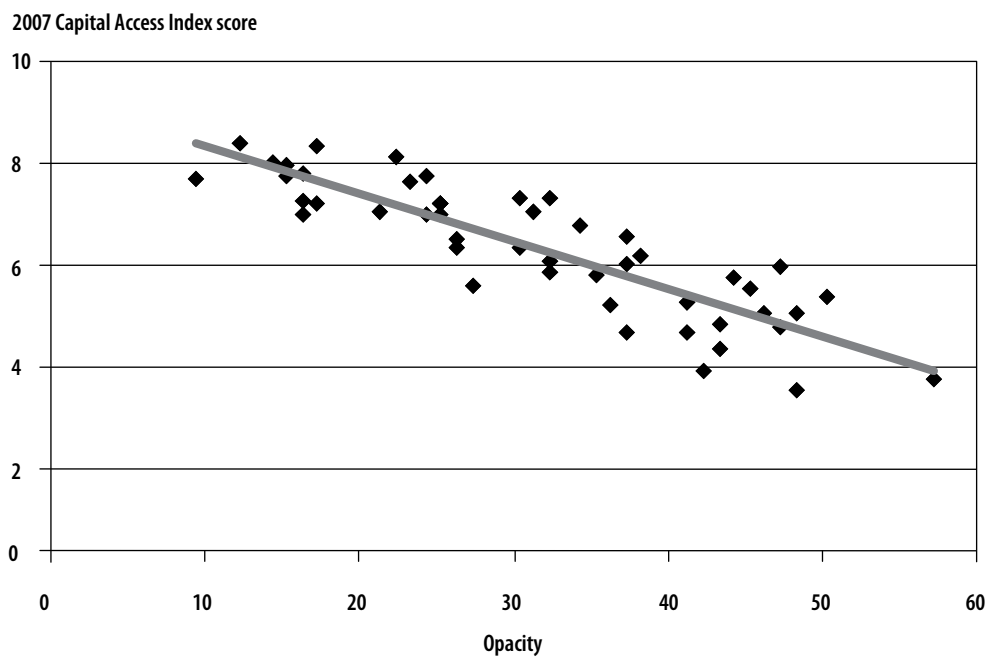




Chart 4 illustrates the relationship between the Opacity Index and the Capital Access Index (CAI), a Milken Institute ranking of countries on the basis of entrepreneurial access to capital. The CAI is based on variables that measure such market features as liquidity, interest rate volatility, and the availability of private equity and venture capital. Since the Opacity Index measures and rates the fundamental elements of both business and legal contracts, it is no surprise that the two indexes are negatively related. Higher levels of opacity mean less capital is available for businesses and entrepreneurs.

### Chart 4. Opacity vs. Capital Access Index

For every 1-point increase in opacity, the Capital Access Index score decreased by 0.1 point.





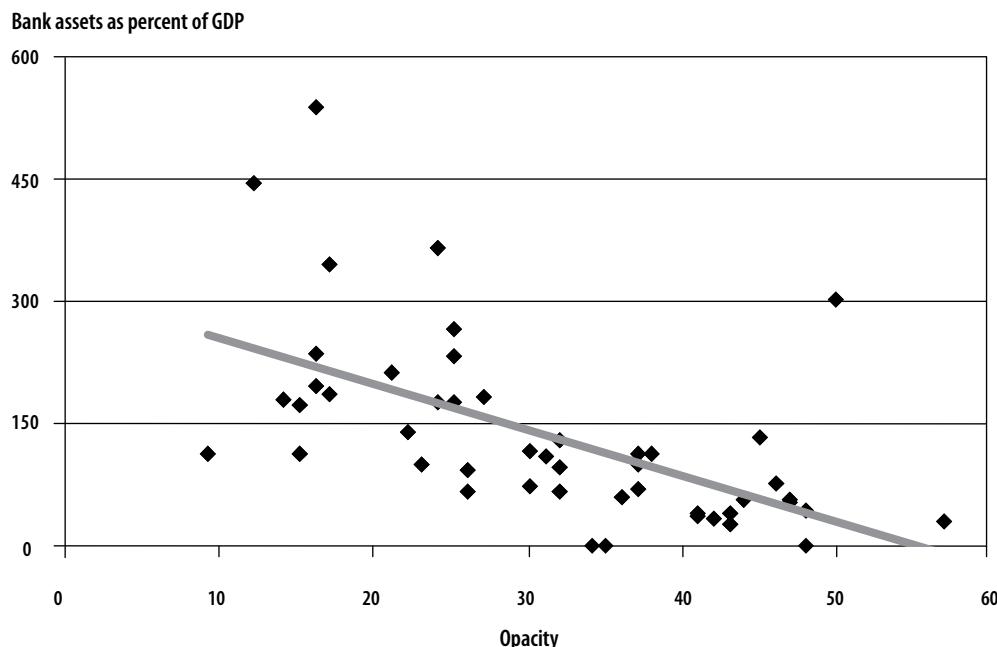
Bank activities and equity market capitalization are also related to the opacity levels. For every unit of decrease in opacity, the ratio of total bank assets to GDP increases by 5 percentage points. Transparency creates an environment in which banks thrive. In addition, every unit of decrease in opacity leads to a 4 percentage-point increase in the ratio of total equity to GDP (charts 5 and 6, respectively). Chart 7 shows that for every unit of decline in opacity, there is an increase of 3 percentage points in equity trading volume, relative to GDP, suggesting again that high levels of transparency and a robust financial system go hand in hand.

Opacity is a risk that companies and countries ignore at their own peril. As companies come to understand opacity, they can develop strategies that will enable them to avoid problems as they expand global operations and activities. Legislators and regulators can improve their country’s appeal to portfolio and foreign direct investors by taking steps in specific areas to lower risk and create opportunities for higher rates of return—and they can track their programs through instruments like the Opacity Index. The index also shows where systems and policies need redress, as is the case of the United States and the United Kingdom, both of which have fallen in rank. Recent problems in the financial markets of these two countries did not simply happen on their own. Just as the index predicted, less-than-optimal market regulation and diminished levels of transparency, especially in the mortgage markets, created an environment in which problems could emerge.

For policy makers, there are lessons to heed from the Opacity Index: improve each lagging CLEAR factor to world-class levels. For investors, the lessons should be equally evident: deteriorating CLEAR factors indicate an increase in overall risk. The index is not meant to be punitive; nor is it designed to point an accusatory finger at a country or culture. Instead, it is designed to show that certain types of institutional behaviors cost more than others.

**Chart 5. Opacity vs. bank assets**

For every 1-point increase in opacity, bank assets as a percent of GDP decreased by 5.8 percentage points.







## About the Authors

**Joel Kurtzman** is a Senior Fellow and Publisher of *The Milken Institute Review*. He is a senior advisor to Knowledge Universe and a principal at the Kurtzman Group. Previously, he was global lead partner for Thought Leadership and Innovation at PricewaterhouseCoopers, responsible for developing new, marketable ideas in strategy, technology, the capital markets, and business policy. Kurtzman developed the Opacity Index with the Milken Institute. He is the former editor of the *Harvard Business Review* and a former member of the editorial board of Harvard Business School Publishing. He was also business editor and columnist at the *New York Times*. He was a columnist for *Fortune*, *Chief Executive*, and the *European Business Forum*. Kurtzman is a member of the editorial board of MIT's Sloan Management Review and an advisor to Wharton's SEI Center. He has lectured around the world, hosted television and radio programs globally, and served as chairman of numerous conferences. Kurtzman received his bachelor's degree from the University of California, Berkeley, and a master's degree from the University of Houston in studies of the future (economic forecasting). He has served on public and private company boards and on the boards of nonprofit organizations.

**Glenn Yago** is Director of Capital Studies at the Milken Institute and an authority on financial innovations, capital markets, emerging markets, and environmental finance. He is also a Senior Koret Fellow, directing postgraduate research on economic and financial reform in Israel. Yago focuses on the innovative use of financial instruments to solve long-standing economic development, social, and environmental challenges. Prior to joining the Institute, Yago served as a professor at the State University of New York-Stony Brook and City University of New York Graduate Center. He has also taught at Tel-Aviv University and the Interdisciplinary Center-Herzliya. He is the author of five books, including *Global Edge* (Harvard Business School Press), *Restructuring Regulation and Financial Institutions* (Kluwer), and *Beyond Junk Bonds* (Oxford University Press), and co-editor of the *Milken Institute Series on Financial Innovation and Economic Growth* (Springer). Yago created the Milken Institute's Capital Access Index, an annual survey measuring access to capital for entrepreneurs across countries, and co-created the Opacity Index, measuring financial risks associated with corruption, legal, enforcement, accounting, and regulatory practices internationally. His opinions appear regularly in the *Los Angeles Times* and the *Wall Street Journal*. Yago is a recipient of the 2002 Gleitsman Foundation Award of Achievement for social change. He received a Ph.D. from the University of Wisconsin, Madison.



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