

Exploring the Use of Offshore Intermediary Jurisdictions by Chinese MNEs for the Purposes of ‘Onward-Journey’ Transit FDI: Implications for Measuring and Understanding Chinese MNE Activity

Dylan Sutherland, Durham University Business School, UK

Jamie Hurst, Durham University Business School, UK

Xinghao Peng, Durham University Business School, UK

Ludan Wu, Durham University Business School, UK

Abstract: This paper explores (i) the extent to which Chinese multinational enterprises (CMNEs) undertake FDI via intermediary jurisdictions (also termed capital in transit (CIT)) and (ii) identifies the specific offshore locations are used by CMNEs to conduct CIT. We use newly available OECD/IMF bilateral FDI stock data reporting both immediate and ultimate FDI between nations, which allows us to construct a CIT index and empirically test whether Chinese MNEs have a higher propensity for CIT than other countries. We demonstrate that CMNEs are indeed outliers with regards to CIT and identify the specific hubs they use drawing from the Orbis database. Our findings imply, among other things, that nationally aggregated Chinese FDI data is systematically biased when used for the purposes of measuring CMNE activity. We then discuss the problems this has created for many studies analyzing CMNE activity that have used data collected at the firm-level. In conjunction, our empirical findings provide further insights into the extent, reasons and ways in which CMNEs exploit the offshore world and how this potentially confounds our understanding of their activities.

Keywords: Chinese MNEs; outward foreign direct investment; special purpose entities; tax havens; capital in transit; corporate inversion; location choice, replication methodology

Introduction

An important and much studied aspect of International Business (IB) strategy is the creation of foreign affiliates over which long-term management control is exercised. Foreign direct investment (FDI), the technical term given to this multinational enterprise (MNE) activity, is usually monitored by national governments and international guidelines set by the Organization for Economic Cooperation and Development (OECD) and International Monetary Fund (IMF) for its collection at the national, aggregated level. While there are a number of well-known and important limitations of using FDI data for the purposes of gauging MNE activity (Beugelsdijk et al. 2010; Lipsey 2007), its strict focus on *immediate* bilateral FDI flows has become a particularly thorny problem (OECD 2015). This is because MNEs are increasingly routing FDI via intermediate countries, so called “capital in transit” (CIT). Intermediary ‘special purpose entities’(SPEs), like investment holding companies, in havens like the Netherlands, Luxembourg, Hong Kong and the Cayman Islands, figure ever more prominently as both destinations and origins for bilateral FDI (Borga 2016; OECD 2015).

This magnifies the full scale of global FDI flows and confuses actual origins, destinations and industrial composition (towards business services) of cross-border investments (OECD 2015). CIT, in short, creates very serious distortions related to the use of FDI data as a useful metric for measuring MNE activity. Unsurprisingly, its impacts are becoming more widely acknowledged. UNCTAD, for example, in its flagship *World Investment Report* exploring global MNE activity, is moving away from its heavy dependence on nationally aggregated FDI data. The OECD, taking the lead in this area, have already recommended that national level FDI data collection agencies account for these ‘pass through companies’, so as to weed out CIT investments.

If CIT is present, it can create systematic biases in the use of FDI data for the purposes of measuring MNE activity. Some studies have already shown that CIT is common in Chinese MNEs – creating issues for better understanding their international investment behaviours – but what does analysis of the newly available OECD data on immediate and ultimate investment destinations reveal in this regard? The purpose of this paper is twofold. Firstly, we quantitatively test some of the country level determinants of CIT using this recently available OECD data. In particular, as this data reports on both *ultimate* and *immediate* inward FDI investments for 19 reporting host countries, it allows us to test how the country of origin impacts CIT. Each of these 19 host countries compiles data for up to around two hundred inward investing (FDI origin) countries, including data on both their immediate and ultimate investments. We first use this to construct a CIT index (measured as ultimate inward country level recorded FDI divided by immediate inward FDI) and explore whether China stands out as an outlier with regards to CIT when compared with international comparator countries, as some have argued (Buckley et al., 2018; Sutherland & Anderson, 2015). We confirm this the case.

Secondly, we use CMNE firm-level data extracted from Orbis (Bureau Van Dijk) to identify the specific transit hubs that are commonly used by CMNEs. We discuss also the potential issues CIT causes when using firm-level data to measure and analyse MNE activity. We show that many recent studies in the leading International Business journal (i.e., JIBS, representative of other studies from mainstream journals in this area) have misunderstood this problem and as a result incorrectly measure CMNE activity, undermining their results.

We conclude that transit capital is a particularly thorny problem when it comes to attempting to empirically measure and evaluate MNE FDI activities. At the national level, it creates severe industrial composition biases (towards ‘business services’) as well as

geographical biases in FDI (with more FDI going to transit hubs). In addition, when using firm-level data many studies also struggle to fully accommodate the issues associated with CIT – namely the creation of SPE type ‘shell’ companies, often in tax havens and offshore financial centers – incorrectly identifying SPEs as real, value adding MNE subsidiaries. Going forward scholars of International Business and Strategy need to be more cognizant of this problem and take more active measures to address it. Of course, understanding the use of CIT hubs may also help us to better understand tax avoidance strategies that MNEs may employ, as these hubs play important roles in the corporate structures of many MNEs.

Background and Research Questions

First, by way of context, we outline how SPEs and offshore incorporation, commonly associated with CIT, may create problems for the use of FDI data when measuring MNE activity. Second, we discuss the evidence relating to Chinese MNEs and their apparent inclination towards CIT, leading to our first research question/hypothesis: do Chinese MNEs have a greater propensity towards CIT than MNEs from other countries? Third, we outline our methods and then discuss the aggregate results. In light of these affirmative results regarding China as an outlier when it comes to CIT levels, we interrogate further firm-level evidence which helps us to identify the specific transit hubs that CMNEs use. By way of conclusion we argue that the use of offshore locations (in particular) to transit capital has likely led to numerous erroneous conclusions in the mainstream International Business/Strategy literature, in which numerous attempts have been made to empirically test CMNE outwards FDI.

SPEs and the CIT problem

MNEs often diversify their investments geographically through ‘special purpose entities’

(SPEs). SPEs are legal entities that “have little or no employment, or operations, or physical presence in the jurisdiction in which they are created by their parent enterprises.” (OECD 2008, 61:186). They are often based in tax havens and/or financial hubs and are frequently also used to raise capital and hold assets/liabilities. They do not, however, typically engage in production. The OECD note: “The core business of SPEs is to channel funds between entities outside the country where they are established.... The role of these SPEs is *merely to serve as a financial turntable for enterprises in other countries*” (OECD 2008, 61:186). Compilers of FDI data, moreover, argue that SPEs “hardly affect domestic economic activity and do not reflect genuine investment activities in or of the reporting country itself”. Accordingly, the question for those involved in tracking foreign investment is “how to ensure that the geographical and industrial allocation of such investment is not distorted” (OECD 2008, 61:186). Often, unfortunately, when used for the purposes of understanding MNE activity FDI data is seriously compromised as a result of SPE- related foreign investments.

The distinction between genuine and non-genuine foreign investments (i.e. SPE related) has attracted particular attention with regards to the problems (i.e. biases) it creates for using FDI data as a measure of MNE affiliate activity (Sutherland, Hennart, and Anderson 2019). Investment holding companies, financing subsidiaries, conduits, shell companies, shelf companies and brass-plate companies are all examples of SPEs. The currently employed OECD guidelines, outlined in the 3rd Edition Benchmark Definition of FDI (1996) and revised, though not yet implemented by all countries, in the 4th Edition, state that investments in SPEs, even though they undertake little physical production, should be incorporated in FDI data. The problems introduced by tax haven and offshore financial centre (THOFC) use are caused by both direct FDI transfers to offshore SPEs to facilitate round-tripping as well as CIT to other countries (Sutherland and Ning 2011). Round-tripping involves moving capital offshore only to bring it back onshore again. This inflates outward (and inward) FDI data. CIT, in contrast,

involves establishing an offshore business (often an SPE) and using this vehicle to conduct further FDI in third countries. The initial offshore investment is mistakenly recorded as genuine, value adding activity. The use of SPEs is closely related to CIT. Their formation creates genuine problems in using officially recorded FDI data to measure MNE activity, both in terms of identifying the ultimate geographical destination of FDI, as well as its targeted industrial sector (i.e. manufacturing, natural resources, services and so on). As the OECD puts it, “where funds are simply channeled through holding companies, major problems are created concerning the geographical and industrial composition of FDI”. Of course, CIT may also take place via more orthodox means and non SPE related companies. In such cases, biases to FDI data will also occur, as the final geographical location and volume of the FDI project will still not be captured.

Chinese MNEs and ‘onward-journey’ CIT investments

The high frequency of CIT type investments among Chinese MNEs was remarked upon over a decade ago (Sutherland and Ning 2011). Using a sample of Chinese listed companies that had undertaken real FDI (i.e., FDI excluding tax haven-based shell companies) it was found that many private sector MNEs, in particular, used offshore structures to channel FDI to third countries. This research identified, at the firm-level, some of the specific offshore havens that were used, noting the importance of the ‘triad’ of Hong Kong, BVI and the Cayman Islands. Subsequent empirical work, later, largely confirmed these findings (Ning and Sutherland 2012; P. J. J. Buckley et al. 2015; Anderson and Sutherland 2015). This literature, based on detailed case-study evidence of individual MNEs, argued that one of the strongest original drivers of Chinese offshore incorporation was linked to China’s domestic taxation policies, which had offered lower corporation tax rates to foreign businesses to encourage inward FDI (Sutherland and Anderson, 2015). This taxation policy, however, also encouraged domestic firms to recreate themselves as ‘foreign’ businesses. They did so via the ‘round-tripping’ of capital

using offshore companies (Fung, Yau, and Zhang 2011), with Hong Kong proving to be among the most popular transit hubs.

This early use of Hong Kong by CMNEs gave them, in turn, access to a broader range of advanced business service providers, which also provided linkages with other tax havens, particularly those linked to the former British empire and its dependencies (i.e., the BVI and Cayman Islands, which have been historically linked to Hong Kong as part of the former British Empire's colonies). Offshore jurisdictions compete strongly with each other and different jurisdictions provide, in turn, access to different specialisations in offshore business services (Buckley et al. 2015). The Cayman Islands, for example, specialised strongly in access to international capital markets (as companies incorporated in its jurisdictions could be listed on both US and Hong Kong stock markets and it holds large deposits from US financial institutions, which are based in the same time zones) and as transit hubs for further FDI projects. Historically, institutions have been strong in these jurisdictions, as are linkages to global financial centres, including London.

The initial availability of these tax arbitrage opportunities thus in turn encouraged Chinese businesses to gain more knowledge of the offshore world and how it could be exploited for other purposes, including planning, structuring and completing further 'onward-journey' FDI (transit capital) opportunities (Sutherland and Ning 2010). One of the key domestic institutional deficits Chinese businesses face includes the poor functioning of domestic capital markets. These 'imperfect' markets have undoubtedly created incentives for CMNEs to exploit offshore pools of capital, particularly for private sector firms (Buckley et al., 2015). Indeed, a great many private sector businesses have gone to considerable lengths to list offshore so as to tap the liquidity of international capital markets (including tech giants like Tencent, Alibaba as well as lesser known but highly dynamic companies, like Nine Dragons Paper, BYD Electronics and Wuxi Pharma-Tech). Appetite for exposure to the Chinese market, owing to

restrictions on inward capital flows, has created a buoyant offshore capital market, with foreign investors also keen to supply their money and expertise. Creative legal mechanisms (such as variable interest entities), often involving complex offshore structures spanning numerous jurisdictions, have therefore been created to facilitate these investments and circumvent domestic institutional restrictions in sensitive sectors (i.e. media) (Buckley et al., 2015; Sutherland & Ning, 2010). By raising large volumes of capital through offshore listings CMNEs have been able to fund further international investments, spurring ‘onward-journey’ FDI.

The legal institutional advantages of the triad offshore jurisdictions have also provided a strong reason for offshore incorporation. Maurer (2010), for example, shows how Chinese businesses/managers hold particular respect for the courts and legal system of the BVI to settle property rights disputes. Many Chinese businesses, interestingly, are also bought and sold in offshore tax havens (Sutherland et al. 2010). There may be tax advantages but evidence suggests it is also the expertise of advanced business service firms helps smooth these transactions and provides greater certainty for the parties involved (who often also hold their shares in offshore structures). Moreover, complex share incentive structures can be put in for top executives owing to the legal provisions available in such jurisdictions (ones which cannot easily be replicated in mainland China).

MNEs originating from institutionally less developed markets like China may thus look to avail of a variety of favorable features in the offshore world. This includes; lower tax rates; functioning and liquid capital markets; advanced business services found in many popular transit hubs; highly developed legal institutions facilitating secure property rights and related property rights transactions. These factors may not only encourage an initial offshore presence but also provide impetus to the first steps in the onward journey/CIT process. Undertaking FDI directly from China to other markets (i.e., Europe/US) is further complicated

by the lack of compatibility in legal systems. It cannot, therefore, be entirely surprising that many FDI projects (M&As as well as greenfield investments) are orchestrated via offshore SPEs. The institutional deficits China experiences at home may also why CMNEs may be more likely than other (developed market) MNEs, to engage in CIT ‘onward-journey’ FDI. Thus, this leads to our first hypothesis as follows:

***Hypothesis 1:** Chinese MNEs have a greater propensity to undertake onward-journey (i.e., capital in transit) related FDI than MNEs originating from other countries.*

If China has a higher propensity to engage in CIT than MNEs from other countries, which hubs are used to transit these types of FDI, if any? As noted, several THOFCs consistently figure prominently as major FDI recipients in China’s officially compiled outward FDI data. This evidence from aggregated officially collected data strongly implies FDI associated with the transfer of assets and equity from mainland Chinese businesses to SPEs (often ‘investment holding companies’ typically providing business services) in these jurisdictions.¹ The triad of three former British colonies and crown dependencies, Hong Kong, the BVI and Cayman Islands, in particular, stand out in official FDI data. In 2016, for example, Hong Kong, the Cayman Islands and BVI ranked 1st, 3rd and 4th largest recipients of Chinese outward FDI flows (MOFCOM, 2016). The Netherlands, Singapore and Luxembourg also ranked in the top 20. This raises a question: is CIT is undertaken via these offshore hubs and can we provide systematic evidence to show that this is the case? As noted, these hub points typically provide access to advanced business service providers (i.e., lawyers, accountants, investment bankers) which are crucial intermediaries in facilitating FDI from weaker institutional environments like China. China itself has historically lacked these advanced

¹ Since 2002 China’s Ministry of Commerce (MOFCOM) has compiled China’s FDI statistics in accordance with the OECD/IMF’s balance-of-payment guidelines.

business service providers and the associated rules and legal systems in which they are able to function. As noted, moreover, additional pools of capital are available to Chinese businesses in these hubs (and therefore are likely to attract foreign investment). To date systematic evidence has not proven which hubs are used for CIT. Here we hypothesize that specific hubs, for the aforementioned reasons, are also selected and used to transit capital. These hubs also broadly correspond and can be identified by examining aggregated Chinese outwards FDI officially collected data (i.e., via MOFCOM). Thus, this leads to our second hypothesis as follows:

***Hypothesis 2:** Chinese MNEs use certain tax havens and offshore financial centres (THOFCs) as hubs from which to undertake onward-journey (i.e., capital in transit) related FDI.*

Data and Methodology

Measuring CIT at the national level

As noted, the agencies setting standards for collection of FDI data, the OECD and IMF, have historically stipulated that reporting of FDI should be on the basis of immediate investing and recipient countries. This was because FDI data was originally compiled for calculating capital account balance of payments positions, so this approach was considered suitable (International Monetary Fund 2011; Beugelsdijk et al. 2010; Lipsey 2007). However, FDI data is now consistently also used to measure MNE activities (Casella 2019). Acknowledging this, the OECD's 4th benchmark definition of FDI, has recommended significant changes in FDI data collection procedures (OECD 2015). Use of GUO data, which accounts for the use of tax havens by crediting the ultimate owners of the investment in the final host destination, is now encouraged. In this way, offshore intermediate host destinations used chiefly as transition

points for capital transfer are disregarded. The ultimate investing country (UIC), which has influence over the final investments, is therefore now identified.

One approach for further exploring the extent of CIT from MNEs lies in using OECD *inward* FDI data for all countries which currently separate out FDI positions by both UIC and immediate investors (OECD 2018). Table 1 presents data on a selection of nine of the current 19 countries that publish such data for China as an inward investor. It records inward FDI positions by UIC and immediate investment (for China only) to the host country. The CIT index for Chinese FDI to that country (i.e., UIC FDI divided by immediate country FDI, to give an indication of extent of CIT from China to the specific host country), as well as the rank of the CIT index *vis a vis* all other inward investors to the respective nine host countries, is listed in the table. This OECD data typically includes coverage of around 200 potential inward investing countries. In the case of inward FDI to the US in 2014, for example, 187 countries returned an inward investment entry. China ranked 5th highest in terms of CIT index among all inward investing countries to the US, indicating a relatively high propensity to engage in onward-journey CIT types of FDI.

(Insert Table 1 about here)

Further inspection of the CIT index for China shows it is typically greater than one, indicating that Chinese MNEs often route FDI via intermediate countries. Again, using the US case, immediate FDI from China stood at around \$10 billion in 2014. UIC data, however, indicated a stock that was nearly three times this – around \$29 billion. This gave it a CIT index 2.9 in 2014. For the largest recipients of Chinese inward FDI, the CIT index ranged from 1.7 (Germany) to 4.2 (Italy).

Variables and Model specification

Dependent variable

Thus, to explore our first hypothesis we use data from the OECD on UIC positions for the 19 countries that report both ultimate and immediate investment data. We focus on the inward investment data from all inward investing countries to the 19 reporting OECD host countries (i) where the position is greater than zero and positive for the end of 2016 and (ii) where both immediate and ultimate investment data is available (allowing for a CIT index calculation). The dependent variable is the CIT index as reported by each of the 19 reported countries for all inward investing countries into that host country. The index is calculated as the ultimate inward FDI divided by immediate inward FDI. We exclude several cases where the CIT index is negative because of negative debt positions (i.e., lending from foreign affiliates back to their overseas parents). Note that this variable is measured using data that is nationally reported at an aggregated level. Arguably, therefore, it captures the full extent of CIT by the various inward investing countries to the 19 OECD host countries that report FDI by ultimate inward positions. It provides a unique glimpse into the onward-journey CIT approaches of MNEs from different countries, including China.

Explanatory variables

We include a country dummy for China as an inward investor as our main explanatory variable. We are interested principally in whether the China dummy is significant – indicating a higher level of CIT than other countries in the sample. In addition, our model includes several additional variables (drawn from the World Development Indicators database) that may be related to CIT. We control for size of country of origin of the country sending FDI (measured by GDP) and its relative level of development (via Net National Income per capita). Outward orientation may potentially lead MNEs to gain more knowledge of the offshore world -so we

can include exports per capita in our model to reflect this. In addition, countries with more technology and internet related companies may guard intellectual property in offshore locations, so we include the countries total patent applications to reflect the level of intangible assets or intellectual capital in that economy. It has been hypothesized, moreover, that institutional factors may play an important role in shaping CIT owing to their role in driving institutional arbitrage related FDI. We include PRS risk guide data on country levels of corruption, bureaucratic quality, political stability, rule of law, regulatory quality and accountability. In addition, we include a measure of Financial freedom (i.e. China's capital markets are controlled, leading to THOFC use to raise capital). This is taken from the Heritage Foundation. Finally, we use dummy variables to capture the impact of geography: do some regions (for unknown, possibly historical factors) have higher levels of CIT? We include dummy variables for European origin of investment, as well as African, American, South American and Asian origins. While broad categories, these provide for a general reference point for geographical impacts. We run individual models for each of these regional dummies (Table 2).

Model specification

The dependent variable (CIT) is a continuous measure and we therefore use OLS (with robust standard errors). Our data is cross-sectional, exploring the overall determinants of the CIT index for the year 2016. Only several years of UIC FDI data exist and there is comparatively little annual change in many of the key variables of interest (i.e., institutional variables). As such, running a panel data estimation is unlikely to yield substantially different results. Our model is:

$$CIT\ index = \alpha + \beta_1 ChinaDummy + \beta_2 GDP + \beta_3 NNIPercapita + \beta_4 ExportsPercapita. + \beta_5 PatentApplications + \beta_6 Corruption + \beta_7 Bureaucratic\ Quality + \beta_8 PoliticalStability +$$

$$\beta_9 \text{RuleofLaw} + \beta_{10} \text{RegulatoryQuality} + \beta_{11} \text{Accountability} + \beta_{12} \text{FinancialFreedom} + \beta_{13} \text{ChinaDummy} + \beta_{14} (\text{other country dummies}) + \varepsilon_{it}$$

Approach used for addressing Hypothesis 2

Which specific transit hubs are used by Chinese MNEs (CMNEs)? Additional insights into the CIT hubs that CMNEs use can be found by looking at how CMNEs structure their international investments through intermediate companies at the *firm-level*. This provides a complementary perspective and more micro-level evidence to support our first approach (in hypothesis one). *Orbis* (Bureau Van Dijk), a database containing over 220 million enterprises worldwide, can be used to first identify all CMNEs with a Chinese global ultimate owner (GUO). In addition, it can be used to identify the foreign and domestic subsidiaries (i.e., it includes country of location) of these Chinese based MNEs. To make our sample size manageable, we identify CMNEs that have Chinese GUOs that own subsidiaries in four specific countries: the United States, France, Germany and Italy.² These countries, according to the aggregated data published by the OECD (Table 1), are ones in which the CIT index from China is positive and greater than one. We can therefore assume CIT is taking place when CMNEs invest in these destinations. Further analysis of them can shed some more insights into the micro-level processes involved in CIT (thus complementing our first hypothesis).

To explore which specific hubs are used by CMNEs when undertaking CIT we can use the *Orbis* database to trace back along the *immediate* ownership chains from all of the identified Chinese owned foreign subsidiaries in these four countries. We thus first identify all subsidiaries with a recognized Chinese GUO in these four countries and then identify the immediate owners (i.e., owning in excess of 50% of the voting shares) of each of these foreign subsidiaries. We do this for all CMNE foreign subsidiaries until we identify the first *non-*

² We focus on countries that are relatively large recipients of Chinese FDI.

domestic owner. A US subsidiary may, for example, be owned by another US subsidiary (the first immediate owner), which is in turn owned by a BVI intermediate firm (the second immediate owner) leading finally back to a Chinese GUO. We note the country/jurisdiction of incorporation for these intermediate foreign CIT subsidiaries, which provides us with information on which hubs are being commonly used to structure international investments (Table 2). In many cases, of course, the first immediate foreign owner is Chinese (i.e., there are no intermediate countries in the ownership chain). However, a considerably high level of non-Chinese intermediate owners also exist (as the OECD UIC FDI data implies). These are then reported in Table 3, which lists the countries of these intermediate hubs.

RESULTS

In testing hypothesis 1, our results indeed confirm that CMNEs have unusually high levels of CIT when compared to MNEs from other nations. The China dummy variable is significant and positive at the 5% level in 7 of 8 models in which it is included (Table 2). A number of institutional variables are also significant and the model fit (R-squared) reaches 0.137 in model 9, which is a reasonable level of model fit given we have little prior theoretical knowledge about what factors may be associated with CIT. Some of the signs on these institutional variables appear somewhat counter intuitive. For example, as corruption increases CIT reduces – whereas we might expect, possibly, the reverse. Moreover, as bureaucratic quality improves CIT also appears to become more common. By contrast, as political stability and rule of law improve, our results show that the CIT index becomes lower. These results are somewhat intriguing. Further analysis of the sample (decomposing it by per capita income, for example) suggests slightly different relationships may exist depending on the overall level of development of the economies in question. CIT appears to be better explained using a sample

based on wealthier economies, in which cases the institutional variables have better explanatory power.

(Insert Table 2 about here)

(Insert Table 3 about here)

Robustness tests

Estimations of variance inflation factors and pairwise correlations (table 3) suggest levels of multicollinearity in this model are acceptable. Further analysis, restricting for example comparisons between China and higher/lower income countries (i.e., different comparator samples) also suggest that China remains an outlier with regards its higher levels of CIT.

Are specific jurisdictions used as transit hubs?

In testing hypothesis 2, our firm-level evidence strongly suggests that Hong Kong, the Netherlands, Luxembourg, Switzerland and Bermuda are hubs for CIT related FDI by CMNEs (Table 4). These CIT hubs, of course, did vary somewhat by host country. Important transit hubs for US targeted investments, for example, included: Hong Kong, Bermuda, and the Cayman Islands. For CMNE subsidiaries in Europe the CIT hubs of the Netherlands and Luxembourg played a larger role. For example, Orbis records 1,014 Chinese foreign subsidiaries in the Netherlands that have a controlling Chinese global ultimate owner (i.e., where the ownership chain exceeds a minimum of 50% – a relatively high threshold given the standard threshold for FDI is ten percent). Of these 1,014 subsidiaries, 239 had a NACE code indicating they were investment holding companies (NACE code 6420). They in turn owned a further 578 subsidiaries, 377 of which were located outside of the Netherlands. This firm-level data, therefore, is highly consistent with newly reported OECD SPE FDI data on the Netherlands (Table 1), which highlights its role as a transit point for FDI.

The scale of CIT is, as the newly reported OECD data suggests, significant. We present evidence only on numbers of firms, moreover, not size of investments. This indicates on average around ten percent of all Chinese FDI is transited through an intermediate country (Table 4). In some cases, such as France, this reaches as high as fifty percent. The firm-level data accurately captures the Netherlands as an important transit hub but also points towards Switzerland, Luxembourg, Bermuda, the Cayman Islands, BVI, and Hong Kong.

(Insert Table 4 about here)

DISCUSSION

Why do Chinese MNEs have unusually high levels of CIT?

There is little relevant IB scholarship explaining why CIT takes place and why some types of MNEs may be more prone to CIT than others, or which hubs CMNEs choose to employ for CIT. We have found that CMNEs do have higher levels of CIT/‘onward-journey’ FDI than those from other countries. There are likely multiple reasons. These, as already explained, relate partly to capital market deficits and domestic legal institutional factors, as well as being taxation related. Undertaking FDI via these offshore hubs, in the case of CMNEs, likely arose out of historical convenience. Many Chinese businesses, as noted, engaged in ‘round-tripping’ quite early on, as evidenced by the large FDI flows to Hong Kong (and the associated THOFCs of the Cayman Islands and BVI creating a so-called ‘triad’ structure). Use of offshore companies in these jurisdictions placed CMNEs on a more level footing with their international counterparts, in terms of access to cutting edge advanced business service providers (i.e., accountants, lawyers, investment bankers). These same professionals provided the advice and know-how to structure further capital raising and international deals, when the time was right,

so leading CMNEs into FDI relationships (Sutherland and Ning, 2011). Doing deals via offshore holding companies goes some way to circumventing many of the barriers that Chinese officials might place in their way. It affords higher levels of secrecy and protection to shareholders – who can hold shares in offshore accounts beyond control of Chinese bureaucratic systems. More recent attempts have been made to

Extant literature has stressed institutional arbitrage as an important motive and component of outward FDI in emerging market MNEs (Luo and Tung 2018). The argument has potential relevance to explaining CIT, as it seems clear that certain offshore jurisdictions are specifically targeted and used by CMNEs as they address specific institutional deficiencies of the home market (Sutherland and Ning 2011; Ning and Sutherland 2012). The Cayman Islands, for example, is one of the world's largest offshore financial centers. It has thus been an important jurisdiction for raising capital for CMNEs (Buckley et al. 2015). Cayman Islands companies can be listed in both Hong Kong and New York – providing access to the best valuations possible. Similarly, our results point towards other important hubs, including the Netherlands, Switzerland and Luxembourg in Europe. Future research should explore in greater detail exactly what benefits each hub offers CMNEs and why and how these hubs have built themselves positions as key conduits for CIT from CMNEs.

Implications of CIT and the use of aggregated FDI data for measuring MNE activity

One important implication of high levels of CIT from Chinese MNEs is that measuring their activities can become more complicated. Although aggregated FDI data used as a measure of country-level value adding MNE activity is biased in several ways (Beugelsdijk et al. 2010),

CIT *greatly* magnifies the difficulties of using FDI as a measure of MNE activity.³ (Beugelsdijk et al. 2010; Cantwell 1992; Lipsey 2007; Stephan and Pfaffmann 2001). While the newly available OECD data illustrates the full extent to which MNEs invest in tax havens (or other intermediate countries), our empirical analysis also shows that CIT is higher in general from China (UNCTAD 2015; OECD 2015). This leads to geographical composition biases (towards the Netherland and Luxembourg, for example) and industrial composition biases (towards services, typically). CIT, as it is highly common but distortionary to Chinese FDI data, creates real problems in using this data for measuring CMNE activity. Much research on CMNE related outward FDI, moreover, has struggled to adequately address the distortions CIT creates (Sutherland and Anderson 2015). Some studies looking at the country location determinants of Chinese FDI, for example, have used aggregated MOFCOM FDI data without addressing the issue. Huang and Wang (2011), for example, incorrectly include tax haven destinations (i.e. the Bahamas and Luxembourg). Others have acknowledged the problem but simply ignore the biases introduced, ‘as there are no more reliable sources’ (Armstrong (2011: 28). The rest, with few exceptions, include Chinese FDI to Hong Kong whilst excluding other THOFCs (Kolstad and Wiig 2012). This is problematic, as Hong Kong is a major CIT hub (Table 4).

The issue of SPE use in tax haven or offshore financial centers, therefore, affects many empirical studies that use official nationally aggregated FDI data to explore things like the locational determinants of Chinese outward FDI (Sutherland, Hennart, and Anderson 2019).

³ It does not, for example, incorporate locally raised funds. Affiliates in countries with well-developed financial systems may put locally raised funds to productive uses which constitutes MNE activity. FDI stocks, moreover, do not account for variations in levels of productivity in host countries, they therefore tend to underestimate affiliate value-added activity in highly productive countries (Beugelsdijk et al. 2010).

These findings further reinforce the message that relying upon aggregated country level data is a perilous exercise when it is used to measure MNE activity.

Implications of using firm-level FDI data for measuring MNE activity

If CIT creates serious issues for the use of aggregated FDI data, what are the implications for the use of firm-level data in IB and strategy related research? Interestingly, these are as important as those related to aggregated FDI data (Sutherland, Hennart, and Anderson 2019). Yet, they have generally been far more poorly understood and are not widely recognised. Many IB and international strategy studies also use firm-level data to test their theories (often regarding whether CMNEs are in some way idiosyncratic and different to developed market MNEs). This data is typically, for example, collected from information on foreign subsidiaries published in annual reports or from commercial databases. The problem with many such studies, however, is that they fail to recognize that many foreign subsidiaries are in fact SPEs (or other corporate transit vehicles), often established in transit hub countries. Such transit hub countries include well-known candidates, like the Cayman Islands, but also lesser recognized hubs/centers, like the Netherlands, Estonia, Luxembourg and Switzerland. These hubs become a significant problem, as they are often not properly identified or recognized.

The frequent use of CIT related corporate entities in transit hubs does create a real problem for studies that use firm-level data to test MNE behavior and strategy. Recent critical analysis of the recent research on CMNEs published in one of the leading international business journals (*Journal of International Business Studies* - abbreviated *JIBS*), for example, shows that much of the research published over the past decade has incorrectly included foreign subsidiaries in locations like the Netherlands, Switzerland and Panama as real, non SPE related investments (Sutherland, Hennart, and Anderson 2019). For example, some studies have use

count data of foreign subsidiary locations as a dependent variable to test motivations for outward FDI (Ramasamy, Yeung, and Laforet 2012). Liang et al. (2014), for example, construct a ‘degree of globalization’ index for CMNEs, an average of three firm-level ratios: (1) foreign sales to total sales; (2) foreign assets to total assets; (3) number of overseas branches and subsidiaries over total branches and subsidiaries, both domestic and foreign. This measure, they argue, ‘depicts the extent of geographical-operations dispersion across countries (Stopford and Wells 1972) and is widely applied in globalization research’ (Liang, Ren, and Sun 2014, 8). However, there are evident issues with parts (2) and (3) of the index as both will be strongly influenced by SPEs, which are among the most common type of CMNE foreign subsidiary. Part (3) of the index is likely to be severely skewed by the large number of investment holding companies incorporated offshore to facilitate CIT. In fact, this is largely confirmed by another *JIBS* article published a few months earlier (in May 2014). Lu et al. (2014) used a near identical approach to identify foreign subsidiaries, drawing from listed firms in Shanghai and Shenzhen. They find that the most common locations (by far) for the ‘foreign’ subsidiaries of listed firms are Hong Kong (278 subsidiaries), the BVI (58 subsidiaries), Singapore (26 subsidiaries), the Netherlands (25 subsidiaries), the Cayman Islands (19 subsidiaries), Luxembourg (4 subsidiaries), and Bermuda (4 subsidiaries) (Lu et al. 2014). Of the total 702 subsidiaries owned by Chinese-listed firms, therefore, 414 were potentially SPE related (i.e., are set up for the purposes of round tripping or CIT). In another *JIBS* study, Meyer et al. (2014), explore how institutional pressures on state-owned firms influence their foreign entry strategies. They empirically test how listed state-owned Chinese firms alter their entry mode compared to private firms and how conditions in host countries impact these strategies. While they exclude firms in places like Hong Kong and the Cayman Islands, they include all subsidiaries in other recognized tax haven jurisdictions, like the Netherlands, Singapore, Luxembourg, Cyprus and Switzerland (Meyer et al. 2014b). Lu et al. (2014) make a similar error. In their sample of 702

investments, they exclude all 278 Hong Kong subsidiaries, all 26 Singapore-based subsidiaries, as well as subsidiaries in the BVI (58), the Cayman Islands (19), Macau (5), and Bermuda (4). Of the 316 remaining subsidiaries included in their sample, 25 are incorporated in the Netherlands, 5 in Liberia, 4 in Luxembourg, and 4 in Panama.

These types of studies relying upon firm-level data typically fail to distinguish between SPE related subsidiaries related to CIT from real, value adding businesses. The problem is most evident and best illustrated with regards to how to treat subsidiaries in Hong Kong. Some studies, for example, discard all Hong Kong based subsidiaries, on the basis that all are SPEs (Meyer et al. 2014a). This approach is incorrect, however, as many are also engaged in genuine MNE activities. Other, less commonly recognized tax havens, like the Netherlands, Switzerland, Belgium and Luxembourg, are in general entirely overlooked as CIT hubs. Most studies, however, do include Hong Kong, as it is too large a recipient of FDI to ignore (Buckley et al., 2007; Liang et al., 2014; Wang et al., 2012). They are therefore included in most empirical analyses (Meyer et al. 2014a; Lu et al. 2014). In doing so, however, it is inevitable that a large number of SPEs will also be being counted, often related to CMNEs engaging in CIT. In general, therefore, it can be concluded that a lot of leading academic research (i.e., we have taken examples here from *JIBS*) has not properly dealt with SPE related investments and the problems of CIT when undertaking empirical analyses of CMNE activity. It would be interesting to consider how our understanding of CMNE activity may change if better efforts were made to account for their distortionary impacts.

Conclusion

We still do not know very much about the factors causing CIT. Why do MNEs route FDI via

specific jurisdictions? What benefits do they confer and can we explain such FDI via institutional arbitrage related theory? How does the role of target country influence the choice of CIT jurisdiction? And what are the impacts of CIT on how we measure and understand MNE activity? These types of questions have flown under the radar in IB research until recently. Mainstream research attention has only surfaced in more recent times owing to growing international concern that exploiting THOFCS has eroded the tax base of developed market democracies. The rise of powerful new internet and technology-based companies (i.e., FANGs) and the reorientation of the new economy towards these low-tax paying quasi monopolies has generated more interest in international taxation issues. The past neglect of this topic in IB research, however, means that THOFC based subsidiaries still need to be better incorporated into mainstream theorizing. Indeed, based on our own estimations from Orbis we found around 25% of all MNE foreign subsidiaries are located in THOFCS – indicating just how commonly they are used and how much they may affect our measurement and understanding of MNE activity if they are not properly accounted for.

In investigating the Chinese case, we have shown that CIT is unusually common for CMNEs (when compared to all other MNEs of the OECD reporting countries) and that this has important implications for our understanding of CMNE activity. From a policy perspective, gaining better insights into CIT is crucial if we are to better understand MNE investment strategies. We cannot undertake meaningful analysis of MNEs if we do not have a good understanding of the data used to measure MNE activity, at both aggregated and firm –level. To date the FDI data related to CMNEs has too often been poorly understood and thus incorrectly used at both levels.

CIT is commonly associated with MNE tax optimization strategies, which can lead to the erosion of a nation’s tax base. Better understanding the particular CIT hubs used, as we

do here, may help in formulating relevant policies to address erosion of this base (Landefeld and Whichard 2006; Mataloni, Rassier, and Ruhl 2017; Whichard 2008). Both are also closely linked to MNE ‘escape’ responses and institutional arbitrage. Moving offshore may weaken the bargaining power of governments *vis-a-vis* businesses, with a potentially wide range of impacts for national economies. MNEs use complex webs of ownership chains spanning multiple, often offshore, jurisdictions. While this creates problems for measuring MNE activity, it also has wider implications for the general monitoring and regulation of such corporations. The approaches we have put forward, by triangulating firm-level with UIC data, may facilitate understanding the key transit hubs for CMNEs, including country specific preferences for different types of MNEs. Such understandings may lead to more appropriate regulation.

REFERENCES

- Anderson, J., and D. Sutherland. 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. doi:10.1016/j.jwb.2015.04.005.
- Armstrong, Shiro. 2011. "Assessing the Scale and Potential of Chinese Investment Overseas: An Econometric Approach." *China & World Economy* 19 (4): 22–37. <http://doi.wiley.com/10.1111/j.1749-124X.2011.01248.x>.
- Beugelsdijk, Sjoerd, Jean-François Hennart, Arjen Slangen, and Roger Smeets. 2010. "Why and How FDI Stocks Are a Biased Measure of MNE Affiliate Activity." *Journal of International Business Studies* 41 (9): 1444–1459. <http://www.palgrave-journals.com/doi/10.1057/jibs.2010.29>.
- Borga, Maria. 2016. "Not All FDI Is Foreign: The Extent of Round-Tripping." *Columbia FDI Perspectives* April (179): 1–3.
- Buckley, P.J. J., D. Sutherland, H. Voss, and A. El-Gohari. 2015. "The Economic Geography of Offshore Incorporation in Tax Havens and Offshore Financial Centres: The Case of Chinese MNEs." *Journal of Economic Geography* 15 (1): 1–26. doi:10.1093/jeg/lbt040.
- Buckley, Peter J, L Jeremy Clegg, Adam R Cross, Xin Liu, Hinrich Voss, and Ping Zheng. 2007. "The Determinants of Chinese Outward Foreign Direct Investment." *Journal of International Business Studies* 38 (4): 499–518.
- Buckley, Peter J, L Jeremy Clegg, Hinrich Voss, Xin Liu, Ping Zheng, and Adam R Cross. 2018. "A Retrospective and Agenda for Future Research on Chinese Outward Foreign Direct Investment." *Journal of International Business Studies* 49 (1). Palgrave Macmillan UK: 4–23. doi:10.1057/s41267-017-0129-1.
- Cantwell, J. 1992. "The Methodological Problems Raised by the Collection of Foreign Direct Investment Data." *Scandinavian International Business Review* 1 (1): 86–102.
- Casella, B. 2019. "Looking through Conduit FDI in Search of Ultimate Investors - a Probabilistic Approach." *Transnational Corporations*, no. May.
- Fung, Hung Gay, Jot Yau, and Gaiyan Zhang. 2011. "Reported Trade Figure Discrepancy, Regulatory Arbitrage, and Round-Tripping: Evidence from the China-Hong Kong Trade Data." *Journal of International Business Studies* 42 (1): 152–176. doi:10.1057/jibs.2010.35.
- Huang, Yiping, and Bijun Wang. 2011. "Chinese Outward Direct Investment: Is There a China Model?" *China & World Economy* 19 (4): 1–21. <http://doi.wiley.com/10.1111/j.1749-124X.2011.01254.x>.
- International Monetary Fund. 2011. "World Economic and Financial Surveys." *World Economic Outlook*. <http://www.imf.org/external/pubs/ft/weo/2014/01/weodata/index.aspx>.

- Kolstad, Ivar, and Arne Wiig. 2012. "What Determines Chinese Outward FDI?" *Journal of World Business* 47 (1). Elsevier Inc.: 26–34. <http://linkinghub.elsevier.com/retrieve/pii/S109095161000074X>.
- Landefeld, Steven, and Obie Whichard. 2006. "The Importance of, and Pitfalls in, Measuring Globalization." *Statistical Journal of the United Nations ECE* 23 23: 127–142.
- Liang, Hao, Bing Ren, and Sunny Li Sun. 2014. "An Anatomy of State Control in the Globalization of State-Owned Enterprises." *Journal of International Business Studies*, July. Nature Publishing Group, 1–18. doi:10.1057/jibs.2014.35.
- Lipsey, Robert E. 2007. "Defining and Measuring the Location of Fdi Output." *NBER Working Paper Series Working Paper 12996*.
- Lu, Jiangyong, Xiaohui Liu, Mike Wright, and Igor Filatotchev. 2014. "International Experience and FDI Location Choices of Chinese Firms: The Moderating Effects of Home Country Government Support and Host Country Institutions." *Journal of International Business Studies* 45 (4): 428–449. doi:10.1057/jibs.2013.68.
- Luo, Yadong, and Rosalie L. Tung. 2018. "A General Theory of Springboard MNEs." *Journal of International Business Studies* 49 (2). Palgrave Macmillan UK: 129–152. doi:10.1057/s41267-017-0114-8.
- Mataloni, Raymond J, Dylan G Rassier, and Kim J Ruhl. 2017. "Offshore Profit Shifting and Domestic Productivity Measurement *." *Bureau of Economic Analysis* March: 1–55.
- Meyer, Klaus E., Yuan Ding, Jing Li, and Hua Zhang. 2014a. "Overcoming Distrust: How State-Owned Enterprises Adapt Their Foreign Entries to Institutional Pressures Abroad." *Journal of International Business Studies* 45 (8): 1005–1028.
- Meyer, Klaus E, Yuan Ding, Jing Li, and Hua Zhang. 2014b. "Overcoming Distrust: How State-Owned Enterprises Adapt Their Foreign Entries to Institutional Pressures Abroad." *Journal of International Business Studies* 45 (8). Nature Publishing Group: 1005–1028. doi:10.1057/jibs.2014.15.
- Ning, Lutao, and Dylan Sutherland. 2012. "Internationalization of China's Private-Sector MNEs: An Analysis of the Motivations for Foreign Affiliate Formation." *Thunderbird Intl Bus Rev* 44 (2). Wiley Subscription Services, Inc., A Wiley Company: 169–182. doi:10.1002/tie.
- OECD. 2008. *OECD Benchmark Definition of Foreign Direct Investment*. OECD. Vol. 61. doi:10.1787/9789264045743-en.
- OECD. 2015. *Glossary of Foreign Direct Investment Terms and Definitions*. <https://www.oecd.org/daf/inv/investment-policy/2487495.pdf>.
- OECD. 2018. *A Progress Report on OECD Work on Tax Havens*. <http://www.oecd.org/ctp/harmful/aprogressreportonoecdworkontaxhavens.htm>.
- Ramasamy, Bala, Matthew Yeung, and Sylvie Laforet. 2012. "China's Outward Foreign Direct Investment: Location Choice and Firm Ownership." *Journal of World Business* 47 (1). Elsevier Inc.: 17–25. <http://linkinghub.elsevier.com/retrieve/pii/S1090951610000738>.

- Stephan, Michael, and Eric Pfaffmann. 2001. "Detecting the Pitfalls of Data on Foreign Direct Investment: Scope and Limits of FDI Data." *Management International Review (MIR)* 41 (2): 189–218. doi:10.2307/40658188.
- Sutherland, Dylan, and John Anderson. 2015. "The Pitfalls of Using Foreign Direct Investment Data to Measure Chinese Multinational Enterprise Activity." *The China Quarterly* 221: 21–48. doi:10.1017/S0305741014001490.
- Sutherland, Dylan, Jean Francois Hennart, and John R. Anderson. 2019. "How Does the Routing of FDI to and via Tax Havens Confound Our Understanding of Chinese MNE Identity? A Critical Review of the Empirical Literature on Chinese MNEs." *Asian Business and Management*, no. 0123456789. Palgrave Macmillan UK. doi:10.1057/s41291-019-00058-2.
- Sutherland, Dylan, and Lutao Ning. 2010. "On the Internationalization of China's Big Business Groups after Three Decades of Reform." In *Thirty Years of China's Economic Reform: Institutions, Management Organizations and Foreign Investment*, 169–218.
- Sutherland, Dylan, and Lutao Ning. 2011. "Exploring 'onward-Journey' ODI Strategies in China's Private Sector Businesses." *Journal of Chinese Economic and Business Studies* 9 (1): 43–65. doi:10.1080/14765284.2011.542885.
- UNCTAD. 2015. *International Tax and Investment Policy Coherence*.
- Wang, Chengqi, Junjie Hong, Mario Kafouros, and Mike Wright. 2012. "Exploring the Role of Government Involvement in Outward FDI from Emerging Economies." *Journal of International Business Studies* 43 (7). Nature Publishing Group: 655–676. doi:10.1057/jibs.2012.18.
- Whichard, Obie G. 2008. "Multiple Indicators for Multiple Uses: United States Statistics on Foreign Direct Investment."

TABLES

Table 1: Reported inward FDI positions for countries which publish Chinese immediate and UIC data (\$ millions)

Year	2014				2015				2016		
	Immediate FDI from China	Ultimate FDI from China	CIT index	CIT rank	Immediate FDI from China	Ultimate FDI from China	CIT index	CIT rank	Immediate FDI from China	Ultimate FDI from China	CIT index
US	10,071	29,049	2.9	5 th	16,769	33,522	2	6 th	27,475	58,154	2
France	1,144	4,072	3.6	5 th	2,034	6,413	3.2	8 th	1,935.2
Germany	2,655	4,537	1.7	5 th	3080	4,723	1.5	10 th	2,313.7
Italy	76	316	4.2	4 th	107	624	5.8	5 th	-10.5	3,387.1	-324
Austria	-103	662	-6.4	...	-57	10	-0.2	...	-165	676	-4.1
Hungary	227	1,269	5.6	5 th	234	1947	8.3	6 th	294.3
Czech Rep.	-13.3	204	-15.3	...	268	371	1.4	28 th	528.7	757.6	1.4
Estonia	20	5	0.3	...	12	6	0.5	...	12.6	12.3	0.97
Poland	179	502	2.8	12 th	218	928	4.3	13 th	130.5	587.6	4.5
Iceland	0.4	116	299	...	5.6	126	22.5	...	6.3	167.5	26.8

Source: OECD, 2018.

Notes: In the larger recipient countries (i.e. US, France, Germany, Italy) we focus on partner countries with FDI positions in excess of \$100 million to exclude outliers so as to compare like with like.

Table 2: Country level drivers of CIT

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
GDP	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
NNI per capita	0	0	0	0	0	0	0	0	0*
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Exports perc GDP	-.013	-.017*	-.017*	-.017*	-.018**	-.018**	-.017**	-.017*	-.019**
	(.008)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)
Patent applications	0	0*	0*	0*	0*	0*	0	0*	0**
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Corruption	-8.98**	-9.872***	-10.206***	-9.78***	-10.027***	-9.542***	-9.977***	-9.872***	-9.913***
	(3.657)	(3.664)	(3.688)	(3.668)	(3.664)	(3.664)	(3.671)	(3.664)	(3.687)
Bureau. Qual	12.19***	13.476***	13.391***	13.235***	12.111***	14.233***	13.436***	13.476***	11.91***
	(3.383)	(3.421)	(3.424)	(3.44)	(3.612)	(3.453)	(3.424)	(3.421)	(3.654)
Pol Stability	-7.957*	-6.889	-6.954	-6.95	-6.823	-5.348	-6.525	-6.889	-5.311
	(4.73)	(4.735)	(4.738)	(4.739)	(4.733)	(4.84)	(4.777)	(4.735)	(4.848)
Rule of law	-8.383***	-8.101***	-8.074***	-8**	-8.798***	-10.012***	-8.484***	-8.101***	-11.168***
	(3.111)	(3.099)	(3.101)	(3.105)	(3.154)	(3.351)	(3.167)	(3.099)	(3.433)
Regulatory Qual.	7.421***	8.878***	8.437***	8.823***	9.296***	7.993***	8.554***	8.878***	7.554***
	(2.546)	(2.624)	(2.681)	(2.627)	(2.647)	(2.687)	(2.681)	(2.624)	(2.778)
Accountability	-.598	-.477	-.113	-.957	.814	-1.642	.01	-.477	-1.69
	(3.272)	(3.257)	(3.29)	(3.328)	(3.436)	(3.345)	(3.359)	(3.257)	(3.83)
Financial free. (HF)	-.023	-.036	-.039	-.036	-.034	-.033	-.032	-.036	-.043
	(.032)	(.033)	(.033)	(.033)	(.033)	(.033)	(.034)	(.033)	(.034)
CHINA Dummy		13.256**	13.216**	13.187**	13.651**	13.266**	12.393*	13.256**	15.216**
		(6.207)	(6.21)	(6.212)	(6.213)	(6.197)	(6.376)	(6.207)	(6.44)
Europe			-.989						-2.254
			(1.223)						(1.373)
Africa				-1.372					-3.45
				(1.928)					(2.269)
America					-1.976				-2.963*
					(1.683)				(1.738)
S. America						-3.044			-4.863**
						(2.046)			(2.28)
Asia							.67		-1.254
							(1.114)		(1.376)
_cons	5.668*	4.24	4.782	4.846	4.402	5.216	3.691	4.24	9.832**
	(3.372)	(3.423)	(3.489)	(3.529)	(3.424)	(3.48)	(3.545)	(3.423)	(4.355)
Observations	396	396	396	396	396	396	396	396	396

R-squared	.109	.119	.121	.121	.123	.124	.12	.119	.137
-----------	------	------	------	------	------	------	-----	------	------

Standard errors are in parentheses

**** $p < .01$, ** $p < .05$, * $p < .1$*

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
(1) GDP	1.000																
(2) NNI percap	-0.064 (0.159)	1.000															
(3) ExportspercGDP	-0.015 (0.722)	0.369* (0.000)	1.000														
(4) Patentapps	0.005 (0.907)	-0.103* (0.014)	-0.189* (0.000)	1.000													
(5) Corruption	0.086 (0.058)	0.850* (0.000)	0.265* (0.000)	-0.171* (0.000)	1.000												
(6) Bureaucratic qual.	0.071 (0.116)	0.785* (0.000)	0.260* (0.000)	-0.118* (0.004)	0.850* (0.000)	1.000											
(7) Political stability	0.061 (0.181)	0.498* (0.000)	0.405* (0.000)	-0.045 (0.277)	0.476* (0.000)	0.439* (0.000)	1.000										
(8) Rule of law	0.094* (0.039)	0.796* (0.000)	0.329* (0.000)	-0.105* (0.011)	0.789* (0.000)	0.767* (0.000)	0.451* (0.000)	1.000									
(9) Regulatory quality	-0.019 (0.680)	0.626* (0.000)	0.285* (0.000)	-0.025 (0.552)	0.592* (0.000)	0.565* (0.000)	0.570* (0.000)	0.482* (0.000)	1.000								
(10) Accountability	0.062 (0.171)	0.584* (0.000)	0.114* (0.004)	-0.336* (0.000)	0.654* (0.000)	0.687* (0.000)	0.380* (0.000)	0.606* (0.000)	0.274* (0.000)	1.000							
(11) Financial freedom	-0.039 (0.377)	0.651* (0.000)	0.371* (0.000)	-0.297* (0.000)	0.703* (0.000)	0.717* (0.000)	0.376* (0.000)	0.623* (0.000)	0.548* (0.000)	0.644* (0.000)	1.000						
(12) Europe	-0.031 (0.454)	-0.270* (0.000)	0.034 (0.358)	-0.077 (0.055)	-0.281* (0.000)	-0.289* (0.000)	-0.110* (0.005)	-0.174* (0.000)	-0.255* (0.000)	-0.042 (0.286)	-0.181* (0.000)	1.000					
(13) Africa	-0.017 (0.675)	-0.278* (0.000)	-0.118* (0.002)	-0.047 (0.244)	-0.260* (0.000)	-0.376* (0.000)	-0.163* (0.000)	-0.293* (0.000)	-0.240* (0.000)	-0.294* (0.000)	-0.291* (0.000)	-0.095* (0.007)	1.000				
(14) America	0.190* (0.000)	-0.145* (0.000)	-0.059 (0.114)	-0.047 (0.238)	-0.098* (0.012)	-0.113* (0.004)	0.092* (0.018)	-0.148* (0.000)	0.038 (0.327)	0.079* (0.042)	0.001 (0.972)	-0.104* (0.003)	-0.066 (0.065)	1.000			
(15) samerica	-0.010 (0.815)	-0.167* (0.000)	-0.146* (0.000)	-0.046 (0.254)	-0.132* (0.001)	-0.149* (0.000)	-0.067 (0.089)	-0.363* (0.000)	-0.155* (0.000)	-0.135* (0.001)	-0.158* (0.000)	-0.070* (0.048)	-0.044 (0.213)	-0.048 (0.174)	1.000		
(16) Asia	-0.034 (0.410)	-0.291* (0.000)	0.118* (0.002)	0.224* (0.000)	-0.326* (0.000)	-0.286* (0.000)	-0.108* (0.006)	-0.225* (0.000)	0.018 (0.648)	-0.590* (0.000)	-0.297* (0.000)	-0.204* (0.000)	-0.129* (0.000)	-0.140* (0.000)	-0.095* (0.008)	1.000	
(17) Chinad	-0.005 (0.900)	-0.159* (0.000)	-0.107* (0.004)	0.924* (0.000)	-0.170* (0.000)	-0.156* (0.000)	-0.086* (0.027)	-0.130* (0.001)	-0.126* (0.001)	-0.315* (0.000)	-0.246* (0.000)	-0.052 (0.143)	-0.033 (0.355)	-0.036 (0.313)	-0.024 (0.496)	0.256* (0.000)	1.000

* $p < 0.05$

Table 3 (above): Pairwise correlations
*Standard errors in parentheses, * $p < .05$*

Table 4: Geographical distribution of immediate ownership (by country) of Chinese foreign subsidiaries

	US	Germany	Italy	France	Totals
Chinese foreign subsidiaries, total	2,348	5,043	1,849	630	9,870
Chinese investing firms, total	734	4,336	1,733	258	7,061
Further geographical breakdown of first non-foreign owner of all Chinese foreign subsidiaries, by country					
China	557	4,120	1,581	127	6,385
Hong Kong	27	63	31	6	127
Germany	14	0	29	17	60
Netherlands	9	20	17	10	56
Luxembourg	3	22	12	10	47
Switzerland	9	13	13	11	46
United Kingdom	10	11	11	8	40
Bermuda	16	5	3	9	33
France	8	14	7	0	29
Italy	10	7	0	8	25
Cayman Islands	13	9	4	3	21
Belgium	5	3	0	12	20
United States	0	7	2	11	20
Denmark	2	8	4	3	17
Austria	4	8	2	2	16
Singapore	5	6	2	2	15
BVI	7	4	0	1	12
Canada	11	0	0	0	11
Ireland	0	0	0	11	11
Spain	5	1	3	0	9
Finland	4	1	2	0	7
Israel	5	2	0	0	7
Sweden	0	0	0	7	7
New Zealand	0	0	5	0	5
Totals	734	4,336	1,733	258	7,061
% directly owned from China	75.9%	95 %	91.2%	49.2%	90.4%
% owned via intermediaries	24.1%	5%	8.8%	50.8%	9.6%

Source: Orbis (Bureau Van Dijk).

Notes: Only includes hub countries with greater than five subsidiaries in either US, France, Germany, Italy or France.