From International Business to Intranational Business

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Abstract

This chapter argues that international business has much to contribute to intranational business in helping develop a theory of the business enterprise in space. It makes its arguments by articulating four propositions about international business that appear to carry over directly to intranational business. According to the first three propositions, business activities of multiple types are dampened by borders and those that do cross them typically diminish with geographic as well as other types of distance. The fourth proposition supplements these general discussions of the landscape of business with a focus on a specific business application: it works through the case of business strategy by discussing how insights from international domain can be applied to the intranational domain in that field of business.

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> The modern theory of multinational enterprise has the potential to become a general theory of the enterprise in space, and as such, to encompass theories of the multiregional and multiplant firm. The theory of the uninational single plant firm under perfect competition—a theory which used to be known quite simply as "the theory of the firm"—turns out to be a quite trivial, special case.
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> —Mark Casson, The Firm and the Market: Studies on Multinational Enterprise and the Scope of the Firm, MIT Press, 1987, p. 1.

Mark Casson's observation that for purposes of theory-building, one might treat international business as the general case and intranational business as the special case, is striking because it conflicts with academic conventions that assume exactly the opposite. It also seems to be materializing: nearly three decades on, we have moved past Casson's articulation of the *potential* for developing a general theory of the enterprise in space out of research on international business towards its *realization*. Or so this essay argues by specifying four propositions about international integration/business that seem directly and usefully translatable to intranational business at various levels.

The first proposition points out that borders seem to be associated with drop-offs in cross-border economic interactions. The second and third propositions discuss, respectively, the dampening effects of geographic distance and of other kinds of differences—cultural, administrative/political, and economic—on economic interactions. The fourth proposition focuses on the implications of the first three for a specific field of business, strategy (with applications to other fields discussed *en passant*).

I begin by citing evidence for each proposition's validity at the international level before

presenting evidence in slightly more detail about its intranational applicability. Given the ground to be covered, the treatment is meant to be illustrative rather than comprehensive. It deliberately ranges across different levels of intranational analysis draws to a significant extent on areas in which I have done basic empirical work myself.

P1. MOST MARKETS ARE FAR FROM COMPLETELY INTEGRATED ~~INTERNATIONALLY~~ INTRANATIONALLY

Most markets are still far from completely integrated, internationally or intranationally. I summarized some of the evidence in support of incomplete international integration—what I called semiglobalization—in my 2003 article in the Journal of International Business Studies (2003). Subsequently, I have assembled systematic data on 11 different kinds of international interactions (involving trade, capital, information, and people flows) and updated it in biennial releases, with Steven A. Altman, of the DHL Global Connectedness Index (most recently, in 2014). In addition to presenting global and regional data, this index ranks 140 countries in terms of the depth and breadth of their global connections—which would make no sense if average globalization levels were zero or complete. It turns out that while there are large variations in connectedness across countries, even the top-ranked country, the Netherlands, has significant room to improve its levels of international connectedness.

There is no comparably comprehensive summary of data on actual levels of intranational integration. But most of the studies that have sought to address this issue point in the same broad direction, i.e., towards significant residual intranational market fragmentation. Consider some striking findings about the limited intranational integration of product, labor, capital, and knowledge markets.

(Product) Trade

The best way to make the point about intranational fragmentation of product markets is with trade flows, which have been extensively studied by "gravity modelers"—in some cases at the intranational as well as the international level. A widely cited paper (Poncet, 2005) estimated that trade within China's provinces in 1997 was 31 times more intense than between them, equivalent to a 53% interprovincial tariff. Subsequent studies reported lower, though still significant, Chinese provincial border effects. Xiag and Li (2011), using data from 2004–05 report that their preferred model yielded border effect estimates between 4 and 6. Turning to another large emerging economy, Brazilian states have been estimated to trade 12 times more with themselves, on average, than with other Brazilian states, after controlling for economic size and distance. While this intrastate-to-interstate multiplier is much smaller than its interstate-to-foreign equivalent, 42, it also suggests a significant degree of intranational fragmentation (Daumal & Zignago, 2010).

Border effects in large advanced economies tend to be smaller than in large emerging economies, implying higher levels of internal market integration. Aggregating results across 40 models of U.S. interstate trade from 4 papers, U.S. states' border effects range from 2 to 16 and average 6 (Coughlin & Novy, 2013; Hillberry & Hummels, 2003; Millimet & Osang, 2007; Wolf, 2000). Combes, Lafourcade, and Mayer (2005) find a similar internal border effect of 6 for non-contiguous *départements* in continental France (and 3 for contiguous ones). Available estimates for Spain's non-contiguous *comunidades autónomas*, however, are significantly higher: one paper (Requena & Llano, 2010) reports an average of 17 for all tradables and 30 for manufactures while another (Gil-Pareja, Llorca-Vivero, Martínez-Serrano, & Oliver-Alonso, 2005) reports a range from 9 for Madrid (central both geographically and to transport links) to 60

for the Balearic Islands (an archipelago in the western Mediterranean).

The preceding material on border effects provided evidence of intranational product market fragmentation based on quantity measures. However, economists often prefer price-based indicators of integration as being more closely connected to the underlying economic theory of market integration (often summarized as "the law of one price"). Unfortunately, data constraints limit the availability of such measures, especially when intranational as well as international coverage is required. One study that does combine both is Landry (2011), which was inspired by *The Economist*'s tongue-in-cheek *Big Mac Index* of currency under/overvaluation (www.economist.com/content/big-mac-index). Landry found that Big Mac prices in varied more in McDonald's restaurants within New York City than internationally across the 15 countries in his study.

Labor

Turning to input rather than output markets, intranational labor market fragmentation *is* most comprehensively illustrated with price rather than quantity data, on the dispersion of wages across states or regions.[1] Thus, in 2013, the standard deviation of average state-level wages in the U.S. was about $7,450 or one-sixth of the U.S. average wages (implying a coefficient of variation of 0.16). Or to make the same point another way, wages in Massachusetts, the richest, were 47% higher, on average, than in Mississippi, which was the poorest. Significant differences persist after controls for variations in skills and occupational mix.

That said, the United States, with its generally high labor mobility, is not the large country that exhibits the most such variation. In China, for example, the inter-provincial

[1] The estimates that follow were calculated using Bureau of Labor Statistics data for the United States (April 2014), the Chinese Statistical Yearbook (2014) data for China, and the International Monetary Fund (October

coefficient of wage variation is 0.24: wages in Beijing, the richest, are over twice as high as in Guangxi, the poorest province. Of course, both intra-U.S. and intra-China variation are much lower than the international coefficient of variation which, based on per capita income rather than wages, comes to about 1.84 (on a mean worldwide income about one-fifth that for the U.S. as a whole). But even the intranational variation does seem quantitatively significant.

To this assessed quantitative significance, one can add the qualitative weight of dimensions of intranational labor market variation that are not picked up by calculations of wage dispersion. Thus, while wages in California—also in the top decile of U.S. states—come close to matching those in Massachusetts, there are other important differences between the two. Specifically, Almeida and Kogut (1999) compared high technology industrial districts in the two states and found that employees moved between companies in Silicon Valley 10 times faster than along Massachusetts' Route 128. This difference, apparently due to California's prohibition of post-employment covenants not to compete or functional substitutes (versus Massachusetts' willingness to enforce them subject to the rule of reason), is cited as a key driver of Silicon Valley's greater success despite Route 128's head start (Gilson, 1999; Schwartzman & Bodoff, 1971).

Other Inputs

Capital and knowledge are generally more footloose as inputs than labor but still continue to display significant intranational market fragmentation. The best data on intranational capital fragmentation are, once again, for the United States which, again, is likely to be relatively integrated rather than fragmented internally in this respect when compared to other large countries. Looking at a form of capital investment that involves relatively little commitment,

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2014) data for per capita GDP around the world. The data series used for China was "Average Wage of Employed

Coval and Moskowitz found that "The average [mutual] fund manager generates an additional return of 2.67 percent per year from her local investments (defined as holdings within 100 kilometers of the fund headquarters) relative to her nonlocal holdings" (2001, p. 812). And Hong, Kubik, and Stein (2005) report that U.S. fund managers are also more likely to buy or sell as stock when other managers in the same city are doing so, implying a word-of-mouth effect operating over a fairly small geographic area. The pattern of "home-state bias" also shows up in private equity (PE) investments by public pension funds, where Hochberg and Rauh (2013) found overweighting of home-state investments equal to 9.8% of all PE investments and 16.5% of the holdings of the average limited partner. 'And location-specificity seems to loom much larger for forms of investment that involve significant commitment and engagement with management, e.g., the traditional "15-minute rule" about how proximate a venture capitalist should be to a portfolio company.

Finally, strong intranational localization effects even seem to apply to knowledge flows. Thus, Alcacer and Gittelman (2006) compared the percentage of patent citations (by examiner versus inventor) for different geographic subunits within the United States: cities, counties, metropolitan areas, and states. They found that 10% of U.S. citations come from patent examiners in the same cities as the corresponding inventors, 20% from the same counties, 26% from the same metropolitan areas, and 30% from the same states. Again, the degree of localization is less than that observed at national versus international boundaries—Alcacer and Gittelman also calculate that 66% of examiners' citations to patents filed by U.S.-based inventors are localized to the United States and 34% occur outside the United States—but still registers as significant.

Persons in Urban Units by Sector."

Based on this and other evidence, the limits to intranational integration (or the extent of intranational fragmentation) need to be taken seriously. In recognition of this point, it is useful to generalize semiglobalization to what I will call *semi-integration*: a coinage meant to cover intermediate levels of international *and* intranational market integration. Semi-integration implies that no matter at which level you draw borders, cross-border interactions tend to be more limited than one would expect in a world without home bias. Propositions 2 onward move beyond that registration of home bias to look at patterns evident in the cross-border interactions that do take place.

P2. GEOGRAPHIC DISTANCE DAMPENS ~~INTERNATIONAL~~ INTRANATIONAL BUSINESS

Proposition 2 focuses on how interactions are attenuated with geographic distance. In international research, geographic distance turns out to have a significantly negative effect on all of the 11 types of interactions to which Ghemawat and de la Mata (2015) have fitted gravity models, although the estimated coefficients—the exponents on geographic distance—do vary greatly by type of interaction. The lowest is for patent citations, -0.27, and the highest, -1.92—for printed publications exports. (Printed copies are generally exported only very close by: over longer distances, dissemination occurs through local printing or electronically.) In the former case, a 10-fold increase in distance decreases interactions by less than one-half; in the latter case, by about 99%.

Again, while we lack comprehensive data at the intranational level, it seems fair to say that studies that look for the effects of geographic distance generally find them to be significant.

(Product) Trade

The gravity modelling literature that was used to identify internal (state/province) border

effects on merchandise trade in the previous section also indicates that trade diminishes significantly with geographic distance, even after controlling for border effects. Based on the average effect reported across 23 models from 3 papers, if one pair of locations in the U.S. is twice as distant as another, the more distant pair will trade only 57% as much as the more proximate one (Coughlin & Novy, 2013; Hillberry & Hummels, 2003; Millimet & Osang, 2007). Significant distance effects on merchandise trade are also reported in other countries, e.g. Brazil (Daumal & Zignago, 2010), China (Xing & Li, 2011), and Spain (Requena & Llano, 2010).

Hillberry and Hummels (2008) examined distance effects at an even more granular level by analyzing product shipments within the United States by 5-digit zip code. They found trade within zip codes (which have a 4 mile radius, on average) to be 3 times greater than across zip code boundaries. Their research also points to the need for care in distinguishing border effects from distance effects, since it finds U.S. state borders to be insignificant when using their fine-grained distance measures.

Capital

Starting again with stock market investments by professional fund managers, Coval and Moskowitz found that "the average U.S. fund manager invests in companies that are between 160 to 184 kilometers, or 9 to 11 percent, closer to her than the average firm she could have held" (1999, p. 2047). Distance effects on stock market investments also show up in a much smaller country such as Finland, where Grinblatt and Keloharju (2001) found them to be significant and to diminish with investor savvy and for firms based in the capital, Helsinki.

Turning to venture capital investment, Sorenson and Stuart reported that U.S. VC firms "invest in companies 10 miles from their offices at twice the rate of ones situated 100 miles away" (2001, p. 1581). They also found distance effects to help explain syndication patterns

among VC investors: firms are more likely to invest in distant targets when they have previously invested together with a syndicate member located close to the target firm. Sorenson and Stuart note such patterns of cooperation between VC firms on the East and West coasts of the United States as a potential explanation for an increase in investment probability at the distance between the coasts.

Acquisitions of one operating company by another imply coordination requirements far surpassing those between VC firms and their portfolio companies, and evidence from the U.S. chemical industry, unsurprisingly, identifies large distance effects in this context as well. Acquisitions that involve operational integration seem to be even more distance sensitive. Chakrabarti and Mitchell (2013) found that U.S. chemicals firms were 80% less likely to acquire other chemical firms located within 40 miles of their own headquarters but outside their own zip codes than targets within their own zip codes, and then 90.2% and 96.8% less likely, respectively, to acquire firms 200 and 2500 miles away. The negative effects of distance on acquisition behavior among firms in their sample persisted even as firms grew and gained experience as acquirers.

Information

Based on domestic data, phone calls also seem to be subject to significant distance effects, although there is a nonlinearity at around the 10 kilometer mark, with intensity of connections peaking around then (as a substitute for face-to-face interaction) but being dampened by further increases in geographic distance (Krings, Calabrese, Ratti, & Blondel, 2009). Similarly, Takhteyev et al.'s work (Takhteyev, Gruzd, & Wellman, 2012) on the incidence of ties on Twitter highlights strong distance dependence—and fails to find any particular salience for the often-asserted international ties between five leading global cities:

New York, London, Los Angeles, Tokyo, and Sao Paulo. Figure 1 indicates that the overall pattern of extreme distance-dependence is affected noticeably only by a spike at the New York-Los Angeles distance (a domestic link); New York-London is just a blip, if that, in the overall pattern, and the other pairings highlighted have no discernible effect at all. Even "global cities" seem locally/nationally embedded, contrary to assertions that they connect more with their counterparts abroad than with their national hinterlands.[2]

PASTE Figure 1. The Distance-Dependence of Ties on Twitter ABOUT HERE

Overall, 39% of all Twitter ties turn out to be local as in within the same (roughly metropolitan) regional cluster, 36% fall outside the regional cluster but within the same country, and 25% are international. Note that domestic (local and other intra-national) ties are three times as numerous as international ties in this case: a significant degree of home bias that reflects discontinuities at national borders as well as the dampening effects of geographic distance. Looking across a broad range of indicators, the domestic-to-international multiple is often 5, 10, or even 20 (Twitter has a relatively high intensity of globalization compared to most other types of interactions I have measured).

People

The earliest forerunners of modern gravity models were models of intranational people flows. Desart (1846) studied passenger traffic on Belgium's railway network, and Ravenstein

[2] See, Sassen, S. (1991). *The global city: New York, London, Tokyo*. Princeton, NJ: Princeton University Press. Similarly, Richard Florida—in one of his few attempts to consider the connections among the "peaks" (cities)

(1889) analyzed migration within the United Kingdom (both as cited in Odlyzko, 2014). Recent studies continue to identify large negative effects of distance on both short-term and long-term people flows. De la Mata and Llano (2010) report strongly negative distance effects on tourism trade within Spain. An example of a study of how distance shapes internal migration within the United States is Schwartz (1973), which related the distance elasticity to movers' age and education levels. My own rough analysis of U.S. migration flows indicates that state population and inter-state distance alone explain more than 70% of the variation among U.S. inter-state migrant stocks.[3]

This section has presented evidence that the subset of interactions that do cross intranational borders diminish with geographic distance. The next section will introduce the CAGE Distance Framework to incorporate effects of other (non-geographic) types of distance (Ghemawat, 2001).

P3. IN ADDITION TO GEOGRAPHIC DISTANCE, CULTURAL, ADMINISTRATIVE, AND (OFTEN) ECONOMIC DISTANCES ALSO DAMPEN ~~INTERNATIONAL~~ INTRANATIONAL BUSINESS.

Ghemawat's CAGE framework is based on a synthesis of a broad range of research for thinking about international differences, with the CAGE acronym meant to evoke the *C*ultural, *A*dministrative, *G*eographic, and *E*conomic dimensions of differences across countries (see Table 1). The underlying representation is of countries as nodes in a network rather than as a heap of structurally equivalent objects, with an emphasis on analyzing variations in the links between the

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that interest him—talks about increasing peak-to-peak connectivity, see: Florida, R. (2005). The World Is Spiky. *Atlantic, 296*(3), 48–51.

nodes (bilateral analysis) as well as just the nodes themselves (unilateral analysis).

Table 1. The CAGE Framework for Thinking about International Differences

	Cultural Differences	**Administrative Differences**	**Geographic Differences**	**Economic Differences**
Bilateral Measures	**-Different languages** -Different ethnicities/lack of connective ethnic or social networks -Different religions -Differences in national work systems -Different values, norms and dispositions	**-Lack of colonial ties** **-Lack of shared regional trading bloc** -Lack of common currency -Different legal system -Political hostility	**-Physical distance** **-Lack of land border** -Differences in climates (and disease environments)	**-Differences in incomes** -Differences in availability of: .Natural resources .Financial resources .Human resources .Intermediate inputs .Infrastructure .Information or knowledge -Differences in industry structure
Unilateral Measures	-Traditionalism -Insularity -Spiritualism -Inscrutability	-Nonmarket/closed economy (home bias versus foreign bias) -Nonmembership in international orgs. -Weak legal institutions/ corruption -Lack of govt. checks and balances -Societal conflict - Political/ expropriation risk	-Landlockedness -Geographic size -Geographic remoteness	-Economic size -Low per capita income -Low level of monetization -Limited infrastructure, other specialized factors

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At the international level, augmented gravity models that incorporate cultural, administrative, and economic explanatory variables alongside their geographic counterparts underline the importance of thinking in terms of CAGE distances. Thus, Ghemawat and de la Mata (2015) analyzed 11 different types of international interactions using an augmented gravity

[3] Based on U.S. Census data covering the current homes and birthplaces of U.S. residents surveyed between 2011 and 2013.

model that incorporates the distance variables highlighted in bold in Table 1. Shifting from the basic gravity specification, with geographic distance as the only distance variable, to the augmented specification significantly increases explanatory power of the model in all cases.

While the CAGE framework was developed out of international research, one can think of some of the nodes within the basic network representation as being states or cities within the same country. (Note that with the exception of some of the administrative differences listed in the table, most can arise at the intranational level as well as internationally.) And we do have scattered evidence of the importance of the effects of non-geographic types of distance.

Consider, for instance, the map prepared by the U.S. Department of Commerce on the export emphases of major U.S. metropolitan areas. The title of Figure 2—also due to the Commerce Department—explicitly highlights the influence of cultural and geographic proximity as opposed to distance. Especially in a large country, different positions within it may have major implications for a city's international as well as domestic (largely local/regional) interactions.

PASTE FIGURE 2 Metro Area Trade Relationships often Reflect Geographic and Cultural Ties ABOUT HERE

Grinblatt and Keloharju (2001) also highlighted cultural factors in their analysis of the geographic patterns of stock market investment in Finland, alongside the geographic distance effects mentioned above. A common language (in this case either Finnish or Swedish) between an investor and a firm's financial reporting was positively associated with investment, as was

commonality between the investor and the firm's cultural origin (assessed based on its CEO's name and native language).

U.S. inter-state migration patterns can be related to all four legs of the CAGE framework by augmenting the gravity model mentioned in the discussion of geographic distance effects in the previous section. Adding differences in state mean wages (an economic factor) and voting patterns in the last presidential election (one that spans the political and cultural realms) increases the model's explanatory power and both variables are significant.

Trading relationships among *comunidades autónomas*, within Spain also exhibit multi-dimensional distance effects (For more detailed analysis, see Ghemawat, Llano, & Requena, 2010). Consider trade between Catalonia and its two leading domestic trading partners, Valencia and Aragon. Culturally, the Valencian and Catalan languages are similar and are both considered as co-official (together with Castellano, i.e., "Spanish") for their respective regions. Administratively, the three regions fell under the Crown of Aragon for centuries—which probably created some additional linkages—before being integrated under the Crown of Spain. Geographically, both Valencia and Aragon share common land borders with Catalonia. And economically, Valencia, in particular, is one of Spain's larger regions, so it is natural, in a sense, that it be one of Catalonia's largest regional trading partners.

From this perspective, what is more surprising is how significant Aragon is as a trading partner since the Aragonese economy is only one-third as large as Valencia's. The greater intensity of Catalonia's trade with Aragon seems to rest, for the most part, on geographical factors. Although Aragon and Valencia are both adjacent to Catalonia, Zaragoza, Aragon's capital and principal city, is only about one-third as far from Barcelona as is the city of Valencia. Based on the effects of physical distance alone, this should offset the difference in Aragonese

and Valencian GDPs. Trade with Aragon also gets boosted more by Zaragoza's role as a transport hub within Spain and the apparent inferiority of transport infrastructure connecting Valencia and Catalonia—a perennial political issue. In addition, Aragon is landlocked which, coupled with difficulties crossing the Pyrenees, means that Catalonia serves as its trading intermediary with the rest of the world in a way that Valencia, which is on the sea, simply doesn't require. Catalan-Aragonese trade should also be boosted relative to Catalan-Valencian trade by the fact that Aragon is among Spain's richest regions (as is Catalonia), with a per capita GDP nearly 20% higher than Valencia's. And finally, there is the undeniable if idiosyncratic effect of the major foreign investment in Aragon, Opel's auto plant, which is tied to supply and demand chains in Catalonia that generate significant intraregional trade flows.

The example of Catalonia-Aragon/Valencia suggests that the CAGE distances highlighted by the framework may be correlated. This reduces the ability to separate out their influences, but matters less from the standpoint of predictive power.

P4. THE DIMENSIONS OF DISTANCE SUGGEST AN EXPANDED SET OF STRATEGIES FOR DEALING WITH ~~INTERNATIONAL~~ INTRANATIONAL DIFFERENCES

The discussion has focused, so far, on using international research to understand the business landscape within countries instead of treating countries as point masses, i.e., as perfectly integrated internally. Such understanding can help make differences visible so it is clearly of broad importance. But to go deeper, this section will focus very specifically on strategy—on making choices about how to compete in the business landscape, not just accurately discerning it. The CAGE framework can, in addition to helping identify differences, spark creativity in thinking about how to address them.

To start with a very brief recap of international strategy, discussions of it have long focused on the tension flagged by Fayerweather (1969) between pressures for unification within companies and for fragmentation due to national differences: Prahalad and Doz (1987) elaborated this into the trade-off between global integration and national responsiveness—or what might be referred to as *aggregation* (to overcome cross-country differences, e.g., through regionalization) versus *adaptation* (to adjust to cross-country differences, e.g., through variation). A useful direction in which to expand this basic strategy set is suggested by the economic theory of multinational enterprises (MNEs), which distinguishes between *horizontal* MNEs that exploit the similarities across countries despite cross-country differences (e.g., Coca-Cola), and *vertical* MNEs that exploit differences along selected dimensions (e.g., oil companies). This distinction suggests the generalization in Figures 3a and 3b: adding *arbitrage* to exploit differences to the strategies of adaptation and aggregation. Note that adding arbitrage/verticalization to exploit differences fits well with the recent surge in interest in the globalization of production as well as the globalization of markets: the latter is easy to assimilate into horizontal models, but the former is mostly a vertical phenomenon.

PASTE FIGURE 3a. and FIGURE 3b. ABOUT HERE

What are the intranational implications of this construct of international strategy? Consider, in turn, the three strategies of adaptation, aggregation, and arbitrage. The discussion of these AAA strategies will rely more heavily on case vignettes than the previous section, since there is less systematic empirical evidence on firms' responses to intranational differences than on the differences themselves.

Adaptation

Even when intranational strategy has acknowledged the need for adaptation, it is often narrowed to the choice of how much variety to offer and thereby demoted to a problem in marketing rather than strategy. International strategy, by virtue of the larger differences it has had to grapple with, not only highlights possibilities for variation that go well beyond product variety but also suggests a range of complementary actions to limit the implied costs of complexity.

Table 2. Levers and Sublevers for Adaptation

Variation	**Focus**: Reduce Need for Variation	**Externalization**: Reduce Burden of Variation	**Design**: Reduce Cost of Variation	**Innovation**: Improve Effectiveness of Variation
-Products -Policies -Positioning -Metrics …	-Products -Geographies -Verticals -Segments …	-Strategic alliances -Franchising -User adaptation -Networking …	-Flexibility -Partitioning -Platforms -Modularity …	-Transfer -Localization -Recombination -Transformation …

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Consider the partial list of levers and sublevers for adaptation, derived primarily from international research and case studies, in Table 2. All seem applicable to at least some extent in the intranational context as well. To see this, start with the lever of variation in the first column of the table. The variation in products within a country can obviously be substantial. One of the keys to KFC's success in China (it has more than twice as many restaurants there as McDonalds) was learning quickly to adjust to different tastes in different parts of the country. Before they did so, the same recipe would provoke Shanghai customers to complain the food is too spicy while those in Sichuan said it was too bland (Bell & Shelman, 2011). Insight into regional differences within China was also cited as a reason why Starbucks took on separate partners in different

parts of the country (H. H. Wang, 2012).

Requirements for restaurants to cater to different tastes are unsurprising, but similar differences also show up in less obvious industries. Car buyers in China's northeastern Shandong province, for example, care more about external styling while those in southeastern Fujian focus more on price, even though both have similar levels of GDP per capita (data on consumer preferences from A. Wang, Liao, & Hein, 2012). And such intranational differences seem important not only in big emerging markets but also in big established ones. One major branded clothing maker found that tailoring its products more closely to differences among and even within U.S. metropolitan areas could as much as double sales while reducing inventory and markdowns (Rigby & Vishwanath, 2006). Duncan MacNaughton, Wal-Mart's chief merchandising and marketing officer dubbed 2013 "the year of localization," when he announced plans to boost promotion of regional food brands within the United States (Schroeder, 2013).

So variation is important at the intranational level. But the trouble with relying on it as the sole lever for adapting to differences is, as Fayerweather originally pointed out in the international context, that it increases fragmentation, complexity, and associated costs. The other columns in Table 2 list complementary levers that can help improve the cost-benefit tradeoffs associated with variation. Focus—the idea of concentrating on particular products, geographies, et cetera as a way of reducing the need for variation—is the one complementary lever that has been discussed relatively extensively in intranational strategy, e.g., the focus variants on Porter's (1980, chapter 2) generic strategies of cost leadership and differentiation. Some of the subcategories under the other levers have attracted intranational attention as well, but that has mostly occurred outside the strategy field (e.g., the marketing-oriented work by Prahalad and

Ramaswamy (2004) on co-creation of value with customers, which mixes elements of externalization and innovation, or work in technology and operations management by Baldwin and Clark (1997), among others, on modularity and other design approaches). So international perspectives can help extend the list of intranational adaptation levers and sublevers as well as raising consciousness about the importance of intranational adaptation in the first place—both of which are likely to lead to more creative responses to intranational differences.

Aggregation

Aggregation is a second way of dealing with differences: by grouping subunits as to minimize within-group differences and maximize the potential for group-level economies. While there are many bases for aggregation, it seems useful to strive for concreteness by focusing on one in some detail. So the discussion in this subsection will focus on aggregation by geographic regions—the G component of the CAGE framework.

The attractions of aggregating by geographic region have been emphasized in the international context by Rugman and Verbeke (2004). What should be mentioned here is that some of the insights from the international context can be applied to the intranational context. Schwartzman and Bodoff's (1971) early work on U.S. manufacturing estimated that 24% of value added was accounted for by industries in which competition was geographically localized or regionalized and casual empiricism suggests that while such fragmentation has probably decreased since then, it remains significant—and looms even larger in the (larger) service sector.

My work for an oil company in the United States gives an illustration of how distinguishing among geographic regions can shift thinking about intranational strategy. Looking at the U.S. market for gasoline, in particular, revealed a highly regionalized structure, with five regions linked by the (relatively limited) flows depicted in Figure 4. Subsequent work focused on

adapting techniques and insights encountered in the international context to the intranational context, starting with basic linear programming models and then overlaying strategic considerations (the West Coast region, for instance, is particularly highly concentrated). Similar experiences were encountered with cement in Brazil and beer in China, to cite just two other examples.

PASTE **Figure 4: Major Gasoline Flows in the United States** ABOUT HERE

It is worth adding that the international context doesn't just call attention to the importance of geographic regions; There are many other possible bases of aggregation: by business unit, global customer, function, language, income levels. Again, many of these have, in principles, counterparts at intranational levels.

Arbitrage

Arbitrage involves exploiting selected dimensions of differences across locations instead of simply treating differences as constraints to be adjusted to (adaptation) or overcome (aggregation). As we know from the international context, any CAGE difference can underpin arbitrage opportunities. Country-of-origin advantages, whether "real" or perceived, sustain opportunities for cultural arbitrage (e.g., Italian ham, French wine and liqueur, U.S. fast food, and Jamaican reggae music). Differences in tax rates, health, safety and environmental regulations, enforcement regimes, et cetera open up a vast array of administrative arbitrage opportunities. Geographic arbitrage, the oldest reason for trade, continues to be important as well, particularly in the primary sectors (agriculture, fishing, forestry, and mining). And economic arbitrage is a catch-all category that captures differences in costs of labor and capital, as well as other, more industry-specific inputs such as knowledge, the availability of

complementary products, and technologies or infrastructure, et cetera.

Once again, it is easy to imagine these forms of arbitrage in operation at the intranational level, and to cite specific examples. Many of the most valuable denominations of origin (e.g., Parma ham, Cognac brandy) pertain not to countries but to states or localities that are culturally privileged *within* their home countries as well as around the world, which generates opportunities for intranational as well as international cultural arbitrage. A powerful example of intranational administrative arbitrage is provided by the legal incorporation of more than half of all U.S. publicly-traded companies in Delaware. Geographic arbitrage, the oldest reason for trade, continues to be a major driver of intranational as well as international commodity flows. And intranational economic arbitrage is illustrated by fashion retailer Zara's reliance on relatively low wages in Galicia, where its Spanish production is concentrated, to defend its position against competitors that engage (more heavily) in international arbitrage by purchasing from the Far East. Intranational economic arbitrage may also be motivated by considerations of upgrading as well as lowering costs: the clustering of the most successful firms in many industries in a few locations hints at intranational and international knowledge arbitrage possibilities between those locations and others (e.g., knowledge-seeking firms headed to Silicon Valley).

To wrap up this section, it seems that this richer palette of competitive strategies—in both the intranational and international contexts—has tended to be overlooked by strategists because they have tended to shy away from differences, relegating them to functional specialists or sidestepping them by presuming, for instance, that once geographic boundaries have been drawn appropriately, further fragmentation within those boundaries can be ignored. (Similar sidesteps have been suggested for other dimensions of difference, e.g., the advice to deal with differences across buyers through segmentation, with the presumption that the market segments that result

can be treated as internally homogenous.) But in a world marked by digitization and the long tail, big/real-time/geographically tagged data, the diffusion of (open source) software and analytics and the development of 3D printing and advanced robotics—not to mention the big shift in demand in many sectors to emerging economies that look much more like each other than they do like advanced economies—less "averaging" and more attention to differences and to variation seems likely to be required.

CONCLUSIONS

This chapter has argued that international business has much to contribute to intranational business. It has done so by articulating four propositions and providing supporting evidence for each of them. According to the first three propositions, business activities of multiple types are dampened by borders and those that do cross them typically diminish with geographic as well as other types of distance. The fourth proposition, using strategy as an example, illustrated how insights from international business can be applied to intranational business.

The focus on strategy is, as noted earlier, meant to serve just as an example. Research on international business would seem to have the potential to supply valuable insights across most—if not all—business functions. The relation to marketing and its emphasis on segmentation has already been mentioned. While intranational differences tend to receive less attention in finance, the evidence cited above on financial fragmentation within economies has clear implications for firms and investors. In human resources, one can think of the potential for linkages between intranational and international diversity and mobility programs. In the technology arena, tools that boost a firm's ability to deal with international differences could also enhance its capacity to cater to intranational diversity. And so on. Clearly, the scope for further work on these topics is large.

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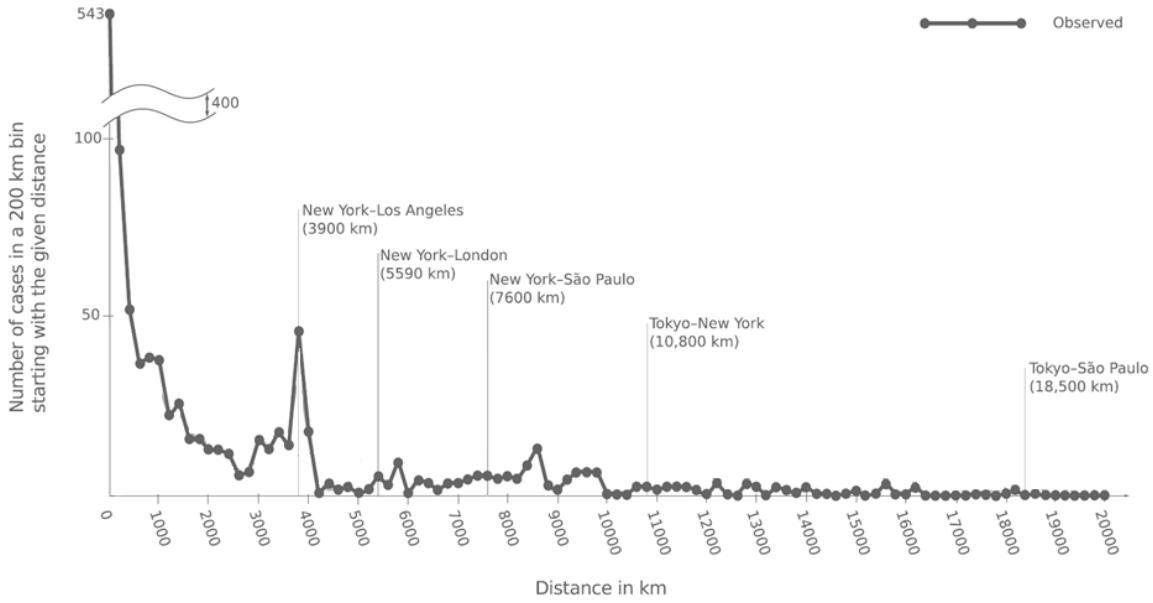
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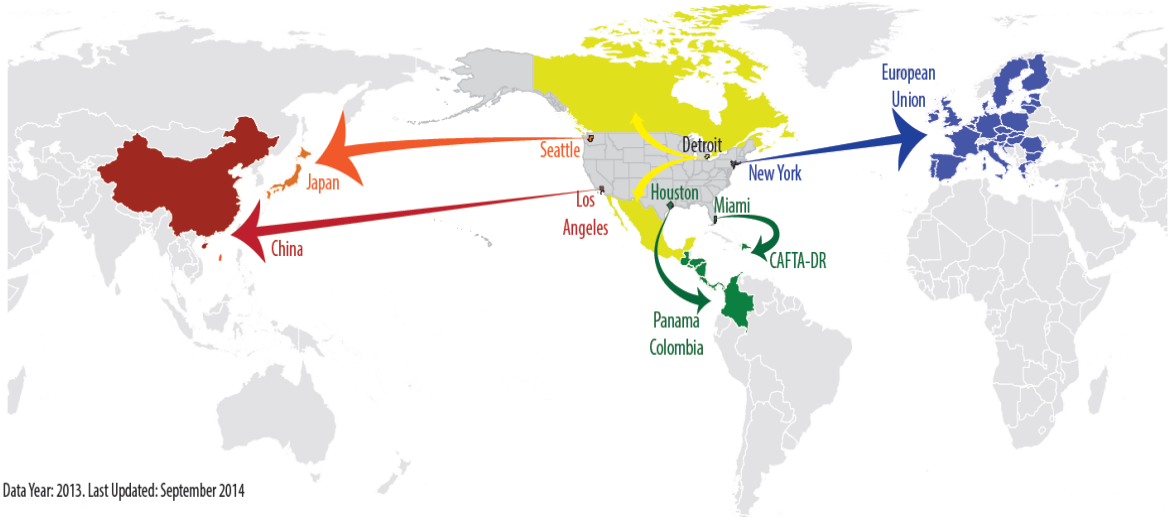
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Figure 1. The Distance-Dependence of Ties on Twitter



Source: (Takhteyev et al., 2012).

Figure 2. Metro Area Trade Relationships often Reflect Geographic and Cultural Ties



Source: U.S. Department of Commerce—International Trade Administration.

Figure 3a. The Horizontal Dimension: Adaptation versus Aggregation

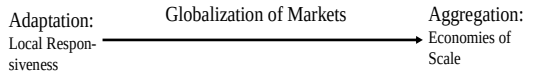
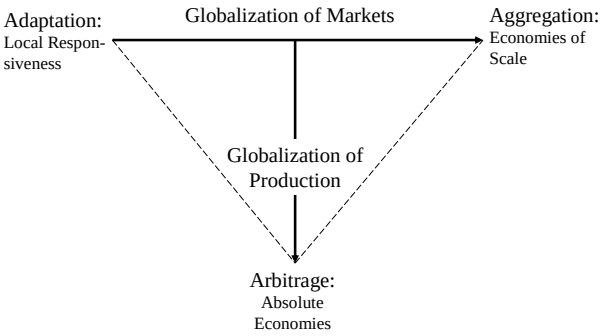
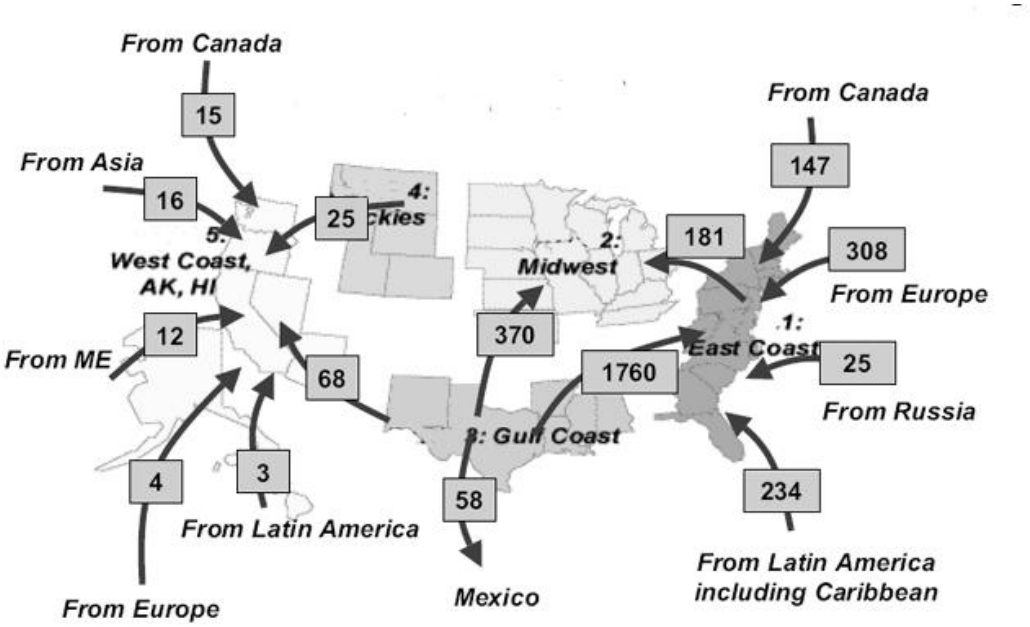


Figure 3b. The Vertical and Horizontal Dimensions: The AAA Triangle



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Figure 4: Major Gasoline Flows in the United States
(Thousand Barrels per Day, 2003)



Source: Consulting work