



UWL REPOSITORY

repository.uwl.ac.uk

Spillover effects in the banking sector of emerging economies: a South Africa case study

Pietrus, Alex, Nazarian, Alireza and Izadi, Javad ORCID logoORCID: <https://orcid.org/0000-0001-5607-5077> (2020) Spillover effects in the banking sector of emerging economies: a South Africa case study. European Journal of International Management. ISSN 1751-6757 (In Press)

This is the Accepted Version of the final output.

UWL repository link: <https://repository.uwl.ac.uk/id/eprint/7253/>

Alternative formats: If you require this document in an alternative format, please contact: open.research@uwl.ac.uk

Copyright:

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy: If you believe that this document breaches copyright, please contact us at open.research@uwl.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.

Spillover Effects in the Banking Sector of Emerging Economies: a South Africa Case study

Alex Pietrus

Bristol Business School
University of the West of England
Coldharbour Lane, BS16 1QY
Bristol, United Kingdom
E: alex.pietrus@uwe.ac.uk

Alireza Nazarian

University of Westminster
309 Regent St, Marylebone, W1B 2HW
London, United Kingdom
E: alireza.nazarian@mbacademy.org.uk

Javad Izadi Z. D*

The Claude Littner Business School
University of the West London
Boston Manor Road, Brentford, TW8 9GA,
London, United Kingdom
javad.izadi@uwl.ac.uk

*Corresponding author

Abstract:

The aim of this article is to identify the presence of knowledge transfer and spillover effects and investigate the mechanism in which they materialise through efficiency and performance gained resulting from two foreign banks' majority and minority ownership in the South African banking (SA) sector. To achieve these objectives, performance and efficiency indicators of ABSA and the Standard Bank are collected and computed using t-statistics model. The results are analysed in light of interview outputs with several SA banking actors. The findings suggest that not only these two banks became more efficient after foreign participation in their ownership structure, but also the level of knowledge transfer depends on the type of ownership. In addition, the emergence of Capitec bank, a relatively new player in the SA banking sector contributed to the competition effect in the segment of retail-banking whereas the new entity Barclays/ABSA, a majority FDI, became a catalyst to competition effect in the segment of investment banking.

Keywords: Knowledge Transfer, Spillover Effects, Domestic and Foreign Banks, T-Statistics, Foreign Banks, Financial Sector Development

1. Introduction

In an emerging market, will a domestic bank performance improve after a change in ownership, and will this performance be better than those of their peers? What are the factors that provide improvement in performance and/or efficiency and how these changes benefit the entire banking sector? Before authorising an acquisition, these are some questions usually asked by government and financial regulators on one hand, and professional of finance on the other, who would want to see a return on their investment. In addition, operations of acquisition also called majority Foreign Direct Investment (FDI) or minority FDI by foreign banks in emerging markets is a way of generating transfer of knowledge that could materialise through better performance and/or efficiency of the acquired domestic bank. These aspects of knowledge diffusion are even greater in importance when an FDI take place in a in developing economy, first because the banking sector play an important role in the process of the country development and second, a FDI could be a catalyst for competition, which in turn could help modernise the entire banking industrial sector and regulation that would make it more efficient.

It is important to distinguish between Knowledge transfer and knowledge spillover (also called spillover effect in the banking sector). Knowledge spillover could be considered as knowledge created by one firm, and in our case a multinational bank (MNB), that is used by a second local host country bank with no full compensation to the use of that knowledge (Javocik, 2004b), in other word there is no type of contract between the MNB and domestique banks that authorises this transfer of knowledge (Chang, and Xu, 2008). In contrast, knowledge transfer is a voluntarily diffusion of knowledge from one MNB to the another MNB (Smeets, 2009). Both knowledge spillover and knowledge transfer are characterised by improved technology, financial returns, labour productivity and some other measures of productivity (Bosco, 2001). In addition, job increases, and knowledge transfer are benefits that are created through inward FDIs.

The literature on FDI knowledge spillover is well developed in the manufacturing sector and focuses essentially in geographical areas that comprise US, Europe and more recently Asia, Japan and Australia. However, in the banking sector the literature on spillover effect (knowledge spillover) is still at a relatively embryonic stage (Herrero and Simon, 2003). Furthermore, in Africa, there are limited empirical studies in the banking sector due to the scarcity of available data, and as the banking sector is embracing a new generation of internationalisation (Okeahalam, 2008) more studies are needed at firm level. These studies could enrich the theory on spillover effects as FDI not only take place between developed and developing countries but also more and more amongst developing countries, and this study illustrates this perfectly. No doubt those lessons learnt will benefit law makers in designing new policies, which not only encourage more FDI to provide economic benefit but also prevent from systemic financial risks or “cut and run” behaviour that consists of banks leaving the country at the first sign of economic or political trouble. In addition, additional studies on knowledge spillover in the banking sector can help practitioners evaluate the potential cost-benefit of the destination for their financial investments.

This article provides different important contributions. The first contribution is the current context when in 2017 Barclays reduced its participation to 24% into ABSA after acquiring a majority share in 2005, and in 2007 ICBC bought 20% minority share of the SASB. Since these two acquisitions, no major FDI in the SA banking sector has yet been recorded so far, making the context more relevant with a need for more lessons to be learnt especially following Barclays divestment. This SA case study comprises the big four (big 4) that represents 80% of SA banking sector total assets. They are Amalgamated Banks of South Africa (ABSA), the Standard Bank (SASB), Nedbank and FirstRand as well as a SA more recent and smaller player Capitec that has been showing rapid growth. Two deals took place, one in 2005 between Barclays, a British-based bank, and ABSA and the other one in 2007

between Industrial and Commercial Bank of China (ICBC), a Chinese based-bank, and the Standard Bank. Studying these two important acquisitions since the re-entry of many foreign banks after the end of apartheid regime in SA in 1994, represents a unique opportunity to evaluate knowledge diffusion through the prism of majority and minority FDIs. With ABSA and SASB weighting more than 40% of SA banking market in terms of total assets, and their size and market share being the kind of acquisitions most likely to yield efficiency gains, there is no doubt that studying these acquisitions in the framework of knowledge diffusion and spillover effects could be considered a significant contribution. In addition, this context of Barclays divestment in ABSA in 2017 (just 12 years only after its major acquisition in SA in the aftermath of the 2008 financial crisis followed by a global economic slowdown), and China as an increasing new global player in banking and services sectors, make this case study even more relevant for policy makers to assess the real benefits these FDIs brought not only to ABSA and SASB but also to the entire SA banking sector and reflect more broadly on banking sector FDIs policy.

Providing empirically the mechanism in which transfer of knowledge and spillover effects take place constitutes the second contribution of this article. In emerging and transition economies a significant number of studies shows not only the superiority of foreign banks in terms of performance when compared to domestic banks but also how foreign banks entry and Foreign investment can become a factor of economic development of the domestic banking sector (Levine, 1996; Weill, 2003; Walter and Gray, 1983; Denizler, 2000; Goldberg et al., 2000; Bonin et al., 2005a, 2005b; Berger et al., 2009; Claessens, and Van Horen, 2014;). Usually, to detect spillover effect, studies from the literature usually associate increase in volume of FDI and improvement of domestic firm performance arguing that this positive relation implies evidence for knowledge spillover.

A third contributions this study offers is to fill in the gap in the existing literature first in terms of majority and minority FDIs and second, in terms of emerging economies in particular Africa. While this aspect of ownership level is well documented in the industry, the literature in banking sector tends to distinguish more between foreign, domestic, private and state ownerships. However, recent studies (Berger et al., 2007; Qin, 2008) tend to associate minority ownership FDI but they are usually limited to China due to the gradual liberalization of its financial sector after its WTO ascension in 2001. Examining spillover effects associated specifically to FDI ownership level contributes to the validation of some existing findings from the industry as well as to the gathering of evidence from a banking sector perspective and in a different geographic location. Moreover, the literature in banking in Africa is still at some embryonic stage (Herrero and Simon, 2003) and as more African banks are becoming more internationalized, more studies are needed at banks level. This study provides an interesting view of the most powerful African banking sector.

This paper uses a methodology of case studies rather than cross-section or panel data statistical models and focuses on 7 banks. Therefore, generalising from the findings to all similar foreign participation or acquisition cases will not be possible. But our findings from case study provides interesting indications on several areas such as: the conditions of FDI in an emerging economy banking sector that may or may not lead to efficiency yield and performance gains; the role of ownership differences plays in determining level of efficiency and/or performance; and the existence of knowledge transfer and spillover effects and how they materialise. In this article, section 2 provides a brief summary of transfer of knowledge and spillover effects, then section 3 presents and describes the research design while section 4 interprets the findings from the case studies, and the last section concludes.

2. Literature Review

2.1 Spillover effects in developing countries banking sector

Interest for emerging, transition and developing economies banking sectors has grown significantly during the last decade and elements such as population density and simultaneous openness to trade and capital promote banking sector development (Aluko and Adebayo Ajayi, 2018). But, since the 2007-08 financial crisis, there are some growing concerns over credit funding activities that could potentially increase fragility of the banking sector (Guarin and Lozano, 2017) that cannot be ignored despite increase of FDI in the banking sector of emerging economies. This is becoming even more acute in the current economic downturn that is looming in the aftermath of the current global pandemic due to Covid19. Nevertheless, there are still some economic benefits associated with FDI and firm entry that the literature defines as knowledge spillover (or spillover effects in the banking sector) that can take the forms of improved technologies, financial returns and labour productivities (Bosco, 2001). For knowledge to spillover, the literature in the industry sector considers three channels: vertical linkages, worker mobility and demonstration effects (Smeets, 2009), whereas, in the banking sector some studies focus on the channels of spillover effects of foreign bank entry which are competition effect, demonstration effects and labour turnover in which foreign banks entry may affect domestic banks (Lensink and Hermes, 2004 and Li, Xu and Yuan, 2014).

Under competition pressure organisations will adjust their behaviour. In our case competition effect occurs when after entering in domestic market, foreign MNBs such as Barclays or ICBC by acquiring control of the domestic banks ABSA and SASB may transfers their ownership-specific advantages including management competencies, practices and procedures to ensure their subsidiaries competitiveness (Uiboupin, 2005). As a consequence, the domestic (local) banks facing global competition will improve efficiency through technological transfer, and efficiency allocation BIS (2004), and will enhance innovation by introducing new products in the markets or process to ensures cost reduction (Yang and Meyer, 2015). It is also likely that competition may encourage domestic banks to increase the variety of financial services (Li, Xu and Yuan, 2015) or develop other products for specific customer segments. Furthermore, under the competitive pressure, domestic banks could lower operating cost and interest rate margins as well as profits (Hermes and Lensink, 2001). In our case, assuming that ABSA and the Standard Bank (the foreign branches) use outdated practices and technology, low managerial skills and provide undifferentiated products and services, they may both benefit from transfer of knowledge from respectively Barclays and ICBC (the foreign banks) to adopt modern practices and technology. Consequently, they might perform better and increase the pressure on other competitors, such as Nedbank and First Rand (the domestic/local banks) forcing them to increase efficiency that allows them to keep market share and profits. A competitive environment could provide incentive to managers to increase bank performance in order to survive.

Demonstration effect occurred when the local firms imitate or reverse engineer MNEs' products and/or practices (Saggi, 2002) as usually, a high level of organisations knowledge resides in product and services (Argote, 2013). Thus, demonstration effect might be the most obvious channel of knowledge flow to domestic MNEs (Crespo and Fontoura, 2007). This definition from the industry sector is also very relevant for the banking sector because foreign MNBs may introduce new services, modern and more efficient banking techniques, which might be new to the domestic banks. Subsequently and under competitive pressure, these domestic banks may be compelled to develop these services and improve the efficiency of the financial system. In order to achieve these new objectives, domestic banks might be tempted to adopt or copy these modern banking techniques (Lensink and Hermes, 2004). However, the domestic banks may not be entirely convinced of the benefits and costs and might become reluctant to invest in some of the new services, products, systems and practices finding them

too costly and risky. But if foreign banks/branches demonstrate the viability of this new investment then domestic banks would be encouraged to adopt these new banking practices and techniques (Meyer, 2004).

Labour (or employee) turnover from foreign to domestic banks can be seen as one of the most important mechanisms that allows management and technical skills to be transferred (McKendrick, 1994) as human resources represent a key factor of competitive advantage for a bank (Fung, 2008). This assumes that employees' turnover flows from foreign branches to domestic banks. When entering in the foreign subsidiary skilled employees and bank managers, usually expatriate staff at the beginning of entry, participate in the propagation of skills and knowledge, and the local labour force gets access to international know-how (Hemmer, 2002). Therefore, the movement of employees who gain new competences through training and education in foreign banks will be able to disseminate codified practices and participate in the diffusion of tacit knowledge in local banks (Fu, 2012).

However, labour turnover can flow in the opposite direction consisting of having local (domestic) employees who are then employed by MNBs. The reason is that local employees possess better knowledge of the local market. Thus, the MNBs will ensure that these local employees get training (Lehner and Schnitzer, 2008). As Foreign banks invest in training schemes for new employees as well as local ones, a mechanism of turnover implies that local employees would benefit from the foreign managers knowledge and the training scheme. Therefore, employees/bankers from local banks will assimilate the practices and retain the skills when they move back to domestic banks (Mathieson and Roldos, 2000). This human capital improvement will result in reducing operation costs and more efficient banking practices.

Training programmes can be considered as an important competitiveness factor of a bank, for the identification and the exploitation of market opportunities and for the ability to cope with geographic and technological changes in competitive markets (Bacom, 1998). Specific skills as well as human capital contribute to collect and process information about borrowers. Thus, the foreign bank participates to the enhancement of its subsidiary management specifically when the foreign bank team is directly involved in the domestic management team (Lensink and Hermes, 2004). Spillover effects may materialise when foreign employees (managers or/and bankers) leave their foreign banks employer for domestic banks.

Most studies in the banking sectors use efficiency measures and competition effect to justify a possible spillover effect linked to presence of foreign banks (Claessens, Demirgüç-Kunt, and Huizinga, 2001; Berger et al., 2004; Micco et al., 2007; Zhus 2012; Ghos 2016. However et al., (2014) are amongst the very few who explicitly use some components taking from the channels of spillover effects (employee turnover and competition) and compare domestic banks performance before and after foreign investments to investigate spillover effect in the Chinese banking sector, and this is the approach this study has taken and adapted to investigate spillover effects and transfer of knowledge in SA banking sector.

Beside the channels of spillover effects, multinational heterogeneity such as the level of ownership could also be a determining factor of knowledge spillovers and knowledge transfer, as explicit and tacit knowledge could be passed on from local (foreign) branches to domestic banks. Tacit knowledge, in particular is difficult to transfer (Reagans and McEvily, 2003) because of the channels of transfer that are represented by close observation, demonstration, experience and face to face contact (Nonaka, 1994; Nonaka and Takeuchi, 1995; Cavusgil, Calantone, Zhao, 2003). Moreover, when firm 1 transfers tacit knowledge to firm 2, this consequently improves firm 2 competitive position as the tacit knowledge contributes to the decrease of firm 2 costs (Ghosh and Morita, 2017). Therefore, equity ownership that can have different level (majority or minority) plays critical role in facilitating the transmission of tacit knowledge (Mowery et al., 1996).

While the literature seems to be more abundant in the industry sector, in the banking and financial sector studies are more limited. When studying multinational enterprises (MNEs) FDI, Demelis and Louri (2002) find majority ownership leads to spillovers when measured as labour productivity improvements, and minority ownership is likely to produce knowledge spillovers. Jarvocik and Spartareaunu (2008) find spillovers from their studies. However, Javorcik (2004b) work finds no evidence of spillovers and no statistical difference between minority and majority FDI. These results demonstrate the ambiguity or the inconclusiveness of predicting any outcomes of knowledge spillover as a function of ownership. The same ambiguity seems to exist in the banking sector literature, while studies from (Papi and Revoltella, 1999) suggest that majority ownership is necessary for a positive effect on costs efficiency, other studies on bank ownership in China find that minority foreign ownership is associated with significant increase of efficiency (Berger, Hasan and Zhou, 2007; Laurenceson and Qin, 2008; Chunxia, Yao, Shujie and Feng, Genfu, 2013; Li, Li, Lei and Huang, 2015).

2.2 A Brief background of foreign banks in South Africa

Before the 1980s, time when the apartheid regime was not yet in place, the SA financial sector was dominated by British and Netherlands banks and was strong due to the SA industrialisation based on mining and gold, which attracted enormous level of capital. SA financial sector was at that time well integrated into the international economy and very specialised in areas such as credit and risk management, corporate and structure finance and this legacy continues even today making SA financial sector strong by developing country standards (Gelb, 2010). The high level of capital from mining and gold activities was channelled via the Johannesburg Stock Exchange (JSE) created in 1887, which still remains today amongst the top 20 stock exchanges worldwide by market capitalisation (JSE, 2019). From 1980s many foreign banks started to leave SA for political reasons to start a re-entry in 1995 after the end of apartheid regime in 1994.

As a consequence, foreign banks started to expand their operations in SA, and simultaneously, domestic banks increased their presence in foreign countries that saw an internationalisation of SA banks. To illustrate this trend of foreign banks re-entry in SA, in 1994 there were 37 registered domestic banks and mutual banks for only 6 foreign controlled banks, however, in 2018 the trend reversed with 18 locally registered banks from which 5 belongs to foreign banks and 15 registered local branches of foreign banks making all together 13 domestic banks for 20 foreign controlled banks. But SA banking sector is concentrated with only 4 banks (Big 4), namely Standard Bank (SBSA), FirstRand, Nedbank and ABSA that dominate the market representing more than 80% of total assets. It was 11 years later in 2005 after the re-opening of SA banking sector that a major FDI occurred with Barclays taking a majority of 51% ownership into ABSA bank. The deal that reached \$5.1 was and historical event because Barclays, which operated before in SA had to sell its assets after the establishment of the Apartheid regime. Subsequently more major FDIs followed when two years later, ICBC, a Chinese bank, took a minority ownership into the Standard bank another big 4 for approximately the same amount as Barclays' in ABSA but for only 20% share.

3. A case study approach

To examine knowledge transfer and spillover effects (equivalent of knowledge spillover used in the industry sector), this study identifies efficiency gain and performance improvement from indicators of both ABSA and Standard banks. Although this case studies methodology does not allow for statistical validation it has however several advantages. First, it provides insights into firm (industry) behaviour and performance that cannot be captured in a cross-section

analysis. Second, in order to support the main theoretical arguments on transfer of knowledge and spillover effects this case study gives empirical and anecdotal evidence from a large set of data and institutional details taken from sources that are more likely to be unique to the firm or industry (interviews, articles and newspapers). And thirdly, the collected details and information may be useful for observed behaviour and performance and help identify situations to which cross-section generalisations do not apply.

3.1 Description of the dataset

The data for this study is collected from the annual reports of the SA 4 big banks (ABSA, the Standard Bank, First Rand and Nedbank) and Capitec a smaller domestic player. The period of study is from 2000 to 2012, five years before the first event of acquisition between Barclays and ABSA in 2005 and five years after the second year of foreign minority participation of ICBC into the Standard Bank in 2007.

Most variables of performance and efficiency are expressed as a percentage of total assets. It could be argued that level of asset can change over a year therefore it could be more appropriate to use yearly average asset, as for instance asset level become more important at the end of the year. However, as asset level of SA banks does not fluctuate significantly, and for consistency, this study uses assets from end-year for all banks in the panel.

The first variable is Total expenses to total asset, an important variable that represents interest expenses as well as non-interest expenses of the bank. As the interest expenses might be affected by the way the bank chooses to get deposits, then the bank may adjust the interest expenses to the general market rates. Consequently, total expenditure will capture the expense trade-off made by the bank (Rhoades, 1998).

The next variable is the ratio of noninterest expenses (total operating costs / expenditure) to total assets. This represents expenses costs relative to personnel, back office and branches operations. This variable may capture any post-acquisition policy of cost reduction implemented by the new management team to improve performance and gain efficiency.

The third variable is total expenses to total revenue and the fourth, non-interest expenses to adjusted operating revenue. Adjusted operating revenue can be defined as total interest income minus total interest expense plus non-interest income. However, total interest income minus total interest expense is equal to net interest income, so adjusted operating revenue becomes net interest incomes plus non-interest income, and those variables are provided by all SA banks annual reports. Using adjusted operating revenue as an alternative to ratios-based assets contains some advantages. First, the ratio total operating costs to total revenue is familiar to senior managers of top banks (Salomon Brothers, 1993); second, revenue as a denominator indicates the ability of the firm to generate revenue from its expenditures. Third, revenue gives an indication of rate changes, as assets Salomon don't. And finally, for most banks, revenue indicates income earned off-balance sheet. Having both the assets ratio base and the revenue base variables can help provide good indications of efficiency.

The last variable commonly used in the banking sector for efficiency is operating efficiency, which is defined as operating expenditure over operating income (operating revenue). Equally used is the sixth variable called index efficiency, which is defined as operating expenditure to net interest income.

To measure performance, this study, like others (Izadi et al., 2019; Oradi & Izadi., 2019; Bourke et al., 2020; and Coccoresse, and Ferri, 2020) adds onto the dataset two accounting indicators. First the rate of return on assets (ROA), is defined by the ratio of net income to average total assets showing how well the bank is capable of generating profits from its own assets. The second is the net income to equity (ROE) that measures the return to owners' investment.

3.2 Study framework and hypothesis

The study framework is characterised by an econometric model of T-Statistic test that identifies significant changes in means for the selected variables that were defined above. The purpose is not just comparing the performance and efficiency variables of ABSA and the SASD banks before and after change of their ownership structure, but it is also about analysing these results in a broader context by comparing these changes with their competitors, a control panel of similar banks, which are the FirstRand and Nedbank. The second characteristic of the study framework is the use of interviews, whose objective is to refine the quantitative analysis and understand better how knowledge transfer and spillovers effects may have taken place.

3.3 Interview guide and meetings activities

An interview guide (Annexel) was designed and submitted to all selected representatives before meeting them. The interview guide served as a useful guideline for discussion and helps representatives in the elaboration of their answers.

Interviews were conducted with representatives of the three big banks, SASD, FirstRand and Nedbank. For the 4th big four, ABSA representative was not available for an interview, he did however, return by email a succinct completed interview guide. It was not possible to organise any interview with both Barclays and ICBC banks. Meetings took place with several actors of the banking profession including management consultants, regulators and the competition Commission. The former Barclays lawyer who oversaw the acquisition, consumer financial institutions and other academics and practitioners took also part of the interviews. The majority of banks as well as the consultants were very cooperative. The outputs of all involved in the interview process were informative and helped understand the legislative, political and strategic context in which these foreign participations took place. The Banking Association and the South African Reserve Bank declined to cooperate on this aspect of foreign ownership.

What was striking from these meetings is the high degree of consistency across consultants and competitors about the perceived benefits and non-benefits Barclays FDI provided to ABSA and the apparent lack of spillovers effects. However, our data analysis does not corroborate entirely their perception.

3.4 T-Statistics model to provide changes in variables

When searching for efficiency and performance improvement following ownership changes, several studies (Rhoades, 1998; Pazarskis, Charalampidou, Pantelidis, and Paschaloudis, 2014; and He, Kotharib, Xiaoc, Zuod, 2018), chose a period of three or five years preceding the change of ownership and three or five years after the change of ownership because half of the savings should be made during the first year and all savings would be achieved within three years. In addition, any cost savings or efficiency should be observable in public financial data such as annual reports. Therefore, this study selected a period of five year before and five year after a change of ownership to construct the dataset.

A control group composed by the two remaining competitor banks was set up. FirstRand and Nedbank are similar to ABSA and the Standard Bank in terms of size and location. The control group allows comparison with the study group (ABSA and the Standard Bank) and establishing a control group gives an indication of the nature of any observed changes in the study group.

Finally, the methodology of T-Statistics is used. First, it compares the average means of variables before and after the event of majority or minority shareholding participation for each bank, ABSA and SASD, and second, it compares the average means of variables between the study group (ABSA and the Standard Bank) and the control group for the periods before

and after the event of majority or minority change in ownership. For each variable for each bank of the sample over a five-year period before (year T-5, T-4, T-3, T-2 and T-1) and after (year T+1, T+2, T+3, T+4 and T+5) the acquisition event the mean is calculated from the sum of each bank indicator for years T-5, T-4, T-3, T-2 and T-1 and compared with the mean from years T+1, T+2 T+3 T+4, and T+5, respectively. The year (T=0) corresponds to the year when the event of ownership change occurred and is purposely omitted, because usually some additional costs, such as acquisition transaction costs necessary for the deal (Healy et al., 1992), are generated during the year of change in ownership and can influence the firms' economic performance. The t-test equation is provided as follows:

$$t = \frac{X_1 - X_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

n = Number of variables

X_1 = Mean of pre-foreign participation (majority or minority) variables

X_2 = Mean of post-foreign participation (majority or minority) variables

S = Standard deviation

1 = Group of pre-foreign (majority or minority) participation variables

2 = Group of post-foreign (majority or minority) participation variables

The purpose of this study is to identify knowledge transfer and spillover effects in SA Banking sector consequently to two foreign (majority and minority) acquisitions. The assumption is that the efficiency and the performance of both ABSA (Barclays' majority acquisition) and SBSA (ICBC minority participation) are greater during the period of post-acquisition, in the presence or not of the control group. To verify this assumption some hypotheses are established as followed:

H1: *It is expected to be a relative change in the defined variables after the event of a change in ownership structure for both banks ABSA and the Standard Bank.*

H2: *It is expected to be a relative change with the defined variables after the event in ownership structure for the group study compared to the control group.*

Information collected from the interviews should contribute to explain the results of the t-statistics model.

4. Interpretation of findings and further evidence

4.1 Efficiency and transfer of knowledge

The table 1 below reports the results of the t-statistic model for 6 variables on efficiency and 2 on performance for the ABSA and SASD before and after a change in the structure of their ownership due to foreign participation, and, all 6 indicators of efficiency are statistically significant, and decrease in value, which is equivalent to an increase in efficiency for both banks. This result suggests that significant cost cutting objectives were achieved within the 5-year period after the change in two banks ownership structure. The variable, total expenses to total assets, is statistically significant as well as total expenses to total revenues leading to the conclusion that ABSA and SASD made significant cuts in both non-interest and interest expenses. The variable Non-interest expenses includes personnel costs, operations costs at the

branches and transaction systems, while interest expenses relate to the way a bank get deposit. If a bank chooses to get funding from its core deposit, this will involve costs of retail offices and personnel at a relatively low interest expense. However, getting funding from the market using purchased money, will involve lower non-interest cost but higher interest expenses. From this it can be inferred that ABSA and the Standard Bank have similar cost reduction on interest expenses. Therefore, having a significant decrease in both total expenses variables strongly suggest that the two banks made a good trade-off in managing their decreasing total expenditure in particular interest expenses due to their access to cheaper money market.

In addition, having both variables Total Expenses over Total Assets and Non-Interest Expenses over Adjusted Operation Revenues statistically significant for ABSA and SASD confirms the earlier suggestion of decrease in non-interest expenses. Furthermore, the ratios of operating efficiency and the index of efficiency are also both statistically significant confirming the assumption that a cost cutting programme was achieved for both banks.

The real issue here is how to explain these sharp costs reduction for both banks, because understanding the programmes or schemes that generate increase efficiency and performance can help apprehend some very fundamental aspects of knowledge transfer. According to ABSA representative “ABSA benefited from Barclays’ systems” meaning that Barclays’ system migrated to ABSA and was implemented while processes and procedures were upgraded. Barclays confirms (Interview 4) “it benefited from Barclays’ products, management skills, procurement scale and policies”, and that could explain the decrease of non-interest expenses. In addition, we also assume that ABSA reduced its interest expenses, which means that it attracted deposits in a cheaper way. This might be explained, as earlier mentioned, from Barclays international exposure, which helped provide opportunity of more sources of funding as “ABSA benefited from Barclays strong global investment bank” (Interview 4).

A reduction of non-interest expenses without cutting personnel costs was found to be particularly critical and challenging for ABSA, because professionals feedback indicated that keeping jobs at ABSA was one of the conditions of the acquisition. Although job loss does not explain alone transfer of knowledge, however, it is justified as a consequence of efficiency gained from the implementation of new systems and processes and by the improved performance as a result of costs reduction on personnel. But, this aspect of conditionality could not be verified from ABSA/Barclays or even from the SA Treasury and ABSA feedback (interview 4) explicitly refuted this deal condition by stated that ABSA did not lay off any personnel or put in place any voluntary redundancy policy. Nevertheless, the press (Mail & Guardian, 2012) revealed in 2011 and early 2012 that the new ABSA CEO, Maria Ramos had to make cuts in the bank’s costs. They reported that Ramos said, “this organisation is going to have to become more efficient, and I have to keep a close eye on costs while serving our customers better”. Union representative, Sasbo added “retrenchments were inevitable”. The same newspaper also added what an anonymous analyst said regarding job losses that “it’s concerning that there’s been such a high turnover of the top people”. Nonetheless, this turnover is not limited only to the top management but also to the entire organisation as reported: “Although Ramos is not talking about retrenchments but rather about restructuring, there has been a significant number of staffs leaving the bank because of unhappiness over regional departments being moved to and integrated with Johannesburg city centre offices”.

In fact, aspects of job loss that were revealed in early 2012 from the media and professionals suggest that deliberate policies regarding efficiency might have been put in place well before this date and our figures show that in the ABSA case, there was a strong and significant improvement in efficiency five years after the event of acquisition, supporting the suggestion that a programme of cost reduction was not only implemented but also achieved thanks to transfer of knowledge from Barclays Bank the new ABSA owner

Table 1: T-Statistic (Two-tail) for the banks sample

Variables	Pre Post	ABSA			The Standard Bank		
		Mean	T-Stat. (Two-Tail)	P-Value	Mean	T-Stat. (Two-Tail)	P-Value
<i>Total Expenses over Total Assets</i>	Pre	.081			.086		
	Post	.072	1.908	0.064*	.075	2.034	0.049**
<i>Total Expenses over Total Revenues</i>	Pre	.50			.658		
	Post	.758	5.136	0.00***	.759	2.410	0.021**
<i>Non-Interest Expenses over Total Assets</i>	Pre	.030			.032		
	Post	.027	1.674	0.102*	.029	2.225	0.032**
<i>Non-Interest Expenses over Adjusted Operating Revenues</i>	Pre	.622			.638		
	Post	.547	3.572	0.00***	.557	4.317	0.00***
<i>Operating Efficiency</i>	Pre	.255			.262		
	Post	.117	1.200	0.053*	.132	1.977	0.055*
<i>Index Efficiency</i>	Pre	.687			.731		
	Post	.645	1.438	0.150*	.664	2.468	0.018**
<i>ROA</i>	Pre	.695			.098		
	Post	.761	-0.320	0.750	.082	0.120	0.904
<i>ROE</i>	Pre	0.438	0.227	0.821	6.193	-1.069	0.292
		ost	9.809		ost	18.380	

Source: Banks annual reports

Note: (***) statistically significant a 1% level, (**) statistically significant at 5%, (*) statistically significant at 10% level.

An example of cost reduction at SASB was reported by the Financial Times (2010) that the bank operates a reduction of 2100 staff, three years after the event of minority participation took place. This may well be coincidental following the impacts of the 2008 financial crisis. The reason provided by the CEO to justify this redundancy policy was that the bank was losing in terms of revenues and ROE, and this is partly confirmed in table 1 showing a decrease in ROE but not statistically significant and no significant strong increase of ROA either. But given the context of having ICBC as a new shareholder it would be legitimate that ICBC suggested some costs reduction to justify at least any return on their very important investment (\$5 billion). Or similarly to ABSA, cost reduction at SASD could simply be the result of knowledge transfer from ICBC to SASD. To explain the strong gain in efficiency it is important to note that by contrast to ABSA/Barclays case, it is the SASB that offers an international exposure to ICBC through its advanced investment banking (Interview 3). Therefore, if SASB interest expenses policy is not influenced by ICBC, then we need to understand aspects of its non-interest expenses.

Table 2 below, displays an interesting element of the index efficiency for both banks. the impressive decrease, from 81% in T-3 to 67% in T-1 with an acceleration of the trend after the change in ownership to reach 60.84% in T+2 confirms a certain commitment of ABSA to cost cutting. Before 2005 the ABSA level of efficiency was around 70% on average against 57% for SASB prior 2007, which represents a very good score, as it is close to 50% that is regarded as a benchmark in the profession and usually considered to be the maximum optimal ratio. Between the period T-3 and T+2, ABSA reduced its index of efficiency from 81% to 60% with an important increase in T+4 and T+5 that correspond to years 2009 and 2010, two years after the global financial crisis.

By contrast, the figures clearly suggest that Standard Bank had already a culture of keeping its costs down, a commitment to keep its non-interest expenses low even before the arrival of ICBC in its shareholding. Furthermore, despite the global financial crisis of 2008 that occurred just one year after the minority ownership (2007), SASB succeeded in keeping its index efficiency at 62% on average over the 5 years (T+1 to T+5), a level close to the one before year 2007.

Table 2: Value of Index efficiency for ABSA and the Standard Bank

Bank	Var.	Before change in ownership (%)					T=0	After change in ownership (%)				
		-5	-4	-3	-2	-1		+1	+2	+3	+4	+5
BSA	IE	82.58	4.86	1.80	1.00	7.55		4.45	0.84	2.00	3.20	9.54
ASD		60.69	0.60	9.10	9.20	4.80		0.50	2.50	6.3	1.65	3

Source: Banks' Annual reports, author calculation. IE is the Index Efficiency

However, ICBC implemented its transaction card system at Standard bank to optimise some banking operations (Interview 3), which represents some transfer of knowledge from ICBC to SBSA, but there is no strong evidence of other types of knowledge transfer such as process, procedure and methods that could perhaps explain significant gain in efficiency at ICBC. In addition, SASD was not influenced by ICBC for any cost reduction scheme, which would allow us to speculate more on existence of more transfer of knowledge. Therefore, at this stage and in light of the results from tables 1 and 2 and the elements from the feedback at ABSA and interview at SASD we can conclude that majority ownership FDI (ABSA case) leads to significant increase in efficiency and knowledge transfer, whereas minority ownership FDI (SBSA case) can offer limited and non-significant transfer of knowledge. These findings are in line with Blomstrom and Sjöholm (1999) and Demelis and Louri (2002).

Before analysing the two banks' performance it is important to note (as already mentioned) that banks having similar level of revenues can generate different efficiency ratios and performances because of their respective business model. Assuming for instance that a bank puts more effort on customer service, this might lead to a lower efficiency but an improved net profit. Inversely, a bank that has a more tighter cost control policy may experience a higher efficiency ratio but may also have a lower profit margin. And this might well apply to ABSA and SASB in terms of ROA and ROE indicators. ROA indicator is not statistically significant for the two banks ABSA and SASD. While, ABSA experienced an increase of 9.5% on the two periods, in table 1, the Standard bank has a decrease of 14,5%. However, table 1 also shows that on average before the event of foreign participation the Standard bank ROA is 36% higher than that of ABSA and after it was still around 30% higher. ROE indicator is not statistically significant for any of the two banks. But the Standard bank shows a slightly better improvement than ABSA with 14% increase while ABSA decrease is about 3%, and both have similar level of ROE. What these figures of performance show is that minority or majority ownership FDI has no significant statistical impact on the performance indicators of banks, however, ABSA perform slightly better in terms of ROA between the two periods while SASB is marginally better in terms of ROE. It is not possible to conclude confidently that either Barclays or ICBC influence ABSA or SASD financial performance.

After examining the efficiency and performance indicators of ABSA and SASB our results show that both banks made great effort to improve significantly their efficiency but less on their performance. Given the level of efficiency before its partnership with ICBC, it seems that SASB has developed a culture of keeping its costs down and could have represented some kind of benchmark for ABSA as indicators reached similar levels after the events of British ownership. The results for SASD may illustrate relationships management type between Standard Bank and the Chinese ICBC, which is described as smooth and translates into a mutual understanding. It does not seem that ICBC, unlike Barclays, which has a majority of ownership in ABSA, had a strong influence on Standard Bank strategy. We can then reiterate the fact in this case, minority FDI did not have great impact on financial results and despite having limited information systems transferred from ICBC to Standard Bank, knowledge transferred was not strategic enough to contribute to any form of efficiency improvement.

Apparently, ABSA was committed to preserve jobs as part of the deal when negotiating the acquisition with the SA Treasury, and no explicit plan for redundancy was scheduled to be implemented. Although, in practice, ABSA did not cut any jobs, as some claimed, it had been however, freezing recruitment, and many unhappy staff left, which has contributed to keep staff costs under control. In addition, knowledge has been passed on from the mother foreign bank Barclays to its domestic subsidiary ABSA, and this enhanced ABSA efficiency significantly after Barclays became its main owner. This demonstrates that majority FDI contributed significantly to knowledge transfer that translates into tangible reduction of interest and non-interest expenses.

Evidence of competition and spillover effects

The timescale of the two FDI events needs to be reminded again. The Barclays FDI occurred in 2005 and it was the first significant takeover in the SA banking sector since the end of the Apartheid regime and the ICBC foreign participation in SA came in 2007 two years after Barclays. This timescale raises some fundamental questions such as whether or not Barclays acquisition influenced competitors including the SASD, because the competitors could anticipate a more efficient ABSA after the announcement of the deal by Barclays and therefore expect the market to become more competitive. Thus, we could assume that Barclays

acquisition could triggered a more efficiency gain trend across the whole SA banking sector. But, the concomitance of other factors such as macro-economy or regulations cannot be ignored either. Nonetheless, as the market could become more competitive, the banks would have no choice but to reduce their running costs and improve their efficiency in order to preserve their margins. So under competition pressure and in order to become more competitive and efficient, banks would upgrade their system and management practices as well as staff turnover between the new Barclays/ABSA entity and competitors. To explore the above assumption about competitors' behaviour, we extended the previous investigation on efficiency and performance to competitors by looking at the performance and the efficiency indicators of ABSA and the Standard Bank in relation to their peers (control group) and the results are displayed in in table 3.

This result suggesting a shift in ABSA strategy, influenced by its new owner Barclays that was acted by the competitors, is in line with what we stressed earlier that strategy and business model of a bank can lead to improved efficiency and low performance. Therefore, it is misleading to conclude that ABSA did not perform well but its weak performance of ROA and REO seemed not to be perceived as significant by competitors to encourage any change in their strategy. From this point of view, it seems that the Barclays' acquisition was not a significant factor that could trigger yet direct competition in the SA banking sector.

Table 3: T-Statistic (Two-tail) for the banks sample compared to their peers

Variables	ABSA			The Standard Bank		
	Mean	T-Statistics (Two-Tail)	P-Value	Mean	T-Statistics (Two-Tail)	P-Value
Total Expenses over Total Assets	0.010	1.524	0.130*	0.003	0.540	0.600
Total Expenses over Total Revenues	0.930	1.450	0.155*	0.654	1.389	0.170*
Non-Interest Expenses over Total Assets	0.006	3.230	0.002***	0.002	1.077	0.2882
Non-Interest Expenses over Adjusted Operating Revenues	0.083	2.50	0.017**	0.017	0.63	0.526
Operating Efficiency	0.273	2.743	0.009***	0.202	2.57	0.014**
Index Efficiency	0.042	0.966	0.340	0.034	1.908	0.064*
ROA	0.822	3.000	0.005***	-0.160	-1.013	0.317
ROE	0.114	0.027	0.978	-2.913	-1.156	0.254

Source: Banks annual reports, author calculation

Note: (***) Statistically significant a 1% level, (**) Statistically significant at 5%, (*) Statistically significant at 10%

Despite this perception of weak ROA and ROE of ABSA by the control panel, this result is in line with other findings from the literature showing that successful acquisition activities bring economic benefits from changes that increase business performance that would not have been generated without a change in control (Athianos et al, 2003; Pazarskis, 2008). However, merger & acquisitions studies show that acquisitions don't necessarily increase efficiency (Azarchs, 1995; Srinivasan, and Wall, 1992; Berger and Humphrey, 1992; Rhoades, 1993). This is not the case for ABSA, whose results show strong efficiency gains after the event of acquisition.

For the Standard Bank, table 3 shows that only 3 indicators of efficiency are statistically significant and the remaining 3 indicators show positive increase in efficiency but not statistically significant. However, these results suggest a better overall efficiency for the Standard Bank than the control group. In terms of ROA and ROE, none is significant, but they are positive translating a better performance than the competitors. In other words, Standard Bank globally performed better than its competitors and this confirms the trend of previous analysis.

But the same question remains whether or not this ICBC minority FDI could influence SASB good performance. It wasn't possible to get an answer directly from ICBC, but in light of some evidence, it is hard to completely rule out the possibility of an ICBC strategic influence. Feedback (Interview 3) from Standard Bank confirms that ICBC does not pressurise Standard Bank over getting better performance and the ICBC has only 20% of shareholding not to mention that it had only 2 seats on the Standard bank board. But, this level of ICBC shareholding in the Standard bank was a significant \$5.6 billion investment. In addition, it would be interesting to understand the rational of the simultaneous activities of costs reduction and divestment if they were not influenced by ICBC. As earlier mentioned, Standard Bank cut 2100 staff in 2010 (Financial Times, 2010), the following year in 2011 it sold its 55% stake in the Standard Bank Argentina to ICBC, keeping a 20% shareholding and the right to board representation. That same year Standard Bank sold its 36.4% stake in Russia Troika Dialog and reduced its stake in Turkey's Standard Unlu from 67% to 25% the following year in 2012. The objective of these diverse divestments in assets abroad and staff cuts, was to refocus its operations on the Africa continent and this immediately fuelled the speculation that ICBC wanted a higher return on its investment in Africa. Many in the SA banking sector including competitors and consultants, already thought that reinvesting in Africa would be seen as a legitimate request from ICBC. And indeed, the motivation of ICBC investment in Standard Bank could have been guided by its wishes to have a footprint on the African continent and this would clearly contribute to ICBC extension strategy. Therefore, with its presence in 18 African countries, Standard Bank became a good match to implement this expansion strategy (Interview3). This argument over ICBC encouraging Standard Bank operations to refocus on Africa was explicitly exposed to the Standard Bank representative (Interview 3), who provided the following approach:

Standard Bank had no competitive advantage in the BRICS countries (Brazil, Russia, India and China excluding SA);

1. Standard Bank was in a position to receive significant cash from local financial institutions for these assets;

2. As the economic conditions and governance in African countries were improving and this represented potential growth in Africa. In addition, cash generated could increase Standard Bank's ability to enhance its competitive advantage on the African continent where it already had an important presence.

Furthermore, to reinforce this argument it was reported that the style of management of ICBC was not about imposing a strategy. Instead a harmonious relationship and mutual respect was established. Real effort was made for a post-deal cooperation to work at the operations level in establishing streams and workshops, and at the project level, where agreements are made with specific clients and projects. Ad hoc teams were built around these projects (Eidt, 2012).

With

ABSA strong performance and an efficiency gain on 3 indicators from the Standard bank compared to its competitors, and with the evidence showing Standard bank traditionally keeping its costs down, we could implicitly assume that the competitors too had implemented a cost-cutting strategy during the same period 2002-12. Feedback from the competitors confirmed the existence of such approach or strategy that took different shapes for Nedbank and First Rand.

Since 2003, Nedbank (Interview 6) implemented a Barrett Survey, a programme that was speeded up in 2005 after Barclays' acquisition (but not amended because of Barclays FDI, as the programme was producing tangible results). This was initially not a response to Barclays' acquisition but rather a process that was already in place, it was reported. This first component of the Barrett Survey was based on personnel development, team effectiveness, coaching, flexible work and life balance. The second component focused on market strategy, which consisted of cutting down their fees and targeting the higher segment of the market. For Nedbank the SA market landscape was changing because the population was becoming wealthier, they then decided to focus on this particular segment as the traditional one was becoming saturated and competition too high. This strategy was also implemented in the retail segment to potentially attract more customers. This argument is well supported as in early 2000s, the regulator introduced Basel procedures and encouraged the banking sector to reduce its fees. Therefore, this Nedbank motives in rethinking its strategy in 2003 supports our assumption of possible gain in efficiency and increased performance before Barclays acquisition.

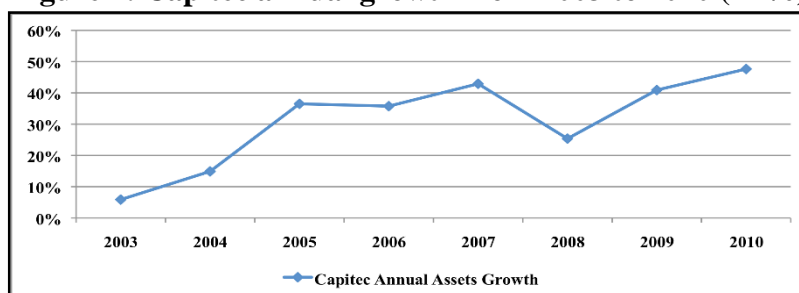
First Rand the second competitor, reviewed their strategy (Interview 5) started back in the late 90s following the re-entry of the foreign banks, and similarly to Nedbank, reducing fees was clearly one of the motives. To implement this strategy, First Rand started to invest massively in technology infrastructure, with the objective of putting in place new infrastructure platforms to reduce running operations costs in branches and transfer many of these operations to electronic transactions. The new infrastructure was composed by

telephone banking and Internet. From this strategy, a direct consequence could be a significant reduction of personnel costs, which translated into efficiency gains. Therefore, all these elements contribute to explain why ABSA increased efficiency did not impress its competitors because they were already embarked in costs reduction programmes, well before Barclays acquisition.

However, both competitors (Interviews 5 and 6) confessed that they feared for their investment banking activities as it became clear that ABSA investment banking was performing well. In fact, Barclays Capital, the investment banking of Barclays combined its investment banking teams with those of ABSA, and by working together, the new entity in investment banking became very competitive and created serious competition. Both competitors Nedbank and FirstRand reported to experience unusual turnover in their investment banking teams, and many of their employees left to the new ABSA/Barclays investment entity. This personnel turnover was so serious that both banks had to implement a staff retention scheme to incentivise their employees to stay or to return. First Rand in particular became anxious about Barclay card, a product that was expected to become available in the SA market, but Barclays never introduced this product in SA. Barclays/ABSA investment team was the only reported threat that Barclays FDI created in the SA banking sector according to feedback from the Nedbank and FirstRand.

According to some competitors another factor that influenced their strategy to become more efficient was the emergence of a new domestic player called Capitec, a new bank created in 2002 and labelled by one of the competitors (Interview 5) a “disruptor”. As shown on figure 2, Capitec experienced rapid and positive assets growth and operates in the lower segment of the market targeting low income-earners. Capitec operates mainly in the retail banking segment and offers small-unsecured loans to its customers. Capitec has a good understanding of microlending business and, risks linked to its banking activities are carefully managed. Furthermore, Capitec activities benefit from its well-developed information technology system and as a financial institution, it is supervised by the SARB. All these competencies and capabilities Capitec has been developing just over few years make it one of the main players in the SA microlending industry.

Figure 2: Capitec annual growth from 2003 to 2010 (in %)



Source: Banks' Annual reports, author calculation

Capitec is technology-driven banking organisation that is its main strength and represents a major threat to First Rand, which had also invested massively in technology infrastructures. Capitec technology-driven business model helps to service the low-income-earning customers. With an infrastructure that includes strong front-end information technology, paperless and cashless branches, it can operate efficiently and at low margin profits. Capitec electronic cards can be used in more than 200 of its own ATMs, as well as retailers' distribution outlets with whom the banks have concluded business agreements. Being able to provide full banking products and services at the lowest costs give the bank an edge over some bigger competitors.

4. Discussion and conclusion

This paper serves to examine the mechanism of knowledge transfer and the channels of spillover effects (knowledge spillover) from two FDIs in the SA banking sector through the lens of efficiency gain and performance improvement corroborated with explanatory evidence taken from interview outputs of most players in the SA banking sector such as the SA big four banks, management consultants and other financial and regulatory institutions. This article also distinguishes between minority and majority FDIs to analyse their respective impacts on knowledge transfer.

The results show that five years after Barclays' foreign acquisition, ABSA displayed strong efficiency gains as all variables are statistically significant, but none of performance indicators, ROA and ROE, is significant despite positive increase in ROA. Compared to its competitors, ABSA shows strong efficiency gain for 5 of its 6 indicators, which are also statistically significant. However, ROA and ROE indicators suggest that ABSA does not outperform the control group in particularly with a negative ROA indicator that is statistically significant. Similarly, Standard Bank shows some significant efficiency gains five years after ICBC foreign participation in its ownership structure and its performance indicators do not demonstrate any significant improvement. Compared to control group Standard bank shows improved ROA and ROE, which are not statistically significant. Its efficiency gain is significant for 3 of its 6 indicators.

The study finds that some demonstration effect, which is characterised by the introduction and adoption of new system, techniques, procedure and new management practice that potentially provided efficiency gain to the whole banking sector, was not necessarily attributed to Barclays or ICBC FDIs. Instead the factors responsible for the demonstration effect were attributed to the re-entry of foreign banks in the late 90s, the introduction of new SA government regulation and policy.

Another lesson from this study is that despite Barclays acquisition failed to impress the control group, this FDI triggered some competition effects in segment of investment banking characterised by a high level of staff turnover between the new Barclays/ABSA entity and the control group. However, the timescale of the study could not allow us to demonstrate if these knowledges were used or replicated when staff moved to their new employers or move

back to their former employers. Moreover, more aspects of competition effect seemed to emerge in the segment of retail bank not because of the two FDIs, but thanks to a new player Capitec, whose business model is based on new technology that usually contribute to operate at low profit margin and high efficiency. This case study shows the complexity of analysing the multiple layers of the mechanisms of spillover effects over a period of time, and despite the presence of some channels of spillover effects, it wouldn't confidently conclude on spillover effects as a direct consequence of minority and majority FDIs. But instead, a combination of the re-entry of foreign banks in early 2000s, successive influence of government policies and those two FDIs were responsible for an overall spillover effects in the SA banking sector. Nevertheless, this study does confirm, the existence of strong knowledge transfer from Barclays to ABSA, as a result of majority FDI. For ICBC minority FDI there is some limited evidence of knowledge transfer to the Standard Bank, which did not have any significant impact on efficiency and performance, however, there is evidence of real shift of Standard bank strategy very likely to have been influenced by ICBC.

This study is very useful for many different reasons. First it contributes to the scarce existing literature and demonstrates how FDI produce positive effects on competition and efficiency gain, as the entry of foreign banks in emerging markets may contribute to increase competition and improve the level of efficiency of domestic banks through lower costs and interest margin (Lensink and Hermes, 2004). More recent study by Arezki and Liu (2020) investigate growth spillovers between emerging markets (EMs) and advanced economies (AEs). Their result indicate the size of the spillovers running from EMs to AEs is about a fifth of these running from AEs to EMs. In addition, while the literature on majority and minority FDI is well developed in the industry sector, in the banking sector, the literature often distinguishes amongst foreign, domestic, private and state ownerships, and only few examine majority and minority FDI such as works of Hagmayr and Haiss (2006); Genfu, (2013); and Li, Li, Lei and Huang (2015) for instance. Therefore, our study provides a significant contribution in examining aspects of ownership and confirms that majority ownership in the banking sector may provide more channels of spillovers effects than minority FDI. Our results are in line with those of Blomstrom and Sjöholm (1999), Papi and Revoltella (1999) and Demelis and Louri (2002) who find that majority shareholding leads to efficiency, more productivity and therefore knowledge spillovers, but not with those who find that minority FDI is associated with significant increase of efficiency (Berger, Hasan and Zhou, 2007; Laurenceson and Qin, 2008; Chunxia, Yao, Shujie and Feng, Genfu, 2013; Li, Li, Lei and Huang, 2015). And finally, the work confirms that minority and majority FDIs are sources of knowledge transfer but at different degrees showing that mother banks provide direct transfer of management skills, systems and practices that ensure competitiveness of their subsidiaries (Uiboupin, 2005).

The last contribution of our study is about policy making following the Barclays divestment in ABSA in 2017, 12 years after acquiring a majority share in ABSA. In a globalisation context of the emerging markets such as SA and intense internationalisation of SA banks this may become a concern for policy makers and government. One of these concerns is the cut and run, a foreign banks tendency to leave the market in times of economic downturn and

political crisis. It may well be that the 2008 global financial crisis and the change of leadership at Barclays that followed may have had an impact on the decision of Barclays to disinvest in ABSA. Maybe further research needs to investigate the impacts on ABSA after such event. A consequence of the cut and run strategy is the possibility of triggering risks for financial stability as well as a decrease of private sector credits. This study should contribute to a more detail understanding of the impacts and risks associated to different ownership levels when policy makers have to decide about new FDI and their impacts to the whole banking sector such as knowledge transfer and spillover effects.

Bibliography:

- Akash, S. B. (2014). Competitive pressure and customer satisfaction with special reference to Indian retail business. *International Journal of Business and Administration Research Review*, 1(2), 37-44.
- Aluko, O. A., & Ajayi, M. A. (2018). Determinants of banking sector development: Evidence from Sub-Saharan African countries. *Borsa Istanbul Review*, 18(2), 122-139.
- Arezki, R., & Liu, Y. (2020). On the (Changing) Asymmetry of Global Spillovers: Emerging Markets vs. Advanced Economies. *Journal of International Money and Finance*, 102219.
- Argote, L. (2013). Organization learning: A theoretical framework. In *Organizational learning* (pp. 31-56). Springer, Boston, MA.
- Azarchs, T. (1995). Bank merger economies prove elusive. *Standard and Poor's Credit Week*, 2, 63-6.
- Barrell, R., & Pain, N. (1999). Domestic institutions, agglomerations and foreign direct investment in Europe. *European Economic Review*, 43(4-6), 925-934.
- Berger, A. N., Hasan, I., & Zhou, M. (2009). Bank ownership and efficiency in China: What will happen in the world's largest nation?. *Journal of Banking & Finance*, 33(1), 113-130.
- Berger, A. N., & Humphrey, D. B. (1992). Megamergers in banking and the use of cost efficiency as an antitrust defense. *The Antitrust Bulletin*, 37(3), 541-600.
- Blomstrom, M., & Sjöholm, F. (1999). Technology transfer and spillovers: Does local participation with multinationals matter?. *European economic review*, 43(4-6), 915-923.
- Bourke, J. G., Izadi, J., & Olya, H. G. (2020). Failure of play on asset disposals and share buybacks: application of game theory in the international hotel market. *Tourism Management*, 77, 103984.
- Buckley, P. J., & Casson, Ch. (1976). *The future of the multinational enterprise*. London/Basingstoke: The Macmillan Press Ltd.
- Buckley, P.J., Clegg, J. and Wang, C. (2007b). The impacts of foreign ownership, local ownership and industry characteristics on spillover benefits from foreign direct investment in China. *International Business Review*, 16(2), 142-158.

- Chang, S. J., & Xu, D. (2008). Spillovers and competition among foreign and local firms in China. *Strategic Management Journal*, 29(5), 495-518.
- Crespo, N., & Fontoura, M. P. (2007). Determinant factors of FDI spillovers—what do we really know?. *World development*, 35(3), 410-425.
- Demelis, S. and Louri, H. (2002). Foreign ownership and production efficiency: A quantile regression analysis. *Oxford Economic papers* 54(3): 449-469.
- Dunning, J.H. (1979). Explaining changing patterns of International production: In defense of the Eclectic theory. *Oxford Bulletin of Economics and Statistics* 41(4): 269-295.
- Dunning, J.H. (1988). *Multinational, Technology and Competitiveness*. London: Unwin Hyman.
- Dunning, J.H. (1993). *Multinational Enterprises and the Global Economy*. Addison-Wesley Publishers Ltd.
- Driffield, N., & Love, J. H. (2007). Linking FDI motivation and host economy productivity effects: conceptual and empirical analysis. *Journal of international business studies*, 38(3), 460-473.
- Fu, X. (2012). Foreign direct investment and managerial knowledge spillovers through the diffusion of management practices. *Journal of Management Studies*, 49(5), 970-999.
- Fung, M. K. (2008). To what extent are labor-saving technologies improving efficiency in the use of human resources? Evidence from the banking industry. *Production and Operations Management*, 17(1), 75-92.
- Cavusgil, S. T., Calantone, R. J., & Zhao, Y. (2003). Tacit knowledge transfer and firm innovation capability. *The Journal of Business and Industrial Marketing*, 18(1), 6-21.
- Ghosh, A., Kato, T., & Morita, H. (2017). Incremental innovation and competitive pressure in the presence of discrete innovation. *Journal of Economic Behavior & Organization*, 135, 1-14.
- Guarin, A., & Lozano, I. (2017). Credit funding and banking fragility: A forecasting model for emerging economies. *Emerging Markets Review*, 32, 168-189.
- Hamida, L.B. (2006). *Multinational firms, spillovers and productivity growth: An evolutionary model*, Working Paper.
- He, X., Kothari, S. P., Xiao, T., & Zuo, L. (2020). Industry-Specific Knowledge Transfer in Audit Firms: Evidence from Audit Firm Mergers in China. Available at SSRN 3209590.

- Hemmer, H.-R. (2002). *Wirtschaftsproblem der Entwicklungslander*. 3rd Edition, Vahlens Handbuecher der Wirtschaft- und Sozialwissenschaften, Vahlen. Munchen.
- Hermes N. and Lensink, R. (2004). The short-term effects of foreign banks entry on domestic bank behaviour: Does Economic development matter? *Journal of Banking and Fiancance* 28(3): 553-568.
- García-Herrero, A., & Navia, D. (2003). Determinants and impact of financial sector FDI to emerging economies: a home country's perspective.
- Izadi, J., Nazarian, A., Ye, J., & Shahzad, A. (2019). The association between accruals and stock return following FRS3. *International Journal of Accounting, Auditing and Performance Evaluation*, 15(3), 262-277.
- Smarzynska, B. (2002). The composition of foreign direct investment and protection of intellectual property rights: Evidence from transition economies. The World Bank.
- Jarvocik, B.S. and Spatareaunu, M. (2008). To share or not to share: Does local participation matter for spillovers from direct investment? *Journal of development Economics* 85(1-2),194-217.
- Jiang, C., Yao, S., & Feng, G. (2013). Bank ownership, privatization, and performance: Evidence from a transition country. *Journal of banking & finance*, 37(9), 3364-3372.
- King, R. (1993). BankAmerica fnds it got a lot of woe with Security-Pacific. *Wall Street Journal*, 1, 22.
- Krabill, D.T. (1985). Merger economies, Part I. *Banking Expansion Reporter*, 15 July, p.1 and pp. 8-11.
- Laurenceson, J., & Qin, F. (2008). Has minority foreign investment in China's banks improved their cost efficiency?. *China & World Economy*, 16(3), 57-74.
- Lensink, R., & Hermes, N. (2004). The short-term effects of foreign bank entry on domestic bank behaviour: Does economic development matter?. *Journal of Banking & Finance*, 28(3), 553-568.
- Levine, R. (1996). Foreign banks, financial development, and economic growth. *International financial markets: Harmonization versus competition*, 7, 224-54.

- Lehner, M. and Schnitzer M. (2008). Entry of foreign banks and their impacts on host countries. *Journal of Comparative Economics* 36(3), 430-452.
- Lensink, R., and Hermes, N. (2004). The short-term effects of foreign bank entry on domestic bank behaviour: Does economic development matter?. *Journal of Banking & Finance*, 28(3), 553-568.
- Li, Y., Xu, T., & Yuan, H. (2015). Spillover Effects of Foreign Bank Entry in China" s Banking Sector. *International Business Research*, 8(1), 156-162.
- Mathieson, D. J., and Roldos, J. (2001). Foreign banks in emerging markets. In Litan, R. & Masson, P. & Pomerleano, M. (Eds.), *Open doors: Foreign participation in financial systems in developing countries*, Brookings Institution Press.
- Meyer, K. E. (2004). Perspectives on multinational enterprises in emerging economies. *Journal of international business studies*, 35(4), 259-276.
- McNamee, M. (1992). Are fewer banks better? *Business Week* August 17, 92-93.
- McKendrick, D. (1994). Building the capabilities to imitate: Product and managerial know-how on Indonesian banking. *Industrial and Corporate Change* 3(2): 513-535.
- McNamee, M. (1992). Are fewer banks better? *Business Week* August 17, 92-93.
- Meade, J. E. (1968). Is" The New Industrial State" Inevitable?. *The Economic Journal*, 78(310), 372-392.
- Meehan, J. (1989). Banking gets leaner and meaner. *Business Week*, 16 October, 106-107.
- Mowery, D. C., Oxley, J. E., & Silverman, B. S. (1996). Strategic alliances and interfirm knowledge transfer. *Strategic management journal*, 17(S2), 77-91.
- Muller, T. & Schnitzer, M. (2006). Technology transfer and spillovers in international joint ventures. *Journal of International Economics* 68(2), 456-468.
- Mundy S. (2010). Standard Bank cuts 2100 staff, as recovery disappoints. *Financial Times*.
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization science*, 5(1), 14-37.

- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford university press.
- Okeahalam, C. C. (2008). Internationalisation and firm performance: Evidence from estimates of efficiency in banking in Namibia and Tanzania. *Journal of International Development: The Journal of the Development Studies Association*, 20(7), 942-964.
- Oradi, J., and Izadi Z. D, J. (2019). Audit committee gender diversity and financial reporting: evidence from restatements. *Managerial Auditing Journal*.
- Oulton, N. (2001). Must the growth rate decline? Baumol's unbalanced growth revisited. *Oxford Economic Papers*, 53(4), 605-627.
- Pazarskis, M. (2008). *Exploration of Mergers and Acquisitions of Greek Firms with the Application of Statistical Methods*.
- Papi, L., & Revoltella, D. (1999). Foreign direct investment in the banking sector: A transitional economy perspective (No. 133). Centro Studi Luca d'Agliano
- Reagans, R., & McEvily, B. (2003). Network structure and knowledge transfer: The effects of cohesion and range. *Administrative science quarterly*, 48(2), 240-267.
- Rhoades, S. A. (1993). Efficiency effects of horizontal (in-market) bank mergers. *Journal of Banking & Finance*, 17(2-3), 411-422.
- Rhoades, S. A. (1998). The efficiency effects of bank mergers: An overview of case studies of nine mergers. *Journal of Banking & Finance*, 22(3), 273-291.
- Saggi, K. (2002). Trade, foreign direct investment, and international technology transfer: A survey. *The World Bank Research Observer*, 17(2), 191-235.
- Salomon Brothers. (1993). *Cost management in global banking: The lessons of the low cost producers*, October.
- Smeets, R. and de Vaal, A. (2005). Knowledge spillovers from FDI: Towards a general framework, Paper presented at the DRUID tenth Anniversary Summer Conference 2005. In: *Dynamics of Industry and Innovation: Organisations, Networks and Systems*. Kopenhagen, Denmark.
- Srinivasan, A. and Wall, L. (1992). Cost savings associated with bank mergers. Federal Reserve Bank of Atlanta, Working Paper 92-2.

Uiboupin, J. (2005), Foreign Banks in Central and Eastern European Markets: Their Entry and Influence on the Banking Sector, Dissertation, Tartu University Press

Yang, W., & Meyer, K. E. (2015). Competitive dynamics in an emerging economy: Competitive pressures, resources, and the speed of action. *Journal of Business Research*, 68(6), 1176-1185.