The most important causes of globalization differ among the three major components of international market integration: trade, multinational production, and international finance. The information technology revolution has made it very difficult for governments to control cross-border capital movements, even if they have political incentives to do so. Governments can still restrict the multinationalization of production, but they have increasingly chosen to liberalize because of the macroeconomic benefits. Although the one-time Ricardian gains from freer trade are clear, whether trade is good for growth in the medium term is less certain. In the case of trade, the increasing interest of exporters in opening up domestic markets has had a powerful impact on the trend to liberalization. Cross-national variations in market integration still endure, but these are more the product of basic economic characteristics (such as country size and level of development) than political factors (such as regime type or the left-right balance of power).

THE CAUSES OF GLOBALIZATION

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There is little disagreement these days that globalization is changing the world rapidly, radically, and in ways that may be profoundly disequilibrating. But beyond this already trite cliché, almost everything else concerning the phenomenon is subject to intense debate—in the context of an explosion of interest in and research on the subject.[1] This article explores what we know about the causes of globalization. In a follow-up article, I will address globalization's consequences for domestic societies (in terms of inequality and economic insecurity), national autonomy (with respect to regulation, spending and taxation, exchange rate regimes, etc.), and international governance (International Monetary Fund [IMF], World Trade Organization [WTO], etc.). Throughout, I define globalization somewhat narrowly as the

1. In 1980, there were fewer than 300 articles or books with the word *global* or *globalization* in the title. In 1995, the number was over 3,000 (Guillen, in press, Table 2).

AUTHOR'S NOTE*: Thanks to Stephen Brooks, Michael Dooley, Jeffry Frieden, and Ronald Rogowski for helpful discussions on various aspects of this article. I would also like to thank Alexandra Guisinger, Nathan Jensen, Jason Sorens, Andrew Youn, and especially Nancy Brune for invaluable research assistance.*

COMPARATIVE POLITICAL STUDIES, Vol. 33 No. 6/7, August/September 2000 941-991

international integration of markets in goods, services, and capital. Other facets of the phenomenon (such as increased labor mobility and cultural homogenization) are surely important, but I leave their analysis to others.[2]

I examine four contending perspectives on the big picture: What explains the rapid pace of international market integration in recent decades? The first perspective claims that what we are witnessing today is, in fact, nothing new because current levels of market integration are only now returning to those in the last great era of economic internationalization at the turn of the 20th century. This view has been accepted as a statement of fact in numerous influential studies (Katzenstein, Keohane, & Krasner, 1998, p. 669; Krasner, 1999, pp. 220-223; Rodrik, 1997; Sachs & Warner, 1995). I argue, however, that notwithstanding the aggregate similarities between the two periods, core features of the contemporary world economy are without historical precedent. Large-scale portfolio lending to banks in developing countries for purposes other than raw material extraction, two-way manufacturing trade between the north and south, and complex multinational production regimes were simply unheard of a century ago.

The remaining perspectives on global trends debate the causes of this unprecedented wave of international market integration. The root of the analytic problem lies in the commingling of three secular trends: technological innovations lowering the costs of moving goods and more notably information around the world, growing international economic activity, and the liberalization of foreign economic policies. What are the causal relationships among these three trends?

The second perspective, technological determinism, contends that the shrinkage of time and space has been so dramatic and so pervasive that there is essentially nothing that can be done to stop it. According to this view, technological changes have propelled international economic activity, and governments have been largely irrelevant. Thus, policy liberalization should be understood as governments' acknowledging the futility of trying to resist globalization, rather than acting as a prime mover behind market integration. Management gurus such as Ohmae (1995) have propounded this view, and political scientists such as Rosecrance (1999) and Strange (1998) use it as the starting point of their analyses.

The case for a technologically determined view of globalization is far stronger with respect to international finance than to multinational production or trade. In the era of 24-hour global trading in a seemingly limitless array of financial instruments, governments can only hope marginally to influence control cross-border liquid capital movements. In contrast, though

2. See Drezner (1998) and Guillen (in press) for recent reviews of some of these issues.

the Internet creates novel problems, it remains easier for governments to regulate cross-border movements of physical goods and the buying and selling of fixed assets. Hence, policy decisions to liberalize trade and foreign direct investment are likely to have been more consequential for international integration in these markets.

The third big picture perspective on globalization takes a more moderate view of the effects of technological change. Most mainstream economists (informing the "Washington consensus" and best-sellers; see Yergin & Stanislaw, 1999) believe that the potential efficiency gains from international integration have increased substantially as a result of technological progress in recent decades. From this perspective, governments can still insulate their countries from external market forces if they so choose. But the "increased opportunity costs of closure" have become sufficiently large to tip the balance in favor of the liberalization of foreign economic policy in country after country.

It is hard to argue that increasing opportunity costs of closure provide a persuasive account of the globalization of finance. The hypothetical efficiency gains of openness seem in practice to be at least offset by the costs associated with the uncertainty and volatility of international financial markets. At the other end of the spectrum, increasing costs of closure probably have been the major motivation for liberalization in the area of foreign direct investment (FDI). FDI is an important driver of growth. It provides a transmission mechanism for the diffusion of technological innovations and less tangible benefits, such as managerial skills. The trade case is less clear-cut. On one hand, there are clearly important one-time gains from trade liberalization (e.g., in terms of lowering prices). But modern economic theory is ambiguous as to whether freer trade is beneficial for economic growth, and the empirical evidence is also inconclusive.

The final big picture perspective on globalization also accepts the critical role of government policy, but argues that the phenomenon is essentially a political construct that does not improve the economic condition of society as a whole. For example, Rodrik has raised numerous eyebrows among his economist colleagues by claiming that there is no evidence that either freer trade (Rodriguez & Rodrik, 1999) or capital mobility (Rodrik, 1998) is good for economic growth. This is grist for the mill of political scientists such as Helleiner (1994), who propose power and ideology explanations of globalization. On this "ideological change" view, the roots of contemporary globalization lay in the neoliberal Reagan/Thatcher revolutions. They were spread throughout the developed world by the European Union (EU) and the Bank of International Settlements, and extended to developing counties by the IMF and the World Bank.

It is easy, however, to endogenize these ideological changes in terms of technological determinism in international finance and increased opportunity costs of closure with respect to multinational production. In the former case, there might be domestic political incentives for governments to maintain restrictions on cross-border capital movements that are futile in an economic sense. Such policies send negative signals to the financial markets, however, and many governments may be unwilling to take this risk. In terms of foreign direct investment, the fact that multinational firms have become critical drivers of technological innovation, learning, and economic growth affords them a very "privileged position" (Lindblom, 1977) in domestic policy debates.

Trade liberalization, in contrast, has not been technologically determined, and the opportunity costs of closure continue to be debated. Changing preferences and coalitional politics may therefore have played a greater role here than with respect to international finance or multinational production. One possible explanation is that exporters have become much more interested in opening their home markets, mitigating the traditional political bias in favor of protection, because of fears of retaliation against them abroad and because many exporters import large portions of the goods they use as inputs in making finished products.

Students of international relations and comparative politics may well object at this point that my analysis gives short shrift to their central concerns and insights. International political economists have devoted enormous attention to cooperative and institutionalized efforts to reduce barriers to international economic exchange among countries. The bread and butter of comparative political economy, on the other hand, concerns explaining cross-national differences in economic policies and outcomes.

My general response to these objections is that political scientists tend not to explore in sufficient detail the economics of globalization before they move on to analyzing its politics. Moreover, they have an inherent bias toward assuming both that government policies have real effects and that they are chosen for political reasons. In the case of the trend toward international market integration, it is important to problematize both assumptions. Technological determinists believe that government policy is essentially irrelevant to globalization; the increased opportunity costs of closure approach suggests that governments have liberalized their economies simply because it is the efficient thing to do. Before asserting that globalization is a political phenomenon, we should assess the merits of these parsimonious explanations derived from economic analysis.

With respect to international political economy, I do not wish to dispute either that free rider and coordination problems may hinder international

market integration or that international institutions may mitigate these problems. But I am skeptical that this Alexrod-Keohane paradigm gives us much leverage over the big picture of the contemporary trend to globalization. It would be hard to make the case with respect to the liberalization of international finance and the multinationalization of production—simply because policy liberalization in these areas has not required international cooperation or international institutions (i.e., the evidence suggests that they are not international prisoner's dilemmas or even coordination games).

The prima facie case for the importance of international institutions is stronger with respect to trade integration. The WTO, North American Free Trade Agreement (NAFTA), and the EU all contain mechanisms for generating common standards and policing free riding. To argue that these institutions caused trade integration, however, one would have to contend (implausibly, in my opinion) that they were truly innovative—that is, representing radically new technologies for dealing with the problems of cooperation that were heretofore unavailable. It seems more reasonable to contend that preference convergence among participating governments was a precondition for the effectiveness of these institutional solutions (Goldstein, 1997; Moravcsik, 1998). Thus, we should focus on explaining why this convergence in preferences occurred.

The comparative politics objection to my approach is very different. Notwithstanding the secular trend of ever-greater market integration, there clearly still are ins and outs in the putative global economy. For globalization pundits, these differences may be merely ephemeral bumps that will soon be smoothed over on the road to a truly seamless global marketplace. Comparativists are likely to demur, arguing that cross-national variations in international market integration are sticky and well worth exploring in their own right.

This move to assaying cross-national differences in market integration is important, but in my judgment it is a second-order move that should follow analysis of the broader, over-time trend to more integration. A good portion of the cross-national variation in international integration is certainly explained by essentially unalterable features of countries, such as their size and geographic location. There are also well-developed theoretical approaches to the problem that emphasize the impact of a country's economic structure on societal preferences and coalitions (Frieden & Rogowski, 1996) and the role of political institutions ranging from trade unions to constitutional systems (Garrett & Lange, 1995).

I offer a brief analysis of these perspectives with respect to three prominent classes of variables: levels of development, the extent of democracy, and the balance of power between the left and right. The strongest result is that

countries at higher levels of development are more likely to open their borders to the international economy, which can be easily explained from a Frieden-Rogowski perspective. Of course, if growth economists are right that differences in levels of development must diminish over time ("conditional convergence"), this implies that cross-national variations in market integration will diminish over time. The debate would then move on to how long this might take.

The remainder of this article explores in more detail the causes of the secular trend to more globalized markets in recent decades and of persistent cross-national differences in participation in the global economy. The first section lays the foundation for my analysis by describing the landscape with respect to international economic movements of trade and capital and to government policies concerning these flows. The second section discusses the case for the proposition that contemporary globalization is nothing new. The merits of a technological determinist perspective on market integration are assessed in the third section. The fourth section addresses the issue of whether the opportunity costs of closure have risen in recent years. The fifth section explores the causes and consequences of ideological shifts in favor of liberalization. The sixth section then changes gears to focus on the reasons for enduring cross-national differences in market integration. The final section briefly summarizes what we know about the causes of globalization and sketches the implications of this article for analyses of the consequences of globalization.

THE PARAMETERS OF CONTEMPORARY GLOBALIZATION

No matter how many different numbers are presented or how frequently one hears them, the growth of international economic activity in the past 30 years remains staggering. Figure 1 plots the growth of global flows in trade, foreign direct investment, and international portfolio investment (equities and bonds). Although the scales for trade and capital are very different, the trend lines are similar and familiar. International economic activity grew at increasingly rapid rates over the period, and the rates of growth were faster in more liquid markets (foreign exchange > portfolio > FDI > trade).[3] In 1970, exports plus imports constituted roughly one quarter of worldwide gross

3. Global foreign exchange transactions increased fully 50-fold between 1980 and 1998 to reach $2 trillion per day ("Finance," 1999, p. 91; "Meddling," 1999, p. 96). This outstrips the foreign exchange reserves of all the Organization of Economic Cooperation Development (OECD) countries combined. The world gross domestic product (GDP) in 1997 was approximately $34 trillion.

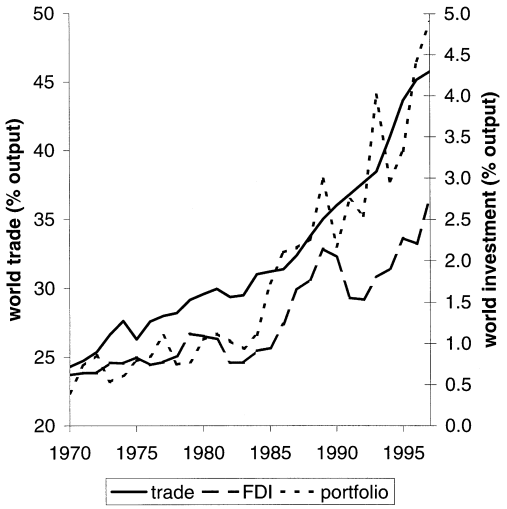

Figure 1. **Global market integration, 1970-1997.**
Note: Trade is exports plus imports (World Bank, 1999). FDI is inflows and outflows of foreign direct investment, and portfolio is assets and liabilities of international portfolios investments (International Monetary Fund, 2000).

domestic product (GDP). By 1997, the figure had almost doubled to over 45%. Global annual flows of international portfolio investments (in bonds and equities) and FDI constituted around 0.5% of world GDP in 1970. In 1997, the figures were approximately 5% for portfolio flows and 2.5% for FDI flows. In 1998, the global stock (i.e., accumulated flows) of FDI is estimated at $3.4 trillion—roughly 10% of global output (Mallampally & Sauvant, 1999, pp. 34-35).

Figures 2 and 3 show a strong correlation between the growth of international economic flows and the liberalization of foreign economic policies around the world. The correlation between global trade flows and (unweighted) average taxes on trade (revenues from tariffs, duties, etc. as a percentage of total trade) between 1973 and 1995 was –0.89. The reduction in tariff-type barriers was to some measure offset by increasing use of nontariff barriers—in the Organization for Economic Cooperation and Development (OECD) at least (Garrett, 1998a, p. 811). Moreover, although trade taxes more than halved over the period, they still averaged 8% of total trade revenues in 1995. Nonetheless, the global trend line is surely indicative of the fact that global trade flows and trade liberalization around the world have moved in lock step in recent decades.

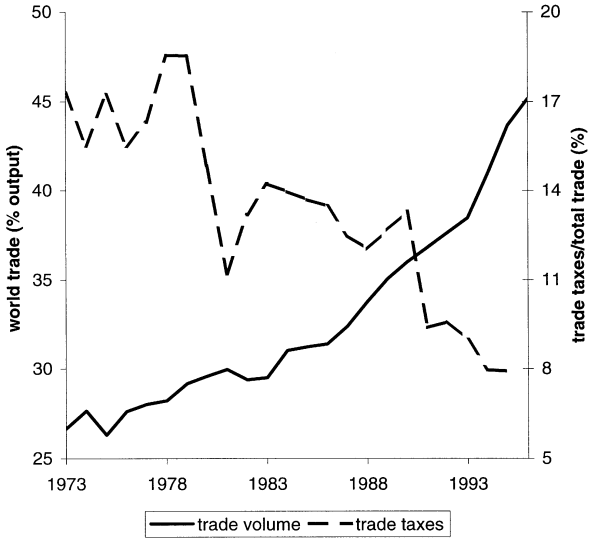

Figure 2. **Trade policy, 1973-1995.**
Source: World Bank (1999).
Note: Trade taxes are unweighted annual averages for all countries. Correlation = –0.89.

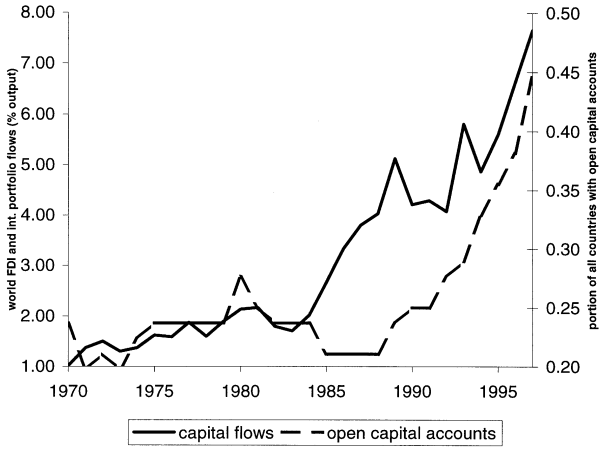

Figure 3. **Capital flows and capital account policy, 1970-1997.**
Source: Open capital accounts as defined by International Monetary Fund, *Exchange Arrangements and Exchange Restrictions* (various years).

Figure 3 reveals a similar pattern with respect to international capital flows (combined portfolio and FDI) and the portion of countries in the world with open capital accounts (i.e., no significant restrictions on cross-border capital movements according to the IMF).[4] There is, however, one interesting divergence in these trends evident in the figure. International capital flows took off in the mid-1980s (fueled largely by mushrooming portfolio flows), with a brief blip down during the international recession at the end of the decade. But the trend to open capital accounts postdates the takeoff in capital flows by about 5 years—it was only in the 1990s that countries in large numbers opened their capital accounts.[5] This suggests that flows preceded policy change, consistent with the technological determinism thesis.[6]

As Rodrik (2000) and Wade (1996) have emphasized, one should not conclude from the steep growth curves on international economic flows and policy liberalization that a truly seamless worldwide market is emerging. Table 1 summarizes flows and policy data for all the countries for which data are available in the 1990s (see the appendix for the national-level data).[7] The first thing to note about this table is that the standard deviations for the different measures of globalization on the whole world sample (the bottom panel) were typically larger than the means on these variables, implying considerable cross-national variation in market integration. The coefficient of variation (i.e., standard deviation/mean) was in fact only substantially less than one for trade flows. The variations in trade taxes may seem surprising given

4. International economists are quick to point out that increased international capital flows are not necessarily indicative of capital market integration (i.e., the absence of obstacles to international capital flows). But there is no consensus as to the extent to which capital markets are integrated these days. Feldstein and Horioka (1980) argued in a seminal paper that because national savings drove national investment in the 1970s OECD countries, there must have been considerable barriers to international capital movements. This result has been replicated many times (with some modifications) in the subsequent two decades. Frankel (1993) and Marston (1995), in contrast, use the relevant (covered) interest rate comparisons to argue precisely the opposite—that OECD capital markets were highly integrated by the late 1980s. Extending these analyses outside the OECD is fraught with difficulty, and preliminary results are inconclusive (Montiel, 1995).

5. Though systematic data are not readily available, this liberalization trend in the 1990s is also apparent with respect to the regulation of foreign direct investment. For example, United Nations Conference on Trade and Development (UNCTAD) reported that in the 1991-1994 period there were 373 significant changes in foreign direct investment (FDI) regulations enacted in countries throughout the world, and all but 5 of these were in the direction of fewer restrictions on inflows and outflows (UNCTAD, 1995, p. xx).

6. Also note that even in 1997, more than half the countries in the world still imposed significant restrictions on the capital account.

7. Note that these means are unweighted averages for all countries. Hence, the flows data are not comparable with the global flows statistics reported in Figure 1.

Table 1
Cross-National Variations in Globalization in the 1990s

	Economic Flows			Economic Policy	
	Trade/GDP (%)	FDI/GDP (%)	International Portfolio Investment/GDP (%)	Trade Taxes/ Total Trade (%)	Open Capital Account (years in 1990s)
High-income OECD					
M	67	3.3	7.2	0.9	7.5
SD	37	2.1	6.9	1.3	2.8
High-income other (oil exporters and tax havens)					
M	165	5.6	5.7	20.4	3.7
SD	95	4.7	4.4	22.4	4.6
Upper-middle income					
M	98	3.7	1.9	14.2	2.9
SD	50	3.1	1.7	13.3	3.9
Lower-middle income					
M	87	3.2	1.6	19.9	2.2
SD	36	3.2	3.2	14.4	3.2
Low income					
M	66	1.4	0.3	25.7	0.7
SD	34	1.4	0.4	13.8	1.6
World					
M	83	3.0	3.0	16.3	2.6
SD	48	2.8	4.5	15.2	3.6

Source: Income categories from World Bank (1999).
Note: GDP = gross domestic product, FDI = foreign direct investment, OECD = Organization of Economic Cooperation Development. High-income OECD: 1997 gross national product (GNP) per capita > $9,656; other high income (e.g., oil exporters and island tax havens): same as OECD; upper-middle income: $3,126 to $9,656; lower-middle income: $786 to $3,125; and low income < $786. Data are unweighted averages for all countries in each category. See the appendix for the complete data set.

the spate of regionally and multilaterally coordinated efforts at trade liberalization in recent decades. But although customs unions like the EU impose common external trade barriers on nonmembers, the General Agreement on Tariffs and Trade (GATT)-WTO regime continues to allow for more flexibility. For example, data collected by Finger and his World Bank colleagues (Finger, Ingco, & Reincke, 1996, p. 67) show that the standard deviation of national average applied Most Favored Nation tariff rates for a sample of 53 countries after the Uruguay Round was 9.2% (with a mean of 10.6%).[8]

Table 1 also examines market integration in countries at different levels of development (and in the case of high-income countries, distinguishing the stable industrial democracies of the OECD from other well-developed nations). Comparing the means for the OECD countries with those for the lowest income nations (1997 gross national product [GNP] per capita < $786, comprising almost all of Africa and the world's two most populous countries, China and India) provides simple and stark evidence that there are ins and outs in the purportedly global economy. Mean trade flows in the two groups were comparable (though the composition of these flows was clearly very different, with the poor category relying disproportionately on the export of natural resources). This probably reflects the fact that, as standard gravity models show, factors such as country size and proximity to neighbors (which have nothing to do with level of development) have marked bearing on trade volumes.

The high- and low-income groups differed dramatically, however, on every other dimension of market integration. FDI flows were more than twice as large in the OECD as in the low-income group, international portfolio investment was almost 25 times as large, trade taxes were less than 1/25 as large a portion of trade volumes, and capital accounts were more than 10 times as likely to be open.

Even within the OECD category, however, considerable differences in market integration remain. At one end of the spectrum, Belgium and the Netherlands are the OECD's most "globalized" economies. There are also numerous instances of relative nonintegration. The United States and Japan are very small traders (at least relative to the massive sizes of their economies), and FDI flows are scant in Japan. Even after a decade of radical market opening in the 1980s, Australia, Canada, and New Zealand remain considerably more protectionist than the OECD norm (based on trade taxes on manufactures); Greece and Spain only liberalized their capital accounts at the end of the 1990s.

8. Note also that for these countries, the correlation between applied tariff rates and the trade tax measure used here was high ($r = 0.75$).

Table 2
Trade and Capital Flows in the 1990s

	FDI/GDP	Portfolio/ GDP	Trade Taxes/ Trade	Years With Open Capital Accounts
Trade/GDP	0.40	0.15	0.16	0.22
FDI/GDP		0.27	0.12	0.09
Portfolio/GDP			–0.08	0.02
Trade taxes/trade				–0.33

Note: FDI = foreign direct investment, GDP = gross domestic product. Figures are correlations among countries based on data in the appendix.

But soothsayers would probably want to highlight instances of high and growing market integration among the poorest countries as harbingers of the world of tomorrow. China, for example, was a major recipient of FDI inflows in the 1990s. Moreover, Indonesia resembled OECD norms on most of the basic indicators of globalization in the 1990s. But it would simply be inaccurate to portray these as more than isolated—though clearly important—exceptions to the rule that the world's poorest countries remain largely disconnected from the international economy. For example, whereas popular commentary might lead one to believe that software engineers working for Microsoft and Sun Microsystems and telecommuting from Bangalore and Hyderabad to Seattle and Silicon Valley are the norm in the Indian economy, on most basic indicators the country remains an essentially closed economy.

At the other end of the spectrum, Table 1 also highlights the distinctiveness of the small, wealthy, non-OECD countries that are typically conduits for trade and international finance (Hong Kong and Singapore), small oil exporters (Kuwait and the United Arab Emirates), or tax havens (the Bahamas and the Cayman Islands). Very high levels of trade and capital flows, higher indeed than even the most integrated OECD nations, characterize these countries.[9] Ohmae (1995) and Rosecrance (1999) believe that these "region states" or "virtual states" are the wave of the future. But it is hard to see how Brazil or China could ever become Singapore or the Cayman Islands.

Table 2 asks a different question about developments at the national level in the 1990s: Did different facets of market integration go together? There is some relatively weak evidence in the affirmative. As most modern economists believe, it does appear that trade and FDI are complements rather than substitutes (the correlation between the two was a moderate 0.40). The correlation between FDI and international portfolio investment was weaker but

9. Note also that the tax havens make up for imposing no burdens on capital with very high trade taxes.

still positive (0.27). Countries that imposed fewer trade taxes also were somewhat more likely to have open capital accounts (correlation = –0.33).

But Table 2 also suggests that the policies governments pursued with respect to openness or closure to trade and international capital were essentially uncorrelated with international economic flows. One possible explanation for these weak flows-policies cross-national correlations (as opposed to the strong over time ones in Figures 2 and 3) is that policies affect flows only at the margins. For example, standard gravity models of trade demonstrate that smaller and wealthier countries tend to be bigger traders. To control for these effects, I estimated a simple regression equation that included these variables and trade taxes (TRTAX) as predictors of trade volumes (TRADE),

$$\underset{}{\text{TRADE} = \underset{(0.31)}{0.20}\text{TRTAX} + \underset{(5.74)}{32.75}\text{lnGDPPC}^{**} - \underset{(2.26)}{15.33}\text{lnGDP}^{**} + 158.09,}$$

where GDPPC is GDP per capita and GDP is national GDP, both expressed as 1990-1997 averages in constant dollars (ordinary least squares [OLS] regression with robust standard errors, $R^2 = 0.40$, 108 observations, and ** is statistically significant at the .01 level).

Surprisingly, the equation lends no more support to the view that countries that impose higher trade taxes tend to reduce trade flows. This is a strange finding because trade taxes must deter trade at the margins. It may well be the case that better econometric specifications (e.g., the use of panel data and more control variables) would delineate this effect (Guisinger, 2000).

I also ran a similar regression for the partial correlation between capital account openness (OPENCA) and capital flows (CAPFLOWS),[10]

$$\underset{}{\text{CAPFLOWS} = \underset{(0.49)}{2.65}\text{lnGDPPC}^{**} - \underset{(0.20)}{0.22}\text{lnGDP} + \underset{(1.61)}{3.11}\text{OPENCA}^{*} - 13.06,}$$

which is more consistent with the proposition that capital account openness promotes international capital flows (OLS regression with robust standard errors, $R^2 = 0.35$, 128 observations, * is statistically significant at the .10 level, and ** is statistically significant at the .01 level).

Of course, at this point I should reiterate that the simple analyses presented in this section are not intended to be definitive. They do serve the use-

10. The data do not allow me to conduct the same exercise on a global sample with respect to the partial correlation between capital account openness and capital market integration (using covered interest rate differentials or savings-investment correlations). For the OECD countries, however, Frankel and MacArthur (1988) demonstrated that even in the 1980s capital account openness was strongly positively correlated with greater capital mobility (measured in terms of smaller covered interest rate differentials).

ful purpose, however, of highlighting two things. First, there is something behind all the globalization hoopla. The global trend toward international market integration and policy liberalization has been rapid in recent decades. Second, significant cross-national differences in integration remain, some of which may well be attributable to differences in foreign economic policy choices. Let me now explore the causes of these two phenomena, beginning with the secular global trend to more internationally integrated markets.

THE UNIQUENESS OF CONTEMPORARY MARKET INTEGRATION

Economic historians have been quick to point out that on many basic indicators the world economy is no more globalized today than it was 100 years ago.[11] From this perspective, the big story of the 20th century was the dramatic reduction of international economic activity in the middle decades. Obstfeld and Taylor's (1997) summary judgment is representative of the nascent conventional wisdom:

> The era of the classical gold standard, circa 1970 to 1914, is rightly regarded as a high-water mark in the free movement of capital, labor and commodities among nations. After World War I, the attempt to rebuild a world economy along pre-1914 lines was swallowed up in the Great Depression and in the new world war the Depression bred. Only in the 1990s has the world economy achieved a degree of economic integration that . . . rivals the coherence already attained a century earlier. (p. 1)

The staggering costs of the 1914-1945 period are certainly a central fact of the 20th century from which we no doubt still have much to learn. But is it appropriate to portray the contemporary era as merely a return to the preexisting "equilibrium" level of globalization? There is already a revisionist economic history claiming that, despite apparent similarities, international market integration today is qualitatively different than it was 100 years ago. According to Bordo, Eichengreen, and Irwin (1999), for example, "facile comparisons with the late 19th century notwithstanding, the international integration of capital and commercial markets goes further and runs deeper than ever before."[12]

11. Much of this work relies on and was inspired by the pathbreaking empirical research of Maddison (1995).

12. See also Baldwin and Martin (1999) for a similar argument.

The evidence in support of this view seems straightforward. In the 1870-1914 period, the bulk of—and the fastest growth in—world trade was in raw materials (agriculture and minerals), as the industrial revolution reduced the costs for the first industrial nations of extraction and transportation from their colonies. Today, international trade is dominated by manufactures, not only among the OECD countries but both ways between north and south as well. Trade in services was unheard of 100 years ago, but it is of considerable and rising importance these days. The nature of international capital movements also clearly differs between the two epochs of internationalization. Most international lending in the earlier period was directed to raw material extraction and transportation to market, particularly in developing countries. In the contemporary period, international finance supports the gamut of production activities around the globe.

The uniqueness of the contemporary international economy is nowhere more apparent than with respect to the multinationalization of production. The basic features of today's multinational firms—captured in management jargon such as breaking up the international value chain and global strategic alliances—have no historical parallels.[13] One clear indication of the proliferation of multinational production is the estimate that intrafirm trade (i.e., among international affiliates of the same firm) comprises roughly one third of all global trade (Jones, 1996, p. 56).

One need not embrace all the hyperbole of international management gurus to accept the fundamental point that there does indeed seem to be something new and distinctive about the contemporary era of international market integration. But this only raises the questions of what has caused the mushrooming of international economic activity in recent decades.

TECHNOLOGICAL DETERMINISM

The core question addressed in this section is, If governments wish to restrict cross-border economic activity, can they do so?[14] The analytic difficulty in answering this question is that one cannot draw any firm conclusions about the feasibility of closure from the extent of government interventions designed to insulate domestic markets from international activity. The global

13. For summaries, see Brooks (2000, chap. 4) and Dunning (1993, 1997).

14. I consider the issue in the context of individual governments versus market actors. If there were evidence that individual governments are powerless to stop globalization, this would raise the issue of whether international cooperation would be more effective. I will address this question in a follow-up article, "The Consequences of Globalization."

trend to declining barriers could be the product either of a voluntary choice by governments to liberalize or of their resignation that they cannot affect cross-border trade, production, and capital movements even if they try. On the other hand, countries that persist with protectionist barriers might do so not because they actually affect economic behavior, but because they send signals of support to constituencies adversely affected by market integration.

INTERNATIONAL FINANCE

The technological determinism thesis regarding international finance is straightforward (Bryant, 1987). Nowhere is globalization's ballyhooed shrinkage of time and space more apparent than in international finance. Ever faster and bigger semiconductors, fiber optics and the Internet have radically cut the costs of transmitting information in the past 20 years. Financiers can literally operate wherever and whenever they like, cutting deals in whatever financial instruments they can dream up. It is the specter of truly footloose liquid capital that generates images of hapless governments seeking to regulate yesterday's financial instruments within their borders—when the essentially homeless market makers they are trying to control have already moved on to newer and more exotic types of transactions.

The first piece of evidence cited to demonstrate the difficulty of regulating international financial flows predates the information technology revolution.[15] The euromarkets (financial transactions in a national currency that occur outside the home country) became central to international finance in the mid-1960s when the U.S. government responded to the weakening of America's balance of payments by imposing various policy restrictions on cross-border capital flows. In response, American banks moved their operations to London to avoid the new regulations.[16] When faced with the enlivened euromarkets that it had unwittingly created, the U.S. government had little choice but to do away with its capital controls, which it did in the early 1970s.

There were significant costs to offshore operations in the 1960s in terms of moving the relevant information halfway around the world (e.g., a 3-minute New York–London telephone call cost more than $30). Nonetheless, Ameri-

15. For a clear and concise discussion of this case, see Krugman and Obstfeld (1991, pp. 605-608).

16. Of course, this would not have been possible had the British government mimicked the American regulations. They had little incentive to do so, however, because Britain could—and did—gain by becoming the world center for offshore financial transactions. Moreover, the British government must have known that there would have been many others willing to offer an unregulated environment catering to the offshore activities of American banks.

can bankers thought that the benefits of evading domestic regulation outweighed these costs. Today, of course, even individual consumers pay less than 50 cents for the same international call. This is why the predicament of governments trying to regulate international capital flows seems even more parlous than was the case 30 years ago. Thurow (1997) describes an infamous 1990s analog of the euromarkets story:

> The Japanese government tried to prevent the trading of some of the modern complex financial derivatives that depended upon the value of the Nikkei Index in Toyko. As a result, the trading simply moved to Singapore, where it had exactly the same effects on the Japanese stock market as if it were done in Toyko. This was dramatically brought home to the world when a single trader for Barings securities in Singapore (Nick Leeson) was able to place a $29 billion bet on the Nikkei Index and lose $1.4 billion when the index did not trade within the ranges that he expected. (p. 72)

More generally, very few economists these days believe that governments can effectively control capital outflows (Krugman, 1999 is a notable exception). The situation is more complicated with respect to capital inflows. Dooley (1995) concluded from an extensive study of the empirical literature on the 1980s that capital controls did have real consequences for cross-border economic flows. More recently and visibly, key policy makers with exemplary credentials as academic economists—including the IMF's interim managing director, Stanley Fischer (1998); Joseph Stiglitz, former chief economist of the World Bank; and Alan Blinder (1999), former vice chairman of the Board of Governors of the Federal Reserve—have all argued that one clear lesson of the Asian crisis is that capital controls can and should be used to mitigate the adverse affects of volatility and uncertainty in international financial markets.

Much of the optimism about the effectiveness of capital controls is based on Chile in the 1990s. Chile is a darling of neoclassical development economists because of its manifestly successful efforts radically to reduce government intervention in the economy in the past two decades. But one area in which the Chilean government violated neoclassical principles concerned the imposition of capital controls. In 1991, the government imposed the requirement that all (nonequity) foreign capital inflows be accompanied by a non–interest-bearing 1-year deposit equal to 30% of the initial value of the investment.[17] Because the deposit was only for 1 year, it was essentially a tax whose effective cost to investors declined the longer their money stayed in Chile.

17. These controls were ultimately lifted in the aftermath of the Asian crisis.

Instead of trying to fight the losing battle of stemming capital flight once a crisis hit, the Chilean controls were designed to reduce the prospect of a financial crisis by steering capital from shorter term to longer term investments. According to the Chilean central bank, this policy was very effective in channeling capital flows from investments with shorter term to longer term maturities. In the first year after the controls were introduced, Banco Chile estimates that capital inflows with maturities of less than 1 year declined from almost three quarters of total inflows to less than 30% (Edwards, 1999, p. 74).

Other economists are considerably more skeptical as to the effectiveness of even this type of "smart" controls in the information technology age. According to Garber (1998), "A system of reserve requirements that penalizes short term inflows in favor of longer term investments can be evaded through offshore swaps with call features; an apparently long-term flow can thereby be converted into an overnight foreign exchange loan" (p. 30). Furthermore, Edwards (1999)—arguably the leading expert on capital controls in Latin America—concludes that the Chilean controls were remarkably ineffective.

Edwards (1999) argues that the Chilean controls clearly failed with respect to two of the government's stated objectives. They did not slow down currency appreciations caused by capital inflows, nor did they allow the government to fight inflation by maintaining higher domestic interest rates. But Edwards even goes so far as openly to dispute Banco Chile's claims about long-term investments. He argues that the portion of short-term foreign loans in the Chilean portfolio in the latter 1990s was no smaller than in those of other comparable countries with open current accounts (Edwards, 1999, p. 75).

Rogoff (1999, p. 35) seems sympathetic with Edwards's conclusion and argues that the prerequisites for making Chilean-type capital controls work are very exacting. Rogoff reasons that to be effective, "domestic banks must be prevented from writing offshore derivative swap contracts with foreign holders of long-term Chilean debt." But this is exceedingly difficult given the multiplicity of potential offshore transactions. Rogoff continues, "By including suitable margin and call conditions, such contracts can effectively make a Chilean bank the true holder of the long-term income stream, and the foreign bank the holder of a short-term loan."

It is probably premature to declare that capital controls are wholly ineffectual. Nonetheless, few would disagree with the more tempered proposition that the information technology revolution has made it much harder for governments to control international capital movements—even if they want to for economic or political reasons.

TRADE AND MULTINATIONAL PRODUCTION

No one would deny that technological change has significantly affected international trade in recent decades. But the case for a technologically determined view of trade liberalization is weak. The simple reason is that moving physical goods across national borders is a relatively transparent activity that governments can therefore monitor and slow down if they so choose. To be sure, national borders are long, and smuggling is an age-old strategy for circumventing barriers to trade. But illegal trafficking in goods such as narcotics is the exception rather than the rule. Moreover, whereas trade in services is obviously less transparent, this does not seem an insurmountable obstacle to government regulation in countries with reasonable accounting standards.

There is, however, one scenario in which technological change might significantly decrease the feasibility of trade protectionism. The Internet is "digitizing" some heretofore physical goods. In the world of e-commerce, it is not only possible to buy music, movies, and books online; the "goods" can also be "shipped" via the Internet. It is hard to see how such trade could be regulated using traditional policy instruments. There must be a limit, however, as to how much goods commerce can be morphed into bits and bytes. A popular statistic today is that about half the Americans buying cars use the Internet for some part of the process. But no one is suggesting that the cars will be delivered electronically anytime soon.

One can undertake a similar thought experiment with respect to whether information technology makes it harder for governments to regulate the activities of multinational firms. Buying a lasting stake in foreign assets or building new plants abroad are perhaps even more transparent activities that are easier for governments to regulate than moving goods across borders. However, the information technology revolution has been intimately connected with the rise of international strategic alliances among firms, the key feature of which is that they do not entail transferring any equity. One could thus paint a scenario in which multinational firms could evade government restrictions on their activities by forging informal alliances rather than swapping equity. But as Williamson (1975) pointed out long ago, there are good corporate governance reasons why alliances tend to be for specific purposes rather than ongoing management structures for the broad range of firms' activities, and it is hard to see the balance being radically changed by the Internet.

SUMMARY

The case for a technologically determined view of globalization is strongest with respect to international finance. There is a credible argument that since the onset of the information technology revolution there is essentially nothing governments can do to stop global financial flows. On such a view, there is no mystery to the spate of national-level moves to capital account liberalization in the 1990s; if capital controls don't work, why risk sending negative signals to the financial markets by persisting with them?

The case for technological determinism is considerably weaker with respect to trade and the multinationalization of production. Governments that wish to impede the movements of goods across national borders can do so; they can also regulate the ownership of domestic firms and the external behavior of their multinationals. This may change somewhat in an era of mature e-commerce, but it is unlikely that the ability of governments to regulate trade and multinational production will be wholly emasculated any time soon.

THE COSTS OF CLOSURE

Anyone who has taken an introductory international economics course knows the logic behind the mantra that removing barriers to cross-border economic activity is always "welfare improving." But a more complicated picture emerges if one reads cutting-edge research on the costs and benefits of international openness. The potential benefits of capital mobility in terms of the efficient allocation of investment are clear, but these gains may often not be realized because of the incomplete information problems that are endemic to international financial markets. Freer trade certainly gives consumers lower prices and allows economies to exploit comparative advantages and scale economies. But there are sound theoretical arguments that trade liberalization can hinder economic growth in cases of imperfect markets or positive externalities from domestic production, and the empirical evidence on the subject is inconclusive. Indeed, foreign direct investment is the only case in which economists universally endorse the basic neoclassical approach to market integration.

TRADE

A simple answer as to why we have seen so many moves toward freer trade in recent decades is that the opportunity costs of closure have increased as a result of rapid technological change. To take the classic example, the advent of superfreighters led to a decline in sea freight unit costs of almost 70% from

the early 1970s to 1996 (World Bank, 1997, p. 37). More generally, the portion of national economies that are considered nontradable has decreased dramatically in recent decades.[18] Indeed, this is a direct reflection of technological progress because something is nontradable by definition if the difference between the local and the international price is greater than the cost of bringing it to the domestic market. A simple corollary of the increasing proportion of national economies that are tradable is that the deadweight losses associated with protectionism have increased apace.

It is important to note, however, that these oft-cited benefits of freer trade are in essence one-time gains. Once the price for a product in a domestic economy is as low as the world price, that is the end of the story. Development economics, however, has been concerned with a dynamic issue: whether freer trade stimulates economic growth in the medium term. In the 1950s and 1960s, the conventional view was that protecting infant industries from international competition was the appropriate development strategy for most countries. After all, it seemed to have worked not only in post–World War II Latin America and Western Europe, but also in the antebellum United States.

Import substitution industrialization has fallen into disrepute since the 1970s. The "Washington consensus" has moved firmly to support the view that freer trade is good for growth.[19] Influential articles using large *n* statistics claim to show empirically that there are large positive growth effects to freer trade around the world (Balassa, 1985; Sachs & Warner, 1995). The theoretical justification for the purported dynamic gains from trade comes from new growth theory in which technological innovation is endogenous. In these models, freer trade could increase innovation by creating scale economies in export sectors that allow for higher research and development expenditures, by speeding up technological diffusion in import-competing sectors, and by giving domestic firms access to the best and cheapest intermediate inputs.

The "trade is good for growth" argument, however, is subject to important criticisms. Theoretically, it is easy to construct models in which freer trade retards growth. Strategic trade theory is a well-known example, but its relevance is limited by the fact that it only claims benefits of protection in sectors with extremely high startup costs and very large minimum efficient scales of production (commercial aircraft and pharmaceuticals are exemplars; Krugman, 1987). Of more potential importance is the argument (which in many ways formalizes the intuitions behind import-substitution industrial-

18. Moreover, lower transportation costs also increase the gains from specialization and from scale economies, because the costs of importing a country's comparative disadvantage decrease.

19. See, for example, the former vice president of the World Bank's presidential address to the American Economics Association (Krueger, 1997).

ization) that freer trade leads to the undersupply of beneficial production externalities in import-competing sectors (Bhagwati, 1968).

Consider the following simple example. At t_0, a country can import widgets more cheaply than it can produce them. But if it goes ahead and produces these widgets (by protecting the infant industry), a number of other things will happen—the technology used in widget production may be useful in other sectors, for example. At t_1, the country might be better off if it had protected widgets than if it had imported them.[20]

Indeed, the theoretical uncertainty about trade and growth is sufficiently great to lead Lawrence and Weinstein (1999)—no friends of protectionism—to conclude in a recent study that

> theory is actually quite ambiguous on the dynamic effects of trade. There are some reasons to expect that increased international competition could accelerate productivity growth but also some reasons to expect the reverse. (p. 8)

Turning to the empirical evidence, many economists have argued that conventional villain-hero characterizations of the decline of Latin America and the east Asian miracle are simply inappropriate. Rodrik (1999) argues that it is wrong to blame import-substitution industrialization for Latin America's economic problems in the 1970s and 1980s—the effects of the oil crises were far more important. Krugman (1994) and Sachs (1996) argue that trade had very little to do with the east Asian miracle. High savings rates and high levels of educational attainment mattered far more. Others contend that trade policy was central to the east Asian model, but that the relevant policy was the protection of infant industries from import competition, rather than trade liberalization (Amsden, 1989; Wade, 1990).[21]

Moreover, the large *n* studies of the trade-growth nexus have also been trenchantly criticized on methodological grounds (Edwards, 1993; Rodriguez & Rodrik, 1999). One fundamental objection is that the causality is the reverse of that assumed. Fast growth and higher income levels promote trade. Frankel and Romer (1999), for example, consider this causality question so important that they deliberately try to exclude from their growth regressions any parts of trade volumes that could be attributed to either wealth or trade

20. Of course, this argument requires that governments are relatively good at picking winners—sectors and technologies that generate long future income streams. It is easier to do this when a country can mimic technological advances already made elsewhere than if it is at the technological frontier. For example, this may explain why Japanese efforts to pick winners seem to have become less successful over time.

21. In contrast, Lawrence and Weinstein (1999) conclude that although the east Asian economies certainly did practice import substitution, this actually hindered their development. As a result, their growth performance "was even more of a miracle than we thought" (p. 24).

policy by using an instrumental variables approach in which unalterable aspects of geography are proxies for "natural" levels of trade. Frankel and Romer might be right that countries that are closer to each other grow more quickly, but this could hardly be used as support for the position that trade liberalization is good for growth and this is why governments have chosen to open their economies.

In sum, it is undeniable that technological change has increased the gains from trade—as they are conventionally understood. Thus, there is a good argument to be made for the proposition that the trend toward trade liberalization around the world in recent decades is explicable in terms of the increased opportunity costs of closure. However, things get much murkier if one considers the potential impact of trade liberalization on countries' medium-term growth trajectories.

INTERNATIONAL FINANCE

Though it is less prominent in the policy discourse on globalization, conventional international economics endorses not only free trade, but also free finance, as being in the interests of all countries. Obstfeld (1998) effectively summarizes the textbook argument:

> International financial markets allow residents of different countries to pool various risks . . . a country suffering a temporary recession or natural disaster can borrow abroad. Developing countries with little capital can borrow to finance investment, thereby promoting economic growth without sharp increases in savings rates. . . . The other main potential positive role of international capital markets is to discipline policymakers who might be tempted to exploit a captive domestic capital market. Unsound policies . . . would spark speculative capital outflows and higher domestic interest rates. (pp. 2-3)

By extension, the cheaper and easier it is to move information across borders, the greater are the efficiency gains of openness. Thus, there is a simple argument that the trend to financial market integration can be explained in terms of the heightened costs of financial closure. This is the view of the IMF's Interim Committee, which went so far in September 1997 as to recommend that all members commit themselves through a treaty revision to open capital accounts, paralleling their extant commitments to current account convertibility.[22] Bradford De Long, former deputy assistant secretary for eco-

22. Following the Asian crisis, the International Monetary Fund (IMF) has backed away somewhat from this unconditional position. It now argues that countries should only open their capital accounts when the appropriate domestic institutions are in place—most important, transparent and well-regulated domestic banking systems.

nomic policy in the Clinton administration, believes that the benefits of capital mobility have been "mammoth": "the ability to borrow abroad kept the Reagan deficits from crushing US growth like an egg, and the ability to borrow from abroad has enabled successful emerging market economies to double or triple the speed at which their productivity levels and living standards converge to the industrial core" (quoted in Bhagwati, 1998, p. 10).

Most economists these days, however, are less bullish about the benefits of unfettered capital mobility. Any potential benefits of financial integration must be balanced against a series of costs generated by the fact that financial transactions are plagued by problems of incomplete and asymmetric information. Moreover, these problems are only exacerbated (rather than mitigated) as the costs of transmitting information decrease.[23] The most important contemporary manifestation of these problems is that international financial markets are subject to wild swings in sentiment that are, if not wholly irrational (Morris & Shin, 1999), certainly unpredictable. Financial crises have been with us for centuries (Kindleberger, 1984). But they seem to have become more frequent and more damaging in recent years, from the Latin American debt crises of the early 1980s to the east Asian flu of the late 1990s.

The causes of the Asian crisis are hotly debated, ranging from unalloyed panic (Sachs & Radelet, 1998) to bad fundamentals (Corsetti, Pesenti, & Roubini, 1999). But even proponents of the latter view accept that the volume and speed of global financial flows have rendered most emerging markets (and as the European Monetary System crises of 1992-1993 showed, even stable developed countries) vulnerable to essentially instantaneous switches between good (rapid growth fueled by vast capital inflows) and bad (widespread capital flight precipitating deep recession) equilibria, with no apparent change in underlying economic conditions. As Rogoff (1999) explains,

> If creditors suddenly become unwilling to roll over short-term loans as they fall due, a country may find itself in a financial squeeze even if, absent a run, it would have no problems servicing its debts. Devotees of the this "multiple equilibrium" view believe that this is precisely what happened in the case of, say, Mexico in 1994 or Korea in 1997. For example, creditor panic at a relatively small devaluation of the peso in December 1994 suddenly made it impossible for Mexico to roll over its short-term debt, quickly precipitating a

23. Mishkin (1999) provides an accessible review of these issues. Adverse selection occurs before a transaction when bad credit risks are more likely to seek out loans (even at very high interest rates) because they are less concerned with paying back their creditors. Moral hazard takes place after the transaction. Borrowers have incentives to invest in riskier projects than were agreed to at the time of contract. As a result of both problems, lenders will likely make fewer loans than they should (or would) if they were perfectly informed about the attributes of potential borrowers.

> crisis. Instead of humming along in a "good" growth equilibrium as Mexico seemed to be doing prior to the crisis, it suddenly bounded into a "bad" recessionary equilibrium. (p. 25)

Thus, there are good reasons to think that although free international finance is hypothetically allocationally efficient, informational problems likely generate numerous costs as well. How much do we know about calibrating the trade-offs between allocational efficiency and damaging volatility, and hence about the net effects of financial market integration? Even a defender of capital account liberalization like Fischer (1998) admits that the answer is "not much":

> The difference between the analytic understanding of capital- and current-account liberalization is striking. The economics profession knows a great deal about current account liberalization, its desirability, and effective ways of liberalizing. It knows far less about capital account liberalization. It is time to bring order both to thinking and policy on the capital account. (p. 8)

Despite this acknowledgment, Fischer (1998, p. 2) is nonetheless happy to endorse financial liberalization for all countries, arguing that the best evidence in their favor is that essentially all of the OECD countries now have open capital accounts. But of course, the causality may well run in the other direction—wealthier countries are more likely to liberalize finance, rather than financial openness increasing national income.

Rodrik (1998) has gone further. He claims that there is no good evidence that capital mobility is good for growth. His methodology is simple: He adds a capital account policy variable to a typical growth regression equation of the type pioneered by Barro (1997), that is, controlling for initial level of income, educational levels, regional effects, and so forth. Rodrik's (1998) conclusion is stark: "Capital controls are essentially uncorrelated with long-term economic performance once we control for other determinants" (p. 61).

One need not go all the way with Rodrik (1998) to conclude that the case is at best weak that there are clear economic benefits to financial market integration, and that these benefits have increased in recent years. Thus, it is hard to argue that increasing opportunity costs of closure can have been an important driver of financial globalization.

FOREIGN DIRECT INVESTMENT

Like trade and financial integration, the textbook argument for the increasing costs of closure to foreign direct investment centers around the efficient allocation of resources, and the fact that these gains have increased

as a result of technological change in recent decades. Unlike the other two facets of market integration, however, there is little dispute in the economics community that the effects of FDI are unambiguously positive from the standpoint of economic growth.

Technological change has had a marked impact on multinational firms. The costs of product innovation have skyrocketed in many sectors (particularly those with the highest value added, such as aviation, computers, pharmaceuticals, etc.). This has greatly increased the minimum efficient scale of production for numerous industries—and hence the benefits of multinationalization. Declining transportation costs have also made multinational production more efficient because they lower the costs of moving goods among locations in diversified and complex production regimes.

As in the case of finance, however, it is arguable that the information technology revolution has had the biggest impact on multinational firms. The Internet has radically reduced the costs of coordinating complex supply, production, and distribution networks that are geographically decentralized. The automobile industry is a classic example. It may long have been efficient for Volkswagen to buy gear boxes in the United States, build engines in Germany, assemble cars in Brazil, and sell the finished product cars all over the world. But the challenges of coordinating all this activity are immense, especially if Volkswagen wants to pursue just-in-time production/low inventory best practices. Being able to coordinate all elements of the supply and distribution chains on the World Wide Web has been a boon for firms that have incentives to decentralize their activities.[24]

But is more multinational activity good for the national economies among which it is distributed? Theory and evidence are strongly supportive.[25] Interestingly, the case does not need to rely on the notion that attracting foreign investors is beneficial to capital-poor developing countries. This would suggest, for example, that FDI within the OECD would have little impact on growth, whereas the evidence is that FDI is good for growth even in the wealthiest nations (Graham & Krugman, 1991). Rather, the key argument is

24. The *Economist* ("Construction," 2000) argues that this type of Internet coordination has even had dramatic effects in sectors, like construction, that would apparently seem a long way from the cutting edge of e-commerce.

25. The benefits of foreign direct investment may also have implications for the costs of trade closure. The modern view about trade and FDI is that they are complements rather than substitutes (e.g., see World Trade Organization [WTO], 1996, pp. 53-55). The reasoning is straightforward. If multinational firms are to realize the benefits of international systems of production and distribution, they need to be able to move inputs and intermediate goods among their operations in different countries—via trade.

that foreign direct investment is a conduit for the transfer of technology and less tangible knowledge assets such as management practices.[26]

SUMMARY

This section has argued that the argument that increasing opportunity costs of closure have driven globalization is most persuasive with respect to the multinationalization of production and least persuasive for international financial integration. Trade occupies an intermediate place because although the static gains from trade liberalization are well known, it is less clear whether trade is good for growth.

IDEOLOGICAL CHANGE

The political center of gravity around the world with respect to economic issue—fiscal prudence, deregulation, and privatization (but also international market integration)—has shifted to the right in the past 20 years. The time line would highlight successively the Reagan-Thatcher revolutions, Francois Mitterrand's neoliberal U-turn, Antipodean market making and market opening, the rise to power of the "Chicago boys" in Latin America, the collapse of Communism, and the embrace of the third way–ism by governing social democrats in countries as diverse as Australia, Brazil, Britain, Germany, and Poland.

But is this ideological shift merely a description of political economic changes driven by other factors, or does it have independent causal weight, as analysts like Helleiner (1994) would have it?[27] In this section, I endogenize the trend toward market integration in terms of changes in the domestic balance of political power, rather than via the diffusion of economic ideas or coercion by international institutions.

The previous two sections have argued that technological determinism provides a compelling explanation for the trend toward international financial integration in the contemporary period, and that the efficiency incentives

26. Findlay (1978) is the seminal theoretical article. For empirical support for the proposition that FDI has a positive impact on medium-term growth, see Blomstrom, Lipsey, and Zejan (1994) and Easterly, King, Levine, and Rebelo (1994). Borensztein, De Gregorio, and Lee (1998) argue that this effect is contingent on a minimal level of human capital—perhaps explaining the relative absence of FDI in Africa and its apparently limited effects on growth rates on the continent.

27. See Gruber (2000) for a more sophisticated rendering of policy diffusion with respect to market integration.

to liberalize FDI are large. The political implications of these economic arguments are clear. Lindblom (1977) famously argued that business enjoys a "privileged position" under capitalism "because public functions in the market system rest in the hands of businessmen." He continues:

> It follows that jobs, prices, production, growth, the standard of living and the economic security of everyone all rest in their hands. . . . A major function of government, therefore, is to see to it that businessmen perform their tasks . . . governments cannot command business to perform. . . . They must therefore offer benefits to businessmen in order to stimulate the required performance. (pp. 172-173)

It is easy to see how this privileged position has been enhanced for international financiers and multinational firms.[28] If multinational firms perform essential growth functions, governments have little choice but to pursue policies of which they approve—such as removing impediments to their cross-border activities. Of course, some domestic constituents may oppose the selling of national assets to foreign entities. But if the aggregate economic benefits of FDI are sufficiently large, governments have strong incentives to support the multinationalization of production (and to find other ways to compensate those who feel adversely affected by this process). If governments believe that there is simply no way effectively to regulate cross-border capital flows, and if investment capital is a scarce good, they might as well accept this reality and focus their energies on dealing with the consequences of capital mobility.

These are political arguments in that they contend that the increasing power of financiers and multinational firms has led governments to remove barriers to international activity. But they also entail predicting policy choice from economic effects without knowing anything more about the details of domestic political interactions. To the extent that the previous two sections suggest that economics does not provide a parsimonious explanation for trade liberalization—either in terms of technological determinism or increased opportunity costs of closure—it may be more fruitful to analyze this trend in terms of struggles among distributive coalitions.

There has been a proliferation of sophisticated work in political science in the past decade studying interest group and coalitions politics in the trade area, much of it stimulated by Rogowski's (1989) seminal application of Hecksher-Ohlin-Stolper-Samuelson models to the political arena. But in a recent excellent review of this literature, Alt et al. (1996) acknowledge that neither Rogowski's approach nor the contending views (Ricardo-Viner spe-

28. Kurzer (1993) was among the first political scientists to see this connection.

cific factors or increasing returns to scale) tell us very much about likely trade policy outcomes. In particular, the authors point out that the question of why the apparently strong political bias to protectionism has been significantly mitigated in recent years remains a mystery.

It is relatively easy to explain the inherent political bias toward trade protectionism (Magee, Brock, & Young, 1989). Consumers are the primary beneficiaries of reductions in barriers to imports because this will lower the prices of goods and services they buy. Both the owners and employees of protected industries, however, will be adversely affected by import competition—profits, wages, and jobs will be reduced. In the conventional story, the benefits of free trade are relatively small and spread throughout society, whereas the costs of free trade are concentrated in import-competing industries for whom trade policy is a life-and-death issue (plants may close, whole industries may shrink radically, those affected will have their lives seriously altered). In turn, collective action problems cripple consumers in the political battle against the well-organized intense interests of import-competing industries.[29]

This approach cannot, however, explain the over-time trend toward trade liberalization. As Alt et al. (1996) acknowledge, introducing more sophisticated models of trade preferences does not help much either. The limitation of preference/coalition-based approaches is that increased demands for liberalization are likely to be offset by increased demands for protection. As Frieden and Rogowski (1996) observe, lower costs of moving products and information

> leads to intensified demands for trade . . . on the part of those firms and individuals closest to their country's comparative advantage. . . . On the other hand, easier trade sharpens the desire for protection on the part of those farthest from their country's own comparative advantage. (p. 42)

Let me now offer an argument that might help explain why the balance of political power has tilted in favor of freer trade. In Magee's formulation, competitive exporters sit on the sidelines in the battle between pro-trade consumers and protectionist import-competers. The assumption is that exporters do not care about domestic trade policy; they only want access to foreign markets. But in the contemporary world, exporters seem to be active participants in the domestic trade game. Consider the Clinton administration's threat in the early 1990s of imposing 100% import tariffs on luxury Japanese automobiles in response to what it considered protectionist barriers in the

29. Bates's (1981) seminal argument, of course, is that there is a countervailing urban consumer bias in many developing countries because small agricultural producers, unlike manufacturers in the stable industrial democracies, are plagued by pervasive collective action problems.

Japanese auto parts market. The whole point of this strategy was to mobilize support among influential Japanese exporters (i.e., the auto makers) for the liberalization of their home market. Indeed, exporters have generally been strong supporters of trade liberalization in Japan since the 1980s (Rosenbluth, 1996).

The multinationalization of production may also have had a significant impact on the policy preferences of exporters. The more exporters import intermediate inputs to produce final products, the greater their stake in lowering the prices of imported goods (and hence removing protectionist barriers). But export interests are unlikely to be hamstrung by the kind of collective action problems that afflict consumers. One could reasonably expect that the increased pro-free-trade activism of exporters has tipped the political balance in favor of freer trade.

What, then, do we know about the causal impact of political change on the global trend toward market integration? At some level, it is surely correct that the shift to the right on economic issues has been a proximate cause of international market integration. I have argued, however, that in the cases of financial integration and the multinationalization of production, these causal processes are political only in a quite narrow sense. The increasing power of finance and multinational firms caused by technological changes has resulted in public policies that are more consistent with their interests—that is, increasingly open markets. Things are more complicated, and more political in the sense of the constellation of preferences and interest coalitions, with respect to trade. Again, however, it seems that the move to trade liberalization has its roots in technological changes that have changed the preferences of exporters with respect to protection of the domestic economy.

CROSS-NATIONAL VARIATIONS IN MARKET INTEGRATION

Understanding the big picture—the over-time worldwide trends toward more internationally integrated markets—is clearly of critical importance to any analysis of the causes of globalization. This justifies the amount of attention I have given to this subject in the preceding sections. But the magnitudes of enduring cross-national disparities in international economic flows and foreign economic policies are sufficiently large that they cannot be dismissed as mere noise on the path to a single seamless global market (much as some pundits would like to believe that this is the case).

In this section, I present a simple comparative analysis of the political economy of the two foreign economic policy choices for which it is possible

to gather reasonable data for a large number of countries around the world—trade taxes and whether countries impose significant restrictions on capital account transactions. Studying the politics of protectionism is a subject with a very long and distinguished pedigree, but I know of no efforts to compare all the countries of the world in the same analysis (for a recent review of the voluminous empirical literature, see Rodrik, 1994). There are a couple of global studies of capital account openness, but these are either relatively apolitical (Leblang, 1997) or quite preliminary (Garrett, Guisinger, & Sorens, 2000).

I explore the effects of four types of variables that have received considerable attention in the political economy literature: economic size, the level of development, the balance of power between pro- and anti-market forces (measured in terms both of partisan control of government and unionization rates), and the effects of formal political institutions (in this case, the extent to which political regimes are democratic).[30] I employ the simplest possible cross-sectional research design: regressing foreign economic policy outcomes in the 1990s on the explanatory variables (using lagged 1980s values to mitigate the possibility of reverse causality).[31]

This type of analysis is useful for the simple reason that it gives us a first cut at discriminating among the numerous plausible explanations for cross-national variations in market integration. In the 1990s, for example, foreign economic policies were much more liberal in the OECD nations than in the world's poorest countries (see Table 1). There are at least two clear differences between the two groups. The OECD countries are wealthy and have long histories of stable democracies; the poor countries have much shorter (if any) democratic histories. The regressions reported below directly address the following question: To what extent does democracy or income level explain these variations? But they might also generate some insights into important "What if?" questions about the future: Will we indeed witness the creation of a seamless global economy if/when most of the world's countries become wealthier and stably democratic?

It is important to note at this point, however, that—if my preceding analysis is right—there is a crucial difference between trade taxes and capital controls. Trade taxes remain an effective way of regulating international trade, and it is not clear that the macroeconomic benefits of liberalization are overwhelming. In contrast, the impact of capital account restrictions on interna-

30. I would have liked to test the proposition that foreign economic policy liberalization should be less pronounced in countries with fewer veto players (Tsebelis, 1995), but unfortunately the data are not available outside the OECD countries.

31. Of course, more rigorous analysis using panel data will be required before any more definitive conclusions can be drawn.

Table 3
The Determinants of International Openness

	Trade Taxes[a]		Open Capital Accounts[b]	
Ln(population)[c]	4.31***	5.76***	–1.42***	–2.18***
Ln(GDPPC)[d]	–6.21***	–7.59***	1.35***	2.23***
Left government[e]	1.88		–0.90*	
Unionization[f]		–0.06***		–0.04***
Democracy[g]	–0.03	0.44	0.04	0.00
Intercept	92.01***	103.46***	–6.20*	–13.91***
R^2	0.51	0.65	0.38	0.57
Observations	103	53	146	59

Note: GDPPC = gross domestic product per capita. Ordinary least squares (OLS) regression with robust standard errors.
a. Average trade taxes in 1990s (see the appendix).
b. Number of years with open capital accounts in 1990s (see the appendix).
c. Natural log of average 1980-1990 population (World Bank, 1999).
d. Natural log of average 1980-1990 gross domestic product (GDP) per capita (in constant 1997 dollars; World Bank, 1999).
e. Average left party control of executive government, 1980-1990 (Beck, Clarke, Groff, Keefer, & Walsh, 2000).
f. Rate of unionization of nonagricultural workers in 1985 (International Labor Organization, 1997).
g. Average democracy—autocracy scores, 1980-1990 (Gurr & Jaggers, 1998).

tional capital movements was probably quite limited in the 1990s. Thus, unlike the trade case in which the level of protection has significant effects of the material well-being of different segments of society, the politics of capital account liberalization are likely to be more symbolic (sending signals about the government's broader orientation to the international economy). Both might be subject to distributional conflict, but in the case of capital account policy, this conflict may well be more symbolic than real.

TRADE TAXES

The first panel of Table 3 presents the results for the determinants of trade taxes in the 1990s. The first thing to note about this table is the impact of country size on trade policy. Countries with larger populations have lower trade taxes because they have larger domestic markets and hence less to gain from openness—in terms of price reductions, specialization, or realizing scale economies—than smaller countries. Based on the estimates in the first column of the table, trade taxes in a country with 100 million people would have constituted almost 10 percentage points more of total trade volumes in the 1990s than in a country with 10 million people.

The powerful effects of size are not surprising. But they are quite interesting with respect to speculation about the future of protectionism. Economists

have suggested that the minimum feasible size of countries has declined substantially in recent years as a result of the lower costs of trade and other cross-border economic activity (Alesina & Spolaore, 1997). Thus, the dramatic increase in the number of countries in the world in the past decade may also have reinforced the trend to globalization by leading to a reduction in policy barriers to international trade.[32] Nonetheless, it would be unrealistic to assume that anytime soon the world will be composed of thousands of very small, essentially free trading states. The growth of the EU, with the fears about new forms of protectionism that it has engendered, is a clear counterexample to the trend toward the breakup of larger states.

The second clear finding from Table 3 is that countries at higher levels of development were less protectionist. Based again on the first model, trade taxes/total trade would have been 14 percentage points lower in a country with a per capita income of $10,000 in the 1980s than in a nation with GDP per capita of $1,000. There are numerous possible explanations of this result. Countries with higher income per capita are likely to have relatively more owners of capital and skilled labor and to have relatively more specialized production profiles. Pace Alt et al. (1996), all of these actors prefer liberalization over protectionism. It may also be the case that in higher income countries, the "median voter" consumes more imports, again making liberalization more likely. Moreover, governments in more developed countries seem better able to raise taxes from their citizens, allowing them to rely less on trade taxes.

Once one controls for the effects of level of economic development, whether countries were democracies had no impact on the level of trade protection. This is consistent with the notion that democracy has two countervailing effects on economic policy (Przeworski & Limongi, 1993). On one hand, democracy makes leaders more accountable to their citizens, promoting trade liberalization to the extent that this is good for society as a whole. On the other hand, democracy also empowers distributional coalitions with intense interests, making higher levels of protectionism more likely (Olson, 1993). If these effects are largely offsetting, perhaps the preferences of different groups in society, rather than the formal political institutions governing their aggregation, matter most for policy choice. Alternatively, one could argue that more fine-grained institutional analysis is required—concerning, for example, electoral systems (Rogowski, 1987) or federalism and the separation of powers (McGillivray, 1997).

32. World population growth without the creation of new nations, of course, would have the opposite effect.

Even if broad regime type does not seem consequential in this case, there is evidence that other types of mediating institutions do matter to trade liberalization. Although left government did not significantly affect the size of trade taxes, the second column of Table 3 shows that countries with higher union density were more protectionist.[33] A country with 50% of its (nonagricultural) labor force unionized in 1985 is estimated to have had trade taxes that were almost 2.5 percentage points higher than a country within a union density of 10%. This finding makes eminent sense on the reasonable assumption that trade unions tend to overrepresent workers in less internationally competitive firms, industries, and sectors. In terms of over-time trends, the unionization results would also imply that if the OECD trend toward lower rates of unionization since the 1970s is a global phenomenon, this might also have added to worldwide trend toward trade liberalization.

CAPITAL ACCOUNT OPENNESS

The results for capital account openness are quite similar to those for trade taxes. Countries with larger populations were less likely to have open capital accounts in the 1990s—a country with a 100 million people would have had open capital accounts for 3 more years in the 1990s than one with 10 million. The estimated effect of moving from $1,000 to $10,000 in GDP per capita was essentially the same, decreasing the number of years with open capital accounts in the 1990s by about 3. Although the precise reasons for these effects may be somewhat different than was the case for trade liberalization, the same general dynamics exist.

The extent to which a country was democratic had no impact on capital account openness. However, greater trade unionization was associated with more capital account closure. A 40-point increase in union density would have reduced the period of openness in the 1990s by 1.6 years. Unlike the trade case, left governments were also significantly associated with closure, decreasing the number of years with capital account openness in the 1990s by 0.9.

But if the technological determinism thesis is correct, capital account policy these days has very little impact on the actual cross-border movements of capital. Why, then, are the regression results so similar to those for trade protection? One simple answer would be to assume that governments and domestic constituencies continue to think, naively, that they do. Given that the preferences of different broad classes of actors are likely to be similar

33. Note that even though the sample of countries is roughly halved by the inclusion of union density, the results on the other variables are essentially unaffected.

with respect to trade and capital account policy, we would then expect the two policy choices to be driven by similar dynamics.

A more realistic rendering of this type of argument is that governments understand that some policy choices are more important for the general signals about the governments' broader intentions (rather than for their specific effects in a given policy area). Capital account liberalization may be a case in point. Restrictions send signals to domestic constituents who feel that they would be adversely affected by openness that the government cares about their concerns—and is willing to act to defend their interests. But imposing controls on the capital account also sends signals to mobile capital that the country imposing the restrictions is in important senses unfriendly. In smaller, wealthier countries with lower rates of unionization and more conservative governments, the costs of the negative market signal may well dominate the benefits of the positive signal to domestic constituencies, whereas the opposite is true in larger, poorer countries, particularly where the left and trade unions are strong.

CONCLUSION

The central analytic problem one faces when trying to understand the causes of globalization is to untangle the interrelations among three important phenomena: rapid technological change, mushrooming cross-border economic activity, and a spate of initiatives to liberalize foreign economic policies at the national, regional, and global levels. This article has explored two ways to try to tease out the causal pathways among these variables. First, I mined the vast literatures in international economics about the economic effects of trade, multinational production, and international finance to reason backward to the causes of integration in each of these markets. Second, I examined today's large cross-national variations in international market integration to ascertain whether they are likely over time to erode, ultimately resulting in a truly seamless global marketplace.

Figure 4 summarizes my assessment of the contending big picture arguments about the causes of globalization. Notwithstanding important similarities with the last great era of internationalization 100 years ago, global market integration is qualitatively different and deeper today. Technological changes lowering the costs of moving goods—and more important, information—have been the primary exogenous stimulus behind contemporary globalization. There are, however, three different pathways between this stimulus and market integration.

	Facet of Market Integration		
Causal perspectives	Trade	Multinational production	International financial integration
Exogenous stimulus	Lower transportation costs	Lower transportation costs and IT revolution	IT revolution
Nothing new	☒ Intra-industry trade, trade in services, 2-way north-south manufacturing trade	☒ Multinational supply, production and distribution networks, international strategic alliances	☒ 24 hour global trading, limitless derivative transactions
Technological determinism	☒ Movements of goods and services can still be controlled	☒ Cross-border equity transactions can still be regulated	☑ Offshore markets very difficult to regulate
Increased costs of closure	☑/☒? Lower prices, etc., but uncertain growth effects	☑ FDI transfers technology, management practices, know-how	☒ Theoretical efficiency gains offset by in practice by uncertainty and volatility
New preferences and coalitions	☑ Exporters more interested in domestic liberalization	☑ Privileged position of MNCs	☑ Privileged position of financial capital

Figure 4. **The causes of globalization.**
Note: IT = information technology, FDI = foreign direct investment, MNCs = multinational corporations.

Technological determinism provides a parsimonious explanation for the integration of international financial markets. The information technology revolution has rendered capital controls much less effective than ever before. Governments that are unwilling to risk sending negative signals to the markets therefore have strong incentives to remove capital controls. They will still have to deal with the adverse consequences of financial integration, but this would be the case irrespective of whether they sought to impose controls on cross-border capital flows.

The desire of multinational firms to expand their international activities has grown as the costs of moving goods and information have decreased. But the multinationalization of production would not have been possible without governments' removing barriers to foreign ownership of domestic assets. Governments have been willing to do so because FDI generates externalities such as the transfer of technology and management best practices that stimulate economic growth. Some segments of society may still be unhappy with

foreign ownership of domestic assets, but if this has beneficial macroeconomic policies it may be relatively easy for governments to compensate the opponents of the multinationalization of production.

Finally, trade liberalization has not been technologically determined—governments can and still do impose policy restrictions on cross-border trade in goods and services. Moreover, though the one-time gains of freer trade (in terms of lower prices, etc.) are obvious, whether this is also beneficial for or harmful to economic growth in the longer run is debatable. It is thus likely that more traditional political factors have played a larger role in trade liberalization than in the other two facets of market integration. I highlighted the fact that exporters have become increasingly interested in reducing protectionism at home—either to reduce the prospect of foreign retaliation or because they rely heavily on imports as productive inputs—and suggested that this may have tipped the domestic political balance in favor of liberalization.

Turning to my cross-national analysis, four basic points stand out. First, one should not expect all national markets ever to appear equally globalized. The incentives for larger countries to be open are simply considerably weaker than those facing smaller countries. Larger countries are always likely to be less integrated into international markets than smaller ones.

Second, levels of development have a marked impact on the propensity for international market integration. Wealthier countries are more likely to be open to and integrated into global markets, probably because more of their citizens are likely to benefit from this. Economists may be correct that in the long run income levels will tend to converge around the world. Thus, it is possible to envisage a scenario in which some of today's great disparities in market integration are lessened. But it is unlikely that the large cross-national differences in per capita income of the current era will disappear anytime in the foreseeable future.

Third, there is little support in the cross-national evidence that democratization is conducive to market integration. As others have noted, democracy has ambiguous and countervailing effects on economic policy choice, including international openness. On one hand, democracy makes leaders more accountable to their citizens, which would promote openness to the extent that market integration is welfare improving. But on the other hand, democracy empowers distributional coalitions with vested interests in resisting market liberalization.

Finally, there is some evidence that traditional indicators of the balance of political power within countries have affected their openness to the international economy. Countries with left-wing governments and powerful trade unions tend to be more closed, though the substantive magnitude of these effects is considerably smaller than those for country size and level of devel-

opment. One might debate whether trade unions are in secular decline or how centrist the nominal left is becoming, but answers to these questions are unlikely to have major effects on international market integration.

Let me finish this article by suggesting some potential implications of my analysis of the causes of globalization for its consequences for domestic politics. International financial integration is essentially an irresistible force. The live questions, therefore, are how large the adverse consequences of market uncertainty and volatility are, and whether governments have the incentives and the capacity to mitigate these consequences through domestic policies. The multinationalization of production, in contrast, is likely to be welfare improving for most countries. One would thus expect that dealing with its consequences would not be a big issue in most countries. Finally, governments can still restrict trade if they want to. Trade liberalization may be welfare enhancing, but the benefits are likely to be smaller than those associated with the multinationalization of production. In turn, freer trade has significant distributional implications for different segments of domestic society, to which governments may seek to respond with policies of domestic redistribution. Assessing how governments balance trade liberalization with domestic compensation remains an important question. I will explore all of these issues in a follow-up article on the consequences of globalization.

APPENDIX
Globalization in the 1990s

	Trade/GDP (%)[a]	FDI/GDP (%)[b]	International Portfolio Investment/GDP (%)[c]	Trade Taxes/Trade (%)[d]	Years With Open Capital Accounts[e]
High-income OECD					
Australia	38	3.1	4.5	3.2	10
Austria	77	1.8	6.3	1.1	8
Belgium	129	7.9	36.0	0.0	10
Canada	63	2.6	5.5	2.7	10
Denmark	66	3.3	7.1	0.1	10
Finland	58	3.0	6.0	0.7	8
France	44	3.4	4.5	0.0	6
Germany	47	1.4	5.8	0.0	10
Greece	42	1.0		0.1	3
Iceland	66	0.9	1.1	5.1	2
Ireland	123	3.8	4.0	0.0	7
Italy	43	1.0	6.3	0.0	6
Japan	18	0.6	3.4	1.2	10
Luxembourg	182			0.0	
Netherlands	100	7.6	7.6	0.0	10
New Zealand	58	5.7	3.8	2.2	10
Norway	71	3.4	4.8	0.6	4
Portugal	68	2.3	7.4	0.5	6
Spain	42	2.5	4.9	0.6	2
Sweden	64	5.7	8.3	0.7	6
Switzerland	68	4.7	9.4	1.1	7

(continued)

APPENDIX Continued

	Trade/GDP (%)[a]	FDI/GDP (%)[b]	International Portfolio Investment/GDP (%)[c]	Trade Taxes/Trade (%)[d]	Years With Open Capital Accounts[e]
United Kingdom	53	5.1	10.9	0.1	10
United States	22	1.9	4.3	1.4	10
Average	67	3.3	7.2	0.9	7.5
SD	37	2.1	6.9	1.3	2.8
High-income other					
Aruba		9.8			0
Bahamas				61.8	0
Brunei					4
Cayman Islands				42.7	
Cyprus	104	1.5	1.7	12.0	0
Hong Kong, China	277				10
Israel	78	2.4	3.1	1.0	1
Kuwait	101	5.1	6.8		7
Macao	129				
Malta	192	5.6	8.8	16.6	0
Netherlands Antilles				28.1	0
Qatar					10
Reunion					0
Singapore	361	13.7	12.4	1.3	10
Slovenia	121	1.2	1.2		0
United Arab Emirates	123			0.0	10
Average	165	5.6	5.7	20.4	3.7
SD	95	4.7	4.4	22.4	4.6
Upper-middle income					
Antigua and Barbuda	203	12.1	0.1		10
Argentina	16	1.7	4.1	8.0	1

Bahrain	192	0.3	0.9	9.0	10
Barbados	97	0.8	1.8		0
Botswana	93	2.1	1.3	16.4	1
Brazil	18	1.2	3.0	1.6	0
Chile	60	6.8	2.1	9.6	0
Croatia	113	2.0	0.3	8.4	0
Czech Republic	113	3.2	2.6	3.6	0
Estonia	150	4.2	3.1	1.1	3
Gabon	90	2.1		16.6	0
Grenada	105	7.5	0.2	20.0	0
Hungary	70	5.6	3.8	7.3	0
Korea, Republic	64			7.2	0
Lebanon	83			40.2	9
Malaysia	173	6.6	0.9	14.1	7
Mauritius	127	1.1	1.4	39.3	3
Mexico	45	1.3	4.2	6.1	0
Oman	88	1.1		2.9	10
Panama	189		6.6	10.7	10
Poland	50	2.6	0.6	6.7	0
Saudi Arabia	78	0.9	4.5		7
Seychelles	124	8.0	0.3	46.1	9
Slovak Republic	116	1.7	2.7		0
St. Kitts and Nevis	129	7.8	0.6	40.2	0
St. Lucia	144	7.3	0.1	27.9	0
Trinidad and Tobago	85	5.8	0.1	7.2	5
Turkey	40	0.5	1.6	4.1	0
Uruguay	43	0.7	1.0	5.6	7
Venezuela	54	3.4	1.6	8.6	3
Average	98	3.7	1.9	14.2	2.9
SD	50	3.1	1.7	13.3	3.9

(continued)

APPENDIX Continued

	Trade/GDP (%)[a]	FDI/GDP (%)[b]	International Portfolio Investment/GDP (%)[c]	Trade Taxes/Trade (%)[d]	Years With Open Capital Accounts[e]
Lower-middle income					
Albania	60	2.9		13.6	0
Algeria	51	0.1	0.0	16.9	0
Belarus	114	0.8	0.2	8.5	0
Belize	113	3.0	1.0		0
Bolivia	49	4.3	0.1	6.5	10
Bosnia/Herzegovina					2
Bulgaria	95	1.3	0.8	6.1	0
Cape Verde	77	3.0			0
Colombia	35	3.7		11.6	0
Costa Rica	84	3.5	0.2	16.0	4
Djibouti	113	0.4			10
Dominica	116	11.6	0.7		0
Dominican Republic	88	2.8		40.4	1
Ecuador	57	2.6		12.0	8
Egypt, Arab Republic	54	1.3	0.2	10.2	2
El Salvador	54	0.2	0.5		3
Equatorial Guinea	151				0
Fiji	117	4.0		25.1	0
Georgia	73			12.6	3
Guatemala	43	0.8	0.6		10
Guyana	185				3
Iran, Islamic Republic	46	0.0		9.0	0
Iraq					0
Jamaica	123	5.2			3

Jordan	135	1.6		29.2	2
Kazakhstan	91	4.4	0.8		0
Kiribati	132	1.2			7
Latvia	106	3.5	3.7	2.8	4
Lithuania	106	2.1	0.7	3.4	6
Macedonia, FYR	91				0
Maldives	130	3.1		37.8	10
Marshall Islands					4
Micronesia, Federated States					4
Morocco	58	1.0	0.2	16.7	0
Namibia	113	4.0	1.7	31.8	0
Papua New Guinea	98	3.9	16.8	24.1	0
Paraguay	48	1.4		16.1	3
Peru	26	5.1		10.5	6
Philippines	76	2.1	3.1	25.9	0
Romania	55	1.2	0.4	4.0	.
Russian Federation	53	0.9	1.7	11.7	0
Samoa	108				
South Africa	47	1.0	3.3	2.3	0
Sri Lanka	76	1.5	2.0	21.6	0
St. Vincent/Grenadines	120	10.6	0.3	40.8	0
Suriname	33	11.4	0.5		0
Swaziland	167	7.8	0.3	47.4	0
Syrian Arab Republic	67	0.7		11.2	0
Thailand	83	2.0	2.6	17.0	0
Tonga	79	0.8	0.6	49.3	2
Tunisia	89	2.2	0.3	27.7	0
Ukraine	69	0.5	0.6		0
Uzbekistan	94				0

(continued)

APPENDIX Continued

	Trade/GDP (%)[a]	FDI/GDP (%)[b]	International Portfolio Investment/GDP (%)[c]	Trade Taxes/Trade (%)[d]	Years With Open Capital Accounts[e]
Vanuatu	123	13.2		56.5	10
Yugoslavia, FR					0
Average	87	3.2	1.6	19.9	2.2
SD	36	3.2	3.2	14.4	3.2
Low income					
Afghanistan					0
Angola	118	4.8			0
Armenia	94				3
Azerbaijan	85				0
Bangladesh	24	0.1	0.1		0
Benin	58				0
Bhutan	77			1.3	0
Burkina Faso	39			23.6	0
Burundi	34	0.1		21.7	0
Cambodia	49				0
Cameroon	41	0.3	0.5	19.0	0
Central African Republic	42	1.0			0
Chad	47	1.4		19.8	0
China	35	5.4	0.6	14.5	0
Comoros	60	0.5			0
Congo, Democratic Republic	44			34.7	1
Congo, Republic	120				0
Cote d'Ivoire	69	1.2	0.1	29.1	0
Eritrea	108				0
Ethiopia	29			17.1	0

Gambia	124	2.5		42.8	8
Ghana	54			33.1	0
Guinea	45	0.6		46.3	0
Guinea-Bissau	49				1
Haiti	33	0.2			0
Honduras	78	1.7	0.0		2
India	23	0.7		24.3	0
Indonesia	52	2.1	1.3	5.0	7
Kenya	65	0.2	0.1	13.6	3
Kyrgyz Republic	78				3
Lao PDR	54	2.8	0.0		0
Lesotho	149	1.5		54.6	0
Liberia					3
Madagascar	47	0.4		47.2	0
Malawi	61			16.3	0
Mali	54	1.6			0
Mauritania	100	0.7	0.0		0
Moldova	120	1.0	0.0		1
Mongolia	109	0.4		12.5	0
Mozambique	65	1.9			0
Myanmar	4			14.1	0
Nepal	49	0.1		28.5	0
Nicaragua	78	1.4	0.1	19.0	3
Niger	38	1.8			0
Nigeria	80	4.3	1.1		1
Pakistan	37	1.0	0.8	26.1	0
Rwanda	33	0.2	0.0	29.5	0
Sao Tome/Principe	111				0
Senegal	62	1.0	0.1		0

(continued)

APPENDIX Continued

	Trade/GDP (%)[a]	FDI/GDP (%)[b]	International Portfolio Investment/GDP (%)[c]	Trade Taxes/Trade (%)[d]	Years With Open Capital Accounts[e]
Sierra Leone	46	0.6		40.6	0
Solomon Islands	120	4.9		54.7	0
Somalia	48				0
Sudan					0
Tajikistan	187				0
Tanzania	54	1.5			0
Togo	69	0.2	0.1		1
Turkmenistan					0
Uganda	31	1.8			2
Vietnam	76				0
Yemen, Republic	61			16.5	4
Zambia	75	1.0		21.9	3
Zimbabwe	66	0.3	0.6	18.2	0
Average	66	1.4	0.3	25.7	0.7
SD	34	1.4	0.4	13.8	1.6
World					
Average	83	3.0	3.0	16.3	2.6
SD	48	2.8	4.5	15.2	3.6

Note: GDP = gross domestic product, FDI = foreign direct investment, OECD = Organization of Economic Cooperation Development, FYR = Former Yugoslav Republic, FR = federal republic, PDR = People's Democratic Republic.
a. Average for 1990-1996.
b. Average for 1990-1997.
c. Average for 1990-1997.
d. Average for 1990-1995.
e. Number of years in 1990s with open capital accounts.

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