

Asymmetry Reduction Theory of FDI: The Aspiration-Resource-Control (ARC) Framework

Xin Li
Copenhagen Business School, Denmark
xl.int@cbs.dk

paper presented at
The Sixth Biannual Aalborg International Business Conference
1-3 June 2016, Aalborg, Denmark

Abstract

In this paper, I first briefly introduce Moon & Roehl's (1993, 2001) imbalance theory of FDI, then I identify its three deficiencies that may be responsible for the relative lack of impact of the potentially powerful imbalance logic, and then I propose an asymmetry reduction theory (ARC) of FDI and explain its aspiration-resource-control (ARC) framework. I conclude the paper with a brief discussion of the OLI framework being a special case of the ARC framework.

Introduction

The OLI paradigm, since its inception in late 1970s (Dunning, 1977), has been the dominant theoretical framework for understanding foreign direct investment (FDI) or multinational enterprise (MNE). However, the rise of the emerging market (EM) firms' FDIs into the developed countries has posed theoretical challenges to the OLI paradigm. This is because that, according to the OLI paradigm, the purpose of doing FDI is for the firms possessing ownership or firm-specific advantages (FSAs) to deploy and exploit their competitive advantages abroad; however, it is argued that the EM MNEs seem to have little or no such ownership advantages prior to their venturing abroad.

Some scholars have labelled the traditional FDI as downward FDI that is investment by firms from more developed country (MDC) to less developed country (LDC), in contrast to upward or reverse FDI that is investment by firms from the LDC to the MDC (e.g., Bruton, Lohrke, & Lu, 2004; Kim & Lyn, 1987; Moon, 2004; Moon & Roehl, 2001). They argue that while the traditional downward FDI is advantage-exploiting in nature, the reverse or upward FDI is for advantage-seeking (Makino, Lau, & Yeh, 2002) or disadvantage-compensating purpose (Moon & Roehl, 1993, 2001). Seeing the OLI paradigm being only relevant to for explaining traditional downward FDI, some scholars have proposed alternative frameworks for understanding the reverse or upward FDI, such as Mathreus' (2002, 2006) linkage-leverage-learning (LLL) model.

While Dunning and some of his followers have tried to defend the usefulness of the OLI paradigm for understanding the new phenomenon (Dunning, 2006; Dunning, Kim, & Park, 2008) or for synthesizing theories of international business from different disciplines or perspectives (Cantwell, 2014, 2015), some other scholars have made great strides in developing more integrative theories that accommodate both types of FDI and therefore treat the OLI theory merely as a special case¹.

¹ I agree with Cantwell (2014) that the OLI paradigm has been so far the most useful framework for understanding FDI. However, I also agree with some others that the OLI paradigm, with its notion of the possession of *ex ante* ownership

One of such integrative theories is Moon & Roehl's (1993, 2001) imbalance theory. According to the imbalance theory, both ownership advantage and ownership disadvantage are special cases of imbalance in resource portfolio that causes sub-optimal production or performance. As long as there is resource imbalance in a firm, the firm has an incentive to redress the imbalance. If the resource imbalance cannot be balanced in the home country, the firm will go abroad to do it by FDI.

Although the imbalance theory is theoretically holistic and innovative, it has not yet gained widespread influence, judged by the number of citation of the theory counted by Google Scholar. As of 21 November 2015, compared to the about 1400 combined citations of Mathews' LLL model, the imbalance theory has only had about 175 combined citations², despite the fact that the imbalance theory was published about a decade earlier than the LLL model.

This relative lack of influence may be due to three deficiencies in the current formulation of the imbalance theory. Firstly, it has confounded the notion of imbalance at the intra-firm level and the notion of ownership disadvantage at the inter-firm level. Secondly, it has confounded the ownership disadvantage at the inter-firm level and the locational disadvantage at the inter-country level. And thirdly, it has neglected the fundamental issue of entry mode choice, namely, why does the firm choose FDI rather than export or licensing in its pursuit of balancing abroad?

Notwithstanding these deficiencies, the imbalance theory offers a potentially powerful logic of FDI in general. My purpose here is to build on its insights and remedy its deficiencies with the aim of establishing a consistent and unifying theory of FDI. To this end, I propose an asymmetry reduction theory (ART) of FDI.

Here are three reasons for using a new term of asymmetry rather than keeping the old term of imbalance in my theorization. Firstly, the notion of imbalance used by Moon & Roehl (1993, 2001) was originated by Penrose (1959) whose focus was primarily on the input side, i.e., the imbalance in the use of productive services of resources owned by the firm; in contrast, my analysis of asymmetry starts with the output side (i.e., entrepreneurial aspiration) and then move to the input side, i.e., resource needed for producing the output. Secondly, there are three clearly distinguished aspects of my notion of asymmetry, i.e., the output, the input, and the process (i.e., the control of input in pursuit of the output). And thirdly, the term of asymmetry is synonymous to the term of imbalance, so the former can replace the latter while avoid the intellectual baggage of the latter.

I distinguish three types of asymmetry as solutions to remedying the aforementioned three deficiencies of the imbalance theory. The first is asymmetry or gap between the desired performance (i.e., aspiration) of the entrepreneur or management of the firm and the firm's actual performance (i.e., current position). I call this aspiration-position asymmetry or aspiration asymmetry for simplicity sake. The second is asymmetry or gap between the resources required for realizing the entrepreneurial aspiration and the resources available, accessible or affordable for the firm. I call this simply resource asymmetry. The third is asymmetry or gap between the desired level of control of the required resources and the level obtainable from a potential supplier of these resources. I call this control desirability-obtainability asymmetry or simply control asymmetry.

advantage as a prerequisite for FDI, has been more relevant for understanding the traditional FDI than the reverse FDI. This is why I try to develop a unifying theory of FDI in general here. Nevertheless, I am positive toward the view that the OLI framework, with some creative reconstruction, may sustain the status of being a meta-framework for 'synthesizing and comparing theories of international business from different disciplines or perspectives' (Cantwell, 2015).

² The citation counts on Mathews' LLL model include the combined citations of Mathews' (2002) book and his 2006 APJM article. The citation counts on the imbalance theory include Moon & Roehl's (1993, 2001) two journal articles.

I posit that, the simultaneous presence of the three types of asymmetry are required to justify the choice of FDI as a strategy for reducing asymmetry in pursuit of the entrepreneurial aspiration. Therefore, the asymmetry reduction theory (ART) is operationalized into the aspiration-resource-control (ARC) framework.

In what follows, I first briefly introduce the imbalance theory, then I identify its three deficiencies, and then I propose the asymmetry reduction theory and explain its ARC framework. I conclude the paper with brief discussion of the OLI framework being a special case of the ARC framework.

The Imbalance Theory and Its Deficiencies

Penrose's notion of imbalance

According to Penrose (1959), the firm is basically a collection of resources while the resource can be seen as a bundle of productive services; what is important for understanding the growth of the firm is not the resource per se but the services it renders. Penrose points out that, a firm would almost inevitably build an imbalance in its portfolio of resources along its growth, namely, there is 'continuing availability of unused productive services' (ibid.: 60). Penrose attributes the inevitability of imbalance in resource services to the 'principle of multiples':

if a collection of invisible productive resources is to be fully used, the minimum level of output at which the firm must produce must correspond to the least common multiple of the various outputs obtainable from the smallest units in which each type of resource can be acquired. . . . This output will tend to be greater the larger the variety of resources and the more diverse the units in which they come (Penrose, 1955: 533).

Penrose also identifies three sources of unused productive services of resources. The first is the indivisibility of resource, namely, 'resources are only obtainable in discrete amounts, that is to say, a "bundle" of services must be acquired even if only a "single" service should be wanted' (Penrose, 1959: 67). The second is the specialized use of resource, namely, the most valuable services of its resources may not be fully used because 'the firm's output is too small to permit their use' (ibid.: 71) in such a specialization manner. The third is the heterogeneity of resources, namely, as most resources can provide a variety of different services, 'This kind of heterogeneity in the services available from the material resources with which a firm works permits the same resources to be used in different ways and for different purposes if the people who work with them get different ideas about how they can be used' (ibid.: 75-76).

To Penrose, 'unused productive services are, for the enterprising firm, at the same time a challenge to innovate, an incentive to expand, and a source of competitive advantage' (Pitelis, 2009: xix). Due to the profit motive of the firm, namely, 'the managers of firms wish to maximize long-run profits derived from investment in the enterprise' (Penrose, 1959: 29), the unused productive services provide 'an internal stimulus to growth and innovation, and determine in part the direction of expansion' (Pitelis, 2009: xx).

The imbalance theory of FDI

According to Moon & Roehl (2001: 201), 'Penrose did not pay much attention to extending her theory to international business' and while Penrose (1956) did mention a possible extension of her theory in explaining FDI, but 'her principal concern in that article was the welfare impact on the host country and parent-subsidiary relationships rather than FDI motivation' and 'In fact, Penrose did not distinguish FDI from financial investment'. Moon & Roehl (2001: 201) find Penrose's 'brilliant insight on imbalance can easily be extended to incorporate both advantage and disadvantages as sources of imbalance' and the logic of imbalance balancing can be naturally

applied to understanding FDI in general. And therefore Moon & Roehl (1993, 2001) have developed the imbalance theory of FDI.

In their first publication of the imbalance theory, Moon & Roehl (1993) start with reviewing the existing theories of FDI, most of which are based on the notion of ownership advantage. While ‘what existing theories are trying to say is that every firm going abroad has some advantages’, in the imbalance theory they ‘introduce an additional set of firm characteristics, ownership disadvantages’ (ibid.: 57). According to Moon & Roehl (1993: 57), ‘When the firm cannot compensate for the disadvantages (e.g., market or raw material access; cheaper or skilled labor) in the home country, this search for balance is a powerful force to move firms to compensate for these disadvantages in the foreign country’. In essence, the imbalance theory of FDI is that, the firm with imbalance or competitive disadvantage ‘searches abroad for complementary assets not available at home’ (Moon & Roehl, 2001: 202) or ‘when it cannot utilize them domestically’ (Moon, 2004: 122).

The deficiencies of the imbalance theory

There are three deficiencies in the current formulation of the imbalance theory. The first is that it confounds the notion of imbalance at the intra-firm level and the notion of ownership disadvantage at the inter-firm level.

Initially, Moon & Roehl (1993) adopted the specific meaning of imbalance defined by Penrose, i.e., imbalance in the use of resource services, although they simply expressed it as imbalance in the productive factor proportion, meaning some factor, compared to others, is proportionally in surplus in supply in the system of production. This initial notion of factor-proportion imbalance (Moon, 2004) is strictly an intra-firm comparison in nature.

In the further development of the imbalance theory by Moon and Roehl jointly (Moon & Roehl, 2001) or separately (Moon, 2004; Moon & Yim, 2014), the concept of imbalance is still *first of all* in the Penrosean sense as Moon & Roehl (2001: 200) insist that ‘The theoretical thread of this imbalance approach can be found in the ideas of Penrose (1956, 1959)’. Moon & Roehl (2001: 204) now call it asset-portfolio imbalance. The change from using the term ‘factor’ to the term ‘asset’ paves the way to their enlarging the content of the notion of imbalance to include a variety of competitive disadvantages borne by the focal firm vis-à-vis its competitors at home and abroad.

As clearly shown in Moon (2004), the formal modeling of the imbalance theory is *still* based on the notion of factor-proportion imbalance, so the enlargement of the content of imbalance confounds the intra-firm level and the inter-firm level comparisons and causes conceptual confusion as Moon & Roehl (2001) do not provide an explicit redefinition of the notion of imbalance. The readers of their analysis cannot help but wondering what is the root cause of the firm’s motivation for expansion or balancing? Is it the intra-firm factor proportion imbalance or inter-firm performance imbalance?

The second deficiency of the imbalance theory is that it confounds the ownership disadvantage at the inter-firm level and the locational disadvantage at the inter-country level.

In the ‘Table 1 Typology of FDI’ in Moon & Roehl (2001), two types of FDI, conventional and unconventional, are distinguished. While the conventional FDI is associated with ownership advantage, the unconventional FDI is characterized by ownership disadvantages. Moon & Roehl (2001: 200) list a variety of ‘ownership’ disadvantages, including ‘small home market’, ‘lack of key technology or resources’, ‘competitive threat’³, ‘political instability’, and ‘bad home image’.

³ In discussion of oligopolistic reaction as a FDI motivation, Moon & Roehl (2001: 206) treat the follower’s perception of competitive threat imposed upon them by the industry’s leader as ‘an ownership disadvantage’. It is worth noting that

Among these disadvantages, except the oligopolistic ‘competitive threat’, all the others are locational disadvantages borne by the home country vis-à-vis a foreign country.

While these various competitive disadvantages can indeed be motivations for various types of FDI, adding them to the content of the notion of imbalance inevitably confounds the inter-firm level factors with the inter-country level ones.

The third deficiency of the imbalance theory is that it neglects the fundamental issue of entry mode choice, namely, why does the firm choose FDI rather than export or licensing in its pursuit of balancing? This entry mode choice issue is so fundamental that the internalization theory (Buckley & Casson, 1976; Rugman, 1981) or transaction cost theory (Hennart, 1982) of FDI takes it as its point of departure in theorization. This neglect seriously constrains the rigor of the imbalance theory.

One possible reason for this neglect is that Moon and Roehl have focused so much on the possibility of using the notion of imbalance to unify the ownership advantage- and ownership disadvantage-based FDIs that they have not given much attention to tackling the other issues related to FDI decision. This seems to be true when they state ‘for simplicity we assume no domestic investment alternatives here and for the rest of the paper’ (Moon & Roehl, 1993: 58).

However, I would argue, for any rigorous theory of foreign direct investment, there are three indispensable and consecutive questions to be answered. Namely, why *investment*? Why *foreign* investment? And why *foreign direct* investment? According to the Tinbergen rule (Tinbergen, 1952), which is ‘the number of tools should be at least as large as the number of targets’ (Eden & Dai, 2010: 28), I argue that the three questions require three instruments (cf. Rugman, 2010). My own solution is to distinguish three types of imbalance or asymmetry that exist at different levels, which I discuss in the next section.

The Asymmetry Reduction Theory of FDI

Aspiration-position asymmetry

When it comes to performance comparison or benchmarking, Penrose’s (1959) and Moon & Roehl’s (1993, 2001) focus on the intra-firm comparison between the firm’s real output and its optimal output. As the optimal output is always greater than the real output, the intra-firm comparison is always a negative imbalance, which causes dissatisfaction that motivates expansion.

In the ART, the performance comparison or benchmarking has two differences from that of the imbalance theory. On the one hand, the intra-firm comparison here is between the firm’s actual performance and its target rather than optimal performance because it is difficult to know what the optimal output *should* be⁴ as Penrose (1955: 535) points out that ‘to discover the size and

Moon & Roehl’s focus is on the follower rather than the leader; in contrast, in my later discussion of the aspiration-position asymmetry, the competitive threat I talk about is the leader’s perception of competitive threat imposed by the follower whose speed of growth outpaces the leader’s own.

⁴ It is worth noting that, while the direction for optimizing output, i.e., reaching toward the optimal output dictated by the least common multiple, is always upward, there are two directions for balancing resource portfolio, upward and downward. The upward balancing is to increase the supplies of the resources that are in relative deficiencies to match the most surplus resource. The downward balancing is to reduce the supplies of the resources that are in relative surplus to match the most deficient resource. Take the metaphor of a barrel with some short or long staves. If there is only one stave shorter than all the other same length staves, then it is a natural choice to lengthen the short stave to match all the others. However, if there is only one stave longer than all the other same length ones, then it is easier to cut the longer stave to match all the others or leave it as it is rather than to lengthen all the other staves to match the longer one. A real-life example of downward balancing is corporate redundancy exercise with the aim of getting rid of the

composition of an optimum output under given circumstances requires an input of managerial and entrepreneurial services⁵. On the other hand, the aspiration-position asymmetry is *primarily* an inter-firm rather than an intra-firm comparison because that, even if the firm has met its performance target, whether it will be satisfied or dissatisfied depends on further inter-firm comparison between its performance and those of other firms.

For any firm that is not the leader of its industry, its performance may be better than some competitors (i.e., a positive inter-firm performance asymmetry) but worse than some others (i.e., a negative asymmetry). The firm may be satisfied with its current position because it is doing better than some competitors. It may be dissatisfied with its current position because it is doing worse than some others.

It is worth noting that negative inter-firm performance asymmetry does not *necessarily* lead to dissatisfaction and the desire for expansion because such potential dissatisfaction may be counter-balanced by the satisfaction derived from the positive inter-firm performance asymmetry between the focal firm and those competitors who have worse performances. Therefore, the firm may be simultaneously dissatisfied and satisfied with a *net* satisfaction or dissatisfaction. Only in the situation of net dissatisfaction, can it be said that there is an aspiration-position asymmetry, which motivates the firm to seek complementary resources in order to reduce the dissatisfaction-causing asymmetry in performance.

For the leading firm of an industry, although it does not have a negative or unfavorable inter-firm performance asymmetry, it may exercise another type of inter-firm comparison on the speed of performance improvement. Namely, in the competition between the leading firm and its immediate follower firm, there might be an asymmetry in the speed of growth in which the follower has a faster speed of growth than the leader. This growth speed asymmetry is perceived by the leader as a competitive threat, a threat that the follower would catch up with the leader if the situation was not to be changed. To maintain its leader position, the leading firm has an intrinsic motivation to reduce or reverse the growth speed asymmetry. This situation can be seen as a form of aspiration-position asymmetry. Namely, the firm's *aspiration* is to maintain a certain level of performance distance between itself and its immediate competitor, but the reality or its *position* is that such a distance is likely be reduced due to the speed asymmetry.

I argue the component of aspiration is indispensable for any theory of the growth of the firm (GOF), for which FDI is just one of the possible strategies, because the level of aspiration has important impact on the potential of firm growth.

As shown in Figure 1, If the firm's performance is below its management's level of aspiration, in other words, if its performance target has not been met, there is an aspiration-position asymmetry,

unproductive workers workforce. Another example is that some business owners sell off some productive resources to finance their intended consumptions.

⁵ Such managerial and entrepreneurial services are not necessarily available in all firms, or while they are available, their qualities do not necessarily match what is required for calculating the optimal output of the firm. As the most important firm resources are human resources and human resources render variety of services, then the crucial question is which human skills or services should be chosen as the basis for calculating the optimum output. Specialization of human services does improve efficiency. However, if specialization is taken to an extreme, then human beings are to be treated like robots. However, human beings are not robots that do not necessarily need rest within a day. If continuing to do one type of activity repeatedly, human beings will feel bored and tired and their efficiencies will decrease. Therefore, human beings need task diversity and rest. Switching between tasks and rest can also be seen as a type of waste, paradoxically. Therefore, once human resources are involved, we cannot expect to calculate precisely the optimum output just like we do based on machine time.

which results in a need to reduce the asymmetry by expansion. The firm does not only compare its performance to its own target, but also to those of its direct competitors.

Even if its performance target has been met, it is possible its performance is inferior to those of its direct competitors. If this is the case, in other words, if it is not ahead of its direct competitors, there is there is an aspiration-position asymmetry, which results in a need to reduce the asymmetry by expansion.

Even if it is ahead of its direct competitors, it is possible its immediate competitor is growing faster than it is and therefore reducing the distance between them. If this is the case, there is an aspiration-position asymmetry, which results in a need to reduce the asymmetry by expansion.

In order to expand or grow, the firm needs to seek whatever complementary resources, such as raw material, labor, capital, technology, market, and supportive institution, wherever possible. Normally, the search for complementary resources starts with home country.

Resource asymmetry

The resource asymmetry is the asymmetry or gap between the resources required for realizing the entrepreneurial aspiration (i.e., expansion) and the resources available, accessible or affordable for the firm.

As shown in Figure 1, if the resources needed are not available in the firm's home country, there is a resource requirement-availability asymmetry, which results in a need to reduce the asymmetry by seeking them abroad. It is possible that some countries are simply lack of particular raw materials, advanced technologies, institutional infrastructure (in the case of developing countries), or sizable domestic markets (in the case of small countries).

If the resources needed are available, it is possible that they may not be accessible for some firms. For example, some industries (i.e., the markets or raw materials as the resources needed) are monopolized by state-owned enterprises or controlled by private oligoplistic corporations. In this case, there is a resource requirement-accessibility asymmetry, which results in a need to reduce the asymmetry by seeking them abroad.

If the resources needed are available and accessible, it is possible that they may not be affordable for some firms, there is a resource requirement-affordability asymmetry, which results in a need to reduce the asymmetry by seeking them abroad. There are at least two situations. One is that the firm does not afford the domestic supply. For example, due to high financing and transaction costs, some Chinese firms choose to be listed in Hong Kong rather than Shanghai or Shenzhen Stock Exchange. The other is that although the firm does afford the domestically accessible supplies, it does not make economic sense to source domestically because of availability and accessibility of cheaper foreign supplies.

When deciding to seek complementary resources abroad, the firm will face the issue of control.

Control asymmetry

As shown in Figure 1, depending on the nature of the resources needed and the level of control is involved, a firm has three broad choices of seeking resources from a foreign country, i.e., trade (import and export), licensing, and FDI.

If the resources needed are commodities such as raw materials or packaged softwares, the de fault choice is trade, either import or export, only if there is no any trade restriction or governmental control between the host and home countries. Otherwise, the firm has to choose FDI.

If the resource needed is not commodity but knowledge-based product or service, then the choice of entry mode depends on the easiness of transfer of the knowledge-based resource. If it is not easy to transfer, then the firm has to choose FDI.

If it is not difficult to transfer the knowledge-based resource, the entry mode choice then depends on the level of control on the operation needed or desired by the firm. If the firm needs or desire low level of control on the operation, then licensing will be suitable, otherwise, FDI is needed.

Here, it is worth mentioned the resource dependence logic of outward FDI as a form of diversification proposed by Xia et al. (2014).

According to the resource dependence theory (Pfeffer and Salancik, 1978), firms are constrained by powerful social actors with which resources are exchanged (Burt, 1982; Pfeffer, 1987). To reduce the power imbalance-based constraint, the less powerful party may use diversification as ‘a strategy for avoiding interdependence’ by placing itself in another set of exchange relationships (Pfeffer and Salancik, 1978: 127). Outward FDI can be seen as a special case when the firm diversifies geographically away from home country-based to foreign country-based actors.

The resource dependence theory is about power imbalance, which is underpinned by control imbalance, namely, the asymmetric power between parties or actors in exerting control on resource or operation. The choice of entry model can be largely determined by the control imbalance or asymmetry.

In the case of licensing, the licensor will have to depend on the licensee whether and how it will comply with the licensing contract. The compliance is to some degree controlled by the licensee. This degree of control may not be desired by the licensor-potential. So the potential licensor may avoid licensing but choose FDI.

On the other hand, the licensee may find the resources and licensing contract are to a large degree controlled by the licensor. This degree of control may not be desired by the licensee-to-be. So the potential licensee may avoid licensing but choose FDI.

In the case of joint venture (JV), some critical resources are controlled by the JV partners so that the focal firm has to depend on the JV partners. For example, Chinese government required foreign investors to form JV with Chinese SOEs in the early stage of China’s economic reform and opening. Another example is voluntary JV formation because the foreign investor needs some critical resources such as *guanxi* (i.e., personal connections) that are controlled by local firms or cannot be obtained without substantial amount of costs and efforts (e.g., distribution channels).

Conclusion

Above, I have proposed the asymmetry reduction theory (ART) of FDI and its aspiration-resource-control (ARC) framework.

As this ART and its ARC framework is intended to be a general theory of FDI, I argue that the OLI framework can be viewed as a special case of the ARC framework. The ownership advantage element of the OLI framework can be seen as a special case of an aspiration asymmetry. Namely, when a firm has underutilized firm-specific advantage, its performance may be well below the aspiration of its management or entrepreneurial owner(s), or, it may simply provide a justification for raising the management’s level of aspiration, which prompts the firm to expand.

The locational advantage element of the OLI framework can be seen as a special case of the resource asymmetry in general and resource asymmetry between home and host countries in particular. Yet, the notion of resource asymmetry is wider than that of locational advantage.

Sometimes, it is not that home country does not have the resource needed, or locational disadvantage compared to a foreign country, it is just because the available resources are not accessible by the focal firm, so that the focal firm is forced to go abroad.

The internalization advantage element of the OLI framework can be seen as a special case of the control asymmetry, which seems self-evident that needs no further explanation.

References

- Bruton, G. D., Lohrke, F. T., & Lu, J. W. (2004). The evolving definition of what comprises international strategic management research. *Journal of International Management*, 10(3): 413-429
- Buckley, P.J. and Casson, M.C. (1976) *The future of the multinational enterprise*, Macmillan: London
- Burt, R. S. 1982. *Toward a Structural Theory of Action: Network Models of Social Structure, Perception and Action*. New York: Academic Press.
- Cantwell, J. (2014). Revisiting international business theory: A capabilities-based theory of the MNE. *Journal of International Business Studies*, 45(1), 1-7.
- Cantwell, J.A. (2015), ‘An introduction to the eclectic paradigm as a meta-framework for the cross-disciplinary analysis of international business’, in Cantwell, J.A. (ed.), *The Eclectic Paradigm: A framework for synthesizing and comparing theories of international business from different disciplines or perspectives*. London and New York: Palgrave-Macmillan
- Conner, K. R. (1991). A historical comparison of resource-based theory and five schools of thought within industrial organization economics: do we have a new theory of the firm?. *Journal of Management*, 17(1), 121-154
- Dunning, J.H. (1977) ‘Trade, location of economic activity and the MNE: A search for an eclectic approach’, in B. Ohlin, P.O. Hesselborn, and P.M. Wijkman (eds.) *The International Allocation of Economic Activity*, Macmillan: London
- Dunning, J. H. (2006). Comment on Dragon multinationals: New players in 21st century globalization. *Asia Pacific Journal of Management*, 23(2), 139-141
- Dunning, J. H., Kim, C., & Park, D. (2008). Old wine in new bottles: A comparison of emerging-market TNCs today and developed-country TNCs thirty years ago. In K. Sauvant (Ed.), *The rise of transnational corporations from emerging markets: Threat or opportunity?*. Cheltenham, UK: Edward Elgar. 158-182
- Eden, L., & Dai, L. (2010). Rethinking the O in Dunning's OLI/eclectic paradigm. *Multinational Business Review*, 18(2), 13-34.
- Hennart, J. F. (1982) *A Theory of the Multinational Enterprise*. Ann Arbor, MI: University of Michigan Press
- Kim, W. S., & Lyn, E. O. (1987). Foreign direct investment theories, entry barriers, and reverse investments in US manufacturing industries. *Journal of International Business Studies*, 18(2): 53-66
- Li, X., Gammelgaard, J. & Feng, L. (2013) ‘OLI 2.0: The OLI Is Dead. Long Live the OLI!’, paper presented on the 55th Annual Meeting of the Academy of International Business. July 3-6, 2013. Istanbul, Turkey.
- Luo, Y., & Tung, R. L. (2007). International expansion of emerging market enterprises: A springboard perspective. *Journal of International Business Studies*, 38(4), 481-498.
- Makino, S., Lau, C. M., & Yeh, R. S. (2002). Asset-exploitation versus asset-seeking: Implications for location choice of foreign direct investment from newly industrialized economies. *Journal of international business studies*, 33(3): 403-421

- Mathews, J.A. (2002) *Dragon multinational: A new model of global growth*, Oxford University Press: New York
- Mathews, J. A. (2006). Dragon multinationals: New players in 21 st century globalization. *Asia Pacific Journal of Management*, 23(1): 5-27.
- Moon, H. C. (2004). A formal modeling of the imbalance theory to explain two directions of foreign direct investment. *Journal of International Business and Economy*, 5(1), 117-132.
- Moon, H.-C. & Roehl, T.W. (1993) ‘An Imbalance Theory of Foreign Direct Investment’, *Multinational Business Review*, 1(1): 56-65
- Moon, H.-C. & Roehl, T. W. (2001) ‘Unconventional foreign direct investment and the imbalance theory’, *International Business Review*, 10(2): 197-215
- Moon, H. C., & Yim, S. (2014). Re-interpreting Ownership Advantages and Re-categorizing Investment Motivations of Multinational Corporations: From the Perspective of Imbalance Theory. *Journal of International and Area Studies*, 21(1): 87-99.
- Penrose, E. t. (1955) Research on the Business Firms: Limits to Growth and Size of Firms, *American Economic Review*, 45(2): 531-543.
- Penrose, E. T. (1956) Foreign investment and the growth of the firm. *Economic Journal*, 66, 220–235.
- Penrose, E. T. (1959) *The theory of the growth of the firm*. Oxford: Basil Blackwell.
- Penrose, E. T. ([1959] 2009) *The theory of the growth of the firm*. With a new introduction by Christos Pitelis. 4th edition. Oxford: Blackwell
- Pfeffer J. 1987. A resource dependence perspective on intercorporate relations. In *Intercorporate Relations: The Structural Analysis of Business*, Mizruchi MS, Schwartz M (eds). Cambridge, U.K.: Cambridge University Press, pp. 25-55.
- Pfeffer, J., & Salancik, G. R. 1978. *The External Control of Organizations: A Resource Dependence Perspective*. Stanford, CA: Stanford University Press.
- Pitelis, C. N. (2009) ‘Edith Penrose’s “The Theory of the Growth of the Firm” Fifty Years Later’, in Penrose, E. T. ([1959] 2009) *The theory of the growth of the firm*. With a new introduction by Christos Pitelis. 4th edition. Oxford: Blackwell (pp. ix-xlix)
- Rugman, A. M. (1981) *Inside the Multinationals: The Economics of Internal Markets*, New York: Columbia University Press.
- Rugman, A. (2010). Rethinking Dunning's ownership advantages. *Multinational Business Review*, 18(2): 1-12
- Tinbergen, J. 1952. *On the theory of economic policy*. Amsterdam: North Holland.
- Witt, M. A., & Lewin, A. Y. (2007). Outward foreign direct investment as escape response to home country institutional constraints. *Journal of International business studies*, 38(4), 579-594.
- Xia, J., Ma, X., Lu, J. W., & Yiu, D. W. (2014). Outward foreign direct investment by emerging market firms: a resource dependence logic. *Strategic Management Journal*, 35(9), 1343-1363.

Figure 1. The FDI decision making flowchart within the ARC framework

