

EXHIBIT 11 A Guide to Globalization, Productivity and Cost

Globalization raises productivity and reduces cost in 10 ways.

Factor	How It Works
Lower Communication and Transportation Costs	Consumers benefit directly when moving information and goods across international borders becomes cheaper. Communication and transportation drive the other factors in this guide, offering even greater potential for higher productivity and lower costs.
Better Production Functions	When communication and transportation are cheap and easy, firms have access to productive inputs anytime, anywhere. Firms can develop and manage production functions less constrained by skills, work hours, cost and availability of local labor. They're also less reliant on local resources and capital.
Stronger Competition	Increased competition makes it harder for firms to raise prices when costs rise, forcing managers to find better ways to produce. Those who do, survive; those who don't are eliminated. In this way, production is constantly transferred to the most efficient, adaptable and innovative firms.
Greater Specialization	People and nations become more efficient when they concentrate on what they do best and meet other needs through trade. Output increases with equal or less labor input—a pure productivity gain. Even better, specialization focuses attention on specific tasks, leading us to think more deeply about how to improve production processes. What stimulates innovation raises productivity growth.
Larger Market Size	The bigger the market, the greater the potential sales and profits. Market size stimulates innovation and business formation by offering inventors, entrepreneurs and capitalists greater return for their ideas, effort and risk.
Extended Economies of Scale	Most knowledge-intensive goods are produced under conditions of high fixed and low marginal costs, which create substantial economies of scale. Larger markets expand producers' reach, allowing them to spread the fixed costs over even more customers. The results are lower unit costs of production and lower prices for consumers.
Broader Capital Markets	Access to global capital enables entrepreneurs to shift productive assets to uses with the highest returns, wherever they may be.
More-Contestable Markets	In a world of isolated nations, a supplier in a small country may have substantial monopoly power. Integrating economies puts producers everywhere in competition, with access to a virtually limitless supply of capital. The threat of new entrants discourages suppliers from charging too much.
Greater Knowledge Spillovers	The transfer of productive knowledge makes economies more efficient. Knowledge has long moved across borders through trade (embodied knowledge). Now, more of the spillovers are general information and research (disembodied knowledge), creating larger economic ripples.
Spread of Nonrivalrous Consumption	Products are nonrivalrous when one person's consumption doesn't diminish another's. TV, movies and the Internet are examples of nonrivalrous goods that can serve additional customers without significant additional costs, thereby contributing to lower costs as they speed around the globe.

Living Standards on the Rise

The world's reservoir of knowledge has risen steadily in recent decades. What's more remarkable about our times, though, is our instant access to knowledge acquired anywhere on the planet. The technologies that make it cheaper to create, store, process and move information bring far-flung economies closer together—in a very real sense, making the world a smaller place.

Declining costs for moving goods and information drive globalization itself and propel the private sector to produce more at lower costs. The economic forces globalization unleashes are basic: international production functions, competition, specialization, larger markets, economies of scale, capital flows, more-contestable

markets, knowledge spillovers and nonrivalrous consumption. (See *Exhibit 11*.)

While conceptually distinct, these forces feed into each other in the real world, boosting their power. Specialization, for example, creates opportunities to further extend economies of scale. Knowledge spillovers hasten improvements in production functions.

All told, the greater productivity from globalization reduces costs and price pressures in the Knowledge Economy, much as it did in the Industrial Age. What's changed isn't the nature of the productivity push but its scope, reaching more countries and affecting more industries.

The planet has been becoming richer as a result. Global productivity growth has nearly doubled, going from 1.2 percent a year in

the 1980s to 2.3 percent a year in the past decade. Just as important, gains have been widespread. All regions except Western Europe and Japan did better in the past decade than they did in the 1980s. (See *Exhibit 12*.) The faster rise in productivity bodes well for both living standards and the real cost of living.

The Industrial Age delivered huge gains in productivity, allowing more people to live better. The Knowledge Economy promises even greater progress. A technological revolution that makes access to information cheaper and more democratic has sped up globalization, spread its benefits deeper into societies and touched nearly every part of the world. Knowledge is the ultimate source of wealth. Through globalization, we can spread its bounty.

— *W. Michael Cox and Richard Alm*

EXHIBIT 12 World Productivity Growth on the Rise

Fundamental economic forces have sped up productivity gains in nearly all parts of the world. Becoming more efficient reduces costs. Just as important, it leads to higher living standards—the real gain from globalizing the Knowledge Economy.

