COUNTERPOINT

International business research: The real challenges are data and theory

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Abstract

We agree with Aguinis and Gabriel that, contrary to Eden and Nielsen, international business (IB) is not uniquely complex, but argue that it faces two unique challenges. First, because it deals with cross-country phenomena, IB data are less plentiful and reliable. Second, because IB uses many imported theories, and they tend to be influenced by the national environment of their authors, they often have, taken as is, limited applicability in many of the contexts IB studies. We illustrate our twin points by examining the secondary data used in IB to measure the economic activities of multinational enterprises outside their home country, both at the country level, using foreign direct investment (FDI) data from balance of payments statistics, and at the firm level, using firm-level databases such as Orbis. We document the serious shortcomings of FDI data and the problems encountered in using firm-level data. We then highlight some of the cultural biases inherent in Williamson’s version of transaction cost theory (TCT) but show how they can be overcome to arrive at a richer and more general theory that is applicable to a wider variety of contexts.

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INTRODUCTION

In a recent article in the Journal of International Business Studies, Eden and Nielsen (2020: 1610) write that “complexity is the underlying cause of the unique methodological problems facing international business research.” For them, international business (IB) research is uniquely complex because of its multiplicty, multiplexity, and dynamism: IB researchers need to take into account multiple actors, engaged in multiple relationships, which unfold over time. Aguinis and Gabriel (2021) counter that organizational behavior, strategic management, and entrepreneurship deal with similar complexity. We agree with them that research in IB is not necessarily more complex than that in other disciplines. Nonetheless, we believe that it is uniquely challenging for two main reasons. First, accessing reliable data on the questions IB researchers address, for example those related to MNE activity, is difficult. Second, IB scholars study contexts which often differ from those in which the theories they borrow have been elaborated.

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They must therefore modify or replace them to ensure local relevance and, even more challenging, greater generalizability. We first address some of the data issues faced by IB researchers and then discuss the challenges posed by theory.

**DATA**

IB scholars use primary data obtained through interviews and surveys, and secondary data from national statistical offices, international organizations, industry associations, commercial data providers, and firms via their annual reports and other regulatory filings.

**Primary Data**

Comparing primary data across countries, as IB must, is challenging because cultural factors make international comparison of responses to interviews and surveys difficult. Cross-national data equivalence requires that respondents of different cultures, often speaking different languages, understand and score survey questions the same way. This is problematic because respondents live and work in different contexts and hence might well be expected to interpret questions differently. The frequent need for translation also opens the door to variations in the way questions are understood. In addition, respondents in different countries are likely to also score differently. Japanese survey respondents are known to cluster their answers in the center of Likert scales, perhaps because Japanese culture values harmony and discourages extreme positions. This can lead to erroneous inferences (Hult et al., 2008). Yet data equivalence is imperative if one is to draw solid conclusions from studies that compare results across countries. Hult et al. (2008) concluded from a review of 167 studies using cross-cultural data between 1995 and 2005 that the challenge had not been taken as seriously by IB scholars as it should have been.

**Secondary Data**

Secondary data are increasingly used in empirical IB research (Cerar, Nell & Reiche, 2021). The availability and reliability of such data poses its own challenges for IB scholars. Much of the data generated by national statistical offices has a national focus. IB phenomena are by definition international and hence at best partially covered by these data sources. Space constraints do not allow for a complete treatment here of all the problems caused by the use of secondary data in IB, so we focus instead on the measurement of just one IB construct, though undoubtedly a central one (Wilkins, 1997), the multinational enterprise (MNE), and more specifically, its activities outside its home country.

### Measuring MNE foreign activity at the country level

Many IB research questions require data on the amount of economic activity (sales, value added, employment, investments) generated in a given host country by all the subsidiaries of MNEs based in another country. Dunning (1993), for example, attempts to determine the extent to which firms based in a given country have set up operations abroad, and where they have done it. Buckley et al. (2007) test a number of hypotheses on the factors that determine in which foreign countries Chinese firms operate. Researchers have also investigated which host-country characteristics affect their attractiveness to foreign investors (Habib & Zurawicki, 2002), and the effect of foreign-owned economic activity on various facets of host-country development (e.g., Kwok & Tadesse, 2006; Li & Liu, 2005).

Flows and stocks of foreign direct investment obtained from Balance of Payments statistics (hereafter FDI flow and stock data) have often, one could say predominantly, been used to measure the economic activity in a country of all the foreign subsidiaries of MNEs based in another country. The United Nations Conference on Trade and Development (UNCTAD)'s yearly *World Investment Report* uses such data to document the level and evolution of the value of the activities of foreign firms in a host country. FDI flows and stocks have been used as dependent variables (e.g., Bruno, Campos & Estrin, 2021; Buckley et al., 2007; Mariotti & Marzano, 2021) as well as main independent variables (e.g., Kwok & Tadesse, 2006). As in the case of data equivalence in surveys on which we touched earlier, the IB literature has overlooked the serious problems inherent in using this type of data to measure the economic activities of MNE subsidiaries. This is why we chose this as an example of the difficulty that IB researchers have in obtaining reliable data on the constructs they study.

FDI flow and stock data are collected by central banks to build their country’s balance of payments. FDI flows record the net value of financial transactions between two countries when the investor has control of the foreign investment (typically when it owns 10% or more of the equity of the foreign investment). FDI stocks record the value of the
stake held in domestic firms by firms based in a foreign country. FDI flow and stock data are attractive as they are readily available for a large number of countries and can be downloaded for free from the websites of the International Monetary Fund (IMF), the Organization for Economic Cooperation and Development (OECD) and the United Nations Commission for Trade and Development (UNCTAD), as well as those of national statistical offices. While ease of access is clearly a plus point, there are significant limitations to their use. Three of them apply to both flow and stock measures: FDI statistics only (1) record the immediate origin and destination of the flows, not the ultimate ones (see below recent efforts to remedy this); (2) show sums directly sent by parents to their subsidiaries, not those borrowed locally; (3) measure financial flows, not the economic value created with them. Additionally, most published figures of FDI inflows and outflows are on a net basis, which makes interpretation difficult, and FDI stocks are reported using a variety of methodologies, thus hampering their comparability. Let us now look at each of these points.

Until 2014, all FDI flows and stocks were recorded on the basis of their immediate origin and destination. Recently the OECD has started to push countries to publish data on both the immediate and ultimate owners of FDI flows and stocks coming into their country. So far, however, only 19 developed countries have collected such data, and some of it has not been made public. The extensive past and current use of FDI flows and stocks measured on the basis of the immediate investor poses a number of problems. First, it often leads to misclassifying the owner of the investment. For example, when in 1998 General Motors set up an auto assembly plant in Poland, the National Bank of Poland classified it in its FDI statistics as a German investment into Poland because the immediate investor was Opel, General Motors’ wholly-owned German subsidiary, even though the ultimate one was its US parent, General Motors. Likewise Deutsche Telekom invested in Macedonia through its majority-owned subsidiary Magyar Telekom so the investment was registered as a Hungarian one into Macedonia (Kalotay, 2012). Such “indirect investments” have been estimated to make up around 30% of global FDI flows (Aykut, Sanghi & Kosmidou, 2017). In the cases shown above, the ultimate owner is relatively easy to uncover, but this is not always the case. UNCTAD (2016) notes that the 100 MNEs with the highest transnationality index have on average seven hierarchical levels in their ownership structure and more than 500 subsidiaries each, located in more than 50 countries, and almost 70 of them are in offshore financial centers (OFCs) – countries that offer some or all of the following: low or zero taxation, moderate or light financial regulation, and banking secrecy or anonymity (Aykut et al., 2017). Many manufacturing subsidiaries are owned by special-purpose entities (SPEs) located in OFCs, which themselves are owned by other SPEs (SPEs are foreign subsidiaries established to pursue specific and temporary objectives such as the financing of other foreign subsidiaries and that have few or no local employees) (OECD, 2000). This can pose problems when using subsidiary counts to, for example, calculate the extent of a firm’s transnationality, as we discuss below in the section on firm-level data. For BRIC countries the number of indirect investments dwarfs that of direct ones, with between 50 and 80% of their outward FDI flows channeled through SPEs located in OFCs (Sauvant, 2017). In 2008, 60% of the outward FDI flows of Brazil went to SPEs based in six countries, four Caribbean OFCs – the British Virgin Islands (BVI), the Cayman Islands, the Bahamas, and the Netherlands Antilles – as well as the Netherlands and Luxembourg, while in 2014 70% of Russia’s inward and outward FDI flows originated from, and went to, OFCs based in Cyprus, the Netherlands, the BVI, Bermuda, Luxembourg, the Bahamas, and Switzerland (Aykut et al., 2017). Part of the flows going to OFCs may return to the investing country, a phenomenon called round-tripping, while the rest may be forwarded to other host countries, what Sutherland and Anderson (2015) call “onward-journey FDI” and the OECD “capital in transit”. Round tripping is a widespread phenomenon, undertaken by firms of every country, but especially prevalent in the case of China, Russia, Canada, and Indonesia, for which it accounts for more than 15% of inward FDI (Damgaard, Elkjaer & Johannessen, 2019). Round-tripping is undertaken to minimize tax, to hide the identity of the ultimate owners, and to reduce home-country political risk and capital controls (Borga & Calian- dro, 2018; Karhunen, Ledyeva, & Brouthers, 2021). It results in over-estimating the amount of investment, since funds sent from a country to an OFC and then round-tripped back to that country are counted twice, leading to volume biases.
Taking into account the sums that transit through OFCs can have a dramatic impact on the amount and geographic distribution of FDI flows and stocks. In 2013, for example, 70% of Chinese FDI outflows went to OFCs – Hong Kong, the BVI, and the Cayman Islands – with Hong Kong receiving 60% of these flows. Figures for 2016 are 71.4%, with 58.2% going to Hong Kong (Sutherland, Hennart & Anderson, 2019, Table 2). Based on Xiao’s (2004) research, Casanova, Garcia-Herrera and Xia (2015) estimate that only 30% of the sums recorded as being sent to Hong Kong actually remained there, while 40% went back to China (round-tripping), and 30% were forwarded to other countries (onward-journey FDI). They assume that the final geographical destination of onward-journey flows was proportional to those directly sent from China. They also redistribute the sums sent to the BVI based on the share of direct flows received by each country (with Hong Kong excluded), while the sums sent to the Cayman Islands are redistributed to North America, Latin America, and Europe using the same formula. The results of this exercise are dramatic. The stock of Chinese investment abroad falls by 25% (from US $660 billion to $498 billion), while that in North America and Europe doubles. Recent estimates by the OECD that report both immediate and ultimate investors highlight the full extent of the problems caused by using FDI flow and stock data based on immediate rather than ultimate destinations: taking into account onward-journey Chinese investment flows increased the 2015 Chinese stock of FDI in Hungary by a factor of eight, in Italy by a factor of six, and in France by a factor of three (Sutherland et al., 2019, Table 3).

As well as having huge impacts on the measured amount and geographic distribution of MNE activity, leading to volume and geographical biases, conventional FDI reporting results in industrial composition biases (i.e., biases towards services) because most SPEs are registered as providing business services. FDI statistics show that in 2012 only 6% of Chinese outward FDI stock was in manufacturing, while 33% was in business services (Zhou & Leung, 2015). These figures clearly underestimate the share of Chinese overseas activity in manufacturing and overstate that in services, since in China manufacturing was that year the recipient of 27% of private domestic loans while that going to business services was negligible. SPEs are the cause of a similar bias towards services in US FDI statistics. Because their MNE parents describe the activity of the large number of SPEs they own as services, US data show manufacturing accounting for only 21% of the US stock of outward FDI when reported by the industry of the subsidiary, but 59% when reported by that of the parent (Whichard, 2008). In short, the omission of round-tripping and onward-journey FDI flows in published FDI statistics leads to very serious inaccuracies.

The existence of volume, geographical, and industrial composition biases in FDI data owing to onward-journey capital flows has been known for at least three decades (Cantwell, 1992). Strangely, they have not been properly acknowledged or dealt with – most likely because of the considerable challenge of doing so. Buckley et al., (2007), for example, the most cited study of Chinese outward foreign direct investment and the 2017 winner of a Journal of International Business Studies Decade Award, study the geographical distribution of annual outflows of Chinese FDI to 49 countries, including Hong Kong (but excluding the BVI and the Cayman Islands). They do not address the fact that part of the funds going to Hong Kong and sent onwards to the other countries in their sample are not counted since these flows are not registered as coming out of China, but out of Hong Kong. The omission of these onward-journey flows from Hong Kong is likely to have seriously distorted their results (as is the omission of onward-journey flows from the Cayman Islands and BVI). To their credit, in their retrospective on the decade award prize, they acknowledge some of these data issues (Buckley et al., 2017). Sutherland et al. (2019) documents similar problems in other articles on Chinese FDI published in the Journal of International Business Studies over the past decade, further highlighting the scale and nature of these measurement problems.3

A second problem with FDI flows is that they only measure funds coming from a parent to its subsidiary, not the total amount of investment made by the subsidiary in the host country. Yet, we know that a significant share of the financing of foreign subsidiaries is obtained from local sources. Lehman, Sayek and Kang (2004) found that in 1999 US majority-owned foreign subsidiaries (MOFAs) obtained 29.4% of their financing from such sources. One would expect the MNE preference for local financing to be greater the more competitive local financial markets, and it is therefore not surprising that the authors find the proportion of funds sourced locally to be higher in economically developed countries (39.6%) than in developing
ones (30%). Taking advantage of the fact that the US publishes data on both the sales and value added of US subsidiaries (of MOFAs for value added) in a given host country, as well as on the stock of inward US FDI in that country, Beugelsdijk, Hennart, Slangen and Smeets (2010) look at the factors that affect the difference between the value of inward FDI and the value added and sales of all subsidiaries of a given country in a host country. They find that the underestimation by FDI stocks of subsidiary sales and value added is greater in countries with more developed financial markets, presumably because MNEs use more local financing in those countries.

A third limitation of FDI data lies in their recording only financial resources, yet the economic activity generated by a subsidiary also depends on the contribution of its employees, with labor productivity affected by the industry of the subsidiary and by country-specific factors. Everything else constant, the higher a host country’s labor productivity, the greater the extent to which inward FDI stocks will underestimate subsidiary activity. Since we would expect the use of local financing and labor’s contribution to sales and value added to be greater in more economically developed countries, the underestimation of economic activity by FDI stocks is therefore also likely to be greater in those countries than in less economically developed ones. This implies that using FDI stocks as a proxy for the amount of aggregate subsidiary activity introduces a systematic bias if that amount is correlated with the study’s dependent variable. Habib and Zurawiki (2002), for example, attempt to determine if a country’s level of corruption deter[s] inward investment by foreign MNEs. They proxy that investment by FDI inflows. Because of the greater possibility of borrowing locally to finance the subsidiary, FDI inflows will cover a smaller part of the total investment made by a foreign subsidiary when that investment is made in a more economically developed country than when made in a developing country. Consequently, the FDI figures they use in their regressions systematically underestimate the real value of the investment made by subsidiaries located in more developed countries. Because a country’s level of corruption is likely to be inversely correlated with its level of economic development, the results of studies that use FDI inflows to look at the relationship between a country’s level of corruption and its ability to attract foreign economic activity will be biased as the measured level of inward foreign investment in developed countries will be systematically lower than the actual one. Habib and Zurawiki’s findings may then be an underestimate of the negative relationship between a country’s extent of corruption and the level of foreign economic activity it attracts.

The use of FDI flows and stocks has still further limitations. FDI inward and outward flows are the sum of net equity flows from MNE parents to their subsidiaries, the reinvested earnings of those subsidiaries, and net intracompany loans between parents and subsidiaries. Both inward and outward flows can be negative, for example when loan repayments by the subsidiaries of MNEs located in the country offset new equity coming into the country. While data on these three components of inward and outward flows are published separately by the OECD and the IMF, most researchers have used aggregate figures calculated on a net basis. Yet without looking at the disaggregated figures one is unable to tell whether an outward flow of zero corresponds to the case of no investment flow or to that of outflows matching inflows. Kerner (2014) provides an interesting example. In 2010, US FDI outflows to Moldova were close to zero. That year, US MOFAs had only US $2 million in fixed capital and about 100 employees in that country. That same year, FDI flows to Poland were also approximately zero. Between 2004 and 2005, however, the 193 non-bank US MOFAs in Poland added 13,000 employees and produced $679 million in added value. The zero FDI inflows figure for Poland was due to the fact that equity outflows (minus US $30 million) and intercompany debt outflows (minus US $163 million) netted out reinvested earnings (plus US $194 million) but one would not have been able to know that when using aggregated figures – those published by UNCTAD, for example. Instead, one might have concluded that US MNEs made no new investments in Poland. The fact that both inflows and outflows are calculated on a net basis causes problems for studies that use aggregate FDI flows as a proxy for the economic activity of MNE subsidiaries in a country. Bruno et al. (2021), for example, investigate how much additional incoming direct investment a country receives if it joins a custom union such as the European Union. They measure new investment using UNCTAD data on aggregated FDI inflows, that is the sum of equity flows, reinvested earnings, and intercompany debt. When faced with negative values for these flows, the authors treat them as zero (Bruno et al., 2021, footnote 7). This is
problematic as a negative net value, caused for example by the repayment of intracompany loans by subsidiaries already in the country, may mask positive new investment into the country by new and/or incumbent firms.

The measurement of FDI stocks is also tricky. They should be estimated at market value, but often are at historical cost, or are obtained by cumulating flows. Databases of FDI stocks include estimates obtained from all three methods, making cross-country comparisons hazardous (UNCTAD, 2013).\(^5\) The United States provides FDI stock data on both an historical and a market value basis, so we can get an idea of the size of the gap between these two estimation methods. On a market value basis, foreign FDI stock in the US in 2016, US $6.6 trillion, was almost double that on a historical cost basis, US $3.7 trillion (Sauvant, 2017).

All this said, it is easy to understand the attractiveness of FDI data. FDI datasets can be downloaded for free from public databases and purport to measure the sum of the activities of all subsidiaries of a given country into a host country; they cover many countries and are available for long periods – Mariotti and Marzano’s (2021) UNCTAD dataset covers 63 countries over 37 years. The potential alternatives pale in comparison. Recent attempts have been made to obtain better estimates of the final ultimate destinations and origins of FDI flows by stripping out onward journey flows from aggregate FDI figures (Damgaard et al., 2019; Borga & Callandro, 2018). These estimates, however, are obtained by marrying firm-level data (from Orbis) with newly published OECD data that report FDI by immediate and ultimate destination and by instrument (i.e., SPE or not), and require making fairly strong assumptions. Moreover, they only attempt to account for the problem of onward-journey flows, and do not address the other issues we have mentioned. Ideally, one would like to use data such as the value added generated by all subsidiaries of foreign MNEs in a given host country, or their sales, or even their employment. With some exceptions such as the United States, countries do not collect, or do not make public, such figures for inward subsidiary activity, or for the outward economic activity of the subsidiaries of their own MNEs. Some of the most comprehensive firm-level databases, such as Toyo Keizai (2022) which covers the foreign subsidiaries of Japanese MNEs, do not provide systematic data on subsidiary sales. Collecting such data from national firm-level databases requires a significant effort. In fact, as we see in the next section, some of the same problems present in country-level FDI data also afflict firm-level data.

Table 1 summarizes the problems identified in this section and makes some suggestions on how to alleviate some of them. Geographical and volume biases due to the classification of FDI flows based on immediate origin and destination can be partially remedied using databases that classify flows based on ultimate source (i.e., Germany rather than Hungary in our Deutsche Telekom example) and destination. Such data has been published by the OECD for 19 countries (https://stats.oecd.org). Damgaard et al. (2019) have made available at https://nielsjohnnessen.net/FDIdatabase their estimates for the countries not covered by the OECD database. Industrial composition biases can be minimized by classifying foreign subsidiaries by the industry of the parent rather than by that of the subsidiary. The best measures of the economic activity of foreign subsidiaries in a host country are its value added, followed by its sales, and then its employment. These measures avoid the biases caused by local financing, but are unfortunately only available for a few countries. The OECD and IMF (but not UNCTAD) break down FDI flows into their three components, net equity flows, reinvested earnings, and intracompany loans. Lastly, one can obtain very rough estimates of FDI stock at market value for countries that only provide values at historical cost by looking at the relationship between the two in countries that report both.

**Measuring MNE activity at the firm level**

IB scholars are increasingly using secondary data taken from firm-level datasets. These datasets are of many types. Some are produced from surveys undertaken by national statistical offices. The most complete are the censuses and surveys of foreign direct investment abroad and foreign investment in the United States produced by the US Department of Commerce. One drawback of such data is that firm-level information has to remain confidential, so statistical analyses at the firm level can only be made using the agency’s computers at its premises.

Scholars can also use country-specific commercial databases, for example CSMAR (China), Prowess (India), NEEDS (Japan), and Compustat (United States). These databases provide balance-sheet items for all firms based in one country. Their coverage of a firm’s foreign activities is uneven. Compustat, for example, publishes data on foreign sales extracted from firm 10K reports to the US.
Securities and Exchange Commission (SEC). However, the SEC lets firms define how they want to report their geographic segments, so firms vary on how they define them. Compustat only reports four geographic segments, including the home market, so it is difficult to make detailed comparisons of geographic reach across firms (Wieserma & Bowen, 2011). The national focus of these databases makes it also difficult to make international comparisons.

IB scholars can also tap global commercial databases of foreign entries, be it greenfield investments (Financial Times fDi Markets) or mergers and acquisitions (Thompson Financial Security Data Corporation; Bureau van Dijk Zephyr). However, these databases usually lack detailed firm-level data, and thus matching is often required. Orbis, a commercial database that provides a variety of financial information on parents (assets, sales, profitability) as well as on their subsidiaries and ownership chains (immediate and ultimate owners) for more than 300 million firms worldwide, has proved to be particularly attractive to IB researchers – a search of leading IB journals returns 120 recent articles using data drawn from that database. Orbis makes it possible to obtain large samples of foreign subsidiaries from different parts of the world. However, some of the problems identified in the previous section on country-level data arise also when dealing with firm-level data such as those provided by Orbis. Specifically, the presence of SPEs, and the difficulty of separating them from bona fide subsidiaries (i.e., subsidiaries engaged in value-adding economic activity), is likely to cause problems. Those problems manifest themselves in various ways, from how to identify MNEs to how to measure the extent and speed of their foreign expansion. Below we provide a few examples.

Estrin, Meyer and Pelletier (2018) use Orbis to compare the pattern of foreign countries entered by developed economy MNEs with that of their emerging market counterparts. They count the number of subsidiaries the MNEs in the two groups
have established in target countries. In doing so, they do not seem to have distinguished between *bona fide* subsidiaries and SPEs, as indicated by their Table 2 which shows in which of 30 developed countries the emerging market MNEs in their sample located their subsidiaries. That table indicates that almost 40% of the subsidiaries of Brazilian MNEs were in the Netherlands, a surprising number given the relatively small economic size of that country. A hint of what is really going on is given by recent OECD data which breaks FDI stock down by “instrument” (i.e., whether it was in SPEs or *bona fide* subsidiaries), and which shows that 65% of the US $4.37 trillion FDI stock in the Netherlands was SPE-related. This opens the possibility that many of the Brazilian subsidiaries in the Netherlands listed in Orbis might be SPEs. We looked in Orbis at the 173 Brazilian subsidiaries in the Netherlands in 2020 and found that 62 of them, or 35.8%, were investment holding companies (NACE code 6420) – the most common type of SPE – with very few employees or none at all. In Luxembourg, which Meyer and Pelletier's Table 2 shows was host to 2.3% of all Brazilian subsidiaries, almost half of them were SPEs. SPEs, on the other hand, made up only 2.5% of all Brazilian subsidiaries in the UK and 6.1% of those in Germany. Given the large number of SPEs and their uneven distribution across host countries, not distinguishing them from *bona fide* subsidiaries is likely to affect the result of studies which, like Estrin et al., proxy the level of foreign investment by the number of subsidiaries. We would expect the presence of SPEs to also contaminate the results of studies that rely on subsidiary counts to analyze the distribution of foreign investment over time and across industries.

One way to define an MNE is as a firm that owns at least one fully-controlled foreign subsidiary (Bruno et al., 2021; De Jong & van Houten, 2014). A significant number of MNEs, however, are only multinational by virtue of having SPE subsidiaries. This is quite common in the case of Chinese firms because of the use of such SPEs for round-tripping.

### Table 2 Firm-level data challenges in measuring MNE activity

| Nature of research questions and associated challenges | Failure to identify foreign subsidiaries that are SPEs | Recommendations |
|--------------------------------------------------------|------------------------------------------------------|-----------------|
| Which foreign countries are entered by firms based in country X? Empirical studies that use large firm-level databases such as Orbis fail to acknowledge the existence of phantom subsidiaries (SPEs) and hence introduce biases (e.g., Estrin et al., 2018) | Number of MNE subsidiaries in a host country (e.g., Estrin et al., 2018) | Separate SPEs (i.e., NACE code 6420) from *bona fide* subsidiaries, considering both primary and secondary NACE codes. Alternatively, and less ideally, exclude OFCs. These can be identified using OECD’s data on immediate and ultimate FDI position by instrument and Damgaard et al. (2019) |
| How international is an MNE? Studies include phantom subsidiaries (SPEs) in their calculation, distorting results (e.g., Liang et al., 2015). | Number of foreign subsidiaries/total subsidiaries (Liang et al., 2015). Number of countries where the MNE has subsidiaries (Lu & Beamish, 2004) | Number of foreign subsidiaries created per year (e.g., Kim et al., 2020) |
| How does MNEs’ internationalization change over time? Studies include phantom subsidiaries (SPEs) in their calculation (e.g., Kim et al., 2020) | MNEs defined as requiring at least one foreign subsidiary, regardless of its activity (e.g., De Young & Van Houten, 2014) | |
| Which firms are actually ‘MNEs’? Studies include phantom subsidiaries (SPEs) in assessing multinationality (e.g., De Jong & Van Houten, 2014) | MNE samples created based on ultimate ownership of parent firm but not on country where firm has main economic activity | |
| Origin of MNE incorrectly assigned based on global ultimate ownership Samples of MNEs based in a given country fail to include those incorporated in OFCs (inverted firms) | Search for and include inverted firms | |
Counting SPEs as *bona fide* subsidiaries will result in the inclusion of purely domestic firms in MNE samples (Sutherland et al., 2019).

Some authors have also measured a firm’s degree of internationalization by the number of its foreign subsidiaries, or the ratio of the number of foreign subsidiaries over all subsidiaries. Liang, Ren and Sun (2015) construct a degree of globalization index for Chinese MNEs as the average of their foreign sales to total sales, foreign assets to total assets, and number of foreign branches and subsidiaries over total number of branches and subsidiaries. One difficulty with this measure is the large number of SPEs among the foreign subsidiaries of Chinese firms. As of November 2021, there were 138,118 subsidiaries incorporated outside of China that had a Chinese ultimate owner. Of these, 10,653, or 7.7% of the total, are likely to be SPEs.10 Hence, any major differences between firms in their use of SPEs is likely to bias the results. The same issue arises in, for example, Yang, Martins and Driffield (2013).

A common way to measure a firm’s internationalization breadth has also been to count the number of countries in which it has subsidiaries (e.g., Lu & Beamish, 2004; Tallman & Li, 1996; Zahra, 2003). The presence of SPEs, however, makes this an imperfect measure. This is because in some countries the only subsidiaries a firm has are SPEs. Orbis shows that China’s Fosun International, for example, had subsidiaries in 12 different countries. In four of these, however, i.e., Hong Kong, the Cayman Islands, Luxembourg and the US, the firm had no *bona fide* subsidiaries, its subsidiaries there being labeled as “investment holding companies” or being active in “business and other management consultancy activities”, “advertising” (in the Cayman Islands) and performing “other financial service activities” (in Hong Kong). Counting foreign subsidiaries that are most likely SPEs as *bona fide* ones will thus lead to an overestimation of the true breadth of an MNE’s internationalization.11

The presence of SPEs is also likely to affect the results of studies that rely on subsidiary count to measure internationalization speed. This is the case with Kim, Wu, Schuler and Hoskisson (2020) who use data from 767 publicly listed Chinese MNEs to look at how speed of intra-regional internationalization versus inter-regional internationalization affects performance, with speed measured by the number of new subsidiaries created per year. They counted all foreign subsidiaries, “irrespective of where they were located” (Kim et al., 2020: 1086). Yet not all subsidiaries are created equal: we have seen that many of those established by Chinese MNEs in Hong Kong, Singapore, the Cayman Islands, and the BVI are SPEs (Anderson & Sutherland, 2015), but this is also increasingly the case with those in the Netherlands and Luxembourg. The presence of SPEs thus contaminate measures of internationalization speed based on subsidiary counts because adding an SPE can be done at the stroke of a pen, considerably faster than setting up or acquiring a manufacturing plant.

Lastly, studies using secondary firm-level databases to compare MNEs originating from different countries assign country of origin, for example whether the MNE is based in a developed or emerging market, by identifying their global ultimate owner (Estrin et al., 2018; Jindra, Hassan, & Cantner, 2016; Jones & Temouri, 2016). This is problematic, however, as some MNEs may establish their legal domicile in a country that is not the one where they conduct most of their business, a phenomenon called corporate inversion (Whichard, 2008). Inversions became a hot political issue in the US when some US firms acquired foreign firms in low-tax countries (such as Ireland) and had the acquisition acquire the parents back so as to shift their legal domicile to the lower-tax country. They are, however, even more common outside the US. Chinese MNEs, for example, owing to the practice of round-tripping, have long been comfortable with inverting to OFCs such as the Cayman Islands (De Jong, Greeven, & Ebbers, 2017). The number of inverted Chinese MNEs is quite large: using Orbis, we identified 1087 MNEs (i.e., defined as owning at least one foreign subsidiary) with ultimate owners (using a 50% plus ownership stake) based in the Cayman Islands that were majority owner of at least one subsidiary in China. The business of these firms (which include major firms such as Alibaba Group Holding Limited, Tencent Holdings, Kingsoft Corporation Limited, Mengniu Dairy, Semiconductor Manufacturing International Corporation, China Special Steel Wire Rod Group Ltd, Dynasty Fine Wines Group Ltd, and China Shanshui Cement Group Ltd.) was primarily in China so, for all intent and purposes, they are Chinese firms (though some may have *bona fide*, i.e., non-SPE, foreign subsidiaries). Scholars generating samples of MNEs from a given country based on ultimate ownership criteria, an approach most often employed by empirical studies using the Orbis database, need therefore to be mindful not to exclude inverted
firms, which are sometimes a significant percentage of MNEs from that country.12 While the full extent of inversions and their impact on studies using Orbis is unknown, Sigler, Martinus, Iacopini and Derudder (2020) found that 3% of MNEs they sampled using Orbis had been inverted. Their sample, however, did not include many emerging market countries, like China, in which the share of inverted firms is likely to be far higher.

As mentioned above, nearly one-third of global FDI transits through OFCs, well-known tax havens such as the BVI and the Cayman Islands, but also countries such as the Netherlands, Luxembourg, and Ireland (Haberly & Wójcik, 2015). Authors of studies that identify foreign subsidiaries using firm-level databases need therefore to be very careful when building their samples. Yet very few studies explicitly attempt to exclude all SPEs. We suspect that this is not solely because it is difficult and time-consuming to do so, but also because there is a general lack of awareness of how pervasive SPEs are within MNE ownership and control chains.13 To compound the problem, recent research (Borga & Callandro, 2018) shows that MNEs are increasingly transiting capital not only through SPEs but also through various kinds of other less obvious foreign subsidiaries – vastly complicating the process of tracking genuine MNE investments. Excluding SPEs may therefore not be sufficient to eliminate all onward-journey subsidiaries.

Table 2 summarizes some of the problems discussed here and possible remedies. SPEs should be removed when assessing whether a firm is an MNE, when calculating the overall level of economic activity by firms of country A in country B, and when counting the number of foreign countries in which a firm operates and the speed at which it creates new subsidiaries. One solution might be to eliminate all subsidiaries domiciled in known OFCs, such as the Cayman Islands, the BVI, Luxembourg and the Netherlands. The problem is that some OFCs, like the last two countries mentioned, are also home to bona fide subsidiaries. A better way is to look at the industrial classification of the subsidiary given by Orbis and at their employee count. Subsidiaries with NACE code 6420 (investment holding companies) are likely to be SPEs. However, in some subsidiaries NACE 6420 is only listed as a secondary code, while the primary code might be something else, like “transmission of other information service activities” (NACE 6399) or “other information technology and computer service activities” (NACE 6209), for example. This again complicates the challenge of identifying SPEs. Whenever Orbis provides subsidiary employment data, SPEs can be identified as those having no or very few employees. The omission of inverted firms from country samples can be avoided by looking at a country’s most common inversion destination, for example Hong Kong, the Cayman Islands, and the BVI in the Chinese case, and then adding to the sample inverted firms registered there.

As we said at the outset, availability and reliability of data are a major challenge for IB researchers. A look at how IB scholars measure the foreign activities of a central actor in the field, the MNE, shows the extent of the challenge. We could have given other examples.14 Our point is that IB scholars face additional data challenges compared to researchers in fields that study purely national phenomena, as the latter can rely on extensive domestic databases that provide the data they need. Theory poses a second challenge for those conducting IB research. Just as we have concentrated on one issue, the measurement of MNE activity using country-level and firm-level data, to illustrate data challenges, we focus on one theory, transaction cost theory, to highlight theory challenges.

**THEORY**

It is generally agreed that concepts and theories are developed within the context of a particular culture. As Hofstede (1993: 82) puts it, “management scientists, theorists, and writers are human too: they grew up in a particular society in a particular period, and their ideas cannot help but reflect the constraints of their environment”. Problems arise when theorists and their followers claim universal applicability for their theories when in fact there is not. Uncovering the hidden culturally-based assumptions behind many of our existing theories so as to correctly apply them to different contexts is a major challenge facing the IB field, one not faced by scholars who apply domestically developed theories to domestic issues.

There is overwhelming evidence that the field of management, including IB, is dominated by scholars from the United States, Canada, the United Kingdom, and Australia, i.e., Anglo-Saxon countries. Between 1971 and 2015, three-quarters of the articles on IB topics in 14 top-rated journals (the three top-rated IB journals plus 11 top disciplinary journals) were written by scholars based in the USA, the UK, Canada, and Australia (Aïssaoui, Geringer...
& Livanis, 2020). Harzing and Metz (2013) looked at the geographical location of the editors and editorial board members of 57 journals in five areas of management (operations management, international business, general management and strategy, human resource management/organizational behavior/industrial relations, and marketing) at 5-year intervals between 1989 and 2009. In 2009, 52 journal editors out of 57 were based in an Anglo-Saxon country (38 in the United States alone). The proportion of editorial board members based in those countries was 84.5% in 1989 and, in 2009, two decades later, still high at 77% (see also Meyer, 2006). While some of these scholars were born in non-Anglo-Saxon countries, many obtained their doctorates from Anglo-Saxon universities, and one can surmise that they have been influenced by their Anglo-Saxon training. Note also that the percentage of Anglo-Saxons on the board of professional journals constitutes a lower bound on the influence of Anglo-Saxon ideas and beliefs in management – and on the IB field – given that many researchers outside the US and UK have been trained in Anglo-Saxon countries and that many European and Asian universities host visiting scholars from the US and the UK and encourage their faculty to co-author with them (Aïssaoui et al., 2020; Shenkar, 2004).

Boyacigiller and Adler (1988) note, citing Triandis (1972), that identifying the impact of culture on the development of theories is difficult, but they convincingly show that American cultural values have influenced the particular ways some US scholars have thought about organizational commitment, individual motivation, and leadership. Hofstede found that Anglo-Saxon countries scored high on individualism – 91 for the US, 90 for Australia, 89 for the UK, and 80 for Canada, vs. 20 for China and 48 for India. He describes individualism as “the degree to which people in a country prefer to act as individuals rather than as members of groups” (Hofstede, 1993: 89). One would expect scholars living in countries that rank high in individualism to emphasize the free will of actors while downplaying the influence of the social group to which they belong.

One would therefore expect Anglo-Saxon authors to over-emphasize individual action and to under-emphasize social processes. We think it is possible to discern these biases in one of the dominant theories in IB, transaction cost theory (TCT). In the following paragraphs we give a few examples of this by looking at the way TCT has been used by IB scholars, and show that these cultural biases can be remedied without damaging the theory’s core. Indeed, by explicitly identifying these biases, scholars can arrive at a richer and more comprehensive version of TCT which, as we will show, retains strong predictive power in contexts that are significantly different from the Anglo-Saxon one in which it was principally developed.

Individualistic cultures stress the ability of individuals to unilaterally control their environment. Triandis (1993: 158) notes that “The most important facet of collectivism is an interdependent self... the most important facet of individualism is an independent self.” It is therefore not surprising that early applications of TCT to the foreign entry mode choice (Anderson & Gatignon, 1986) assumed that, when it came to entering a foreign market, the MNE was always in the catbird seat and could, unless constrained by host governments, unilaterally choose whatever entry mode it wanted. In the words of Padmanabhan and Cho (1996: 47), the entry mode choice for an MNE “involves tradeoffs related to the [MNE’s] level of resource commitment, the degree of control, the specification and assumption of risks and returns, and the degree of global rationalization.” Researchers with a less individualistic outlook have realized, however, that entry into a foreign country is a cooperative endeavor because the MNE almost always requires complementary inputs to exploit its intangibles there. These complementary inputs – labor, utilities, land, logistics, and access to local customers – are typically controlled by local parties, firms, and individuals. Ignoring these local suppliers of complementary inputs limits the explanatory power of the theory. First, it erroneously suggests that the entry mode decision is unilaterally taken by the foreign investor. In reality, MNEs have the liberty to choose between a wholly-owned subsidiary and a joint venture only when complementary inputs can be obtained on efficient markets. When they cannot, the only efficient way to access such inputs is to enlist the cooperation of their owners by offering them a share of the profits of the venture. In other words, MNEs do not always joint venture because they want to, as suggested by Anderson and Gatignon, but often because they have to. Understanding that MNEs need the cooperation of owners of local factors of production makes it possible to analyze how the transactional characteristics of these factors combine with those of the intangibles contributed by the MNE to determine the optimal entry mode (Hennart, 2009). Taking
into account local owners of complementary inputs also explains why some local firms have been able to leverage control of these inputs to offset their initial technological handicap and successfully compete with large foreign MNEs in their home market (Hennart, 2012).

The Williamsonian version of TCT can also be criticized for its over-emphasis on the determinants of market efficiency relative to those of firm efficiency. This focus on markets is not surprising, given that, as Triandis (1993: 160) notes, “the prototypical individualistic social relationship is the market.” The core argument of TCT is generally presented as follows: the chosen governance structure (market, hierarchy, or hybrid) is the one that is aligned with the attributes of the transaction, which are asset specificity, uncertainty, and frequency (Cuypers, Hennart, Silverman, & Ertug, 2021; David & Han, 2004). When these are high, markets will fail, and this failure will lead to hierarchical governance (i.e., firms) being selected. Hence the prediction that firms will be the chosen governance structure is based on the extent of market efficiency. However, there are no reasons why market failure should guarantee firm success. A governance structure (market or firm) is chosen if the benefits that arise from the organization of interdependencies are higher than the costs of doing so. In some circumstances, these costs may be higher than the benefits for both markets and firms. Consequently, market failure is not a sufficient condition for the existence of firms. Consider the following example used by Hennart (1982). In the first 80 years of the 19th century, UK firms had a technological lead over their continental European and American rivals that can only be compared to that enjoyed by US firms after the Second World War. But while the US technological lead was exploited through the establishment of foreign subsidiaries by US MNEs, that did not happen in the UK case until the very end of the period (Jones, 1996, 2000). Instead, UK technological advances were transferred overseas through other means: the sale of products, the smuggling of machinery, the hiring of skilled UK workers by foreign firms, and the emigration of UK entrepreneurs. The absence of UK MNEs cannot be explained by the superiority of the market processes used to transfer knowledge at that time since the licensing market was even more imperfect then than later in the 20th century when US technology was exploited abroad by US MNEs. The simplified version of TCT under which the choice of organizational form depends on market failure, itself a function of the levels of asset specificity, uncertainty, and frequency, is therefore only half of a comprehensive theory of governance choice. A full theory simultaneously considers the factors that affect the efficiency of markets and those that affect the efficiency of firms, and assess for each transaction their absolute and relative efficiency. Williamson was aware of that when he wrote that “one of the tasks of transaction cost economics is to assess purported bureaucratic failures in comparative institutional terms” (Williamson, 1993b:119) and indeed he addresses the issue in both his 1975 (Williamson, 1975) and 1985 books (Williamson, 1985). But he does not systematically develop the variables driving these hierarchical failures as he does those responsible for market failures.

TCT allows us to do that. TCT scholars recognize that to yield benefits interdependencies must be organized: parties must be apprised of the potential benefits of organizing the interdependence, and a way must be found to avoid excessive bargaining over the distribution of the potential gains and to make sure that promises are kept. This incurs costs because of the existence of two basic human characteristics – bounded rationality and opportunism. These two characteristics imply that it is costly to efficiently inform parties of what needs to be done and to reward them for their contribution. Hennart (1982, 1993) has argued that there are two generic ways to perform these two tasks: one can decentralize information gathering and provide output-based incentives, i.e., use the price system, or one can centralize information and control behavior, i.e., use hierarchy. While all institutions use a mix of these two generic methods of organization, firms mostly use hierarchy. In firms, bosses centralize information and direct worker behavior. Output is generated through the control of behavior, either directly through real time direct observation or indirectly through bureaucratic control techniques, such as accounting. While we lack space here to go into details, one can show that the techniques available for directing employees and monitoring their behavior were just too crude in the 19th century to support the profitable operations of UK MNEs. Consequently, knowledge was transferred through other ways. By the 20th century, management techniques had improved sufficiently to make knowledge exploitation through MNEs possible, even though the market for knowledge had improved in the meantime (Hennart, 1982).
Williamson has used the term “high-powered incentives” to describe those used in markets, and “low-powered incentives” to describe those used in firms (see for example Williamson, 1985: 140). This wording can be interpreted as suggesting that firms cannot use the strong incentives used in markets, and are thus at some inherent disadvantage. That Williamson sees markets as providing unique (and superior) incentives is reinforced by his writing a few pages later that “the market is a marvel... because of its remarkable capacity to present and preserve high-powered incentives” (Williamson, 1985: 161). Such a stance neglects the fact that while the price system provides incentives to market actors to exert effort and show initiative by rewarding them based on their output, i.e., it offers output-based incentives, firms reward employees based on their behavior. Employees who do not follow managerial guidelines will be sanctioned, and there is no reason to expect that being docked one day of pay will be less effective in influencing their behavior than losing one day’s revenues will be to self-employed individuals. Williamson’s (1985: 140) argument that “firms cannot mimic the high-powered incentives of markets without experiencing added costs” seems to overlook the fact that firms do not need to use output-based high-powered incentives because they can exert high-powered constraints on behavior. Providing high-powered output incentives stimulates high output, but often also the generation of negative externalities. For instance, the literature has shown that franchisees, who are subject to output-based high-powered incentives because they get to keep all of the income they produce minus the franchise fee, are tempted to reduce quality to maximize their income (Brickley & Dark, 1987). Trademark owners for whom consistent quality is important may prefer to use the high-powered behavior incentives provided by employment contracts and have their own employees run the outlets. Michael (2000), for example, shows that product quality in chains that run their outlets with employees is higher than in those that do it with franchisees.

Williamson’s distinction between personal interactions and business transactions, and his under-emphasis of the role social constraints can play in enforcing the latter, seems also to reflect the relatively greater focus that US culture puts on individuals than on the social context in which they operate. In an article where he discusses the notion of trust, Williamson argues that the word trust should be reserved for non-calculative relationships that are characterized by “(1) the absence of monitoring, (2) favorable or forgiving predilections, and (3) discreteness” (Williamson, 1993a: 484). For him, such trust “is warranted only for very special personal relations that would be seriously degraded if a calculative orientation were permitted. Commercial relations do not qualify” (ibid, 486). This suggests a strict separation between business transactions and personal relations, where the former are strictly calculative while the latter are not. This separation is not universal. In many – perhaps most – parts of the world, business is done with persons with whom one has close relationships, so trust, in the Williamsonian sense, is a feature of both personal and business relationships. Why is this the case? Because, consistent with the TCT idea that governance needs to be aligned with the characteristics of transactions, and that these characteristics are influenced by the institutional environment, the absence of formal market-supporting institutions such as courts increases the attractiveness of doing business with family and close friends over that of dealing with outsiders. This in turn has important theoretical and practical implications for foreign market entry, as it explains the considerable advantage held by incumbents over new entrants in countries characterized by underdeveloped formal market institutions.

TCT scholars see the choice of governance as being influenced by the institutional environment which defines the rules of the games, i.e., property rights, contract laws, norms, customs, and the like (Williamson, 1993b, 2000). They have been interested in working out the mechanisms by which different rules of the game yield different types of optimal governance. With few exceptions (Williamson, 1991), Williamson’s research has mostly focused on market transactions and their enforcement in the US context. Some of these transactions are self-enforcing because of low asset specificity, while others require safeguards which usually take the form of contracts. Contracts are formal, usually written, legal documents by which parties enter into mutual obligations enforceable by courts or arbitrators based on a set of laws. Specifying ex ante these mutual obligations reduces the chance of ex post opportunism, which is especially useful to parties who have to make investments which are specific to their partners. Williamson has focused on the limits of such contracts (leading to vertical integration) and on the ways to make them more
efficient, for example by making credible commitments (Williamson, 1985, chapters 5, 7 and 8). In this environment, found in the United States and in a few other – primarily Anglo-Saxon – countries, individuals contract with a wide range of partners, some known and some unknown, with dispute settlement handled by third parties, generally courts and arbitrators, a system that has been called “rule-based” governance. In many other countries, transactions are embedded in relationships, and their enforcement is effected through bilateral or multilateral social constraints – a system of relation-based governance (Li, 2003; Li, Park & Li, 2004). In China, for example, business transactions are conducted through guanxi, which Standiford and Marshall (2000: 21), quoting Yang (1994), describe as “cultivating personal relationships through the exchange of favors and gifts for the purpose of obtaining goods and services, developing networks of mutual dependence, and creating a sense of obligation and indebtedness.” Guanxi has equivalents in many other countries, for example wa in Japan, inmaek in Korea, blat in Russia, and wasta in Arab countries (Michailova & Worm, 2003; Velez-Calle, Robeldo-Arialla & Rodriguez-Rios, 2015). In the countries listed above, and in many others, contracts and courts play a very limited role, an institutional environment very different from the one on which Williamson has mostly focused.

There is a temptation to ignore such differences, and to blindly apply the Anglo-Saxon version of TCT to East Asian contexts. Another one is to see guanxi as a uniquely Chinese phenomenon, a product of its Confucian philosophy (e.g., Chen, Chen & Huang, 2013). A more demanding, but also more promising, way to proceed is to attempt to see how the disconnect between the prediction of the theory and the empirical evidence can be used to modify and extend existing theories, making them more general (Shenkar, 2004). This is possible in the case of TCT because the theory posits that the chosen governance structure will be the one whose properties align with the characteristics of the transaction, with these characteristics in turn influenced by the institutional environment (Williamson, 2000). Hence applying TCT to different settings, especially non-Western ones, has the potential to enrich it and make it more robust. In our case, the task is to identify which features of the institutional environment make relation-based governance more efficient than rule-based governance (Hennart, 2015; Li, 2003; Li et al., 2004).

Hennart (2015), for example, looks at how the characteristics of the networks in which transactions are embedded affect the costs of enforcing them. He notes that relational governance can be either bilateral or multilateral. Bilateral relational governance relies on mutual enforcement, and is based on appeals to friendship and on threats of discontinuing the relationship. One advantage of this solution over market contracts and multilateral relational governance is that one does not need to prove the existence of dishonest behavior to third parties. But this enforcement mechanism does require relationships to be long term, and hence works best when one can rely for a long period of time on a small number of geographically close partners. Multilateral relational governance relies on group reputation effects. These effects are stronger in closed networks of homogeneous members for which exit is costly. These considerations can be shown to explain not only the practice of guanxi in China, but also the use of bilateral and multilateral governance in countries such as the United States. Verbeke and Kano (2013) look at the wider, but related, phenomenon of “trading favors” and show how TCT can explain its occurrence, the form it takes, and its likely impact.

CONCLUSION

What is unique about IB research? Eden and Nielsen (2020) have argued that the field is particularly complex. Aguinis and Gabriel (2021) have responded that it is not necessarily any more complex than a number of other fields. We agree that differences in complexity between IB and domestic topics may have been overstated, but we also believe that IB researchers face some unique challenges, perhaps not due to complexity, but instead to the inadequate quantity and quality of data available and to the need to rethink the applicability of many of its imported theories in contexts that differ from the ones where they were originally elaborated.

We do not have the space to provide an extensive treatment of all the data problems faced by IB scholars. Instead, we point out to the serious issue of data equivalence in the collection of primary data. We briefly discuss how this affects interviews and surveys. We then turn to secondary data. In a recent article documenting their increasing importance in IB research, Cerar et al., (2021: 1365) argue that such data needs to “be treated with the same healthy skepticism and quality checks as primary
data” so as to mitigate “IB’s increasing exposure to the risks inherent in secondary data”. They note that a degree of complacency has crept into the use of such data: “references to the biases and weaknesses of such data are conspicuously absent in much of the literature. …. editors and reviewers do not consider the weaknesses and lack of mitigation possibilities inherent in secondary data as critical” (Cerar et al., 2021: 1371). Our quick review of the pitfalls encountered in measuring just one IB construct – though a key one – the size of MNE activities outside their own country, certainly confirm their assessment. FDI flows and stocks (as epitomized by UNCTAD’s annual World Investment Report) have been used to measure that activity at the country level without their authors seemingly aware of the limitations of such data.\(^2\) We document the pitfalls involved and make some suggestions on how to avoid some of them.

Recently a number of firm-level databases, such as Orbis, have become available. While their broad coverage and user-friendly web interface hold out the promise of significantly improving our understanding of MNEs, we show that they are subject to some of the same problems that affect the use of FDI flow and stock data, and that the literature has not always recognized them. We suggest some partial fixes. The unavoidable conclusion from our brief foray into the use of both country-level FDI flow and stock data and firm-level data extracted from large databases is that data are a major challenge in IB.

IB researchers study phenomena in multiple contexts. Yet some of the theories they borrow were conceived by scholars working in specific environments and inevitably reflect those contexts. Often, they cannot be applied “as is” to the specific contexts being researched. Most theories used in IB were developed by scholars working in the United States and, to a lesser extent, the UK, Canada, and Australia, and hence reflect the cultural, economic, and social conditions of those countries. For that reason, their explanatory power is not always high when applied “as is” to other country contexts. In contrast to researchers in domestic fields trying to explain local phenomena with local theories, i.e., typically US phenomena with US theories, IB scholars have the challenging task of identifying the possible cultural biases of the theories they have borrowed and of extending them to fit other institutional contexts. Confronting theories to environments that differ from the ones in which they were originally developed offers the chance to enrich them by uncovering their hidden assumptions and boundary conditions, and to develop higher level, broader theories. Unfortunately, not all scholars have the confidence to tackle this challenge. Instead, some ignore the issue and simply try to apply, without modification, theories developed in Boston or San Francisco to Beijing or Singaporean contexts (see the discussion in Meyer, 2006). Others develop “indigenous theories” (Bruton, Zahra, Van de Ven, & Hitt, 2022). For example, some scholars have explained the relation-based governance prevalent in East Asia by Confucian philosophy, even though the use of this type of governance varies within the region and is also prevalent outside it (Li, 2013). Such indigenous theories fit the specific circumstances of their environment but remain unconnected to more general ones, resulting in a patchwork of incompatible theories. We have tried to show that identifying possible cultural biases in the theories we use and confronting them to diverse institutional environments can open new perspectives and enrich theories. IB scholars, who study different institutional environments, have unique opportunities to do so. But for this to happen a theory must have a built-in sensitivity to contextual differences (Muzio, 2021). We have shown that TCT is such a theory because it posits that the optimal governance structure depends on the specificities of the institutional environment and studies how this works out. It is therefore well equipped to accommodate different contexts. The result of the exercise, as we have attempted to show, is a version of TCT that is more general while remaining context-rich.

Is it fair to generalize from the specific data problems discussed in this article and argue that they are particularly daunting in IB? Are other theories used in IB less susceptible to cultural biases than our example of the Williamsonian version of TCT, or are those biases widespread? Is our unconscious use of theories that do not fit the varied contexts we study as big a limitation in IB as we argue it is? Are there other examples where IB researchers have used the disconnect between the empirical evidence and the predictions of borrowed theories as a lever to build more generalizable ones? Can all IB theories be leveraged in that way, as we have shown TCT can, or are other Western theories more context-specific, hence justifying an emphasis on indigenous theories, as advocated by Bruton et al. (2022)? We hope our counterpoint will stimulate further debate on those issues.
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NOTES

1 We are not questioning the use of FDI data to measure equity flows between MNE parents and their subsidiaries, but only their use to measure the aggregate value added generated by these subsidiaries.

2 Enron’s 2000 10K filing provides a good example of that complexity. Dabhol, its ill-fated Indian power plant, was owned by a Mauritius SPE, itself owned by a Dutch SPE, itself owned by a Cayman Island SPE, which was then owned by a Delaware SPE, Enron India, LLC. So an observer looking at the first immediate owner could conclude that Dabhol was a domestic operation.

3 For a recent example, see Mariotti and Marzano’s (2021) study of the impact of changes in competition policy on the attractiveness of a country to foreign direct investors. They acknowledge the problems of using FDI data, but like Buckley et al. (2007), attempt to remedy them by omitting OFCs from their sample. This fix excludes genuine investments going to some of their omitted OFC (Hong Kong for example) but more importantly onward-journey investments from the eliminated OFCs to the countries that remain in their sample.

4 Available at https://stats.oecd.org/ and https://data.imf.org.

5 As an example, in the UNCTAD database Finnish FDI stocks were reported in 2013 on an historical-cost basis while US FDI stocks were on a market-value basis. Valuing FDI stocks on a historical cost basis results in an underestimation of the FDI stock of countries that are old investors relative to that of more recent investors (Bellak & Cantwell, 1996).

6 Zephyr also covers initial public offerings (IPOs), private equity, and venture capital deals.

7 Yang, Martins and Driffield (2013), for example, are able to build a sample of 16,000 MNEs operating in 46 countries over a 10-year period.

8 Over 95% of the US $3.5 trillion FDI stock in Luxembourg, 21% of US$1.45 trillion FDI stock in Switzerland, and 40% of US $1.97 trillion in the UK was sent to SPEs.

9 A search for subsidiaries active in NACE 6420, the most common code for SPEs, returned 23,908 subsidiaries in the Netherlands, 31,387 in Luxembourg, 1526 in Switzerland, and 21,589 in the UK, for a total of 78,440 SPE subsidiaries. For the 31 developed host countries included in Estrin et al. (2018), the total number of this type of SPE comes to 131,709. Limiting the number of such SPEs to those owned by the MNEs of the 14 advanced and emerging economy countries in the Estrin et al. (2018) sample does reduce the number of this type of SPE to 49,907, but this is still 3.1% of the total number of subsidiaries. On the other hand, if we choose a broader definition of SPEs as subsidiaries engaged in financial service activities (NACE 64) and insurance, reinsurance and pension funding (NACE 65), their number rises to 96,188, or 6% of all subsidiaries in their sample. This is too large a number to be overlooked.

10 Our estimation is based on the number of subsidiaries whose main activity is NACE 64 (financial service activities, except insurance and pension funding), NACE 65 (insurance and pension funding), NACE 66 (activities auxiliary to financial services and insurance activities), NACE 69 (legal and accounting activities) and NACE 77 (rental and leasing activities). It makes sense to include the latter category since many SPEs lease intellectual property to onshore Chinese operations.

11 As above, we define SPEs as subsidiaries whose main activity is in NACE 6420, investment holding companies. Looking at Orbis, we identified 5387 Chinese SPEs located in 49 different countries. The 1909 SPEs that were registered in 18 countries, including Singapore (1104), Luxembourg (489), the BVI (263), the Cayman Islands (11) and a few others, had a combined employee count of zero.

12 We searched recent articles that used Orbis to develop samples of MNEs by country of origin with ultimate ownership as a criterion and did not find any mention of special steps taken by their authors to account for inverted firms.

13 SPEs are not randomly distributed among all subsidiaries, so their inclusion causes more than noise: it may lead to bias. SPEs also make up a large share of all subsidiaries so the bias is not likely to disappear with an increase in sample size.
Linski and Mügge (2019) document the poor quality of international statistics on merchandise and service trade and on portfolio investments. While accounting measures of firm profitability are fairly straightforward in a domestic context, they are problematic in IB because the published financial performance of a foreign subsidiary is affected by the firm’s internal transfer rules.

Adjusted means that in the case of jointly authored articles, the score attributed to an author is divided by the number of authors of the article. The dominance of scholars in those four countries lessened slightly to 63.8% in the 2001–2015 period, but is still high. The non-adjusted percentages for authors in the Journal of International Business Studies is similar – 74.9% in 1995–2004 and 63.9 in 2004–2014 (Cantwell, Piepenbrink, Shukla, & Vo, 2016).

We thank an anonymous referee for raising this point.

The topic has been recently the subject of a point-counterpoint in the Journal of Management Studies. See Filatotchev, Ireland, & Stahl (2022) and Bruton, Zahra, Van de Ven & Hitt (2022).

https://hofstede-insights.com. Accessed October 25, 2021.

REFERENCES

Aguinis, H., & Gabriel, K. 2021. International business studies: Are we really so uniquely complex? Journal of International Business Studies. https://doi.org/10.1057/s41267-02-00462-x.

Aissaoui, R., Geringer, J., & Livanis, G. 2020. International collaboration and European contributions to International Business research. Management International Review, 60(6): 827–868.

Anderson, E., & Gatignon, H. 1986. Modes of foreign entry: A transaction cost analysis and propositions. Journal of International Business Studies, 17(3): 1–26.

Anderson, J., & Sutherland, D. 2015. Developed economy investment promotion agencies and emerging market foreign direct investment: The case of Chinese FDI in Canada. Journal of World Business, 50(4): 815–825.

Aykut, D., Sanghi, A., & Kosmidou, G. 2017. What to do when foreign direct investment is not direct or foreign: FDI round tripping. Policy research working paper 8046, Macroeconomics and Fiscal Management Global Practice Group, World Bank Group. Washington DC: World Bank.

Bellak, C., & Cantwell, J. 1996. Foreign direct investment – how much is it worth? Comment on S.J. Gray and A.M. Rugman. Transnational Corporations, 5(1): 85–97.

Beugelsdijk, S., Hennart, J.-F., Slangen, A., & Smeets, R. 2010. Why and how FDI stocks are a biased measure of MNE affiliate activity. Journal of International Business Studies, 41(9): 1444–1459.

Borga, M. & Caliandro, C. 2018. Eliminating the pass-through: towards FDI statistics that better capture the financial and economic linkages between countries. Working paper 25029. National Bureau of Economic Research. Washington DC: National Bureau of Economic Research.

Boycigiller, N., & Adler, N. 1988. The provincial dinosaur: organizational science in a global context. Academy of Management Review, 16(2): 264–290.

Brickley, J., & Dark, F. 1987. The choice of organizational form: the case of franchising. Journal of Financial Economics, 18(2): 401–420.

Bruno, R., Campos, N., & Estrin, S. 2021a. The effect on foreign direct investment of membership in the European Union. Journal of Common Market Studies, 59(4): 1057–1073.

Bruno, R. L., Crescenzi, R., Estrin, S., & Petralia, S. 2021b. Multinationals, innovation, and institutional context: IPR protection and distance effects. Journal of International Business Studies. https://doi.org/10.1057/s41267-021-00452-z.

Bruton, G., Zahra, S., Van de Ven, A., & Hitt, M. 2022. Indigenous theory uses, abuses, and future. Journal of Management Studies, 59(4): 1057–1073.

Buckley, P., Clegg, J. L., Cross, A. R., Liu, X., Voss, H., & Zheng, P. 2007. The determinants of Chinese outward foreign direct investment. Journal of International Business Studies, 38(4): 499–518.

Buckley, P., Clegg, J. L., Cross, A. R., Liu, X., Voss, H., & Zheng, P. 2017. A retrospective and agenda for future research on Chinese outward foreign direct investment. Journal of International Business Studies, 49(1): 1–20.

Cantwell, J. 1992. The methodological problems raised by the collection of foreign direct investment data. Scandinavian International Business Review, 1(16): 86–102.

Cantwell, J., Piepenbrink, A., Shukla, P., & Vo, A. 2016. The changing landscape of JIBS authorship. Journal of International Business Studies, 47(7): 744–777.

Williamson was aware of the existence of social constraints. In Williamson (1985: 120–122) he briefly describes Toyota subcontracting practices and concludes that “the hazards of trading are less severe in Japan than in the United States because of cultural and institutional checks on opportunism”. But he did not incorporate such constraints in his model.

In unpublished work, Beugelsdijk, Hennart, Slangen and Smeets surveyed the empirical articles published in main IB journals between 1981 and 2008 that use FDI data to measure MNE subsidiary activity. Only three of the 47 articles surveyed mention some of the data limitations we identify in this article. None of them mention them all.
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