

The New Economic Geography— An Introduction to the Bank’s 2006 Economic Symposium

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During the past 20 years, the number of countries taking part in the global economy has soared. Some countries made this transition by reforming their economic systems. Others did so by reducing their reliance on capital controls and barriers to trade. Their transition to market economies has been facilitated by improvements in transportation technology that reduced the cost of shipping goods and services, making global transactions faster and more affordable. The information technology revolution further promoted this process by allowing significant savings in both the time and cost of communication and information processing.

These developments have spurred dramatic change in the location of production and the demand for various goods and services. Enormous growth has occurred in world trade, both in volume and product variety. Even more remarkable has been the development of global financial markets and the growth in cross-border trading of financial assets. These profound changes in the nature and direction of trade and capital flows have shaped a new economic geography.

The Federal Reserve Bank of Kansas City sponsored a symposium, “The New Economic Geography: Effects and Policy Implications,” in Jackson Hole, Wyo., on Aug. 24-26, 2006. The symposium brought

together a distinguished group of central bankers, academics, and financial market experts to examine how continued globalization is altering the structure of economic activity worldwide—or as one speaker put it, to consider “the history of the world and the future of the world economy.” The symposium was also a forum for assessing the challenges that greater economic openness poses for economic policymakers. Participants agreed that although the world has gotten flatter, geography still matters, but not so much that it dominates sound national economic policies.

Shifts in economic geography and their impact on product, labor, and financial markets

The first day of the symposium covered a range of topics. In his opening remarks, Federal Reserve Chairman Ben Bernanke provided a historical perspective on economic integration. In the first session, Anthony Venables explored the factors that drive shifts in economic geography. Gene Grossman and Esteban Rossi-Hansberg discussed the rise of trade in tasks and the associated reduction in the cost of offshoring, one factor driving changes in the location of activity. Raghuram Rajan, Eswar Prasad, and Arvind Subramanian considered whether capital inflows spur economic growth. The day concluded with a luncheon discussion by Stanley Fischer on the rise of Asia and its economic and political implications.

Economic integration: An intertemporal perspective

Chairman Bernanke discussed the ways in which the current episode of economic integration is similar to, yet different from, past episodes. He argued that technological improvements have been driving economic integration for the last 2,000 years, from the unification of the Roman Empire to the recent offshoring of the production of services. With each round of technological development, the costs of trade fell further. Only wars seemed to disrupt the resulting process of economic integration to a significant extent. The result has been a shrinking, but not the elimination, of the role of distance in the global economy.

In comparing the current episode of integration to previous ones, Bernanke cited two main developments. First, trade in services is expanding dramatically. Second, the pace at which a new economic geography is emerging is unprecedented. Across industries, the various parts of the production process are being split across locations to achieve greater specialization than ever before seen. Policymakers now recognize that governments can play a critical role in reshaping the global economy by allowing nations to exploit the gains from trade.

Bernanke closed his remarks by urging that the process of economic integration not be taken for granted. Geopolitical risks, as well as the social dislocation and associated political opposition that often follow from greater integration, threaten further progress. The failure of the Doha Round of trade talks is one example, as is the growing threat of military conflict around the globe. For economic and technological change to shrink distance further, Bernanke cautioned, policymakers must navigate around these challenges.

Why shifts in economic geography occur

In the opening paper of the first session, “Shifts in Economic Geography and Their Causes,” Venables provided an understanding of the location of economic activity and why it changes. Distance is not dead, according to Venables, because externalities exist. In knowledge-based economies, proximity to other people and sources of economic activity increases productivity by allowing the realization of agglomeration economies. Network effects are more fully realized in denser locations. Thus, economic activity moves to countries that are more productive, so the more activity a country has, the more it attracts. This results in greater urbanization as people and economic activity move from interior to coastal regions. It also results in greater income inequality.

Venables explained that this is not what neoclassical theory predicts. Rather, standard theory suggests that economic activity should be fairly uniformly distributed across space. As differences across countries are arbitrated away, resources flow to where they can most

productively be put to use, with the law of diminishing returns driving an ongoing process of convergence. Factor prices equalize, according to the theory.

In practice, however, the market forces that drive factor-price equalization can be overwhelmed by externalities, allowing spatial differences to persist. This reality creates the need for a general theory of the location of economic activity in which distance matters. The “new economic geography” aims to fulfill this need. As Venables explained, it recognizes that a dense configuration of economic activity, which brings more people into closer proximity, can increase productivity. There is a second-round effect as well, as mobile factors relocate to benefit from the higher productivity of more dense locations, making the areas even denser.

A natural outgrowth of the importance of proximity for productivity is large disparities in incomes. An increase in trade might not help reduce these differences. Only when real wages fall sufficiently in the less-productive country will economic activity start moving back to it, assuming no other forces are at work.

As Venables acknowledged, geography is not everything. “Good location is neither necessary...nor sufficient...for prosperity.” Endowments, institutions, and technology continue to be dominant influences on the location of economic activity.

Venables noted that in looking at the shifts in economic geography occurring today, he sees a lumpy spatial distribution of economic activity arising, both across sectors and in the aggregate. Because the clustering forces are externalities, the outcomes they generate are generally inefficient. There should be a role for policy to address such externalities, but economists are far from understanding what policies are needed and how to implement them.

In discussing the Venables paper, Douglas Irwin picked up where Venables left off, addressing what countries can or should do about changes in economic geography. The implication of Venables’ analysis is that there is a role for government policy in addressing

agglomeration externalities. It is easy to conclude that industrial policy is the solution. Irwin noted, however, that China, India, Korea, and Vietnam all transformed their economies with policy reforms, without any changes in geography or institutions.

Irwin also reiterated Venables' point that there has been no tendency for incomes to equalize as a result of the shifts in economic geography observed in the last 25 years. More of the distribution shifted upward, toward higher income levels, rather than flattening. Fears that wage equalization would occur to the lower level of the less-developed countries entering the global economy have been unfounded. National living standards have continued to be tied primarily to domestic productivity, not international competitive pressures.

During the general discussion, conference participants noted that the process of income divergence appears to be a transitional phenomenon—but one that lasts a very long time. As incomes diverge, the balance of power shifts across countries in ways that can disrupt established institutional arrangements designed to ensure peace. Military conflicts can erupt that destabilize economies and interrupt the process of economic integration. In the absence of such disruptions, how far can economic integration go? Participants agreed that the answer hinges on thinking about which factors of production are mobile and which are not.

Trade in tasks and offshoring

Grossman and Rossi-Hansberg focused not on why economic activity locates where it does, but rather on what kind of economic activity is relocating these days. In their paper, “The Rise of Offshoring: It’s Not Wine for Cloth Anymore,” they modeled trade in tasks—the individual steps involved in the production process—as compared to the usual approach of modeling trade in goods. Tasks are measured in terms of their tradability, and technological improvements are considered that reduce the cost of trading them. With the focus on the production of tasks, they analyzed how technological improvements that give rise to offshoring affect labor markets, the location of production, prices, and welfare.

Grossman and Rossi-Hansberg decomposed the impact on wages of cost-reducing technological change into three parts: a labor-supply effect, a relative-price effect, and a productivity effect. With this decomposition, the authors found that the productivity effect can dominate, so that the offshoring of low-skill jobs actually raises the wages of domestic workers who perform low-skill tasks. Similarly, better chances of offshoring high-skill tasks may raise the wages of domestic high-skilled workers. Thus, offshoring might not harm domestic workers, as is often feared.

The authors also found that actual low-skill wages in the United States grew more than would be predicted, based only on total factor productivity. They attributed the positive residual to offshoring,

In discussing the paper by Grossman and Rossi-Hansberg, John Taylor delved into the assumptions underlying the authors' strong and unexpected finding. He pointed out that the offshoring of all tasks must generally become easier. Specifically, the cost reduction in the production of tasks that was required to get low-skill wages to fall was a proportional shift in the cost of offshoring for every offshored task, even those previously relocated offshore, rather than in just the marginal task. If all innovations are like the development of the Internet and e-commerce, that assumption might be reasonable, but Taylor questioned whether all innovations affecting the extent of offshoring are of that nature.

Taylor also noted that the positive residual found in low-skill wages could be because of factors other than the rise of offshoring. For example, the residual could stem from technological changes that raise the productivity of low-skilled workers domestically.

To the extent the Grossman/Rossi-Hansberg model captures a realistic phenomenon, it implies that productivity changes affect wages in complex ways—that forge links between wages in one country and wages in another. Monetary policy makers must understand the dynamic process that results because wage dynamics can feed into inflation dynamics.

Symposium participants noted that a distinction is needed between tradable and nontradable service-sector jobs. Wages of workers in the nontradable service sector likely would not be affected by the outsourcing of jobs in the tradable service sector. Participants also questioned how the changes in relative wages would affect the skill distribution in the economy.

Consequences for financial markets and global saving and investment

The next paper turned from the location of production and labor to the direction of capital flows. In “Patterns of International Capital Flows and Their Implications for Economic Development,” Rajan and co-authors Prasad and Subramanian addressed the phenomenon that capital does not always flow from rich countries to poor countries, contrary to what economic theory suggests. In his presentation, Rajan attributed the reverse flow to the fact that developing countries often have little capacity to absorb foreign capital, except perhaps in the form of foreign direct investment (FDI).

Does foreign capital matter for growth? Other things equal, countries that attract more foreign capital should grow faster. The authors found, however, that net foreign capital inflows are positively correlated with growth only for industrial countries, not for developing countries. The reason they put forth is that poor countries tend to have underdeveloped financial systems that are prone to overvaluation and less able to handle volatility. Savings in such countries should grow more relative to investment when growth is strong, resulting in a correlation between the current account and the economy’s growth rate. In financially dependent countries with better-developed financial systems, foreign capital helps the country’s relative growth. In countries with poorly developed financial systems, foreign capital has a negative effect, if any. Rajan and his co-authors concluded that opening an economy to capital inflows might not help much unless the domestic financial sector is developed. Financial openness is not bad, but countries need to be aware that its growth effects might not be realized for quite some time.

Discussant Susan Collins thought that the relationship between faster growth and current account surpluses was not that surprising when viewed within the context of a simple analytical framework. She noted the authors' finding that savings is the driving force behind the relationship. This result goes hand in hand with the relatively small relationship found between investment and growth. Collins attributed this to the average investment rate being a poor alternative for growth in the capital stock when considering the impact of investment on growth.

Collins also noted that problems measuring financial development and financial integration could be influencing the authors' results. Measures of capital flows and the capital stock, as well as FDI, are worthy alternatives to the frequently used and simplistic measures of capital-account restrictiveness, which suggest little relationship between financial openness and growth.

To better explain the authors' correlations, Collins recommended their looking at shorter periods. Five-year panels, for example, would have greater variation across countries than the 30-year averages used by the authors. She further recommended distinguishing public from private investments in impact studies.

Symposium participants agreed that the evidence Rajan presented was not conclusive because no causal relationship had been established. They also noted that risk-adjusted rates of return were omitted from the analysis, which made identification difficult. Growth could be driving saving instead.

Comparisons also were made to the mercantilist era because of the emphasis on export-led growth. It was posited that China uses its large current account surpluses to subsidize the exports that are generating them.

The rise and recovery of Asia

In his luncheon address, "The New Global Economic Geography," Fischer closed the first day by focusing on the rise and the recovery of Asia. He distinguished the situation of China today from the

circumstances surrounding previous Asian miracles on the grounds that China is already unusually large. Export-led growth worked for the Asian miracles because the rest of the world could absorb their exports. Fischer thought it unlikely that China could continue to rely on export-led growth, given its size. Rather, it will increasingly have to rely on domestic demand to fuel growth. Fischer predicted that in the absence of a crisis or other interruption, the Chinese economy likely will continue to grow. Perhaps most important, however, was his reminder that “Trees do not grow to the sky. And trends that appear inevitable at one point of time can appear doomed from the perspective of only a decade or two later.”

The Indian economy has some more promising growth prospects, according to Fischer. Its financial system and conduct of monetary policy are more market-oriented than China’s, and it has a well-established legal system and a more stable political system than China. If the reform process deepens and India further opens its economy, its growth prospects are quite good.

Having considered Asia’s heavyweights, Fischer moved on to discuss regional developments in Asia. Trade linkages are forming among the Asian countries, said Fischer, and the prospects for some kind of Asian union, especially involving the East Asian countries, are positive. The political and economic power of China relative to Japan will weigh heavily in any effort to forge an alliance within Asia.

Fischer closed with an assessment of the economic and political implications of the rise of Asia. He noted that the current international economic system was developed after World War II. Today, the rising Asian and emerging-market countries are challenging that system and asking for a seat at the table. Fischer suggested that the impact of China and India in any new international economic system will depend primarily on whether Shanghai or Mumbai become international financial centers.

Politically, the big question from Fischer’s perspective was, What economic unions might form or disintegrate as China becomes even more dominant? Whereas no one country dominates the European

Union, China would easily dominate an East Asian union. Will an East Asian union be sufficiently harmonious to avoid destabilizing geopolitical conflicts? The answer is not clear.

Strategies for growth and the implications for monetary policy

The second day of the symposium focused on the relationship between economic openness and growth and the implications of greater economic integration for monetary policy. The day started with a panel of speakers, each discussing the route a particular region had taken, or could take, to open its economy and the challenges ahead. It then turned to the question of how a more integrated world economy might influence monetary policy. The symposium concluded with an overview panel that summarized key ideas from the symposium and perspectives on challenges for the future.

Strategies for openness and growth

Each member of the panel of regional experts discussed one nation's or region's experience in opening its economy. India, Eastern Europe, and the African continent were the regions covered. India has opened its economy to market forces by reducing its reliance on capital controls and trade barriers. The countries of Eastern Europe have reformed their economies and become market-oriented. The African continent remains the last major region not to participate in the global economy to a meaningful degree. Each speaker focused on the unique challenges, approaches, and successes of his region and the opportunities and obstacles to moving forward.

T. N. Srinivasan began the discussion by speaking of India's experience since its reforms and its future challenges. Before the reform movement, India's government intervened in almost all matters economic. It imposed foreign exchange controls, capital controls, and price controls, and even regulated virtually all decisions regarding investment projects and plant operations. According to Srinivasan, systemic reforms were implemented only after a macroeconomic and

balance-of-payments crisis, and even then were only accepted because the Soviet Union, on which it had modeled itself, had collapsed and because China, its major rival, was experiencing far more rapid growth.

Srinivasan cited numerous challenges that face India if it is to improve on its recent economic performance in coming decades. Key among these is the fact that India is still a very small economic player in the global economy, with only a sliver of global exports. India's saving and investment rates are high, but lower than China's, and FDI and capital flows into India are much less than those into China. Many institutional reforms are still needed. Labor laws and bankruptcy procedures must be liberalized for the manufacturing sector to grow much faster. Bottlenecks and restrictions on land use limit the extent to which the agricultural sector can expand—a real hindrance to India since it has a comparative advantage in agricultural production. The fiscal situation also must improve.

These challenges are countered by several bright spots, Srinivasan said. India has a thriving representative democracy, a well-developed private sector and financial system, and an established legal system. If the reform process expands, the bottlenecks that now exist can be overcome. All in all, Srinivasan felt India's chances of having sustained, if not accelerated, growth in coming decades are quite good.

Jan Svejnar discussed Eastern Europe. He focused on an interesting pattern in the development of the Eastern European economies since they started making the transition to market-oriented economies. The transition economies to the west stopped declining in the 1990s. They started growing sooner and grew faster than the transition economies to the east, which stopped declining and started growing after 1998.

Svejnar noted that proximity played a role in this disparity. The more western countries probably benefited from their proximity to Western Europe and its opportunities for trade. Svejnar said, however, that proximity could explain only part of the differences between the western and eastern transition economies.

Svejnar attributed the different paths taken by the western and eastern countries primarily to differences in when they carried out various reforms. All the countries quickly moved to stabilize their economies, liberalize prices, rid themselves of communist institutions, open their markets to capital inflows, and privatize at least some business enterprises. Most created independent central banks. Only some, however, moved quickly to create the infrastructure necessary for the functioning of a market economy—for example, the establishment of a legal system that allowed for the creation and enforcement of property rights. In his view, the more western countries started growing sooner because they put this infrastructure in place sooner. The eastern countries delayed such reforms and suffered as a consequence.

Svejnar also noted that opinion surveys reveal that a majority of people feel the transition was worthwhile. Still, in many of the transition economies, more people feel the losses exceeded the gains. This finding echoed comments made by participants throughout the symposium regarding the difficulty politicians have staying in power after undertaking any reform efforts.

Paul Collier identified Africa as having two key geographic features: abundant but unevenly distributed natural resources, and an unusually diverse population divided into many different countries. For practical purposes, this first feature results in three types of countries: resource-rich, resource-poor coastal, and resource-poor landlocked. Whereas the vast majority of the world's population lives in the second category, in Africa the population is fairly evenly spread across the three groups.

The second key feature of Africa's geography—its many countries and great diversity—is also a challenge. With so many countries, each is much smaller than the average country worldwide and considerably more diverse. Small populations make it difficult for institutional features to arise that tend to generate and support change. Collier cited the scale a country must achieve to support a financial press as an example. Additionally, the very diverse population requires a democratic political system because no single ethnic group could

represent a sizable share of the population. For these reasons, Africa needs a democratic political system more than other regions.

Collier said that the strategies for growth for the three types of countries differ. The resource-rich countries with diverse populations have large public sectors by necessity. Resource rents are taxed, and the tax revenues are put to use by the government. The implication is that the government must be accountable to the public. Collier explained that democracy spurs growth where resource rents are small. But autocracies perform better where resource rents are sizable because the rents undermine the checks and balances built into democratic systems. The compromise is a special form of democracy, with unusually strong checks and balances on public spending projects. He noted that an independent central bank is one crucial check and balance.

Worldwide, coastal countries with scarce resources have tended to grow the fastest. Those in Africa, according to Collier, have not kept up. Trade liberalization during the last 25 years led some industries to relocate to low-income countries, though most went to Asia rather than Africa. The agglomeration effects that Venables discussed now give Asia a huge advantage over Africa. The wage gap between Africa and Asia will have to widen considerably, probably over several decades, before Africa will have a chance to catch up.

Collier said that resource-scarce landlocked areas usually are not independent countries. The exceptions are landlocked in the center of regional markets and benefit from trade with their neighbors. Africa is unusual in that it has so many poor and landlocked countries. These resource-scarce countries have had to struggle all the more because their resource-rich neighbors' growth has been stunted by their own failure to take advantage of their natural resources

In the end, Africa's future will depend on how it handles two major challenges, Collier said. First, how does it manage its resource rents in the context of ethnic diversity? Second, how does it compete with Asia despite Asia's head start?

Implications for monetary policy

The last paper presented was Kenneth Rogoff's "Impact of Globalization on Monetary Policy." He considers three issues: the impact of globalization on inflation, the persistence of asset-price volatility despite the more stable macroeconomy, and the consequences of greater economic integration for monetary policy.

Rogoff argued that, despite some claims to the contrary, no country can export deflation. China's effect on international competitiveness only affects relative prices. China might export deflation to the prices of other goods, but not to other countries. A central bank might be able to target somewhat lower trend inflation rates if it lets inflation drift in the face of favorable shocks to the terms of trade.

Rogoff went on to urge central banks not to be obsessed with asset price volatility. Such volatility is persisting at least partly because financial markets are better able to diversify risk these days and so more aware of changes in risk. Asset prices, thus, are more sensitive to risk as well. He noted, however, that the increased volatility of asset prices stands in sharp contrast to the reduced volatility in output and inflation widely observed in recent years. Rogoff viewed part of the volatility in asset prices as being a transitory phenomenon as investors learn the risk profile of an economy with lower macroeconomic risk. The rest of the volatility is a long-term phenomenon, arising because when long-term interest rates and risk premia are falling, long-term asset prices are rising and becoming more sensitive to perceived changes to risk and future interest rates. This long-term effect can offset the transitory effect associated with reduced macroeconomic stability, making asset prices more volatile.

In closing, Rogoff noted that the greatest challenge for central banks as a result of globalization was to ensure that their institutional arrangements can preserve low trend inflation, even in periods when the process of economic integration is interrupted. Asset prices, including exchange rates, will be more volatile at such times but should not distract central banks from their core mission of inflation and output stabilization.

Charles Bean discussed the Rogoff paper, generally agreeing with its conclusions. He was less convinced than Rogoff that globalization will steepen the short-run output-inflation tradeoff. Instead, Bean saw globalization as resulting in greater specialization in production and, thereby, making an economy more sensitive to the world output gap than to the country's domestic output gap. This has been observed in a number of countries in recent years. Bean also saw the rise in oil prices and other commodity prices as the result of the rapid growth of China and other emerging-market economies. This led him to conclude that measures of overall inflation would be preferable to measures of core inflation, which would abstract from this side effect and, thus, give a misleading picture of the impact of globalization on inflation.

Bean went on to question whether the high degree of inflation stability observed in the last 10 years could be maintained. He noted that the integration of capital markets might be reducing a central bank's influence over domestic real interest rates and, thus, domestic inflation. Monetary policy would still impact the price level through the nominal exchange rate and inflation expectations, but its effect would be less predictable.

Bean had a somewhat different perspective than Rogoff on whether asset price volatility was one of the biggest challenges to monetary policy now. Bean thought the greater challenge for a central bank was identifying whether elevated asset prices are being driven by fundamentals or by some sort of bubble that might burst.

Bean also commented on Rogoff's conclusion that policy should not react to asset-price and exchange-rate fluctuations but should accommodate terms-of-trade shocks. Bean concurred with the first conclusion. He agreed with the second conclusion as well, but only to the extent that there probably would not be any adverse effects on inflation expectations and credibility from accommodating such shocks. He questioned whether inflation expectations would remain anchored in the face of such a policy.

Symposium participants debated the ease with which a central bank could determine the proper response to asset-price or terms-of-trade shocks. They also questioned why corporate profits are so high if

globalization is making markets more competitive. They thought the very long expansions and short and mild recessions observed in recent decades represent as significant a gain in macroeconomic performance as the reduction in volatility. Rogoff, however, was not convinced that recessions are less frequent now, although he agreed that they are milder.

Overview panel

The symposium concluded with Martin Feldstein, Arminio Fraga, and Rakesh Mohan providing their summaries and perspectives on the papers and issues addressed.

Feldstein addressed the issues of global imbalances. He saw the major challenge for central banks to be managing their economies as the U.S. current account deficit declines. A major adjustment is needed. For that adjustment to occur, the United States will have to increase its exports to the rest of the world, which will reduce aggregate demand and employment in those countries. Central banks will have to ease monetary policy or tighten policy less than they otherwise would to reduce inflation. The adjustment will be especially tricky for the countries in the European Union since monetary policy will not maintain employment in all countries.

Fraga, the former governor of the central bank of Brazil, continued the discussion of imbalances by suggesting that they might represent an equilibrium response. This possibility seemed plausible at first as developing countries turned to the United States as a place to invest. Now, though, as the imbalances persist and the United States is relying on foreign savings to fund consumption, this scenario seems unlikely. Fraga expressed concern about the U.S. consumer, now dealing with higher interest rates and oil prices and a slowdown in U.S. housing markets. Will consumption decline if the U.S. consumer is less able to borrow against home equity? Can the rest of the world make up for such a slowdown? Feldstein had earlier questioned the ability of the rest of the world to make up the difference.

Since there had been no focus on Latin America during the symposium, Fraga took a moment to consider why it has not been growing recently. He cited four reasons. The first was macroeconomic instabil-

ity. Studies suggest that had there been no financial or other macro-economic crises, Latin America would have experienced much healthier growth rates. The second factor was low savings and investment rates. It is still relatively hard to open and operate a business in Latin America compared to elsewhere. Third on Fraga's list was the poor quality of education in Latin America. Fourth was governance. Fraga questioned whether populism had returned to Latin America. He closed by noting that institutionalizing the independence of a central bank is of key importance, but that such independence can be easily undone. A tradition of sound central bank behavior must become part of the fabric of a nation.

Finally, Mohan, the deputy governor of the central bank of India, discussed his view of Asia's development. He cited government policies that focused infrastructure development in particular corridors as playing a major role in the agglomeration economies that exist in Japan. This created an environment in which outsourcing could take hold. He also noted that the high saving and investment in Asia allowed rapid growth without the use of foreign capital, contributing to the lack of correlation found by Rajan.

Looking ahead, Mohan saw rapid population growth continuing in Asia, resulting in greater urbanization. This will lead to a further flattening of trade and help keep inflation low. It also would lead to an increase in demand for additional infrastructure development. This could cause a more traditional relationship to return between capital inflows and growth. He noted that world saving had not grown since the late 1990s, despite talk of a savings glut. What is more striking is the investment drought that has been occurring, with investment falling, especially after the 1997 Asian financial crisis. This has contributed to the record U.S. current account deficits.

Among the topics addressed by participants in reflecting on issues raised by the panel was the change in oil usage observed in the last 20 or 30 years. Worldwide, oil usage has come down significantly. Developing countries are the least efficient, using oil most intensively. The United Kingdom and Japan are at the other extreme and twice as efficient as the United States.

Participants also returned to a recurring theme of the symposium: Geography is not an excuse for a failure to reform a nation's political economy. Every political system has stakeholders, and change always brings winners and losers. The challenge is how the reform can be carried out and the reformer win the next election.

Participants agreed that the most critical reforms would require removing trade barriers; opening product markets; instituting an effective education system; implementing sound monetary and fiscal policy; making labor markets more flexible; and creating checks and balances and a democratic political system. Although geography matters because distance is not dead, participants viewed these reforms as more important than geography for determining a nation's growth.