





STRENGTHENING THE GLOBAL TRADE AND INVESTMENT SYSTEM FOR SUSTAINABLE DEVELOPMENT



Multinationals and Foreign Investment Policies in a Digital World

Lorraine Eden

January 2016

E15 Task Force on Investment Policy

Think Piece

ACKNOWLEDGMENTS

Published by

International Centre for Trade and Sustainable Development (ICTSD) 7 Chemin de Balexert, 1219 Geneva, Switzerland Tel: +41 22 917 8492 – E-mail: ictsd@ictsd.ch – Website: www.ictsd.org Publisher and Chief Executive: Ricardo Meléndez-Ortiz

World Economic Forum 91-93 route de la Capite, 1223 Cologny/Geneva, Switzerland Tel: +41 22 869 1212 – E-mail: contact@weforum.org – Website: www.weforum.org Co-Publisher and Managing Director: Richard Samans

Acknowledgments

This paper has been produced under the E15Initiative (E15). Implemented jointly by the International Centre for Trade and Sustainable Development (ICTSD) and the World Economic Forum, the E15 convenes world-class experts and institutions to generate strategic analysis and recommendations for government, business, and civil society geared towards strengthening the global trade and investment system for sustainable development.

For more information on the E15, please visit www.e15initiative.org/

Lorraine Eden is a Professor of Management at Texas A&M University.

This is a revised version of a paper presented at a March 23-24, 2015 meeting of the E15 Task Force on Investment Policy in Geneva, Switzerland, held by ICTSD and the World Economic Forum. The author is grateful for the helpful comments and advice provided by Maria Borga, Cristian Rodriguez Chiffelle, Dong Wook Huh, Kevin McSweeney, Ana Novik, Herbert Oberhaensli, and Karl Sauvant. She also extends her thanks to Kevin McSweeney for his valuable research assistance with this project.

With the support of:



Citation: Eden, Lorraine. *Multinationals and Foreign Investment Policies in a Digital World*. E15Initiative. Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum, 2016. www.e15initiative.org/

Any views expressed in this publication are the author's personal responsibility and should not be attributed to the ICTSD, World Economic Forum, or the funding institutions.

Copyright ©ICTSD and World Economic Forum, 2016. Readers are encouraged to quote this material for educational and non-profit purposes, provided the source is acknowledged. This work is licensed under the Creative Commons Attribution-Non-commercial-No-Derivative Works 3.0 License. To view a copy of this license, visit: http://creativecommons.org/licenses/by-nc-nd/3.0/ or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA. ISSN 2313-3805

ABSTRACT

The purpose of this paper is to discuss the future of the multinational enterprise (MNE) and implications for the international investment regime. The paper begins by summarising current thinking on multinationals and their motivations for foreign direct investment (FDI). It argues that two "winds of change" – emerging market multinationals and the digital economy – are shattering the traditional view of MNEs and FDI. The greater importance of family and state ownership in emerging market MNEs affects their motivations for FDI and location decisions. At the same time, the digital economy opens the global economy to born global firms and micro-multinationals, particularly in home countries with excellent ICT infrastructure. Existing public policies, therefore, need to take account of the greater heterogeneity and different needs of MNEs from emerging markets in the digital economy that lies on our doorstep.

CONTENTS

Multinationals at the End of the 20th Century	
Strategy and Structure of Multinationals	1
The Benefits of Multinationality	2
Motivations for FDI	2
The Winds of Change – The New Multinationals	3
Emerging Market Multinationals — the Latecomers	4
The Digital Economy	5
Implications of the Winds of Change	6
Emerging Market Multinationals – the Latecomers	6
The Digital Economy	6
Multinationals and the International Investment Regime	7
At the End of the 20th Century	7
The Winds of Change	8
The Way Ahead — Possible Policy Directions	9
Concluding Remarks	11
References	16

LIST OF ABBREVIATIONS AND ACRONYMS

Bilateral investment treaties
Corporate income tax
Corporate social responsibility
Double tax treaties
Emerging market country
Economies of scale and scope
Family business group
Foreign direct investment
General Agreement on Trade in Services
General Agreement on Tariffs and Trade
Gross domestic products
Global value chains
Information and communications technology (ICT)
International Centre for Trade and Sustainable Development
International investment agreement
Intellectual property rights
Mergers and acquisitions
Multilateral Agreement on Investment
Most-favoured nation
Multinational corporation
Multinational enterprise
North American Free-Trade Agreement
Organisation for Economic Co-operation and development
Preferential trade agreements
Research and development
State-owned multinational
State- owned enterprises
Sovereign wealth funds
Transnational corporation
United Nations Conference on Trade and Development
World Trade Organization

LIST OF TABLES AND FIGURES

Table 1.	The world's top 100 non-financial MNEs, 2000 and 2013
Table 2.	Top non-financial MNEs from developing and transition economies, 2000 and 2012
Table 3.	State-owned multinationals as a hybrid: comparing the SOE, SMNE, and MNE
Table 4.	SWFs actively engaged in FDI, ranked by asset size
Table 5.	The 2014 global ICT 50
Table 6.	FDI motivations and key drivers
Figure 1.	Complex integration and the MNE

MULTINATIONALS AT THE END OF THE 20TH CENTURY

The multinational enterprise (MNE) is one of the key actors in the global economy, with its importance rivalling and surpassing that of many nation states. Of the world's 100 largest economies, 42 are MNEs, not nation states, with revenues that exceed the gross domestic products (GDPs) of countries (Eden 2012).¹ There are more than 100,000 MNEs; each MNE owns on average 9 foreign affiliates, for a total of 900,000 foreign affiliates in host countries (UNCTAD 2011). Cross-border transactions inside MNEs through relatedparty trade represent one-third of world exports (UNCTAD 2010). Thus, understanding the MNE is critically important for policymakers who have to devise and implement foreign direct investment (FDI) policies at the national and international levels. Therefore, I start by outlining current thinking by international business scholars on the MNE and its activities.

STRATEGY AND STRUCTURE OF MULTINATIONALS

The MNE can be viewed conceptually as a multi-plant, multimarket monopoly (Eden 1998: 214). The MNE has multiple plants in different countries that produce intermediate and/ or final products; the MNE sells these products in multiple markets; and it has market power in its downstream markets (i.e., it is a price maker not a price taker). In short, the MNE is a profit-making organisational form that engages in valueadding activities in more than one country (Dunning 1993).

The structure of the MNE typically consists of a headquarters (now often with the support of one or more regional headquarters in key regions of the world) and multiple foreign affiliates, typically set up as separately incorporated subsidiaries within each host country. Each host-country subsidiary typically consists of one or more plants, which can be clustered or dispersed within the country. The MNE may be performing the same value-adding activities in multiple locations (horizontal integration) or different activities along the value chain in multiple locations (vertical integration). When the MNE is simultaneously both horizontally and vertically integrated, we have complex integration. Both horizontal integration and vertical integration mean that intermediate products (goods, services, intangibles) are moving across national borders but within the MNE group or network, creating internal or intrafirm or related-party trade. Transfer pricing is the setting of prices for these related-party transactions (Eden 1998; 2012).

Like all firms, an MNE must decide on a corporate strategy, that is, whether to engage in a single business or multiple businesses, and if the latter, whether these individual businesses are related to one another (related diversification) or unrelated businesses (unrelated diversification). Most MNEs from Organisation for Economic Co-operation and Development (OECD) countries engage in related diversification to take advantage of synergies and economies of scale and scope (EOSS).

For each of its lines of business, the MNE must also choose a business strategy, which determines how it will compete in that market, typically by differentiating its products from its competitors (differentiation), being a low-cost leader (standardisation), focusing on a niche market (customisation), or some combination of these business strategies.

In each line of business, there is a value chain consisting of primary activities — e.g., inbound logistics, operations, outbound logistics, and marketing and sales — and support activities — e.g., strategic management, marketing, accounting, and research and development (R&D). The actual primary activities vary across sectors (e.g., manufacturing versus services) and within sectors (e.g., banking versus oil services). For example, primary activities in the value chain for the media industry include content creation, aggregation, production, distribution, and consumption (PricewaterhouseCoopers 2013).

For each value-adding activity, the MNE must choose whether to use the external market (buy or sell on the open market) or the internal market (make or sell in-house), and whether to engage in the activity onshore (in the home country) or offshore (a host country). Outward FDI is generated by the combination of offshoring and insourcing.

The various subunits of the MNE group are networked through global value chains, with intrafirm trade flows of parts, intermediate goods, services, and intangibles linking the various MNE affiliates. Historically, MNEs used to perform their R&D activities in the home country, with small R&D outposts whose purpose was to tailor products for the local regulations and cultures. However, today's MNEs are more likely to have integrated R&D networks where teams of scientists and researchers work jointly on new products and processes that are shared with affiliates throughout the MNE network (Criscuolo and Narula 2007).

As a result, the typical MNE consists of several related businesses, each with its own value chain and degree of complex integration. Business strategies for each of these businesses depend on a combination of pressures for standardisation versus customisation. Two forms of external

The comparison should more appropriately be made by comparing the value added by countries and MNEs; however, this format (MNE sales versus country GDP) is the traditional comparison, which I follow here.

1

market pressure – global integration (opportunities to profit from economies of scale and scope on a regional or global basis) and local responsiveness (the need to tailor products for local markets) are key drivers for how MNEs set up their international business strategies and structures. These pressures to "go global/regional" or "go local" are created both by market forces and government policies. For example, the investment climate in a host country can be an important factor influencing the MNE's international strategies for its business lines.

These pressures can also affect the MNE's choice of organisational structure for its worldwide operations. An MNE's organisational structure is typically set up in one of three ways for reporting and management: by line of business (global product), global function or geographic (country, region) lines, with a matrix structure (dual reporting lines) being common among the most complex entities. The role of headquarters is to set and implement the overall corporate strategy of the group and to monitor and manage internal relations within the MNE network and external relations with shareholders, stakeholders, and governments. In Figure 1, I illustrate the complex integration strategies of today's MNEs, together with the flows of related-party transactions that link the network of MNE affiliates.

THE BENEFITS OF MULTINATIONALITY

MNEs exist due to imperfections in and across markets that provide profit-making opportunities to firms that step outside of national borders. Both natural market imperfections that arise from missing or imperfect market conditions (e.g., uncertainty, lack of information, public goods, and weak or missing institutions) and government-imposed market imperfections (e.g., differences in tax rates, tariffs, and exchange rate controls) create profit-making opportunities for MNEs to internalise cross-border markets. These benefits of multinationality help the firm overcome the costs of doing business abroad (both the "hard costs" of operating at a distance and the "soft cost" liabilities of foreignness). The "short form" term that is often used to capture these key benefits of multinationality is "internalisation benefits," because they arise from firms internalising transactions (creating internal trade or related-party transactions).

The benefits of multinationality can be disaggregated into four general groups, as follows:

- Global Integration: Integration economies that arise from EOSS at the plant and firm levels (e.g., spreading the costs of R&D over domestic and international sales).
- Global Arbitrage: Arbitrage opportunities generated both by economic differences (e.g., differences in unit labour or energy costs, or in market sizes and incomes) and regulatory differences (e.g., tax rates, preferential location

subsidies, and access to more sophisticated financial markets).

- Global Learning (taking knowledge gained in one location and applying it elsewhere or throughout the MNE group).
- Global Flexibility (the ability to shift activities, inputs, sales, and locations in response to shocks, such as exchange rate shocks or government policy changes).

While domestic firms have some of the same advantages (e.g., a domestic firm with plants in two or more states can arbitrage differences across states within a country), the opportunities are clearly greater for MNEs than for domestic firms. The benefits of multinationality imply that MNEs typically are more profitable than domestic firms, *ceteris paribus*. Some of these benefits get competed away of course, if only by competition between and among MNEs; but, the empirical work suggests that returns are higher to MNEs than domestic firms.

MOTIVATIONS FOR FDI

The four benefits of multinationality (integration, arbitrage, learning, and flexibility) are directly tied to the MNE's motivations for engaging in international production through FDI. The MNE's overarching goal is to maximise the global after-tax profits of the MNE network or group of affiliated companies. The purpose behind engaging in offshore value-adding activities is therefore to increase the MNE's global profits by exploiting the benefits of multinationality. FDI can be either in the form of a greenfield (new) investment, acquisition or brownfield investment (an acquisition accompanied by deep restructuring), and either through equity (minority or majority) or contractual forms (Meyer and Estrin 2001).

I find it helpful to think of MNEs' motivations for engaging in FDI as of two types, those affecting *de novo* MNEs (firms engaging in their first overseas value-adding activity) and established MNEs (firms that already have value-adding activities in multiple countries). The first type affects not only *de novo* MNEs, but also individual plants or strategic business unit levels within the MNE group. These basic FDI motivations include:

 Market seeking: establishing abroad to sell; that is, the sale of, or activities supporting the sale of, the MNE's products in a foreign country. The motivation behind market-seeking FDI is to earn additional rents on the MNE's firm-specific advantages by exploiting them in foreign markets. The MNE can reap integration economies by exploiting its technological innovations in multiple product lines and multiple markets. Follow-the-customer location strategies, under which upstream component suppliers and business service firms co-locate near downstream buyers, are another form of market-seeking FDI.

- Resource seeking: establishing abroad to buy; that is, the acquisition or purchase of any form of resource inputs needed by the MNE, including natural resources, labour resources, and capital resources. The motivation behind resource-seeking FDI is to reduce factor costs and/or secure sources of supply. Differences in factor endowments and prices provide arbitrage economies for MNEs.
- Knowledge/strategic asset seeking: establishing abroad to learn; that is, acquire knowledge or some other form of strategic asset that is more readily available abroad. Knowledge-based assets are the core firm-specific advantage of the MNE. Knowledge-seeking involves activities designed to search for, acquire, and generate knowledge from other firms. Worldwide learning opportunities provided by knowledge-seeking FDI provide another source of benefits from multinationality.

The second type of motivations for FDI apply at the group or network level of the MNE, and therefore are primarily for firms that already have value-adding activities in multiple host countries. In this situation, the motivations for FDI are more complex, situational, and iterative.

Network- or group-level motivations for FDI include:

- Efficiency/growth seeking: Rationalising or reshuffling business or plant-level activities and tasks within the MNE network. The motivation behind efficiency seeking is the desire to rationalise activities or tasks within the MNE group to reduce overall group costs and/or generate group-level synergies and revenues. Flexible MNEs have the ability to react either actively (to take advantage of) or defensively (to protect themselves from exogenous changes). Efficiency-based FDI can be broken into two subcategories based on the type of multinationality benefits provided by the activity: arbitrage or integration benefits.
 - Arbitrage efficiencies are generated when the MNE engages in rationalising or reshuffling its activities at the business/plant level in response to:
 - Changing product or factor markets that open up for the MNE group opportunities to profit by exploiting price or volume differences between countries.
 - Changing government regulations the ability to profit from exploiting differences in government regulations across countries, such as corporate income tax (CIT) rates, government locational subsidies, rules of origin, investment regulations, etc.
 - Integration efficiencies pooling activities within the MNE group to exploit EOSS at the group level. Group costs can be lowered and synergies created

by centralising a particular function (e.g. foreign exchange transactions, purchasing) either with or without a pooling leader to manage the activity.

Competitive positioning: In addition to efficiency/growthseeking motivations for arbitrage and integration, there are also behavioural, social, and strategic positioning motivations that arise when the MNE views itself in the context of core rival firms in the same industry. MNEs tend to cluster in oligopolistic industries and therefore pay close attention to the strategic behaviour of rival firms. Competitive rivalry among MNEs can generate FDI for various reasons, such as follow-the-leader (mimetic behaviour) strategies under uncertainty. First-mover strategies to pre-empt competitive entry are another example. Defensive patent acquisitions to block potential entrants are another example. FDI strategies here can be defensive or aggressive (forestall entry by a potential competitor).

THE WINDS OF CHANGE - THE NEW MULTINATIONALS

How are the FDI motivations of MNEs likely to differ in the future? I argue that, by the mid-1990s, two key forces started to change the competitive landscape facing multinationals.² Both forces created "fresh winds of competition" for existing MNEs. The first wind of change was from the "rise of the rest," that is, the impact of multinationals coming from emerging market countries. The second was technological — the rise of the digital economy. These winds of change will have profound impacts on MNEs and FDI, and therefore for FDI policies at the national and international levels.

2

These are not the only winds of change affecting business. Also important are increasing pressures to improve corporate efficiency and raise the return on capital and the growing importance of knowledge in business. However, I view the rise of emerging market MNEs and the digital economy as two of the most fundamental changes.

EMERGING MARKET MULTINATIONALS - THE LATECOMERS

One of the most fundamental changes since the early 1990s has been the growth of emerging economies and the rise of emerging market multinationals from countries, such as China, India, and Brazil.

The United Nations Conference on Trade and Development (UNCTAD) has been publishing lists of the world's largest multinational enterprises, ranked by size of foreign assets, since 1992 and lists of the 50 (and now 100) largest MNEs from developing countries since 1995 (UNCTAD, 1992, 1995, 2007).³ I gather some of these statistics together in Tables 1 and 2 to highlight the growing importance of emerging market multinationals.

In 1990, there were no emerging market MNEs in UNCTAD's list of the top 100 multinationals; by 2000 there were 5 firms, and by 2013, the number had grown to 8 MNEs.⁴ All but one of the eight were Asian.

While many firms in emerging markets are similar to the "old style" MNEs outlined in the previous section, there are three groups of emerging market MNEs that are different in at least one critical way from most Western MNEs: their form of ownership.

The first is the family business group (FBG). Whether family business groups are called chaebol, grupa, or grupo — the name varies from country to country— they are all groups of firms linked by family ownership ties. Often, they have conglomerate structures. Many FBGs that have been successful in their home countries are now moving abroad and becoming household names overseas (e.g., Cemex, Tata, and Samsung). Historically, the success of FBGs was attributed to institutional voids in emerging economies (Khanna and Palepu 1997), but more recent work shows that FBGs have been growing in both developed and emerging economies (Morck 2010). In FBGs, socio-emotional wealth is an important goal in addition to profit seeking, and governance comes from family ties rather than majority equity ownership (Khanna and Rivkin 2006). Most FBGs engage in unrelated diversification (conglomerate) strategies, unlike the traditional pattern of related diversification followed by Western MNEs.

The second is the state-owned multinational (SMNE). UNCTAD (2014: 21) estimates that close to US\$200 billion in FDI (12 percent of world FDI) in 2013 was made by multinationals with at least 10 percent state ownership. Of the 15 largest SMNEs, ranked by foreign assets in 2012 (UNCTAD 2014: 21), 4 were from emerging economies: CITIC Group and COSCO (China); Vale SA (Brazil); and Petronas (Malaysia). The state-owned enterprise (SOE) percentage share in cross-border mergers and acquisitions (M&As) ranges from 10 percent to 20 percent, according to Gestrin and Novik (2015). Much of the new FDI from transition and emerging market economies is now coming from former SOEs. China's "Go Global" policy of encouraging outward FDI by its SOEs is perhaps the best-known example of home country governments encouraging outward FDI. Partial privatisation of former SOEs throughout the 1990s has also encouraged this pattern.

SMNEs are a hybrid organisational form, sharing characteristics of both SOEs and MNEs (He 2011; He, Eden, and Hitt 2015). Because of state involvement, the goals of SMNEs are not purely profit-seeking, but also include non-market (political/social) goals. See Table 3. As a result, SMNEs have been viewed with suspicion by host-country governments, worried about the extra-territorial reach of home-country governments and unfair competition provided by hidden government subsidies.

The third and smallest category is foreign investments by sovereign wealth funds (SWFs), that is, funds set up by state governments to make investments. UNCTAD (2014: 19) notes that SWF assets have grown faster since 2010 than those held by all other investor groups, including private equity and hedge funds. FDI by SWFs is small, less than 2 percent of total assets under management (UNCTAD 2014: 19), but SWFs have been active acquirers of foreign firms (Wang 2015). The 17 SWFs studied by Wang (2015) managed US\$3,250.4 billion of assets in total, about 65 percent of the total assets owned by all SWFs.⁵

FBGs, SMNEs, and SWFs are also new corporate sources of cross-border investment. Their goals and motivations for FDI can differ from traditional MNEs. This is true of their governance structures and strategies as well. Their internationalisation path is in the early stages, and there is much room for growth. More attention, therefore, needs to be paid to the impacts of non-traditional forms of ownership and FDI.

3 UNCTAD uses the term "transnational corporation (TNC)" instead of "multinational enterprise (MNE)" or multinational corporation (MNC)"; the differences among the terms are minuscule.

The eight emerging market MNEs were Hutchison Whampoa Limited (Hong Kong); CITIC Group (China); Hon Hai Precision Industries (Taiwan); Petronas (Malaysia); Vale SA (Brazil); Samsung Electronics (Korea); China Ocean Shipping (Group) Company (China);and China National Offshore Oil Corp (China).

Wang notes that an additional 49 SWFs were excluded from her sample, because they were "small in terms of asset value under management, nonfederal funds, sovereign pension funds (SPFs), or not actively engaged in cross-border acquisitions."

4

5

Global Trends defines the digital economy (2013) as "social and economic activities that demonstrate the following characteristics: are enabled by internet/mobile technology platforms and ubiquitous sensors, offer an information rich environment, are built on global, instant/real-time information flows, provide access 24/7, anywhere, support multiple, virtual, connected networks." OECD (2012: 6) defines the digital economy as "comprised of markets based on digital technologies that facilitate the trade of goods and services through e-commerce." Regardless of definition, there is common agreement that the digital economy is fuelled by several disruptive technologies that are transforming markets (McKinsey Global Institute, 2013). These disruptive technologies include the mobile Internet, automation of knowledge work, the Internet of Things, cloud computing, advanced robotics, 3D printing, and advanced materials. Technological innovations generate a process of Schumpeterian "creative destruction" that offers both opportunities and challenges.

The digital economy is creating both new businesses information and communications technology (ICT) firms - and new ways of doing business that affect all firms. For example, cloud computing, which enables firms to use an interconnected, shared infrastructure of servers and software over the Internet to "gather, store, analyse, and use the mountains of data so critical to success today" (Acker, Schroder and Grone 2014: 1), is creating both new ICT firms (cloud computing providers) and new ways to handle data (cloud computer buyers). Table 4 provides a list of the top 50 largest public companies from 4 ICT sectors based on financial performance, portfolio strength, go-to-market footprint and innovation, and branding. Lead firms in each ICT sector are all well-known MNEs, for example, Apple and Cisco Systems (hardware and infrastructure); Google and Microsoft (software and Internet); Accenture and Capgemini (IT service providers); and AT&T and Verizon (telecom operators).

The digital economy can best be characterised by three key features: mobility, network effects, and use of data (European Commission, 2014). In terms of mobility, for digital products, once the blueprint has been developed, the cost of producing and extending provision to consumers is low. Low replication costs relative to development costs suggest the presence of large supply-side EOSS as digitalisation pushes down marginal costs relative to fixed costs. Replication can be carried out wherever costs are lowest; automation of processes also lowers costs. Moreover, since the cost of transporting and storing digital products is close to zero, the geographic mobility of digital products is much higher than for traditional manufactured goods.

A new business environment based on the adoption, use, and spread of ICT through all parts of the value chain is occurring.

Digitalisation suggests that technology will become an increasingly more important factor of production relative to labour, capital, and natural resources. Value added will be generated primarily where the blueprint is developed and/ or intellectual property rights are held rather than where production sites are located (European Commission, 2014). Successful business strategies will be based on innovation and differentiation, not on cost reduction.

Network effects are a second feature of the digital economy. "Network effects arise where the value of a product to its users increases with the number of other users of the product. Network effects are not new; they applied for example to early telegraph, railway, and telephone companies. However, network effects arise frequently in digital markets, where the increasing popularity of a platform attracts additional users as well as other groups, such as advertisers or applications developers, to the platform" (OECD, 2012: 8-9). Examples of network effects are social networks, like Facebook, which gain popularity with more members, or a word processing programme like Microsoft Word. Network effects create EOSS on the demand side. Two-sided networks where two groups of users interact are increasingly common, for example, buyers and sellers using online platforms, such as Amazon, Ebay, Vacation Rentals by Owner (VRBO), and Uber.com (taxis).

Both demand and supply side EOSS can be reinforcing; that is, as sales increase, costs of production fall and value to consumers increases. Network effects can lead to "winner take all" outcomes where consumers flock to one firm. This suggests that early movers can capture a firstmover advantage that creates a temporary monopoly. Low reproduction costs, however, also mean that fast followers can copy the products, either legally or illegally (if they are protected by patents or copyrights) so the temporary monopoly may not be long lasting.

This suggests that the competitive dynamics of digital product industries come from speed, branding, and network effects. The OECD (2012) argues that competition in the digital economy operates at a breakneck pace that privileges constant innovation, making it extremely difficult for a firm to acquire significant market power. "[D]ynamic competition, based on continual cycles of innovation, development, and disruption, is paramount in the digital economy" (OECD 2012: 5-6).

The third feature of the digital economy is the growing importance of data generated by "ICT continuously driving down the costs of collecting, storing, and analyzing data" (European Commission, 2014: 12). As the volume of data grows (Big Data) and the costs of data fall, the costs of market making (search, negotiations, monitoring, and enforcement) also fall, reducing natural market imperfections and generating more opportunities for profitable exchanges.

IMPLICATIONS OF THE WINDS OF CHANGE

Perhaps the most important implication for today's MNEs of the two "winds of change" identified above is the growing heterogeneity of multinationals as an organisational form. Typically, the term "multinational enterprise" conjures up an image of a huge firm, headquartered in the United States (US) or the European Union, with dozens of wholly owned foreign affiliates scattered around the world. Complex integration via global value chains (GVCs) connects the various affiliates in the MNE network. Extensive flows of intrafirm trade in intermediate products occur between manufacturing subunits, as the MNE's products are assembled and moved downstream for sale in local markets via in-house or arm's length distribution channels along GVCs. The two "winds of change" identified in this paper suggest much greater heterogeneity of MNEs as an organisational form, both in size and motivation for FDI, and therefore in their location choices and GVCs.

EMERGING MARKET MULTINATIONALS - THE LATECOMERS

First, as the number of emerging market multinationals grows, knowledge/strategic asset-seeking FDI becomes a more important motivation as these firms go abroad to learn. In Europe, technology-seeking FDI is now the most important form of FDI by emerging market MNEs. China and India have been the largest source countries; the United Kingdom and Germany the two top host countries; and services, pharmaceuticals, and metals the top sectors (Chaminade 2015: 7). Inward FDI tends to cluster in existing technology hubs (e.g., autos in Germany).

Differences in cultures and institutions also are more important barriers for emerging market MNEs engaged in FDI in developed markets than for intra-OECD FDI. Emerging market MNEs come from home countries with weaker regulatory institutions than developed market MNEs. Differences in country-level institutions (regulatory, normative, and cognitive) create a liability of foreignness for firms when they engage in outward FDI (Eden and Miller 2004). The cognitive bias of emerging market managers can affect the entry and survival of emerging market MNEs in developed markets (Thomas, Eden, Hitt, and Miller 2007).

As a method for coping with the liability of foreignness that arises from differences in cultures and institutions, clustering based on ethnicity can be an important resource. Latin American and Asian banks, for example, tend to cluster in host country locations where there are large populations of same-ethnicity firms and households (Miller, Thomas, Eden, and Hitt 2008). Follow-the-leader strategies under which firms from the same home country cluster together (Zhu, Eden, Miller, Thomas, and Fields 2012) are an example of using ethnicity as a coping strategy.

Large behemoths in the form of SMNEs from, for example, China, are now rapidly going international, engaged in resource-seeking FDI in the minerals and energy sectors. With the backing of their governments, SMNEs are more willing to engage in risky investments in politically volatile host countries. Amighini, Rabellotti, and Sanfilippo (2013), for example, find that privately owned Chinese firms engaged in market-seeking FDI are investing in richer countries, while SMNEs are more likely to make natural resource-seeking investments in poorer countries with abundant natural resources.

Emerging market MNEs are seen by developed country firms and governments as both an opportunity and a threat (Eden 2009). These concerns are magnified when the entering firm is also state owned. Chinese MNEs entering the US, for example, have faced higher liability of foreignness costs due to socio-political hazards of state ownership. As a result, these SMNEs have had to adopt coping mechanisms, such as "flying under the radar" by entering the US market as minority investors (Eden and Miller 2010).

THE DIGITAL ECONOMY

The second "wind of change" is the digital economy where small firms can now use Web-based platforms to deliver online business services and digital products to customers around the world, going global almost from inception. Internationalisation is simply easier in the digital economy. The digital economy creates opportunities for micromultinationals (Mettler and Williams 2011) and born global firms. Manufacturing in the digital economy will be increasingly flexible, customised, low volume, and Web based. Specialised teams of professionals will come together for specific short-term tasks and projects. ICT investments are less likely to cluster, because "it is no longer necessary to live where one works" (Mettler and Williams 2011: 15).

The delivery of digital products over the Internet through e-commerce is a growing form of exporting, which can be done without setting up a local permanent establishment in the host country. Digitalisation also means increased mobility of services that are now tradable without needing a host country FDI presence. Thus, the trade-off between exporting and market-seeking FDI as market entry modes for delivering products to host countries may be shifting toward exporting.

As market-making costs fall, digitalisation makes it easier for domestic firms to become "born globals," entering international markets as exporters through digital platforms, such as Ebay, ETSY, and Amazon. Firms can internationalise more easily by purchasing business services via online platforms rather than doing them internally (Ebay 2013; Mettler and Williams 2011). Contract manufacturing and 3D printing enable customised design and personal fabrication services – in effect, virtual micro-factories – once a blueprint has been developed.⁶ Micro-multinationals can build a profitable global strategy around producing low-volume, high-value, customised components for the world market – a very different model than the 1960s mass production or the 1980s lean production techniques. All of these strategies enable firms to engage in international markets more easily through exporting and contract manufacturing, without the need to incur FDI location costs.

On the other hand, trade, investment, and services in the digital economy can now go hand-in-hand, creating what Baldwin (2011: 3) refers to as a "trade-investmentservices" nexus. In "21st century trade," trade in goods (much of it intrafirm trade in intermediate products) is intertwined with international production through GVCs, and both are facilitated by front office and back office services. Digitalisation reduces governance costs within the MNE network, since MNEs now have better ability to collect and share information, monitor offshore production locations, and target products and services to customers on a worldwide basis. Cloud computing can be used to share resources within the MNE network and facilitate new forms of pooling arrangements within the MNE group. MNEs are better able to track and optimise their international production chains. Digitalisation also enables MNEs to run controlled experiments in innovation, testing new products in new markets, then sharing and replicating successes throughout the group (European Commission 2014).

The digital economy benefits firms in both developed and emerging markets – as long as the country has a strong ICT infrastructure. Firms in the developing world, where telecommunications infrastructures are weak and spotty, cannot participate in the digital economy. Building a digital infrastructure is, therefore, an important precondition for participation in the digital economy either as a home or host location.

MULTINATIONALS AND THE INTERNATIONAL INVESTMENT REGIME

As Sauvant and Hamdani (2015) note, the basic policy levers for enhancing investment at the national level are regulation and promotion. Over the past 30 years, the balance between these "carrots and sticks" has shifted (Eden 2000), and I argue will need further adjustment with the winds of change now blowing through the global economy. Below, I outline the main contours of the existing international investment regime and possible new directions.

AT THE END OF THE 20[™] CENTURY

Many years ago, Raymond Vernon defined the MNE as a global profit-maximising entity, an organisational form where the parts (the parent firm and its affiliates) shared common goals, common control, and common resources (Vernon 1971). The MNE spanned national borders, bringing it into conflict with host country (and to some extent home country) governments whose reach was limited by national borders.

Vernon is, of course, famous for the obsolescing bargain model, which argued that the original entry bargains struck between MNEs and host countries obsolesced over time (Vernon 1971; Eden 2000). The global reach of the MNE inevitably generated conflicts with host country governments, which wanted the benefits of inward FDI (the package of capital, technology, and management skills). Nation states continued to pressure foreign MNEs to make larger and larger contributions to their host countries, asking "what have you done for me lately?"

Vernon's views characterised MNE-state relations through most of the post-WWII period, well into the mid-1980s. Host country governments were suspicious of inward FDI, particularly in key sectors, such as automobiles and steel or in industries that were heavily foreign owned. Large acquisitions were scrutinised for their contributions to employment and exports. Governments created agencies and boards to monitor inward FDI (Eden 2000).

⁶

Nestle, for example, is using 3D printing to create some chocolates in fancy shapes, but the majority are still produced by traditional methods and what ultimately counts for the consumer is the quality of the chocolate (correspondence with a reviewer).

Consensus then swung in the opposite direction – toward a cooperative view of a "win-win" situation between MNEs and nation states (Dunning 1993a,b; 1994; Eden 2000). The sea change from policy closure to policy openness toward FDI was part of the policy shift during the 1980s towards liberalising international trade and investment flows, deregulating markets and privatising state-owned firms. The shift to openness was initiated by China's open door policy and the setting up of special economic zones (Yuan and Eden 1992), but then followed by most developing and transition countries after the fall of the Berlin Wall in 1989.

This "cooperative" view of MNE-state relations was best captured in the writings of John Dunning (see, for example, Dunning 1993a,b; 1994), who argued that host countries prospered when they offered a package of country specific or locational advantages that would attract inward FDI. The key was to match country-specific locational advantages with the motivations for FDI by firms, if the host country was to successfully attract inward FDI. Table 6 summarises the motivations for FDI and links them to country locational advantages.

Creating a climate that would create economic development over the long run has, particularly since the mid-1980s, been the major criterion behind host country regulations and policies toward FDI. The various issues of UNCTAD's *World Investment Report* spelled out a recommended policy framework designed to encourage inward FDI to foster economic development of the world's poorest countries based on liberalisation, privatisation, and deregulation of markets.

Sauvant and Hamdani (2015) review this period, noting the convergence in government perspectives: (1) regulatory changes that are "overwhelming friendly" toward FDI; (2) the proliferation of bilateral, regional, and international investment agreements, now totalling more than 3,000; (3) the proliferation of national investment promotion agencies; and (4) the growing number of countries that are both homes and hosts for FDI.

Elsewhere, I have argued that the international investment regime created during the 1980s and 1990s remains a patchwork or emerging regime when compared with the strength of the international trade regime (Eden 1996). The investment regime's focus has been more on simple integration (reducing barriers to FDI at the border) than deep integration (reducing barriers to FDI inside the border). The FDI regime lacks an international organisation at its centre — there is no World Trade Organization (WTO) for FDI and no overarching multilateral treaty like the General Agreement on Tariffs and Trade (GATT), owing to the failure of the Multilateral Agreement on Investment (MAI) initiative. WTO rules are still focused on merchandise trade, and little attention has been paid to GVCs or the emerging tradeinvestment-services nexus identified by Baldwin (2011).

At the national level, government policies focused on openness to international trade and FDI suggest little evidence of Vernon's obsolescing bargain model.⁷ Rather, I view MNE-state relations now as complex patterns of iterative bargaining over time between MNEs and nation states (both host and home governments) as MNEs attempt to influence public policy formation in ways favourable to themselves (Eden, Lenway, and Schuler 2005). A key issue for the MNE is now to be seen as an insider rather than as an outsider in all of its markets, since insiders have more political sway to influence public policies (Eden and Molot 2002). Contributing to national goals (e.g., employment, exports) and engaging in corporate social responsibility (CSR) activities are ways that MNEs can cope with liability of foreignness and be seen as insiders in host country markets (Campbell, Eden, and Miller 2012).

THE WINDS OF CHANGE

In his final book, Vernon (1998) continued to see MNEstate relations as inherently conflictual, owing to the clashes between the national reach of governments and their social goals, and the global reach and private goals of MNEs. He recognised that countries that had been traditional exporters of FDI (e.g., the US and the United Kingdom) or importers of FDI (e.g., Brazil, India, and China) were now experiencing more two-way FDI flows and more balanced FDI stocks, and therefore would be more nuanced in their FDI policymaking.

Vernon argued, however, that the confrontation aspect of MNE-state relations was likely to reappear (the pendulum would swing from cooperative to confrontational). The relationship would be exacerbated in the 21st century by the rise of new MNEs from emerging markets (many with state ownership), a backlash against privatisation in developing countries, and an ageing labour force in Western countries that would resist outsourcing and offshoring FDI.

All three forces have come to pass, as Vernon predicted. What Vernon (1998) missed or underestimated were the "fresh winds of competition" generated by the digital economy, which we discuss below.

As a result of the forces identified by Vernon (1998), there has been pushback against the "liberalise-deregulateprivatise" policy mandate of the 1990s. Openness for its own sake is no longer the goal. Governments now want to attract the "right kind" of FDI, that is, investments that contribute to national social goals and foster sustainable development. Recent issues of the *World Investment Report* are now more

⁷

There is little but not zero evidence of obsolescing bargains as recent expropriations in Ecuador and Venezuela attest (Pastrana, 2011). Recent *World Investment Reports* also suggest a slowing down of pro-FDI policy changes and growth in anti-FDI policy changes.

nuanced in their views of MNEs and FDI, emphasising that FDI has both benefits and costs (e.g., UNCTAD 2014, 2015). UNCTAD (2015), for example, examines the negative impacts on developing countries of income shifting and tax avoidance by MNEs.

The policy winds of change have shifted toward a more critical view of MNEs and FDI; one where FDI regulation and promotion policies must be coherent with national sustainable development goals. The core principles behind the existing international investment regime as expressed in bilateral investment treaties (BITs); double tax treaties (DTTs); and investment chapters in 1990s preferential trade agreements (PTAs), such as the North American Free-Trade Agreement (NAFTA) are now seen as being primarily about protecting the rights of investors and investments (UNCTAD 2012). More attention is being paid to the need to balance the rights and obligations of the state relative to the MNE. National governments are seen as having the sovereign right to regulate, subject to their international commitments, to protect the public good and offset negative impacts of FDI.

UNCTAD (2012: iii) summarises these policies as "new generation" investment policies that are designed to create a "generally favourable investment climate," but also:

- Integrate FDI policy into and create synergies with a country's development goals and strategies;
- Incorporate sustainable development goals into FDI policy to encourage responsible investment behaviour and corporate social responsibility; and
- Ensure FDI policy relevance and effectiveness, both in design and implementation, in terms of fit with a country's institutional environment.

UNCTAD (2015) similarly argues that there is a "pressing need for systematic reform of the global international investment agreement (IIA) regime," reform that would shift the investor-state balance toward the nation state and its policy goals. The overall goal should be "harnessing IIAs for sustainable and inclusive development." The report argues there are five main challenges that need to be addressed by IIA reform:

- Safeguarding the state's right to regulate in the public interest
- Reforming investment dispute settlement mechanisms
- Promoting and facilitating FDI
- Ensuring responsible FDI that maximises its positive and minimises its negative effects on home and host countries
- Enhancing the systematic consistency and coherence of the IIA regime

The shift in policy emphasis from pro-FDI to pro-FDI that is compatible with national sustainable development has been accompanied by a new look at implementing "best practices" in FDI regulatory policies. Sauvant and Hamdani (2015) note that while most governments have liberalised their FDI policies, there is still room for strengthening and deepening through clarification, simplification, and coordination. The same holds for FDI promotion policies. UNCTAD's investment advisory series on Best Practices in Investment for Development is designed explicitly around the objective of broadening and deepening best practices in FDI regulation and promotion.8 UNCTAD Investment Policy Reviews are designed to provide "objective evaluations" of individual countries' legal, regulatory, and institutional frameworks for FDI.9 The OECD has also updated its Policy Framework for Investment to integrate better development dimensions and a broader policy perspective to improve countries' investment climates.¹⁰

A more nuanced view of MNE-state relations is clearly welcome and needed. Openness as a goal ignores the costs of excessive openness in the same way that a goal of zero pollution ignores the costs of getting to zero. MNEs and FDI bring both benefits and costs that an international investment regime should take into account in its regulatory and promotion policies. A key issue though is to avoid the pendulum swinging too far in the direction predicted in Vernon (1998).

THE WAY AHEAD - POSSIBLE POLICY DIRECTIONS

What is missing from the new FDI policy environment? I make some suggestions for policy changes below.

 Stable policy environment: Firms — whether they are small or large, traditional or digital — need a stable policy environment that retains the commitment to open, transparent markets. The traditional principles that underpin the current international investment regime — national treatment, most-favoured nation (MFN), transparency — remain as important as before. The digital economy is enabling the creation of thousands of new small businesses; a stable policy environment that encourages this needs to be provided.

10 http://www.OECD.org/investment/pfi.htm

8

See http://unctad.org/en/Pages/DIAE/Investment%20Policy%20Reviews/ Best-practices-on-Investment-for-Development.aspx

g See http://unctad.org/en/Pages/DIAE/Investment%20Policy%20Reviews/ Investment-Policy-Reviews.aspx

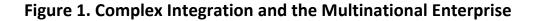
- Reducing government barriers to complex integration: A key focus must be the need to reduce the costs of firms and households engaging in cross-border transactions. As natural market imperfections continue to fall in the digital economy (frictionless, virtual trade), the barriers to trade and FDI flows generated by government policies become more visible and important. The emerging tradeinvestment-services nexus requires more attention be paid to MNE production networks and intrafirm flows in goods, services, and intangibles.
- Intellectual property rights are ever more important: Intellectual property rights (IPR) grow in importance with the digital economy, since much of the value added is in the blueprint stage and less in the production stages. At the same time, the growth in knowledgeseeking FDI by emerging market MNEs and the wider use of integrated R&D networks by Western MNEs suggests more attention must be paid to the generation and protection of innovation and IPRs.
- A renewed focus on trade in services. International production networks of MNEs depend on business services (e.g., telecommunications, customs clearance, express parcel, finance, and insurance). Many of these sectors remain partially closed to FDI. Moreover, a new look at the General Agreement on Trade in Services (GATS) may be warranted since international provision of services will be an increasingly important part of a digital economy.
- Generating data to help make better policy decisions. We need better data on the digital economy and on firms that engage in various forms of cross-border activities, whether they are SMNEs, born globals, or mom-and-pop exporters selling on Etsy.com. We also need to better understand how GVCs will change with the digital economy; for example, how 3D printing will affect global supply chains and the impact of cloud computing on centralised business services.
- One size does not fit all. Research suggests that the optimal size of firms will be more heterogeneous. Micro-MNEs will survive and be profitable alongside traditional large MNEs. The forms of investment will also be more heterogeneous. The "rise of the rest" has brought three new types of international investors into the global economy: family business groups, SMNEs and SWFs. National governments must pay attention to the differences in motivations and strategies of these new entrants, as their benefits and costs for both home and host countries are likely to differ from traditional Western MNEs.
- Policies that encourage participation in the digital economy. The digital economy may offer the fastest way for developing countries to engage in the global economy. Governments need to develop infrastructure, institutions, and policies designed to encourage

participation in the digital economy. Governments need to encourage the development of micro-multinationals, born global firms, and international entrepreneurship. Greater heterogeneity of firms participating in the global digital economy means that "one size fits all" FDI policies will be less appropriate.

- Paying attention to losers as well as winners. Disruptive technologies create both winners and losers. FDI policies can either protect the losers (reactive) or be shifted in ways that are pro-active, such as upskilling workers and improving ICT infrastructure (e.g., faster bandwidth). Vernon (1998) predicted that ageing populations in the developed countries would generate a backlash against FDI. The digital economy, with its disruptive technologies, may create a similar backlash. We need policies that provide cushions to those groups disadvantaged by change, while at the same time encouraging a more flexible, entrepreneurial, and risk-taking workforce.
- Sustainable development should not be used as an ideological cloak for administered protectionism. Governments must avoid using the rhetoric of "sustainable development" as a tool to strategically impede FDI flows through administered protectionism. Vernon (1998) was concerned that the pendulum was swinging toward conflictual MNE-state relations, implying that governments would generate new forms of barriers to FDI. In the 1990s, the rhetoric for a "level playing field" in international trade enabled policymakers to turn anti-dumping and countervailing duties into forms of administered protection to protect local firms from foreign competition. Similarly, the call for sustainable development (while an important global goal in its own right) should not be used to justify shifting the policy pendulum from openness to closure toward FDI.
- Deepening and strengthening the international investment regime. Most important, the international investment regime remains a patchwork quasi-regime, with no international organisation at its heart and no overarching multinational agreement to encourage coordination and cooperation among governments. A commitment to strengthening the multilateral investment regime is needed if the potential benefits of the winds of change are to be realised over the next 20 years.

CONCLUDING REMARKS

This paper was designed to provide a broad-brush overview of current thinking on the MNE and FDI, with a look ahead to likely changes. I argued that two "winds of change" emerging market multinationals and the digital economy — are shattering the traditional view of MNEs and FDI. The growing heterogeneity of firms and investors means that "one size no longer fits all." Family and state ownership of MNEs from emerging economies affect the strategies and structures of these new and often very large MNEs. At the same time, the digital economy is bringing in new and often very small born global exporters and micro-MNEs. The existing international investment regime, itself a partial patchwork of bilateral and regional agreements, must reflect this greater heterogeneity if the regime is to help nation states achieve their goals of sustainable development.



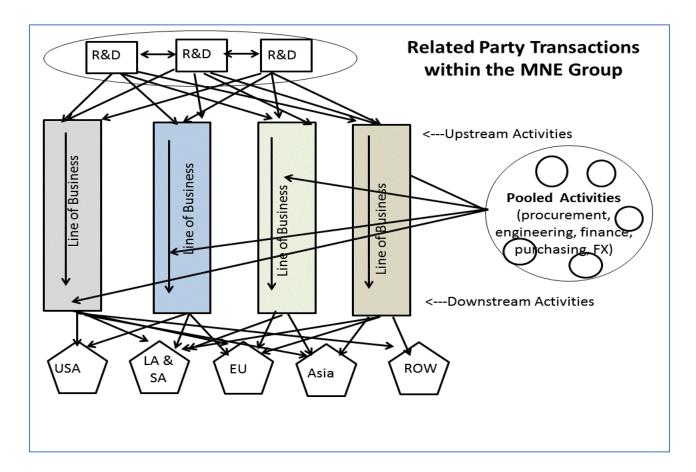


TABLE 1:

The world's top 100 non-financial MNEs, 2000 and 2013

Source: Author's calculations based on data on the world's top 100 non-financial transnational corporations, ranked by foreign assets (UNCTAD 2002, 2014).

Home Country	1990	2000	2013
EMCs	0	5 ¹¹	812
France	14	13	11
Germany	9	10	10
Japan	12	16	10
United Kingdom	12	14	16
USA	27	23	23
Other	26	19	22
Total	100	100	100

TABLE 2:

Top non-financial MNEs from developing and transition economies, 2000 and 2012 $\,$

Source: Author's calculations based on data on the world's top 50 and 100 nonfinancial transnational corporations from developing and transition economies, ranked by foreign assets (UNCTAD 1993, 1995, 2002, 2007, 2014).

Home Country	Тор 50 1993	Тор 50 2000	Тор 50 2012	Тор 100 2012
Brazil	10	4	3	5
Chile	2	2	0	0
China (Hong Kong)	7	11	11	18
China (Mainland)	0	3	6	12
India	1	0	5	7
Malaysia	4	5	3	4
Mexico	5	5	3	4
Philippines	2	1	1	1
Singapore	3	6	4	9
South Africa	0	4	3	8
Korea, Republic of	9	5	3	6
Taiwan	7	2	3	10
Other	0	2 ¹³	614	1615
Total	50	50	50	100

- II
 Emerging market home countries in 2000 were Hong Kong (1); Korea (1);

 Malaysia (1); Mexico (1); and Venezuela (1).
- 12 Emerging market home countries in 2012 were Brazil (1); China (3); Hong Kong (1); Korea (1); Malaysia (1); and Taiwan (1).
- Other home emerging market countries (EMCs) in 2000 were Saudi Arabia
 (1) and Venezuela (1).
- 14 Other home EMCs in 2012 were Qatar (1); Russia (2); Saudi Arabia (1); United Arab Emirates (1); and Venezuela (1).
- 15 Other home EMCs in 2012 were Algeria (1); Argentina (1); Egypt (1); Kuwait (1); Qatar (1); Russia (4); Saudi Arabia (1); Turkey (2); United Arab Emirates (3); and Venezuela (1).

TABLE 3:

State-owned multinationals as a hybrid: comparing the SOE, SMNE, and MNE

Source: He, Eden and Hitt (Forthcoming, Table 1).

Key Features	SOE	SMNE	MNE
Goals			,
Objectives	State driven	State and market driven	Market driven
Corporate Governance			
1. Internal conflict	State vs. Management	Both, but at different	Parent vs. Subsidiaries
		organisational levels	
2. Management autonomy	Low	Medium	High
Home Country External Environment			
1. Expectation	Stability	Both, but at different	Legitimacy
		organisational levels	
2. Uncertainty	Low	Medium	High
3. Industry distribution	Key sectors	Key sectors	Various
Strategies and Change	·		
1. Risk taking	Low	Medium	High
2. Degree of flexibility and organisational	Low	Medium	High
inertia			-

TABLE 4:

SWFs actively engaged in FDI, ranked by asset size

Source: Wang (2015, Table 5).

Country	Sovereign Fund Name	Assets \$ Billion	Inception	Origin
Dhabi	Abu Dhabi Investment Authority	627	1976	Oil
China	SAFE Investment Company	567.9	1997	Non-commodity
China	China Investment Corporation	439.6	2007	Non-commodity
Kuwait	Kuwait Investment Authority	296	1953	Oil
China - Hong Kong	Hong Kong Monetary Authority Investment Portfolio	293.3	1993	Non-commodity
Singapore	Government of Singapore Investment Corporation	247.5	1981	Non-commodity
Singapore	Temasek Holdings	157.2	1974	Non-commodity
China	National Social Security Fund	134.5	2000	Non-commodity
Qatar	Qatar Investment Authority	100	2005	Oil
UAE - Dubai	Investment Corporation of Dubai	70	2006	Oil
Libya	Libyan Investment Authority	65	2006	Oil
Kazakhstan	Kazakhstan National Fund	58.2	2000	Oil
UAE - Abu Dhabi	International Petroleum Investment Company	58	1984	Oil
UAE - Abu Dhabi	Mubadala Development Company	48.2	2002	Oil
South Korea	Korea Investment Corporation	43	2005	Non-commodity
Malaysia	Khazanah Nasional	36.8	1993	Non-commodity
Oman	State General Reserve Fund	8.2	1980	Oil & Gas

TABLE 5:

The 2014 global ICT 50

Hardware and Infrastructure	Software and Internet	IT Service Providers ²	Telecom Operators
PCs, smartphones, tablets, routers,	Digital programmes,	Network hosting; enterprise-	Communication services
telecom networking equipment.	data systems and	level business application	including fixed and mobile voice
	internet based (cloud-	management; hardware and	and broadband, internet-based
	based) services.	software integration.	television.
Alcatel-Lucent	Amazon	Accenture (global)	AT&T
Apple	Google	Atos (regional)	BT
Cisco Systems	Microsoft	Capgemini (global)	China Mobile
Ericsson	Oracle	Cognizant (offshore)	Deutsche Telecom
EMC	SAP	CSC (global)	KDDI
Fujitsu	Amdocs	HCL (offshore)	KPN
Hitachi	Sage	IBM (global)	NTT
Hewlett-Packard	Symantec	Infosys (offshore)	Orange/France Telecom
NEC		TCS (offshore)	Telefonia
Ricoh		Wipro (offshore)	Verizon
Samsung		Automatic Data	Vodafone
Toshiba		Capital	
Xerox		CGI	
Intel		Fidelity National	
Lenovo		Fiserv	
Qualcomm			

 Top 50 largest public companies serving enterprises from four ICT sectors, based on financial performance, portfolio strength, go-to-market footprint and innovation, and branding.

and innovation, and branding.
Global service providers have customers around the world; offshore service providers are mostly based in India but offer products worldwide; regional service providers are domestically and regionally focused.

 Top 15: IBM, Microsoft, SAP, Oracle, Cisco Systems, Apple, Samsung, Google, Hewlett-Packard, Accenture, TCS, Amazon, EMC, Infosys, and HCL.

Source: Acker, Schroder and Grone (2014, Exhibits 1 and 2).

TABLE 6:

FDI motivations and key drivers

FDI Motivation	Factors Affecting FDI
Market seeking: Going abroad to sell products	Transport costs and tariffs discourage exports, favour tariff-jumping, horizontal integration, and distribution/local sales affiliates. Bilateral investment treaties (BITs) and double tax treaties (DTTs) encourage FDI. Digital trade needs strong ICT infrastructure. Strong intellectual property rights (IPR) and GATS (General Agreement on Trade in Services) needed to promote micro-MNEs and born globals.
Resource seeking: Going abroad to buy inputs (natural resources, labour, capital).	Transport costs and tariffs discourage imports, favour vertical integration and offshoring to take advantage of differences in factor endowments. MNEs engaging in greater segmentation of global value chains (trade in tasks). BITs, DTTs and PTAs encourage FDI. Greater natural resource-seeking FDI by state owned MNEs from emerging markets.
Knowledge/strategic asset seeking: Going abroad to learn (acquire strategic assets)	Knowledge-seeking FDI by emerging market MNEs greater importance. Depends on FDI policy openness (e.g., M&A and IRP policies) in developed markets. Need for high skilled labour. Quality of information and communication technology (ICT) industries. BITs and DTTs encourage FDI.
Efficiency/growth seeking: Rationalising activities and tasks within the MNE network.	
Efficiencies from arbitrage. Rationalising activities within the MNE network to exploit differences in factor endowments, tastes and policies across countries.	Global value chains take advantage of arbitrage efficiencies based on differences in factor endowments and costs. MNEs engage in regulatory arbitrage, exploiting loopholes in regulatory framework (e.g. tax avoidance). BITs and DTTs encourage FDI. New policy focus on promoting FDI for sustainable development.
Efficiencies from integration. Pooling and clustering activities within the MNE network so as to exploit economies of scale and scope and gain group synergies.	Network economies of scale and scope encourage integration and centralisation. BITs, DTTs and PTAs encourage clustering FDI. Clustering more important for emerging market MNEs engaged in market seeking and knowledge-seeking FDI, but less so for ICT investments.
Competitive positioning/rivalry.	First mover advantages more important as network economies of scale and scope (EOSS) increase in the digital economy, creating lock-in benefits and temporary monopolies. Competition policy can dampen competitive rivalry moves.

REFERENCES

Acker, Olaf, Germar Schroder, and Florian Grone. (2014) "Kings of the Cloud." *Strategy* + *Business. Winter. PricewaterhouseCoopers.*

Amighini, Alessia A., Roberta Rabellotti, and Marco Sanfilippo (2013) "Do Chinese state-owned and private enterprises differ in their internationalization strategies?" *China Economic Review*, 27: 312-325.

Baldwin, Richard (2011) 21st *Century Regionalism: Filling the Gap between 21st Century Trade and 20th Century Trade Rules.* CEPR Policy Insight No. 56. London: Centre for Economic Policy Research.

Campbell, Joanna Tochman, Lorraine Eden, and Stewart R. Miller (2012) "Multinationals and Corporate Social Responsibility in Host Countries: Does Distance Matter?" *Journal of International Business Studies*, 43: 84-106.

Chaminade, Cristina, Ed. (2015). *Technology-Driven FDI by Emerging Multinationals in Europe*. Project Report, Riksbankens Jubileumsfond Europe and Global Challenges Project. Lund University. <u>https://globalisationofinnovation.files.wordpress.</u> <u>com/2015/03/tfdi-by-emerging-multinationals-in-europe.pdf</u>

Chaminade, Cristina, Davide Castellani, and Monica Plechero (2014) *The Emergence of China and India as New Innovation Power House – Threat or Opportunity?* Globalisereingsforum Rapport #6. <u>http://entreprenorskapsforum.se/wp-content/</u><u>uploads/2014/02/GloFo The Emergence of webb.pdf</u>

Criscuolo, Paola and Rajneesh Narula (2007) "Using Multi-hub Structures for International R&D: Organizational Inertia and the Challenges of Implementation." *Management International Review*, 47: 639-660.

Dunning, John H. (1993a) "Governments and multinational enterprises: from confrontation to cooperation?" In Eds. Eden, L. and E. Potter, E. *Multinationals in the Global Political Economy*. Macmillan, London, pp. 59–83.

Dunning, John H. (1993b) *Multinational Enterprises and the Global Economy*. Addison-Wesley, Reading, MA.

Dunning, John H. (1994) "Re-evaluating the benefits of foreign direct investment." *Transnational Corporations*, 3.1: 23-51.

Ebay Inc. (2013) *Micro-Multinationals, Global Consumers and the WTO: Towards a 21st Century Trade Regime.* Donor Committee for Enterprise Development (DCED). November 28. <u>http://www.enterprise-development.org/page/download?</u> id=2302_

Eden, Lorraine. (1996) "The Emerging North American Investment Regime." *Transnational Corporations*, 5.3: 61-98.

Eden, Lorraine (1998) *Taxing Multinationals: Transfer Pricing and Corporate Income Taxation in North America.* Toronto: University of Toronto Press.

Eden, Lorraine. (2000) "The Realist Adjusts the Sails: Vernon and MNE State Relations over Three Decades." *Journal of International Management*, 6: 335-342.

Eden, Lorraine (2009) The Rise of Transnationals from Emerging Markets: Threat or Opportunity? In Ed. Karl Sauvant. *The Rise of Transnational Corporations from Emerging Markets: Threat or Opportunity*? Edward Elgar Publishing.

Eden, Lorraine (2012) Transfer price manipulation and developing countries. In Peter Reuter (editor). *Draining Development? The Sources, Consequences and Control of Illicit Funds from Developing Countries.* Washington, DC: The World Bank.

Eden, Lorraine, Stefanie Lenway, and Douglas Schuler (2005) "From the Obsolescing Bargain to the Political Bargaining Model." In Ed. Robert Grosse. *International Business-Government Relations in the 21st Century.* Cambridge, UK: Cambridge University Press.

Eden, Lorraine and Stewart R. Miller (2004) Distance Matters: Liability of foreignness, institutional distance and ownership strategy. In Eds. Hitt, M.A. and J.L.C. Cheng. The Evolving Theory of the Multinational Firm. Advances in International Management. Volume 16, Elsevier, Amsterdam, Netherlands.

Eden, Lorraine and Stewart R. Miller (2010) Revisiting Liability of Foreignness: The Socio-Political Hazards facing Chinese Multinationals in the United States of America. In Eds. Karl Sauvant. *Is the United States Ready for Foreign Investment from China?* Cheltenham, UK: Edward Edgar, pp. 122-141.

Eden, Lorraine and Maureen Appel Molot (2002) "Insiders, Outsiders and Host Country Bargains." *Journal of International Management*, 8(4): 359-433.

European Commission (2014) *Report of the Commission Expert Group on Taxation of the Digital Economy*. May 28.

Gestrin, Michael and Ana Novik (2015) Multinational enterprises and the Shifting Global Business Landscape. The E15 Initiative: Second Task Force Workshop on Investment Policy. June 9-10.

He, Xiaoming (2011) *State Multinationals: The impact of state ownership on international diversification and firm performance.* Unpublished PhD dissertation. Texas A&M University, Department of Management.

He, Xiaoming, Lorraine Eden, and Michael Hitt. Forthcoming. The Renaissance of State Owned Multinationals. *Thunderbird* International Business Review. Published online at <u>http://onlinelibrary.wiley.com/doi/10.1002/tie.21711/epdf</u>

Hufbauer, Gary and Tyler Moran (2015) Investment and Trade Regimes Conjoined: Economic Facts and Regulatory Frameworks. The E15 Initiative: Second Task Force Workshop on Investment Policy. June 9-10.

Khanna, Tarun and Krishna Palepu (1997) "Why focused strategies may be wrong for emerging markets." *Harvard Business Review* 75(4): 41–51.

Khanna, Tarun and Jan Rivkin (2006) "Interorganizational Ties and Business Group Boundaries: Evidence from an Emerging Economy." *Organization Science* 17(3): 333-352

McKinsey Global Institute (2013) *Disruptive technologies:* Advances that will transform life, business, and the global economy. May. McKinsey & Company.

Mettler, Ann and Anthony D. Williams (2011) The *Rise of the Micro-Multinational: How Freelancers and Technology-Savvy Start-Ups are Driving Growth, Jobs and Innovation.* Lisbon Council Policy Brief Vol. V, No. 3.

Meyer, Klaus and Saul Estrin (2001) "Brownfield Entry in Emerging Markets." *Journal of International Business Studies*, 32: 575-584.

Miller, Stewart R., Douglas Thomas, Lorraine Eden, and Michael Hitt (2008) "Knee Deep in the Big Muddy: The Survival of Emerging Market Firms in Developed Markets." *Management International Review*, 48.6: 645-666.

Morck, Randall (2010) The riddle of the great pyramid. In Eds. Colpan AM, T. Hikino, and J.R. Lincoln. *The Oxford Handbook of Business Groups*. Oxford University Press: New York, NY: 602–628.

Pastrana, Jan (2011) Concerns of Nationalization through Expropriation in Latin America. Association of Corporate Counsel. <u>http://www.acc.com/legalresources/quickcounsel/</u> <u>cnela.cfm</u>

PricewaterhouseCoopers (2013) *Game Changer: A new kind of value chain for entertainment and media companies.* December.

Rentzhog, Magnus and Emilie Aner (2014) The New Services Era – Is GATS up to the Task? *The E15 Initiative: Strengthening the Global Trade System.* E15 Expert Group on Services. November.

Sauvant, Karl and Khalil Hamdani (2015) An International Support Programme for Investment Facilitation. The E15 Initiative: Second Task Force Workshop on Investment Policy. June 9-10.

Thomas, Douglas, Lorraine Eden, Michael Hitt, and Stewart R. Miller (2007) "Experience of Emerging Market Firms: The Role of Cognitive Bias in Developed Market Entry and Survival." *Management International Review* 47.6: 1-23.

UNCTAD (1993) World Investment Report 1993: Transnational Corporations and Integrated International Production. New York: United Nations. <u>http://unctad.org/en/Docs/wir1993</u> <u>en.pdf</u>

UNCTAD (1995) World Investment Report 1995: Transnational Corporations and Competitiveness. New York and Geneva: United Nations. <u>http://unctad.org/en/Docs/wir1995_en.pdf</u>

UNCTAD (2007) *The Universe of the Largest Transnational Corporations*. Geneva: United Nations. <u>http://unctad.org/en/</u> Docs/iteiia20072_en.pdf

UNCTAD (2011) World Investment Report 2011: Non-Equity Modes of International Production and Development. Geneva: United Nations. <u>http://unctad.org/en/PublicationsLibrary/</u> wir2011_en.pdf

UNCTAD (2012) Investment Policy Framework for Sustainable Development. Geneva: United Nations. <u>http://unctad.org/en/</u> <u>PublicationsLibrary/diaepcb2012d5_en.pdf</u>

UNCTAD (2013) World Investment Report 2013: Global Value Chains – Investment and Trade for Development. Geneva: United Nations. <u>http://unctad.org/en/PublicationsLibrary/</u> wir2013_en.pdf

UNCTAD (2014) World Investment Report 2014: Investing in the SDGs (Sustainable Development Goals) – A Plan of Action. Geneva: United Nations. <u>http://unctad.org/en/</u> <u>PublicationsLibrary/wir2014_en.pdf</u>

UNCTAD (2015) World Investment Report 2015: Reforming International Investment Governance. Geneva: United Nations. http://unctad.org/en/PublicationsLibrary/wir2015_en.pdf

Vernon, Raymond (1971) *Sovereignty at Bay: the Multinational Spread of US Enterprises.* Basic Books, New York.

Vernon, Raymond (1998) *In the Hurricane's Eye: The Troubled Prospects of Multinational Enterprises.* Boston, MA: Harvard University Press.

Wang, Di (2015) *Leviathan as Foreign Investor: Evidence from Sovereign Wealth Funds*. Unpublished dissertation. Texas A&M University.

Yuan, J.D. and Lorraine Eden (1992) Export Processing Zones in China: A Comparative Study. *Asian Survey*, 32.11 (November): 1026-1045.

Zhu, Hong, Lorraine Eden, Stewart R. Miller, Douglas E. Thomas, and Paige Fields (2012) "Host-country location decisions of early movers and latecomers: The role of local density and experiential learning." *International Business Review*, 21: 145-155.

Implemented jointly by ICTSD and the World Economic Forum, the E15Initiative convenes world-class experts and institutions to generate strategic analysis and recommendations for government, business, and civil society geared towards strengthening the global trade and investment system for sustainable development.



International Centre for Trade and Sustainable Development



COMMITTED TO IMPROVING THE STATE OF THE WORLD