International Economics: Unlocking the Mysteries of Globalization

by Jeffrey Sachs

International economics is concerned with the trade and financial relations of national economies, and the effects of international trade and finance on the distribution of production, income, and wealth around the world and within nations. In recent years, international economics has been increasingly taken up with one central question: How will national economies perform now that nearly all of the world is joined in a single global marketplace? As a result of changes in economic policy and technology, economies that were once separated by high transport costs and artificial barriers to trade and finance are now linked in an increasingly dense network of economic interactions. This veritable economic revolution over the last 15 years has come upon us so suddenly that its fundamental ramifications for economic growth, the distribution of income and wealth, and patterns of trade and finance in the world economy are only dimly understood.

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The most notable features of the new world economy are the increasing links between the high- and low-income countries. After all, the advanced income economies of Europe, Japan, and the United States have been linked significantly through trade flows at least since the 1960s. The great novelty of the current era is the extent to which the poorer nations of the world have been incorporated in the global system of trade, finance, and production as partners and market participants rather than colonial dependencies. For globalization enthusiasts, this development promises increased gains from trade and faster growth for both sides of the worldwide income divide. For skeptics, the integration of rich and poor nations promises increasing inequality in the former and greater dislocation in the latter.

National economies are becoming more integrated in four fundamental ways—through trade, finance, production, and a growing web of treaties and institutions. The increased trade linkages are clear. In almost every year since World War II, international trade has grown more rapidly than global production, resulting in a rising share of exports and imports in the GDP of virtually every country [see chart on page 10]. In the past 15 years, cross-border financial flows have grown even more rapidly than trade flows. Foreign direct investment (in which foreign capital gains a controlling interest in a cross-border enterprise), in particular, has grown even more rapidly than overall capital flows.

The sharp rise in foreign direct investment underscores the enormous and increasing role of multinational corporations in global trade, and especially in global production. As scholars such as Peter Dicken have shown, with falling transport and communications costs, it is possible to "divide up the value chain" of production. Different stages of the production process of a single output can be carried out in different parts of the world, depending on the comparative advantages of alternative production sites. Semiconductor chips might be designed in the United States, where the basic wafers are also produced; these are then cut and assembled in Malaysia; and the final products are tested in and shipped from Singapore. These cross-border flows often occur within the same multinational firm. One stunning fact about current trade flows is that an estimated one-third of merchandise trade is actually composed of shipments among the affiliates of a single company, as opposed to arms-length transactions among separate exporters and importers.

The fourth major aspect of globalization is the increased harmonization of economic institutions. Part of this is a matter of imitation. Most of the
developing world chose nonmarket, economic strategies of development upon independence after World War II. These state-led models of development came crashing down in the 1980s, followed by a massive shift toward market-based, private sector–led growth. [For further discussion, please see the article by Joseph Stiglitz and Lyn Squire.] Beyond mere imitation, however, has come a significant rise in international treaty obligations regarding trade, investment policy, tax policy, intellectual property rights, banking supervision, currency convertibility, foreign investment policy, and even the control of bribery. A growing web of treaties ties nations together through multilateral obligations (such as the G-77 group, with 132 member countries), regional obligations (the European Union and other trade blocs), and bilateral obligations (for example, binational tax treaties between the United States and dozens of other governments).

THE IMPLICATIONS OF GLOBALIZATION

The implications of globalization for both the developed and developing countries are currently the subject of intensive research and heated policy debates. Four main sets of issues are now under investigation. First, will globalization promote faster economic growth, especially among the four-fifths of the world’s population (4.5 billion people) still living in developing countries? Second, will globalization promote or undermine macroeconomic stability? Are the sudden and unexpected collapses of emerging market economies in recent years (such as Mexico in 1994 and East Asia in 1997) the result of deep flaws in the globalization process, or are they manageable, perhaps avoidable bumps in the road to greater prosperity? Third, will globalization promote growing income inequality, and, if so, is the problem limited to low-skilled workers in the advanced economies, or is this inequality a deeper result of intensifying market forces in all parts of the world? Fourth, how should governmental institutions at all levels—regional, national, and international—adjust their powers and responsibilities in view of the emergence of a global market?

Economic Growth

Adam Smith famously declared in the Wealth of Nations that “the discovery of America, and that of a passage to the East Indies by the Cape of Good Hope are the two greatest and most important events recorded in the history of mankind.” He reasoned that by “uniting, in some measure, the most distant parts of the world, by enabling them to relieve one
another's wants, to increase one another's enjoyments, and to encourage
one another's industry, their general tendency would seem to be benefi-
cial." The discoveries, of course, were not enough to guarantee these
benefits. Smith himself recognized that the depredations of imperialism
had deprived the native inhabitants of the New World and the East
Indies of most of the benefits of globalization in his day. In our century,
two world wars, the Great Depression, and 40 years of post-World War
II protectionism in most of the developing world again frustrated Smith's
vision of mutual gains from trade. Now, finally, can we envision the
Smithian mechanism operating to worldwide advantage?

Much current theorizing on economic growth, such as the research by
Gene Grossman and Elhanan Helpman, offers reasons for cheer. Smith's
conjectures of dynamic gains to trade are at the core of many new math-
ematical models of "endogenous growth." These models stress that long-
term growth depends on increased productivity and innovation, and that
the incentives for both depend (as Smith conjectured) on the scope of the
market. If innovators are selling into an expanded world market, they will
generally have more incentive to innovate. If productivity is raised by
refining the production process among a larger number of specialized sub-
units, and if each subunit faces fixed costs of production, then a larger market will allow these fixed costs to be spread over a larger production run.

One part of the argument has found strong empirical support in recent years. The fastest-growing developing countries in the past two decades have been those that succeeded in generating new export growth, especially in manufactured goods. Andrew Warner and I have demonstrated that economies that tried to go it alone by protecting their economies from imports through high trade barriers grew much less rapidly than more open export-oriented economies. Moreover, the manufactured exports of the developing countries have themselves exemplified the Smithian principle of division of labor. Steven Radelet and I found that in almost all cases of developing-country, export-led growth, the exports themselves have been part of a highly refined division of labor, in which final goods (e.g., automobiles, avionics, electronic machinery) are produced in multisite operations, with the labor-intensive parts of the production process reserved for the developing countries.

This kind of "new division of labor" in manufactures was inconceivable to early postwar development economists such as Raul Prebisch, who counseled protectionism as the preferred path for industrialization in poor countries. These economists simply could not conceive of the production process being a complementary relationship between advanced and developing countries. In the standard theory, then, both sides of the great income divide stand to benefit from globalization: the developed countries by reaching a larger market for new innovations, and the developing economies by enjoying the fruits of those innovations while sharing in global production via multinational enterprises.

Modern theorizing still stresses, however, that the gains in growth might not in fact be shared by all. Two major theoretical exceptions that do find some supporting empirical evidence are most often discussed. The first exception is based on geography. The gains from trade depend on the transport costs between a national economy and the rest of the world being low enough to permit an extensive interaction between the economy and world markets. If the economy is geographically isolated—for example, landlocked in the high Andes or the Himalayas or Central Africa, as in the cases of Bolivia, Nepal, and Rwanda—the chances for extensive trade are extremely limited. Also, as MIT economist Paul Krugman has shown, the combination of increasing returns to scale and high transport costs may cause economic activity to concentrate somewhat accidentally in some areas at the expense of others. Climate may also
have serious adverse effects. Generally speaking, the tropics impose additional burdens of infectious disease and often poor agricultural conditions (involving soil, water, and pests) not found in the temperate zones. For these reasons, a significant portion of the world's population may face severe geographical obstacles to development, despite the overall beneficial effects of globalization.

The second major theoretical exception, recognized in development thinking at least since Alexander Hamilton's call for protection of nascent U.S. industry, is the risk that producers of natural resources might get "trapped" into an unsatisfactory specialization of trade, thereby delaying or blocking the improvements in industry necessary for economic development. Kiminori Matsuyama was among the first to formulate a mathematical model to test this idea. Early evidence, derived from studies Warner and I conducted, gives some support to the "dynamic Dutch Disease" effect. Dutch Disease occurs when a boom in the natural resources that a country exports causes a national currency to strengthen, thereby undermining the profitability of nonresource-based industries. (The name comes from the de-industrialization that allegedly followed Holland's development of North Sea gas fields in the 1960s.) The "dynamic" effect is the supposed long-term loss of growth coming from the specialization in primary goods (e.g. gas exports) rather than manufactured products, which supposedly offer better opportunities for long-term productivity growth.

The findings suggest that countries with large natural resource bases, such as the Persian Gulf oil exporters, find themselves uncompetitive in most manufacturing sectors. This condition, in turn, seems to be consistent with lower long-term growth, possibly because manufacturing rather than primary production (agriculture and mining) offers better possibilities for innovation, learning by doing, and productivity improvement in the long term. Economic theory suggests that some form of nonmarket intervention—ranging from the protection of nascent industries to the subsidization of manufacturing—could have beneficial effects in these circumstances. The practicalities of such real-world interventions, however, are heatedly debated and open to question.

**Macroeconomic Stability**

In a famous cry of despair in the middle of the Great Depression, John Maynard Keynes, in his essay "National Self-Sufficiency," argued that economic entanglements through trade and finance added to global
destabilization. He went so far as to declare “let goods be homespun whenever it is reasonably and conveniently possible; and, above all, let finance be primarily national.”

After the depression, Keynes changed his mind and championed a postwar return to open trade based on convertible currencies. In his design of the new IMF, however, he kept to his view that financial flows ought to remain restricted so as to minimize the chance that international financial disturbances would create global macroeconomic instabilities. For this reason, the Articles of Agreement of the IMF call on member countries to maintain currencies that are convertible for current transactions (essentially trade and the repatriation of profits and interest) but not necessarily for capital flows.

As globalization has taken off in the past two decades, many forms of international capital flows have risen dramatically. Foreign direct investment, portfolio investment through country funds, bank loans, bond lending, derivatives (swaps, options, forward transactions), reinsurance, and other financial instruments, have all grown enormously. Both developed and developing countries have increasingly opened their capital markets to foreign participation. In 1997, the IMF endorsed a move toward amending the Articles of Agreement to call for open capital flows. The Organization for Economic Cooperation and Development, World Trade Organization (WTO), and Bank for International Settlements have also increasingly sought international standards for the liberalization and supervision of international investment flows.

Economic theory generally asserts that trade in financial assets will benefit individual countries in ways analogous to trade in goods. Financial transactions, in theory, allow two kinds of gains from trade: increased diversification of risk and intertemporal gains (a better ability to borrow and lend over time, more consistent with desired patterns of investment and consumption). The theory, however, also hints at some limits to this optimistic view, and the experience of international financial liberalization gives real reason for pause. Perhaps Keynes’ skepticism should still apply, despite our supposedly much enhanced capability to identify and manage financial risks.

The real meaning of the Mexican crash and the East Asian financial crisis is still far from clear, but both experiences have shown that unfettered financial flows from advanced to emerging markets can create profound destabilization. The problem, it seems, is that financial markets are subject to certain key “market failures” that are exact-
erbated, rather than limited, by globalization. One kind of failure is the tendency of underregulated and undercapitalized banks to gamble recklessly with depositor funds, since from the owner/management point of view, bank profits accrue to themselves, while bank losses get stuck with the government. Thus, international financial liberalization of a poorly capitalized banking system is an invitation to over-borrowing and eventual financial crisis.

The second kind of failure is financial panic, which comes when a group of creditors suddenly decides to withdraw loans from a borrower, out of fear that the other creditors are doing the same thing. Each lender flees for the exit because the last one out will lose his claims; assuming that the borrower does not have the liquid assets to cover a sudden withdrawal of loans. This kind of panic was once familiar in the form of bank runs, which used to afflict U.S. banks before the introduction of federal deposit insurance in 1934. It seems to be prevalent in international lending, especially in international bank loans to emerg-

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**A Brief History of Panic**

One key risk of open capital flows is the pattern of booms and busts in international lending that contribute to instabilities in both creditor and debtor nations. In the 1820s, just after Latin American independence, British capital markets poured large sums into Latin American bonds and investment schemes. These crashed a few years later, giving the world its first developing-country debt crisis of modern times. The cycle of euphoric capital inflows, followed by “reversals” and sudden outflows, has repeated itself every generation or so, including the defaults by U.S. states on British loans in the 1830s; the crisis of Egyptian and Ottoman debts in the 1870s; the defaulted loans to Caribbean countries in the early twentieth century; the worldwide defaults of the Great Depression; the developing-country debt crisis of the early 1980s; the Mexican crash of 1994; and now the East Asian financial crisis.

Crashes can occur when capital markets are exposed to “multiple equilibria,” in which fears of bad outcomes can prove self-fulfilling. The scenario is similar to shouting “fire” in a theater. A small fire may pose no disaster if patrons quietly, calmly, and resolutely leave a crowded theater. But the same small fire may lead to disaster if patrons panic and trample one another to be the first ones out. Thus, if a debtor starts to weaken, a panicked withdrawal of short-term loans by nervous creditors can imme-
ing markets. Both in Mexico in late 1994 and several East Asian economies in 1997 (Indonesia, Malaysia, the Philippines, and South Korea), once enthusiastic international bankers suddenly pulled the plug on new credits and the rollover of old credits. This withdrawal of funding sent the emerging markets into a tailspin, with falling production and the risk of outright international default. Emergency bailout loans led by the IMF aimed to block the defaults, but did not address the core causes of the crises [see box below].

These dramatic experiences are giving second thoughts in many quarters to the pressures for rapid liberalization of international capital flows. While the official Washington community still presses for liberalization of the capital market, voices are being raised for putting a "spanner in the wheels" to slow capital movements with an aim toward preventing financial market panics. Ideas include the taxation of international transactions (such as the famous proposal of James Tobin to tax foreign exchange transactions to deter short-term currency specula-

diately lead to illiquidity of the debtor and then to bankruptcy, even if the debtor is fundamentally sound. Both the debtor and creditors lose by a creditor panic, as it produces a pure loss of market value.

A useful response to a panic is the provision of liquid funds to the afflicted debtor by a "lender of last resort." In a domestic banking panic, the lender of last resort is typically the central bank. In an international context, however, the debtor's central bank usually cannot be an adequate lender of last resort since the credits being withdrawn are in foreign currency. If the central bank's foreign exchange reserves are scarce (a fact that often helps to trigger the panic), then some kind of international lender of last resort might be needed—either a major creditor government—such as the United States in the case of the Mexican crisis—or an international lender of last resort—such as the IMF in the case of East Asia. The role of the IMF and other lending institutions continues to generate enormous debate. What should be the terms of "bailout loans?" What conditions should be attached to IMF programs? Should market forces be allowed to take their toll so that problems of moral hazard are avoided, as when bailouts lead to more irresponsible lending in the future? These issues sit at the center of the public policy debate on how to handle the Asian crisis.

—J.S.
tion, or Chile's taxation of capital inflows); the direct limitation of short-term bank borrowing from abroad as a banking supervisory standard; and increased disclosure rules. Both the theory and practice of capital market liberalization are therefore in limbo.

**Income Distribution**

Perhaps no aspect of globalization has been more controversial than the alleged effects of increased trade on income distribution. A series of claims are made that globalization is a major factor in increasing inequality, both in advanced and developing countries. Of course, within the United States, the main focus of debate is on advanced countries, especially the United States itself.

Over the past 25 years, international economics theory has mostly focused on two kinds of trade: intra-industry and inter-industry. The first kind, in which the United States sells cars to Europe while also importing European cars, is ostensibly based on gains from specialization under conditions of increasing returns to scale. The United States could itself produce “European style” cars, so the argument goes, but chooses not to because it is less costly to have longer production runs of U.S. models, selling some of them to Europe to finance imports of the European models. Intra-industry trade, the theory holds, is a win-win situation for all. Consumers in both Europe and the United States enjoy an expanded range of products, and nobody suffers a loss of income, either absolute or relative.

Inter-industry trade involves the U.S. export of high technology goods to Asia, in return for inexpensive labor-intensive goods imported from Asia. In this case, trade is motivated by differing factor proportions. The United States produces goods that are intensive in physical capital and skills—advanced telecommunications equipment, for example—and imports goods that are intensive in labor—such as footwear and apparel. The theory suggests that both regions can gain overall from this kind of trade, though workers within each country may well lose. In the United States, for example, workers in the footwear and apparel sectors may lose their jobs in the face of increased low-wage competition, while skilled workers in Asia could conceivably lose out when skill-intensive goods are imported from the United States. More generally, according to basic Heckscher-Ohlin-Samuelson trade theory, unskilled U.S. workers may suffer relative and even absolute income declines, while skilled workers in the developing countries could similarly suffer a loss of relative and/or absolute income.
Since intra-industry trade is generally strongest among similar-income countries (e.g. U.S.–European trade), while inter-industry trade is strongest among dissimilar countries (e.g. U.S.–developing Asia), the income-distributional ramifications of trade between rich and poor countries are ostensibly more threatening to particular social groups, a point stressed early on by Krugman. It is therefore the increasing linkages of rich and poor countries that have become the cornerstone of political challenges to globalization.

Despite the hard work of researchers, there is still no consensus on the effects of the globalization of income distribution within the advanced and emerging markets. Clearly, the period of dramatic globalization (especially during the 1980s and 1990s) has also been one of rising income inequality within the United States, and especially of a loss of relative income for low-skilled workers, consistent with basic trade theory. However, as with many important economic phenomena, the cause of this widening income inequality is almost surely multifaceted. While trade might be one culprit, changes in technology such as the computer revolution might also favor skilled workers over unskilled ones, thereby contributing to the rising inequality. Most researchers agree that a combination of factors has played a role in the widening inequality; and the majority of them, including Krugman and Robert Lawrence, put the preponderant weight on technology rather than trade. They do this for one main reason: The share of U.S. workers that are in direct competition with low-skilled workers in the emerging markets seems to be too small to explain the dramatic widening of inequalities since the end of the 1970s. Less than 5 percent of the U.S. labor market—in apparel, footwear, toys, assembly operations, and the like—appears to be in the “direct line of fire” of low-wage goods from Asia. If the United States is already out of the low-skill industries, then increased globalization in such goods cannot widen inequalities in the United States, and, in fact, would tend to benefit all households by offering less expensive consumer goods.

One problem with such estimates, however, is that they tend to be based on rather simple theoretical models of international trade. Conventional trade measures may not pick up the additional channels through which globalization affects income distribution. Some researchers argue, for example, that increased globalization limits the ability of union workers to achieve a “union wage premium” in collective bargaining because of the risk that firms will simply move overseas in response to higher union wages. Thus, the opening of international
trade may have changed the bargaining power of workers vis-à-vis capital in ways not measured by trade flows. More generally, the export of capital to low-wage countries can exacerbate inequalities caused by increased trade. Researchers have not yet uncovered large effects on wages and income distribution through these additional channels, but the scholarship devoted to these topics is still rather sparse.

Some sporadic evidence suggests that growing inequalities are not simply a problem of developed economies but also of developing economies. If the salary premium of skilled workers is rising in both developing and developed economies, something more than inter-industry trade effects are at work. Part of the story could be technological change. Another possible factor (suggested recently by Robert Frank and Philip Cook) is that globalization is supporting a new “winner-take-all” approach in labor markets. The argument holds that skilled workers of all kinds, whether in sports, industry, science, or entertainment, find an expanding world market for their skills, while unskilled workers see no particular gains in an expanding market. Therefore, the scale of the world market would affect skilled workers differently from unskilled ones, leading to a worldwide rise in the market premium for skills. This hypothesis remains as yet almost completely unexamined empirically.

**Economic Governance**

Without question, globalization is having a deep effect on politics at many levels. Most important, the national marketplace is losing its salience relative to international markets. This is causing a sea change in the role of the nation-state, relative to both local and regional governments on the one side, and multinational political institutions on the other.

In Smith’s day, part of the market revolution was the removal of barriers to trade within nations and proto-nations. The freeing of trade among the German states in the Zollverein of 1834, and then the full unification of the German market with the establishment of the German Reich in 1871, exemplify the historical process. In most cases, nineteenth-century market capitalism and the importance of the national marketplace rose hand in hand, even as international trade was itself expanding. Generally speaking, the spread of capitalism within Europe, Japan, and North America gave impetus to the increasing importance of the national economy and thereby of the national government.

At the end of the twentieth century, the national market is being increasingly displaced by the international marketplace. After decades
of experimentation, almost all countries have realized that the national market is simply too small to permit an efficient level of production in most areas of industry and even in many areas of services. Efficient production must be geared instead toward world markets. Moreover, globalization has proved a catalyst for internationally agreed-upon rules of behavior in trade, finance, taxation, and many other areas, thus prompting the rise of the WTO and other international institutions as the new bulwarks of the emerging international system. At the same time, communities, local governments, and regions within nations are increasingly asserting their claims to cultural and political autonomy. The nation is no longer their economic protector, and in peaceful regions of the world, the national government is no longer seen as a critical instrument of security. Consequently, regions as far-flung as Catalonia, Northern Italy, Quebec, and Scotland, as well as oblasts in Russia, provinces in China, and states in India, have taken globalization as their cue to pursue greater autonomy within the nation-state.

We are therefore in the midst of a startling, yet early, tug of war between polities at all levels. Where will the future of decision making, tax powers, and regulatory authorities reside: with localities, subnational regions, nation-states, or multilateral institutions (both within geographic regions such as the European Union and at the international level)? To the extent that increased regulatory, tax, and even judicial powers shift to the international setting, how should and will international institutions be governed in the future? Will there be a democracy deficit, as is now charged about decision making in the European Union? What will be the balance of political power between the developed and developing countries, especially as population and economic balances shift over time in favor of the new developing world? And crucially, what will be the balance of power between democratic and non-democratic polities at the world level? All of these issues are fresh, urgent, and likely to loom large on the research radar screens.

Want to Know More?

When examining economic thinking about trade and growth, one can do no better than to start at the beginning: Adam Smith's *An Inquiry into the Nature and Causes of the Wealth of Nations* (Oxford: Oxford University Press, 1993), originally finished in 1776, is not a dry classic.
that has been read and re-read simply because it came first. It is a brilliant, witty, charming text with pithy insights on many aspects of geography, trade, development, and public policy—and all of it written without a laptop computer or global data set.


Readers interested in an overview of the globalization of production and the increasing role of multinationals, should consult the fine annual World Investment Reports of the United Nations Conference on Trade and Development: good data and very clear and useful analysis. Many economic geography texts also give a comprehensive survey of the changes in the “global division of labor.” One good starting point is Peter Dicken’s Global Shift: The Internationalization of Economic Activity (New York, NY: Guilford Press, 1992). In addition, Robert Frank & Philip Cook examine the impact of globalization on the labor market (skilled versus unskilled workers) in The Winner-Take-All Society (New York, NY: Simon & Schuster, Inc., 1995).

In recent years, Paul Krugman has been the leading economic theorist writing about geography and trade. His short book, Development, Geography, and Economic Theory (Cambridge, MA: MIT Press, 1995), contains useful insights and an extensive bibliography. In Krugman’s article with Robert Lawrence on “Trade, Jobs, and Wages” (Scientific American, April 1994), we find an influential argument that the effects of globalization on U.S. income distribution have been small. As described in Krugman’s article, the links between globalization and income distribution remain unclear and heavily debated. Gene Grossman & Elhanan Helpman have produced the leading monograph on trade and growth, Innovation and Growth in the Global Economy (Cambridge, MA: MIT Press, 1993).

The Harvard Institute of International Development (HIID) is hard at work on the issues of globalization, geography, and economic development. Globalization is treated in Andrew Warner & Jeffrey Sachs’ “Economic Reform and Global Integration” (Brookings Papers on Economic Activity, 1995). As part of its project on “Integrating National Economies,” the Brookings Institution has published a series of 20 stud-
ies that provide a useful overview and analysis of governance issues on a wide range of topics, including national and global policies on competition, taxation, trade, and investment.


Finally, for a look at the role of geography and economic policy at work in Asia's development, see Radelet & Sachs' "Asia's Re-emergence" (Foreign Affairs, November/December 1997), which also gives some perspective on the current financial crisis.

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