

GLOBALIZATION AS MARKET INTEGRATION AND THE FUTURE OF INTERNATIONAL BUSINESS

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December 2001
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Abstract

This paper reviews economic evidence concerning the international integration of markets and concludes that most measures of market integration have scaled new heights in the last few decades but still fall far short of economic theory's ideal of perfect integration. Intermediate levels of cross-border integration enhance the prospects of international business as a distinct field of study, since such situations cannot—unlike situations of either complete insulation or complete integration—be folded back into the single-country base case that is the staple of much of business analysis. Attention to intermediate levels of market integration also suggests some paths that researchers in international business might profitably follow.

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INTRODUCTION

Perhaps the only proposition about globalization that academics would all agree on is that the amount written about it has exploded in recent decades. The term had yet to be invented (in English) in 1960, but nearly 300 books or academic articles on the topic appeared in 1980, and by the second half of the 1990s, the annual publication rate exceeded 3,000 (Guillen, 1999).¹ Or in stock rather than flow terms, interpolation and extrapolation suggest that about 1-2,000 such books or articles had been published by 1980, and 40,000 by 2000. Note that these numbers do not include articles on globalization in the business or popular press.

It would be harder to secure widespread agreement on whether globalization itself—the underlying phenomenon or process, as opposed to the construct—has experienced that kind of intensification or deepening recently. In fact, two polar views have been distinguished in this regard (Giddens, 1996; Held *et al.*, 1999). One pole maintains that we have achieved a state of (near) *globality*, in which there is so much integration across national borders that the latter can, for many practical purposes, be ignored. In counterpoint, the other pole, which might be called *global skepticism*, is skeptical that there is anything fundamentally new about the levels of cross-border integration that have been achieved to date.

One arena in which it does seem feasible to achieve some closure to this debate is the economic one. Economics offers both a relatively developed conceptual framework, for market analysis, and a mostly adequate empirical base for making judgments about levels of and changes in cross-border integration. Since there still seem to be some misconceptions about the extent of cross-border integration of markets, an attempt to marshal the relevant evidence should be useful in and of itself. As a bonus, conclusions based on market-level analysis of cross-border integration turn out to have strong implications for firm-level strategies for adding value by crossing borders.

The next section of this article looks at the cross-border integration of product markets and the section that follows at markets for various types of resources or factors—capital, labor, and knowledge. Given the debate between globalists and global skeptics, the questions asked about each type of market concern changes in its level of international integration, measured in terms of quantity and price outcomes, over recent decades or the course of the 20th century as well as its absolute level of international integration at the millennium. Comparisons over one hundred years or so are of particular interest because of the claim often made by global skeptics that there was less cross-border economic integration well towards the end of the 20th century than at its beginning (Hirst and Thompson, 1996).

PRODUCT MARKET INTEGRATION

This section will begin by looking at the most obvious quantity measure of the cross-border integration of product markets, trade flows. It will then look at foreign direct investment stocks and, finally and very briefly, at cross-border price integration.

Trade Flows

To begin with a very long-run perspective, consider data on world exports divided by world GDP (the usual normalization) over the last two centuries based on and updated from data in Maddison (1995). As **Figure 1** indicates, this ratio increased from about 1% at the beginning of the 19th century to nearly 10% towards the beginning of the 20th century, and, despite a period of stagnation and decline bounded by the two World Wars, has since managed to edge up towards 20%. Trade intensity has clearly reached new heights in the last quarter of the 20th century.

Figure 1 about here

The increase in trade intensity over the course of the 20th century looks all the more remarkable when one accounts for the increasing share of GDP contributed, especially in developed countries, by two sectors that account for relatively little trade, services and government. One way of stripping out the effects of these “nontraded” sectors is to remove them from the calculations and focus on the ratio of merchandise trade to merchandise value added. This leads to striking increases in measured trade exposure, as illustrated by Feenstra’s (1998) sample of 11 relatively developed countries between 1913 and 1990. Over this period, the ratio of merchandise trade to merchandise value added increased for 9 of these countries, the median change was +22 percentage points, compared to an initial median value of 36%, and total unweighted increases were close to 20 times as large as total unweighted decreases. The corresponding statistics for the ratio of merchandise trade to *total* GDP are increases for only 6 of the 11 countries, a median change of +2 percentage points from an initial median value of 20%, and total unweighted increases less than one-half as large as total unweighted decreases.

Of course, the ratio of merchandise trade to total GDP also understates overall trade intensity because services are missing from the numerator (but not the denominator) of the calculation. The role of services in international trade bears additional comment. To focus on U.S. data, service exports have increased from perhaps as little as 0.2% of GDP at the turn of the century to 1% by 1960 and 3.4% by 1997. They are now 40% as large as merchandise exports and have been responsible for half the increase observed in U.S. export-to-GDP ratios over the course of the 20th century, from roughly 6% to 12% (Bordo *et al.*, 1999, p. 10-11). Such growth notwithstanding, the service sector has not proven as conducive to trade as agricultural, minerals, and manufacturing, largely because of local provision requirements and nonstorability. Growth has been much more impressive in services-related FDI than in trade, as described in the next subsection.

One interpretation of these patterns is that trade had taken off in many commodities by the beginning of the 20th century, that there were substantial increases in the trade of manufactures over the course of the 20th century, particularly its second half, and that the service sector continues to be a very large bottleneck for trade-related flows. Irwin’s (1996) comparison of the composition of U.S. merchandise trade over a century is suggestive in this regard: see **Table 1**. While this neat ordering of the globalization of commodities, manufactures and services is obviously an oversimplification, it is a useful one.

Table 1 about here

Trade-intensity has clearly increased over the last 50, 100 and 200 years. But it is useful to supplement this observation with some data about the absolute level of integration of product markets through trade. Economists who study international trade generally do not regard trade-intensity as very high in absolute terms. In fact, they tend to find the issue of why there isn't much more trade more interesting than the new records being set. To see the room for increase, consider a hypothetical benchmark, suggested by Frankel (2000), in which national borders didn't affect buying patterns at all. In such a situation, buyers in a particular nation would be as prone to obtain goods and services from foreign producers as domestic ones, and the share of imports in total domestic consumption would equal 1 minus the nation's share of world product. For example, since the U.S. economy accounts for about one-quarter of Gross World Product, the U.S. import/GDP ratio would, at this benchmark, equal 1 minus the U.S. share of world production, or .75, as would, under the first-order assumption of balanced trade, the U.S. export/GDP ratio. However, the actual ratios are only about one-sixth as large as these hypothetical levels!²

The line with slope -1 in **Figure 2** traces out this hypothetical benchmark of perfect product market integration as national shares of world product vary. It also plots the position of the 20 largest nations in these terms. Notice that most of the nations cluster close to the origin and all fall well below the hypothetical maximum—including the two high-fliers, Belgium and the Netherlands.

Figure 2 about here

While the hypothetical benchmark suggests significant barriers to cross-border product flows, it also embodies a number of extreme assumptions. A real example that points in the same direction is provided by Canadian provinces' patterns of trade with each other versus with the U.S.—patterns for which data are available, and which have the added advantage of involving trading partners that are close to each other along a number of dimensions. As of 1988, trade linkages between Canadian provinces were 20 times as large as their linkages with the 30 U.S. states that traded the most intensively with Canada—despite the fact that Canada and the U.S. share a common land border and language (mostly) and have friendly relations with each other, making theirs the largest bilateral trading relationship in the world (McCallum, 1995). The free trade agreement signed in 1988 between the two countries did reduce this domestic multiple by the mid-1990s, but only to 12 (and with the multiple remaining stuck at 30 to 40 in the case of services) (Helliwell, 1998, chapter 2). Cruder data suggest a multiple of about 6 for trade within as opposed to between the member states of the European Union (Helliwell, 1998, chapter 3). Given the regionalization of world trade that has been underway, the multiples of domestic-to-international economic exchange would obviously be higher if one were comparing trade within countries with trade outside the regional blocs to which they belong.

To sum up, trade-intensity has clearly reached unprecedented levels but still reveals significant impediments to the cross-border integration of product markets.

Trade isn't the only way in which the cross-border integration of product markets might be accomplished: foreign direct investment (FDI), which involves product-specific investment across borders, is an obvious alternative. To start with a long-run perspective, consider data on FDI stocks divided by GDP over the last century based on calculations in *World Investment Reports* issued by the UN Center on Transnational Corporations. As **Table 2** indicates, FDI survived the interwar years better than trade (it even came to substitute for the latter as tariff barriers rose) but did not take off again quite as rapidly in the immediate postwar years. FDI has surged, however, since 1980 and by 1997, it had come to exceed the previous (prewar) peak in its share of gross world GDP by a significant margin: 12% to 9%. Despite the declines in the ratio of outward FDI stock to GDP exhibited by the countries that were the largest foreign investors prior to World War I, the U.K. and France, the aggregate comparison is suggestive of an increase to unprecedented levels.

Table 2 about here

Obviously, such historical comparisons come with some caveats. For one thing, they are affected in important ways by fundamental shifts in relative exchange rates (and purchasing power). For another, they are based on book values rather than market values of FDI. The magnitude of this omission seems to be large: data compiled by the U.S. Commerce Department suggest that measurement on the basis of market values rather than book values doubles the estimated values of both U.S. FDI abroad and FDI in the United States. One could argue that this omission leads to greater underestimation of the true values of FDI stocks towards the end of the 20th century than towards its beginning, because of higher inflation rates (until relatively recently) in the modern period and the increased importance of intangible assets that are more prone to slip through accountants' nets.

In addition to its evolution in volume terms, changes in the sectoral composition and geographical scope of FDI are worth mentioning, if only briefly. In sectoral terms, FDI has shifted away from natural resources and raw materials (the "primary" sector) towards manufacturing and, more recently, services. Consider some data for the United States. In 1914, over 40% of U.S. direct investment abroad was in the mining and petroleum sectors, and manufacturing and services (mostly railroads and utilities) each accounted for about 20%.³ But by the mid- to late-1990s, services made up about half of U.S. direct investments abroad and manufacturing 35% (Bordo et al., p. 15). The share of services increased after the mid-1970s, while the share of manufacturing decreased.

Once again, it is useful to look at the current level of integration of product markets through this channel in absolute terms, not just in relation to the levels experienced earlier. Assume, as in the analogous calculation undertaken earlier for trade, that inflows/outflows are, to a first approximation, balanced, and consider a country that accounts for $x\%$ of world investment. Then, if national borders didn't affect investment patterns at all, foreign capital would account for $100 - x\%$ of total investment in that country. The line with slope -1 in **Figure 3** traces out this hypothetical benchmark of perfect integration as national shares of gross fixed investment vary. It also plots the position of the 20 largest nations in these terms based on their recorded FDI inflows. As in the case of trade, most of the nations cluster close to the origin and all fall

well below the hypothetical maximum. Also note that this broad conclusion would not be affected by looking at FDI outflows, although the positions of individual countries would shift substantially—China, for instance, would less of a high-flier.

Figure 3 about here

Overall, FDI-intensity has, like trade-intensity, reached unprecedented levels while continuing to fall far short of the levels that would be implied by perfect cross-border integration of product markets through this channel.

Price Integration

Viewed in terms of prices rather than quantities, the ultimate in market integration is achieved when two (or more) markets are yoked together by the so-called Law of One Price (LOP), i.e., prices equalize across them. Implicit in LOP is a (strong) zero-arbitrage-profits principle. Note that the degree of price integration of product markets can be high even when the quantity flows across them are limited, e.g., for some commodities whose local prices are pegged to world benchmark prices, including ones with high value-to-weight ratios. As a result, economists often treat tests of market integration based on prices as being more definitive than tests based on quantities.

Quantity-based tests of cross-border market integration predominate, nonetheless, because except for (nearly) perfect commodities, tests of price integration are generally hampered by the lack of data on local currency prices of identical products across countries. Studies of products and services that meet these objections generally indicate substantial, sustained departures from LOP. Cross-country price dispersions tend to be large and to die down at a slow pace, and there is little evidence of recent movement toward smaller dispersions or speedier dampening (Rogoff, 1996). But in conjunction with the data presented earlier concerning integration through trade and FDI flows, an overall inference that product market integration has increased significantly in recent decades, while continuing to fall far short of perfection, seems most plausible.

FACTOR MARKET INTEGRATION

Product markets aren't the only type of market that might become more integrated across borders as a result of globalization: the cross-border integration of resource or factor markets of various types represents a distinct set of mechanisms for economic globalization. This section presents and discusses evidence on the extent of cross-border integration of markets for capital, labor, and knowledge, in that order. Both quantity and price-based measures of integration are looked at wherever possible.

Capital

The previous section's focus on FDI can be broadened to look at international capital flows over the last 100 years.⁴ Because of identities in national income accounting, countries' net capital flows can be measured as the reverse of their current account balances. Data assembled by Obstfeld and Taylor (1997) on absolute net capital flows divided by GDPs for 12 countries suggest that this index of capital mobility has increased in recent decades but was higher still

around the beginning of the 20th century (see **Table 3**). Note that the impressive performance 100 years ago was accomplished in spite of informational and contracting problems that were probably much more severe given the lack of generally accepted accounting principles and commensurately weak reporting requirements

Table 3 about here

Of course, in some respects, it is better to look at gross rather than net capital flows across national boundaries. While data on gross flows are lacking for the earlier period, they were probably of the same order of magnitude as net flows since capital flows were mostly one-way. The recent period has seen a surge in short-run flows, or at least transactions, that is most strikingly evident in the volume of foreign exchange transactions. Turnover in the foreign exchange markets has exceeded \$1 trillion *daily* for years now. Foreign exchange trading can, however, be regarded as a response to a source of volatility—exchange rate risk—that was mitigated significantly in the earlier period by the prevalence of the gold standard. For this reason, and because most trades of this sort seem to be purely speculative, it is problematic to use the size of foreign exchange markets today to infer a much greater level of cross-border integration of capital markets than at the beginning of the century.

This suggests focusing on long-run capital flows, which include portfolio investment as well as FDI. Portfolio investment has increased significantly in absolute terms in recent decades, but seems to have failed to keep pace with FDI, with its share slipping from about two-thirds of total long-run cross-border investment in the early 20th century to about one-half today (Bloomfield, 1968). Nevertheless, the range of securities traded today across borders *is* much broader, in type as well as number—a shift that, some argue, has contributed to increased cross-border integration along this dimension.

International financial crises represent the flip side of international capital mobility. Once again, historical comparisons suggest that international financial crises, particularly in emerging markets, are not without precedent. Thus, data on the currency and banking crises experienced by 21 countries between 1880 and 1998 indicate that the most severe crises, on average, were in the interwar period, followed by the prewar period; postwar crises, in contrast, have been milder in terms of the drops in output experienced, and shorter-lived (Bordo et al., 1999). And even when the sample is restricted to emerging countries, current levels of instability do no worse than “match” prewar levels, in which the gold standard acted as a crisis transmission belt and emerging countries, at least, tended to lack lenders of last resort.⁵

In addition to these historical comparisons, quantity-based measures also permit some inferences about the absolute level of cross-border integration of capital markets. As in the case of trade, the professional curiosity of economists has focused on smaller-than-expected flows (or stocks). Probably the most famous “anomaly” of this sort is the one uncovered by Feldstein and Horioka (1980), who calculated a 90% correlation between domestic savings and domestic investment across a panel of countries, much higher than benchmark models which assume perfect capital mobility would lead us to expect. Another anomaly that points in the same direction concerns what is called home-country bias: investors in each country hold much larger proportions of their wealth in the form of domestic securities than they would with internationally well-diversified portfolios. Thus, by one estimate, U.S. investors should have held more than half their wealth in foreign equities in the 1980s, instead of the less than 10% that they actually held (Lewis, 1995).

Price-based measures of capital market integration—with price integration reinterpreted in terms of the equalization of rates of return on common or comparable securities across national boundaries—supply additional evidence about the continued segmentation of capital markets.

One benchmark example is provided by a Obstfeld and Taylor's (1997) comparison of one-year interest rates on sterling-denominated assets sold in London and in New York over the last 100-plus years. **Figure 4** tracks the standard deviation of differences in returns in the two cities as an inverse measure of capital market integration. The data indicate significant cross-border integration of capital markets prior to 1914, the breakdown of that integration in the interwar period, and its slow restoration in the postwar period. Qualitatively similar conclusions are suggested by comparing real rather than nominal returns, although that does increase the standard deviation of the dispersion of returns, presumably reflecting the effects of currency risk, both nominal and real.⁶ At a more macro level, studies of returns such as Bekaert and Harvey (2000) indicate that the cointegration of capital markets varies greatly in its level and extent over time.

Figure 4 about here

Overall, like product market integration, capital market integration has increased significantly in recent decades but seems to continue to fall far short of perfection.

Labor

While data on the cross-border integration of labor markets are sparser than for product or capital markets, they generally suggest that number of international migrants has grown with world population in recent decades, but represents a smaller share of world population than 100 years ago. In regard to the first point, there were, according to the World Migration Report, an estimated 150 million long-term international migrants (defined as people residing in foreign countries for more than one year) in 2000, or 2.5% of world population (Martin, 2000). The comparable numbers for 1965 were 75 million migrants and 2.2% of world population.

Over a longer time frame, the period that really stands out as the heyday of international migration is the one between 1880 and 1915/1920. During these years, 32 million people migrated from Europe, most of them to the United States (Kenwood and Loughheed, 1989). In addition, there were 6-8 million net migrants—mostly “coolie” or indentured labor—from India, China, and other Asian countries to the rest of the world (Held, et al., 1999, pp. 293-295, 311). Adding in other cross-border movements could push the total past 45 million, or 3% of world population in 1900. Higher migration rates 100 years ago are also evident in country-level data, e.g., for the largest receiver, the United States. Thus, census data indicate that 14% of the U.S. population was foreign-born at the turn of the century, compared to 10% today (Dune, 2001). Note that through a substantial part of the earlier period, a number of large receivers, including the United States, placed no restrictions on immigration.

Turning from quantity to price-based measures, the most obvious indicator of cross-border integration of labor markets would be the cross-border convergence of wages. Data on the evolution of average per capita incomes (a rough and ready proxy for average wages) compiled by Scott (2000) indicate that while incomes in industrialized countries have tended to converge over the last few decades, a few Asian “tigers” have been the only countries able to break away from the rest of the developing world and catch up with industrialized world (see **Figure 5**).⁷ More sophisticated tests confirm this conclusion and indicate that the failure of most developing

countries to catch up can be reconciled only with a weaker notion of convergence, conditional convergence (Barro and Sala-i-Martin, 1995). Conditional convergence allows for differences in the steady state incomes toward which different economies are trending based on differences along dimensions such as investment, education, and population growth. Human capital turns out, in attempts to fit conditional convergence models to the data, to have a particularly marked effect on the predicted extent of convergence.

Figure 5 about here

Taking a somewhat longer view, it is worth emphasizing that the 19th century apparently saw a divergence rather than convergence of incomes across countries that has been only partially reversed in the 20th century (Baldwin and Martin, 1999). So over that kind of time frame, the dispersion of incomes across countries increased, in net terms, instead of decreasing. This, along with the other data presented in this subsection, would seem to imply skepticism about the extent to which labor markets have integrated across national boundaries

Knowledge

The cross-border flows that have already been discussed can carry knowledge across national borders as well since it can be congealed in products, embedded in capital equipment, vested in skilled personnel, *et cetera*. Given the topics already covered in this paper, the coverage in this subsection will focus on cross-border flows of knowledge in pure, disembodied form. In addition to rounding out the coverage, this focus has the advantage of offering a relatively simple benchmark: since disembodied knowledge has a “nonrival” character—i.e., since its use in one market, whether defined in geographic or product-related terms, should not preclude its application to others—perfect cross-border integration in this context should imply that knowledge, once developed anywhere in the world, is available everywhere else as well.

The conceptual simplicity of focusing on disembodied knowledge flows does, however, exact an empirical price: because of their intrinsic intangibility, such flows are particularly hard to measure. The evidence available to be presented in this subsection is correspondingly sketchy. It tentatively suggests, however, that there have been substantial increases in cross-border knowledge flows over time and, a bit more definitely, that cross-border integration in this regard nevertheless remains very incomplete. Consider these inferences in turn.

As far as technological knowledge is concerned, one indicator that supports the inference of increased cross-border knowledge flows over time is provided by cross-border licensing. While such licensing is not new—international royalties accounted for a significant component of James Watt’s receipts from his steam engine patents in the early 19th century, for example—the available data, along with informational and contracting problems that were even more acute early on than they are now, suggest that the voluntary transfer of knowledge across national borders takes place to a much greater extent than used to be the case. Concerning more general managerial knowledge, the post-World War II period, in particular, has seen the development of new types of organizations and organizational forms that have facilitated knowledge transfer as well. Franchising, which really emerged in its modern form in the United States in the 1950s, is one example. And management consulting firms, which began their international expansion at roughly the same time, are regarded as having evolved into major channels for the international diffusion of new managerial techniques (Micklethwait and Wooldridge, 2000). Of course, the spread of multinational enterprises, intent on applying the same technological and managerial knowledge to more and more markets points in the same direction. So, arguably, does the explosion in cross-border information transmission capacity since the early 1980s.

These increases in cross-border knowledge flows notwithstanding, there are also numerous indications of the continued geographical localization of knowledge. The survey evidence on the size of knowledge transfer costs, while not altogether satisfying, is suggestive: an influential study by Teece (1977) concluded that transfer costs accounted for an average of 19% of total project costs—and ranged from 2% to 59%—in a sample of technology transfers in the chemicals, petroleum refining, and machinery sectors. Outcome-based perspectives that point in the same direction are numerous. Through the 1980s, nearly 90% of the U.S. patents taken out by the world's 600 largest corporations listed the inventor as a resident of the corporation's "home base" (Patel and Pavitt, 1994). Patents whose inventors reside in the same country are typically 30 to 80% more likely to cite each other than inventors from other countries, and that on average, these citations come one year sooner (Jaffe and Trajtenberg, 1999). A recent study of R&D and productivity spillovers across large OECD economies estimated the average elasticity of such spillovers with respect to distance as -1% to -2.4% (Keller, 2000). The importance of locally-dense information flows is also evident in internationally successful geographic clusters.⁸ Such perspectives remind us that while the availability of information transmission capacity may help knowledge travel across national borders, it is far from sufficient to make knowledge perfectly portable.

IMPLICATIONS FOR INTERNATIONAL BUSINESS

Summing up, the evidence on the globalization of various types of markets indicates that most measures of international integration have increased significantly in the last few decades but still fall far short of the theoretical extreme of total integration. This is more than a middle-of-the-road result of middling interest for (at least) two reasons, one related to intermediate levels of integration and the other to recent surges in integration levels to new heights. Both conditions should increase interest in the field of international business, for reasons that will be elaborated briefly.

First, consider what would happen if (counterfactually) either global skeptics or globalists were right about cross-border economic integration: i.e., if markets were insulated from each other by national boundaries or, at the opposite extreme, perfectly integrated with each other across them. Obviously, with complete market insulation, firms could simply formulate their strategies on a market-by-market basis. Less obviously, if markets were completely integrated with each other, the analysis of multiple countries could, once again, be folded back to the single-market base case that is the standard reference point for studying business economics. Situations with intermediate levels of cross-border integration cannot be dealt with in the same way, however.

Take, as an example, the traditional economic apparatus for studying individual (competitive) markets: supply-demand analysis. How can this building block be used to analyze market outcomes in the presence of linkages across national borders? Consider, for the sake of simplicity, the case of two countries and one homogenous good, which may be either a product or a resource, i.e., can be viewed from either the output or the input market side.⁹ To start at one extreme, with complete insulation between the two markets, the price and quantity outcomes can be pinned down (given atomistic competition) to the intersection of supply and demand curves in each market. At the other extreme, with complete integration, i.e., zero extra costs of trading,

transporting, transacting and so on across national boundaries, one could still add up the supply curves for the two markets on the one hand and their demand curves on the other and use the point of intersection of the two aggregate curves to determine the (common) prices and the quantities in the unified market. But the continuum of situations between zero and complete economic integration, a broad range of conditions that I will refer to as quasiglobalization, creates additional challenges. Given quasiglobalization, the analysis of prices and quantities in the two markets cannot be reduced to supply-demand analysis of an individual market. Instead, attention has to be paid to distinct markets that are neither totally segmented nor totally integrated—an intrinsically more complex, and interesting, setup.

The nonlinear link between levels of market integration and the structure of economic outcomes, with quasiglobalization embodying more analytical complexity than the two extremes, may seem somewhat abstract in its appeal. But it has direct practical implications. From a managerial perspective, quasiglobalization means that business decisions cannot be made on either a country-by-country basis or on the “one size fits all countries” basis most forcefully advocated by Levitt (1983). Cases intermediate to “one country” and “one world” are the ones that compel decisionmakers to grapple with the complexity of thinking about strategies across countries in more nuanced ways. And for researchers in international business, quasiglobalization offers—unlike the extreme positions of globalists and global skeptics—a basis for deriving content distinctive from the single-country base case that occupies center stage in most (sub)fields of business administration. Distinctive content is of interest given the continuing debate about whether international business can or should develop into a viable and distinct field of inquiry (e.g., Toyne and Nigh, 1997).

The evidence reviewed in this paper also sounds a second encouraging note about the prospects of international business as a field, one related to recent surges in levels of cross-border integration to record heights. Increases in integration to unprecedented levels can be presumed to encourage more thinking about international business than stagnation or decreases would. The need for additional thinking of this sort appears particularly acute if one believes that recent increases in levels of cross-border integration mark a passage from quantitative to qualitative change of a sort sometimes referred to as global transformation (e.g., Giddens, 1996; Held et al., 1999).

Of course, these encouraging assessments about the prospects for international business are based on assessed potential rather than actual performance. Research that takes quasiglobalization seriously should help realize that potential. That is a broad assertion that cannot be argued in full here. What can be supplied are illustrations of important research efforts, at the levels of countries, markets and firms, that quasiglobalization would suggest redirecting.

Barriers among Countries

At the country level, quasiglobalization calls attention to both the integration among countries and the residual barriers to their total integration. But drivers of cross-border integration seem to have captured most of researchers’ attentions. The literature on drivers includes large bodies of

work on policies of market opening, technological change, and (most controversially) convergence in customers' preferences. Work on the differences among countries that underlie most categories of barriers to integration has been comparatively sparse if not rare. More is called for. And significant redirection of existing research trajectories may be in order as well.

One important set of research trajectories that comes to mind in this context consists of attempts to identify the country-level influences on success in international competition, either in general or sometimes in a particular industry. The two leading specimens of such work are probably the country competitiveness rankings assembled by the World Economic Forum (WEF) in its *Global Competitiveness Report*, and Porter's (1990) "diamond" framework for evaluating the potential of countries as home bases for internationally successful competitors in particular industries. These two approaches share a number of attractions: some rigor, an emphasis on productivity improvement or upgrading over time and, most importantly in the present context, serious attention to the differences among countries. But accompanying these attractions is a very restrictive assumption: both approaches deal with differences among countries by assessing them one-by-one, against a common yardstick (or yardsticks). Such attempts to impose a common, absolute yardstick on countries' international competitiveness not only ignore the principle of comparative advantage; they also fail to provide much insight into the barriers and bridges among countries because they take a unilateralist tack and thereby miss out on the bilateral/multilateral influences on international economic activity that are shared attributes of pairs or groups of countries rather than individual ones.

For an illustration of the magnitude of this omission—and of the attractions of going beyond unilateralist approaches to a more network-theoretic perspective on the barriers among countries—consider the "gravity models" of international economics. Such models posit, by rough analogy with Newton's law of universal gravitation, that economic interactions between two locations will vary directly with the product of their economic mass, and inversely with the geographic distance between them—as well as measures of distance along other dimensions. Fitted relationships of this sort manage to explain one-half or even two-thirds of the variation in aggregate bilateral trade between country-pairs. Gravity models have also been fitted with some success to bilateral foreign direct investment (FDI) and even to cross-border equity flows. As a result, fitted gravity models have been described as supplying "some of the clearest and most robust empirical findings in economics." (Leamer and Levinsohn, 1995, p. 1384).

Table 4 summarizes the determinants of bilateral trade flows estimated recently with an unusually comprehensive gravity specification (Frankel and Rose, 2000). All the variables listed—unilateral, bilateral and multilateral—have the expected signs and statistically significant effects. But what are most striking are the estimated magnitudes of the distance-related effects. Trade between countries at a distance of about 10,000 km from each other is only one-half as much as if the two countries were 5,000 km from each other. Differences in languages reduce trade between two countries by two-thirds from the level expected for a country-pair with a common language. Lack of common membership in a regional trade agreement and of a common currency each reduce trade by more than three-quarters. And finally, lack of colonizer-colony ties reduces trade by nine-tenths from the level expected of countries with such a relationship in their present or, more likely, past. Effects this large cannot sensibly be ignored in any discussion of barriers.

Table 4 about here

Much can be accomplished through further investigation of the barriers to integration cast up by gravity specifications. Opportunities include collecting and classifying the observed barriers to integration, e.g., grouping the influences identified in **Table 4** into cultural, administrative, geographic and economic dimensions of distance (Ghemawat, 2001), disaggregating gravity specifications from the aggregate level to product categories, using panel data to understand changes in the heights of barriers over time, et cetera. But more important than individual efforts along these lines is the broader implication that countries must be analyzed as nodes in a network, not one by one, if the barriers to integration among them are to be understood.

Types of Markets

At the market level, the empirical review earlier in this paper covered the cross-border integration of product markets and, on the factor market side, capital, labor and knowledge. It concluded that there are significant residual barriers to the integration of each of these types of markets. This is, in qualitative terms, fairly evenly balanced.

Researchers in international business seem to have been less balanced, focusing on product markets and, on the factor market side, on knowledge. Some evidence in this regard is supplied by Inkpen and Beamish's (1994) survey of the research published from 1970 to 1994 in the *Journal of International Business Studies*. Marketing, with a 15-20% share of published articles published and a focus on product market differences across countries, led the 15 other named AIB disciplines over this period.¹⁰ Finance, proxying for capital, was third among AIB disciplines over the 25 years, but the bigger story seemed to be the sharp decline in its share, from levels in the same range as marketing in the 1970s and 1980s to less than 10% between 1990 and 1994. Human resources and industrial relations, the only discipline evocative of labor as a factor, had a 5% share overall, and ranked seventh.

Knowledge does not figure on the AIB's list of disciplines but seems, based on impressionistic evidence, to have attracted more attention than capital or labor as a factor underpinning cross-border integration. Affirmations of the importance of knowledge in this context are not new: thus Buckley and Casson's (1976, p. 36) pathbreaking book, *The Future of the Multinational Enterprise*, argued that "Post-war, the increased demand for knowledge-based products and the increasing efficiency and scale-economies of knowledge production together with the difficulties of organizing a market in knowledge, have constituted the major incentive to the growth of MNEs." Knowledge continues to be trendy, however. It is particularly favored in work that grapples with the future of the MNE or the MNE of the future (e.g., Doz, Santos and Williamson, 2001).

The focus on knowledge is often justified with the argument, made in an international context by Buckley and Casson among others, that markets for knowledge are prone to especially severe imperfections that can be overcome only through internalization by firms. Capital and labor, seen from this perspective, are relatively generic inputs that simply don't supply as interesting bases for internalization as does knowledge. Capital, in particular, gets pulled down farther

because markets for it are supposed to be subject to a high degree of cross-border integration. Such integration would make access to a global pool of capital a “given” for any worthy enterprise and thereby limit the scope for purely financial sources of advantage or disadvantage.

The effect of all this is to devalue capital and labor for being relatively nonspecialized factors and thereby focus attention on knowledge. While this may seem a reasonable approach, recall that it is controverted by the evidence, summarized in the previous section, that markets for capital and labor exhibit significant barriers to cross-border integration, just like markets for knowledge. As a result, even the apparently unspecialized factors of capital and labor are specialized at the level of location, if in no other sense. And can thereby assume strategic importance in an international context.

To make this point more concrete, consider the case of capital in a bit more detail. If capital markets were perfectly integrated, there would be one global pool of capital available to fund ventures, and decisions on whether to proceed with investments could be separated from decisions about how to finance them. Such separation of investment and financing decisions, while often assumed domestically, does not fare well in an international context. Foreign investment is, to a significant extent, financed locally in the host country. Thus, Feldstein (1995) concluded that only 20% percent of the value of assets owned by U.S. affiliates abroad was financed by cross-border flows of capital from the United States, with an additional 18% accounted for by retained earnings; and the rest representing financing with foreign debt and equity. In such a context, it is hard to believe that MNEs allocate capital globally to equalize marginal returns on investment projects wherever they are undertaken. Instead, firms’ investments in real assets seem to be affected by local financing possibilities—or local wealth effects. And the impact of financial variables on real ones may be more than marginal: some major merger & acquisition waves, for example, seem to have been driven, in large part, by changes in exchange rates (e.g., Blonigen, 1997). Yet Inkpen and Beamish’s (1994) survey indicates that research published in *JIBS* on the subdiscipline of foreign exchange management declined significantly in the second half of the 1980s and, particularly, the first half of the 1990s. This is just one of many areas in which one could specify avenues of additional research in relation to international markets for capital and how they interact with real (i.e., product market) variables.¹¹ Presumably something similar could be attempted with international markets for labor.

Firms’ Strategies

At the firm level, this paper has already elaborated how a better understanding of barriers to integration and wider consideration of the types of markets that are imperfectly integrated can help improve decisionmaking. In addition, the observation of significant international differences across markets of various types suggests a reallocation of attention across broad strategies for adding value by operating across borders, with more attention to be paid to approaches that exploit or respond to differences among countries and less to approaches that exploit similarities among countries.

To be precise about current and recommended research trajectories, it is useful to begin with a careful classification of firms that operate across borders. In this regard, Caves's (1996, chapter 1) textbook treatment distinguishes between a horizontal MNE that offers broadly the same line of products or services from its operations in each geographic market and a vertical MNE that produces outputs in some of its (geographically dispersed) operations that serve as inputs to its other operations.¹² This classification effectively highlights two distinct cross-border functions that firms can perform: *replication*, which involves capitalizing on similarities among countries and *arbitrage*, which involves capitalizing on differences among them. To be specific, horizontal MNEs that take advantage of geographically mobile firm-specific resources subject to increasing returns by performing roughly the same activities in different countries (e.g., McDonalds) exemplify cross-border replication, and vertical MNEs that take advantage of international differences by geographically separating activities in an integrated vertical chain (e.g., De Beers) exemplify cross-border arbitrage. While firms often build bridges across borders in more than one of these ways at a time, the idea behind the dichotomy is that it is often useful to specify the cross-border function that is, in economic terms, central over long periods to firms' strategies for adding value by competing around the world.

Vertical MNEs emerged first, in forms that included the trading companies chartered in the 16th and 17th centuries, the whaling fleets of the 18th century and the vertically integrated agricultural and extractive (mining) companies that emerged in the 19th century (Ghemawat, 2000). In contrast, manufacturing multinationals—the first important horizontal MNEs with the possible exception of a few international banks—only began to appear in the second half of the 19th century. Despite this late start, however, casual evidence suggests that horizontal MNEs have commandeered researchers' attention to the point where MNEs that don't fit that mould are often ignored. The long-running discussion of the tensions between integration and responsiveness and their resolution is a good example (Prahalad and Doz, 1987). These issues are probably salient for horizontal MNEs but tend to be much less so for vertical MNEs, which are generally passed over in silence as a result.

The bias towards focusing on horizontal MNEs as “true” multinationals goes hand in hand with the tendency, remarked earlier, for writers on globalization to focus on (increasing) similarities across countries at the expense of residual differences. And it suffers in the same way from the observation of significant international differences in actual markets of various types. To be specific, a preoccupation with traditional horizontal strategies is likely to lead to suboptimal responses to conditions of quasiglobalization because it is likely to encourage the treatment of important differences across countries as sources of difficulty to be ignored or minimized rather than as possible sources of value. To consider all possible levers of value, it is important to supplement horizontal approaches with approaches that seek to capitalize on (as opposed to merely cope with) differences—even if the overall strategic intent remains horizontal.

Schemata used earlier in this paper help illustrate a wide range of approaches for exploiting international differences. Consider, first of all, the classification of markets into markets for products, capital, labor and knowledge. Firms can take advantage of the incomplete integration of product markets by becoming traders. Capital market differences provide them with a strong incentive to account for international differences in the cost of capital. They can exploit labor cost differences by relocating labor-intensive activities to countries with low labor

costs. They try to harness knowledge differences and, more broadly, geographically dispersed knowledge by making asset-seeking (rather than asset-exploiting) investments in critical locations.

Second, consider the framework mentioned earlier in this section for parsing the differences among countries into cultural, administrative, geographic and economic components (Ghemawat, 2001). Favorable country-of-origin effects supply a basis for profiting from cultural differences either generally (e.g., French wines, American popular culture) or in niches (e.g., products from India for the Indian diaspora). Administrative differences open up a host of cross-border options such as optimizing across different tax systems, regulatory regimes and institutional protections for foreign investors. Geographic differences are closely bound up with administrative/political and economic ones but can, sometimes, be capitalized on directly, as demonstrated in different ways by the international trade in flowers and the success of some international logistical specialists. Economic differences, of course, subsume differences in willingness-to-pay for products, the costs of labor, capital and other, more industry-specific inputs, the availability of required complements/infrastructure et cetera, and are at the core of traditional discussions of arbitrage.

A better taxonomy of approaches for taking advantage of or even just responding to persistent international differences in product and factor markets would clearly be useful, as would some understanding of complementarities versus substitution effects across different approaches. Pending the attainment of these objectives, what can be noted is that the variety of roles that firms have been discussed as playing in connecting markets across national borders suggests a shift in perspective from thinking of cross-border firms as remedies for the infirmities of cross-border markets to thinking of them as one of the key drivers of the amount of cross-border integration of markets that is actually observed. Or in other words, a shift from seeing firms as islands unto themselves in a sea of market relationships to seeing them as global connectors.

CONCLUSIONS

Accounts of the cross-border integration of markets have tended to get very wrapped up in the times in which they were written—perhaps too much so. Thus, Deutsch and Eckstein (1961) emphasized that the internationalization of transactions had declined significantly since the beginning of the 20th century by the 1950s, and averred that this trend was unlikely to be reversed any time soon. Contrary to their predictions, cross-border economic activity surged in the postwar period and, as it breached prewar records, inspired forked responses, with globalists stressing that international economic integration had reached new heights while skeptics insisted that it had barely returned to levels experienced nearly a century earlier. Globalists gained confidence with the fall of the Berlin Wall in 1989 and the rapid growth in much of Asia through much of the 1990s. But then came the Asian financial crisis, episodes of instability in Russia and Latin America, a perceived “globalization backlash,” a global economic slowdown and the war on global terrorism. At the end of 2001, the mood among practitioners at least seemed to be one of skepticism rather than optimism about globalization.

The empirical evidence reviewed in this article suggests that it might be preferable to take a more measured, historically self-conscious perspective on cross-border integration instead of

announcing changes in its direction or speed with high frequency. Specifically, the empirical review indicated that most measures of market integration have scaled new heights in the last few decades but still fall far short of economic theory's ideal of perfect integration—an intermediate outcome referred to in this paper as quasiglobalization. Looking forward, levels of cross-border integration may increase, stagnate or even suffer a sharp reversal if the experience between and during the two World Wars is any indication of the possibilities. But given the parameters of the current situation, it seems unlikely that increases will any time soon yield a state in which the differences among countries can be ignored. Multinationals' best efforts to connect markets across borders notwithstanding. Or that decreases could lead to a state in which cross-border linkages can be forgotten about. So one does not have to make a precise forecast to diagnose that quasiglobalization as a condition is sufficiently broad to persist for some time to come. Achieving similar stability in attitudes toward cross-border operations would seem preferable to manic-depressive swings in attitudes about the outlook, if only for purely pragmatic reasons.

The diagnosis of quasiglobalization does more than just supply a relatively stable frame of reference for thinking about the environment of cross-border operations. Intermediate levels of cross-border integration enhance the prospects of international business as a distinct field of study since such situations cannot—unlike situations of either complete insulation or complete integration—be folded back into the single-country base case that is the staple of much of business analysis. The prospects for international business get a further (albeit perhaps unsustainable) boost from positive changes in levels of cross-border integration in recent years. But full exploitation of the field's potential is likely to require, among other things, improving our understanding of barriers to integration among countries, considering a wider range of markets subject to barriers of various sorts, and further elaborating approaches for taking advantage of or responding to persistent international differences in product and factor markets.

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Table 1 Commodity Composition of U.S. Merchandise Trade

Year	Percentage distribution	
	Exports	Imports
<i>Agricultural Goods:</i>		
1890	42.2	33.1
1990	11.5	5.6
<i>Raw Materials:</i>		
<i>Manufactures:</i>		
	77.0	79.6

Notes: Figures may not total to 100 due to rounding. Agricultural goods includes processed foods.

Source: Douglas A. Irwin, "The United States in a New Global Economy? A Century's Perspective," *American Economic Review*, May 1996.

Table 2 Outward FDI Stock as a % of GDP

France	21.1	27.8	6.8	2.7	6.0	9.2	12.0	13.6
Germany				5.3	9.7	9.2	11.1	14.4
Japan								
United Kingdom								
United States								
World	9.0*	--	4.4	4.8	6.4	8.5**	--	11.8

* 1913 data

** 1991 data

Note: Figure for 1913 is an estimate.

Sources: 1913-1991: World Investment Report 1994; 1997: World Investment Report 1999.

Table 3 Size of Net Capital Flows since 1870

(mean absolute value of current account as % of GDP, annual data)

Period	ARG	AUS	CAN	DEN	FRA	GER	ITA	JAP	NOR	SWE	UK	US	All
1870-89	18.7	8.2	7.0	1.9	2.4	1.7	1.2	0.6	1.6	3.2	4.6	0.7	3.7
1890-1913	6.2	4.1	7.0	2.9	1.3	1.5	1.8	2.4	4.2	2.3	4.6	1.0	3.3
1914-18	2.7	3.4	3.6	5.1	--	--	11.6	6.8	3.8	6.5	3.1	4.1	5.1 ^a
1919-26	4.9	4.2	2.5	1.2	2.8	2.4	4.2	2.1	4.9	2.0	2.7	1.7	3.1
1927-31	3.7	5.9	2.7	0.7	1.4	2.0	1.5	0.6	2.0	1.8	1.9	0.7	2.1
1932-39	1.6	1.7	2.6	0.8	1.0	0.6	0.7	1.0	1.1	1.5	1.1	0.4	1.2
1940-46	4.8	3.5	3.3	2.3	--	--	3.4	1.0	4.9	2.0	7.2	1.1	3.2 ^a
1947-59	3.1	3.4	2.3	1.4	1.5	2.0	1.4	1.3	3.1	1.1	1.2	0.6	1.9
1960-73	1.0	2.3	1.2	1.9	0.6	1.0	2.1	1.0	2.4	0.7	0.8	0.5	1.3
1974-89	1.9	3.6	1.7	3.2	0.8	2.1	1.3	1.8	5.2	1.5	1.5	1.4	2.2
1989-96	2.0	4.5	4.0	1.8	0.7	2.7	1.6	2.1	2.9	2.0	2.6	1.2	2.3

Source: Maurice Obstfeld and Alan Taylor, "The Great Depression As A Watershed: International Capital Mobility Over the Long Run," NBER Working Paper 5960, March 1997.

Table 4 Country-level Influences on Bilateral Trade Flows: Estimates from a Gravity Model

Determinant	Change in International Trade
Income Level: GDP per capita (1% increase, holding GDP constant)	+0.7%
Economic Size: GDP (1% increase)	+0.8%*
Physical Distance: 1% increase	-1.1%**
Physical Size: 1% increase***	-0.2%
Landlockedness***	-50%
Common Land Border	+80%
Common Language	+200%
Common Regional Trading Bloc	+330%
Colony/Colonizer	+900%
Common Colonizer	+190%
Common Polity	+300%
Common Currency (after controlling for previous 3 variables)	+340%

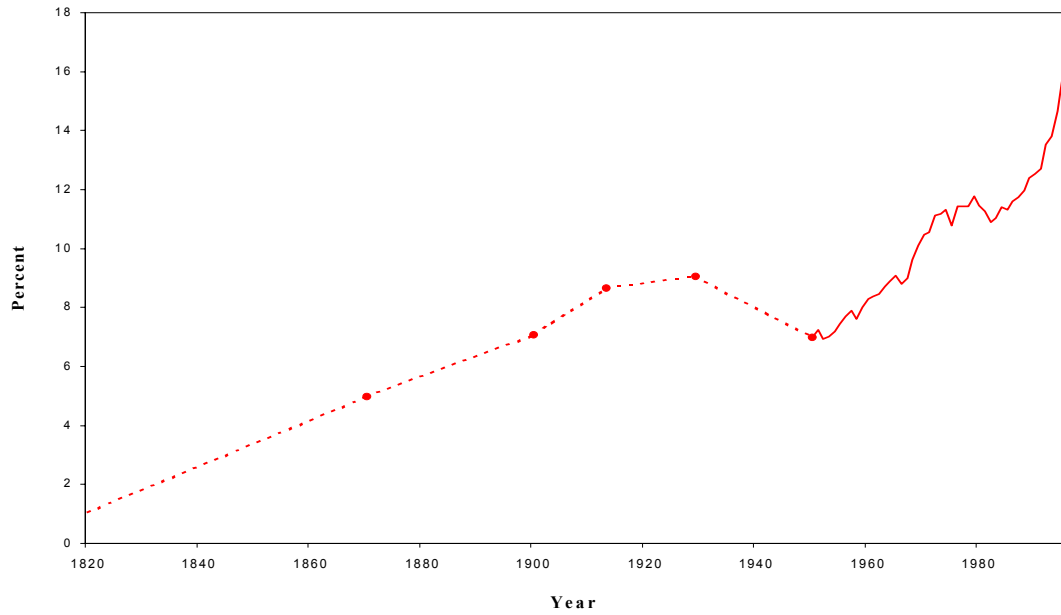
*Somewhat higher than earlier estimates as low as +0.6%. See Rose (2000).

**Substantially larger in absolute terms than earlier estimates reported to average -0.6%. See Leamer and Levinsohn (1995).

***Based on a specification estimated without the last four variables in **Table 1**

Source: Jeffrey Frankel and Andrew Rose, "An Estimate of the Effects of Currency Unions on Growth," Unpublished working paper, May 2000.

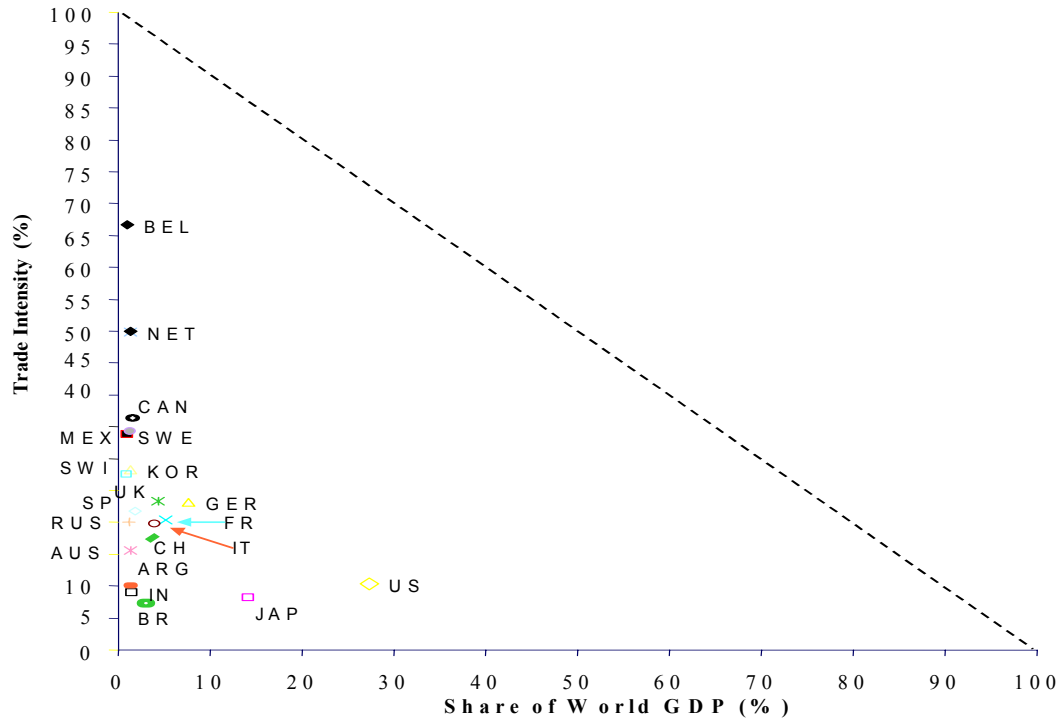
Figure 1 Exports Divided by GDP



Source: 1820-1992: Angus Maddison, *Monitoring the World Economy 1820-1992*
and International Monetary Fund data.

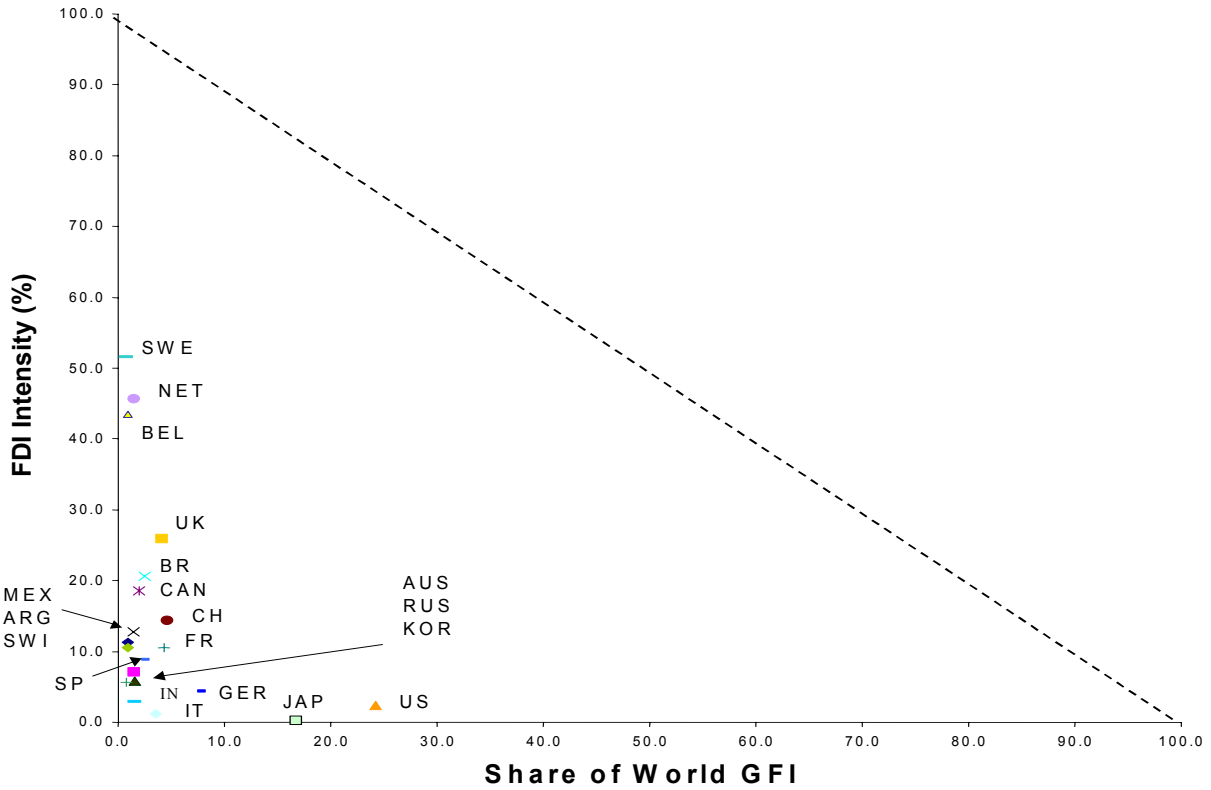
1998: World Trade Organization

Figure 2 Actual vs. Perfect Product Market Integration through Trade



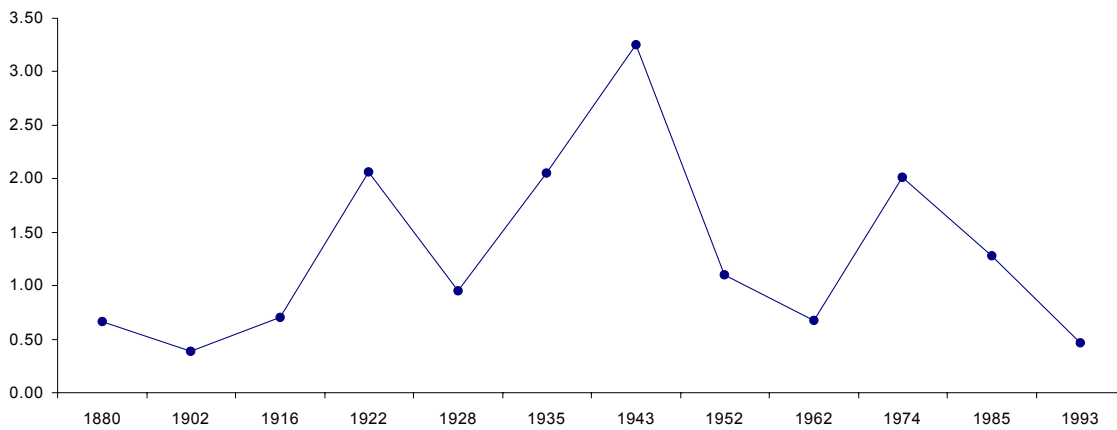
Sources: GNP Rankings based World Development Bank's World Development Indicators, 2000.
Import/Export Data from WTO.

Figure 3 Actual vs. Perfect Product Market Integration through FDI



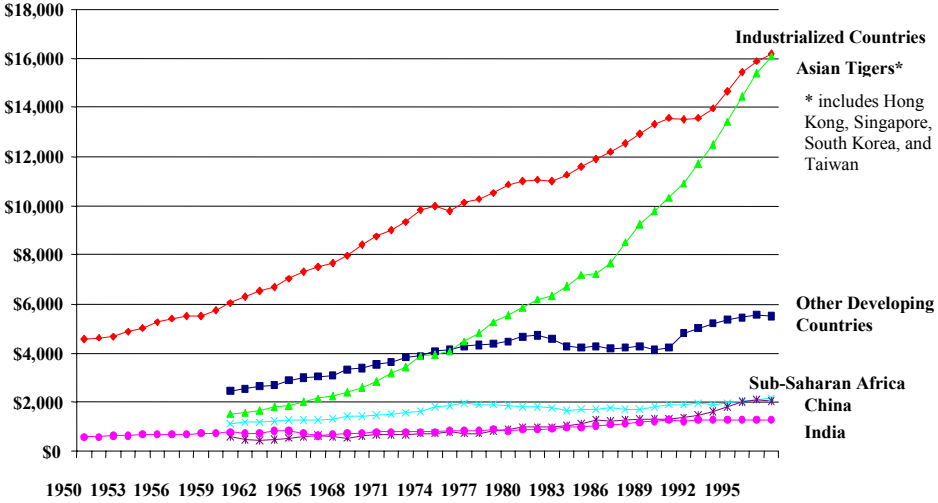
Source: EIU Country Data

Figure 4 Standard deviation of nominal return differentials



Source: Maurice Obstfeld and Alan Taylor, "The Great Depression As A Watershed: International Capital Mobility Over the Long Run," NBER Working Paper 5960, March 1997.

Figure 5 Convergence? GDP per Capita Across Economic Groups, 1950-1997 (PPP-Adjusted)



Source: Bruce Scott, Economic Strategies of Nations, adapted from the Penn World Tables and the World Bank.

ENDNOTES

- ¹ Guillen (1999) conducted a literature search of academic articles or books with the words “global” or “globalization” in their titles, subject headings or abstracts.
 - ² The disparity is even greater if one recognizes that the denominator of the ratio should really be a measure of gross sales rather than a value-added measure like GDP.
 - ³ The primary sector loomed even larger in core European countries’ FDI, accounting for 55% of the total.
 - ⁴ Foreign direct investment currently accounts for roughly one-half of total foreign investment, but its share was significantly smaller at the start of the 20th century. See Bloomfield (1968), pp. 3-4: cited in Bordo *et al.*
 - ⁵ Note that the spread of domestic safety nets does increase the likelihood that banking crises will turn into currency crises.
 - ⁶ For further discussion of currency risk, see Frankel (1992).
 - ⁷ Note the caveat that the extent of catch-up by the Asian tigers would look somewhat less remarkable if the data in Figure 5 were updated to take account of the Asian currency crisis.
 - ⁸ The other (overlapping) reasons for the localization of international competitiveness identified by Porter (1990) are sophisticated local demand and the local availability of specialized inputs and complements as well as basic factors of production.
 - ⁹ Note that the analysis here is partial rather than general equilibrium in nature.
 - ¹⁰ The one exception was the period from 1990 to 1994, when marketing finished slightly behind the grab-bag discipline of management, whose totals may also have been boosted by authorial response bias.
 - ¹¹ For further discussion along these lines, see Caves (1998).
 - ¹² Caves (1996) also identifies a third, residual category of multinational enterprise: international diversifiers whose operations in different countries are neither horizontally nor vertically related to each other
-