

Foreign Ownership And Local Firms’ Capital Labor Ratio: Case Of Abu Dhabi

Osiris Parceró, United Arab Emirate University, UAE
Abdul-Aziz Osman Abahindy, United Arab Emirate University, UAE
Abdul Rashid Faizi, United Arab Emirate University, UAE
Ahmad Kamalsada, United Arab Emirate University, UAE

ABSTRACT

This paper examines the impact of foreign ownership on local firms’ capital deepness in the resource-rich economy of Abu Dhabi. The authors use a novel dataset of more than 15,000 local firms registered in the Emirate of Abu Dhabi.

Empirical evidence shows a positive effect of foreign ownership on the capital labor ratio for the local firms, which is typically channeled through technology and knowledge transfer to the local firms. The results also show that the capital labor ratio of a firm is positively associated to the firm involvement in international trade. Overall, the evidence supports the fact that the economy of Abu Dhabi may benefit from foreign ownership and the openness to trade.

Keywords: Foreign Direct Investment (FDI); Productivity; Spillovers; Capital Intensity

INTRODUCTION

In recent years, the United Arab Emirates (UAE) has gained its place as one of the leading emerging economies. This status is mainly due to its high growth rate, political stability, trade openness, and capital inflows in a part of the world that has been lagging behind in many of these aspects.

The rapid growth and development for the UAE and Abu Dhabi economies is a very well-known fact. In the last decade, the average real GDP growth for the UAE was close to 10% and one of the highest in the world. The UAE is one of the countries with less import restrictions and it has been ranked by the World Trade Organization (2012) as the world’s twentieth biggest exporter of merchandise in 2011, surpassing countries such as Australia, Brazil, Switzerland, and Sweden. Moreover, the UAE has been ranked as the top 26th economy in terms of the *Ease of Doing Business* indicators (World Bank Group, 2013) outperforming countries such as Luxemburg, France, Switzerland, and the Netherlands. This is particularly important because evidence shows that countries with more effective regulations for ‘starting a business’ are able to benefit more from the inward Foreign Direct Investment (FDI) (Busse & Groizard, 2008).

FDI flows to the UAE grew from \$-0.5 billion in 2000 to \$7.7 billion in 2011. In the same period, the FDI flows to the UAE were, on average, 47% higher than the combined average flows to Bahrain, Kuwait, Oman, and Qatar (Mina, 2012). However, it may be the case that, in relative terms, the UAE has not yet exploited its potential for the attraction of FDI, particularly outside free zone FDI which is the focus of this paper. Firm-level data from the *Abu Dhabi Chamber of Commerce and Industry* (ADCCI) show that over 18% of Abu Dhabi firms are registered as foreign owned.¹ This percentage may look high when benchmarked to other countries, but it looks relatively modest in comparison to the over 88% of UAE expatriate labor force.

Foreign companies outside the free zone are allowed to do business in the UAE only if they are issued a business license by the *Department of Economic Development*. One requirement to get this license is that the

¹ The lack of data availability for the whole UAE made the study focus on the Emirate of Abu Dhabi, which is the biggest emirate in the UAE. It accounts for 87% of the UAE land and 40% of its population as well as it holds 95% of the country’s oil reserves.

company engages an agent who must be an Emirati national, but even in this case, there are limitations in terms of the activities the company can perform. Moreover, the process of becoming a fully or majority foreign-owned company is not an automatic one. That is, even though the requirements are satisfied, the permit may be denied. In this case, the option for a non-national would be to enter into a partnership with a national in which case his ownership will be capped at a 49% share. In practice, though, and as stated by a lawyer at the Abu Dhabi Judicial Department, “Some companies – not a lot – are owned by foreigners with more shares than locals, by having an outside contract” (*The National*, 5th March, 2013). However, these cases are very few and encompass a substantial risk for the parties involved. Thus, the limitations to the foreign ownership outside the free zone continue to raise concerns in a way that some changes to the law are under discussion in the *Federal National Council* and the UAE Minister of Economy, but no final agreement was achieved yet.

The literature suggests that FDI may produce positive externalities on the local firms’ productivity. This view has led many governments - at both national and local levels - in developed and developing countries to be very active in their effort toward luring foreign investors. Many studies have found evidence of these spillover effects in different countries (see Görg & Greenaway, 2001); though in the case of the UAE, the evidence mainly comes from speculative inferences derived from macroeconomic figures. This is unfortunate since according to the conclusions achieved in the surveys by Görg and Greenaway (2001) and Crespo and Fontoura (2007), there is no clear evidence of aggregate positive spillovers from FDI and that further research is needed at a microeconomic level. This paper is an attempt in this direction by using data for all the firms registered at the ADCCI. However, because of the lack of information on firms’ level sales in the UAE, this study concentrates on the effect that outside the free zone FDI has on the local firms’ capital labor ratio. This alternative approach is justified in the following section.

FDI, Local Firms’ Productivity, and Capital Labor Ratio

There are two main ways through which knowledge spillovers from foreign affiliates can increase the domestic firms’ productivity (Blomström & Kokko, 1998). First, competition with the foreign affiliate can stimulate the domestic firms’ technical change and technological learning (horizontal spillovers). Second, cooperation between foreign affiliates and local upstream suppliers and local downstream clients increases knowledge spillovers (vertical spillovers).

Moreover, as stated by Kokko (1994) and Perez (1997), foreign affiliates can increase the local firms’ technological learning through the following three additional channels. First, human capital can spill over from foreign affiliates to other firms as skilled labor moves between employers. Second, the proximity of local firms to foreign affiliates can sometimes lead to demonstration or imitation spillovers. When foreign affiliates introduce new products, processes, and organizational forms, they provide a demonstration of increased efficiency to other local firms. Local firms may also imitate foreign affiliates through reverse engineering, personal contact, and industrial espionage. Third, a concentration of related industrial activities may also encourage the formation of industrial clusters, which further encourage FDI and local spillovers. It is clear that some of these effects will be undistinguishable from the above-mentioned horizontal and vertical spillovers.

A clear consequence of the mentioned technical spillovers on local firms is the potential increase in their productivity. Moreover, it is arguably the case that technical learning goes along with the need of a higher capital labor ratio – one of the channels through which a higher productivity is achieved. This extension of the argument seems very much plausible given the large amount of empirical literature showing the positive influence that a higher capital labor ratio has on productivity (see Greenaway & Kneller, 2007).² Moreover, there are two channels through which technical learning may be associated to a higher capital labor ratio. First, a firm’s higher technology may be associated to a reduction in the total number of employees if the displacement of unskilled workers is not completely counterbalanced by the recruitment of skill ones. Second, it is not uncommon for new and improved knowledge to come embodied into new equipment which, by being more expensive, demands a higher capital investment.

² At a macroeconomic level, a higher capital labor ratio is also associated with a higher economic growth. See Naimy (2006) for the finding of this effect in the case of a group of Middle Eastern countries.

Conversely, it is also possible for the competition from foreign-owned firms to have a negative effect on the efficiency of domestic firms - ‘competition hypothesis.’ The presence of multinationals may imply significant losses of their market shares, forcing them to operate on a less efficient scale, with a consequent increase of their average costs and a distortion of their capital labor ratio (Aitken & Harrison, 1999; Harrison, 1994). Thus, the effect that the presence of foreign ownership has on local firms’ capital labor ratio is the result of the two likely opposite forces and, as such, a matter of empirical investigation.

DATA

Originally, the research started with a cross-section of data on more than 15,000 firms registered at the ADCCI in August 2012. These are surviving firms and not the ones that have been dissolved and so not registered. In order to attain sensible results, different criteria were used to eliminate outliers and firms for which their ownership is less easy to be determined. Companies under the legal form *Professional Partner & Society* were excluded. This legal form mainly includes NGOs and non-profit organizations, which are qualitatively different from the bulk of the other firms. The remaining outliers mainly consist of companies having a capital less than AED 5,000 or companies having a capital labor ratio lower than AED 1,000 or more than AED 100,000. The resulting number of firms after this screening is 15,326 of which 12,947 are nationals and 2,379 are foreign.

Table 1 and Figures 1(a) and 1(b) show that national firms are younger than the foreign ones. The relative younger age of the national firms can be explained by the fact that immediately after the country was founded and the fast development took off, the Emirati nationals lacked the much needed entrepreneurship expertise in many business activities that were new to us. This was complemented with the Emiratis’ strong preference to take the abundant high-wage jobs available to nationals in the public sector, which was facilitated by an oil-rich government keen on keeping its citizens happy. Moreover, the youth of the national firms can be explained by the fact that, with the new century, the public sector capacity of absorbing more nationals greatly slowed down, which pushed many - mainly young - nationals to be more eager starters of private business. This process was further encouraged by the implementation of many government programs aimed at the nurturing of business leadership among the Emirati nationals, like the *Khalifa Fund* and the *Sheikh Mohammed Bin Rashid Establishment for Young Business Leaders*. This can be seen by the sharp increase in the number of locally-owned firms having less than 10 years of existence (cf. Figures 1(a) and 1(b)).

Table 1: Descriptive Statistics

	National Firms (12,947)				Foreign Firms (2,379)			
	Mean	Coeff. of Var.	Min	Max	Mean	Coeff. of Var.	Min	Max
Age	11	0.8	0.02	44	14	0.7	0.04	42
Capital *	339	7.6	8	150,000	131	6.8	9	27,500
Employees	24	5.6	1	4,386	11	3.8	1	1,193

* Capital in AED thousands except for the coeff. of var.

It is clear from Table 1 and Figures 1(c) to 1(f) that national firms have both higher capital and more workers than their foreign counterparts. The higher number of workers is the results of the easiness with which locals can sponsor foreign workers. One remarkable feature observed in Figures 1(c) to 1(f) is the lack of smoothness, as shown by the many spicks, which is a consequence of the rounding at the time of reporting the data. For example, it is much more probable that firms report a capital of AED 50,000 than any number around this amount. However, the AED 150,000 spike in Figure 1(c) calls for immediate attention. This spike is produced because firms willing to register under the *Limited Liability Company* legal form are required a capital of not less than AED 150,000.

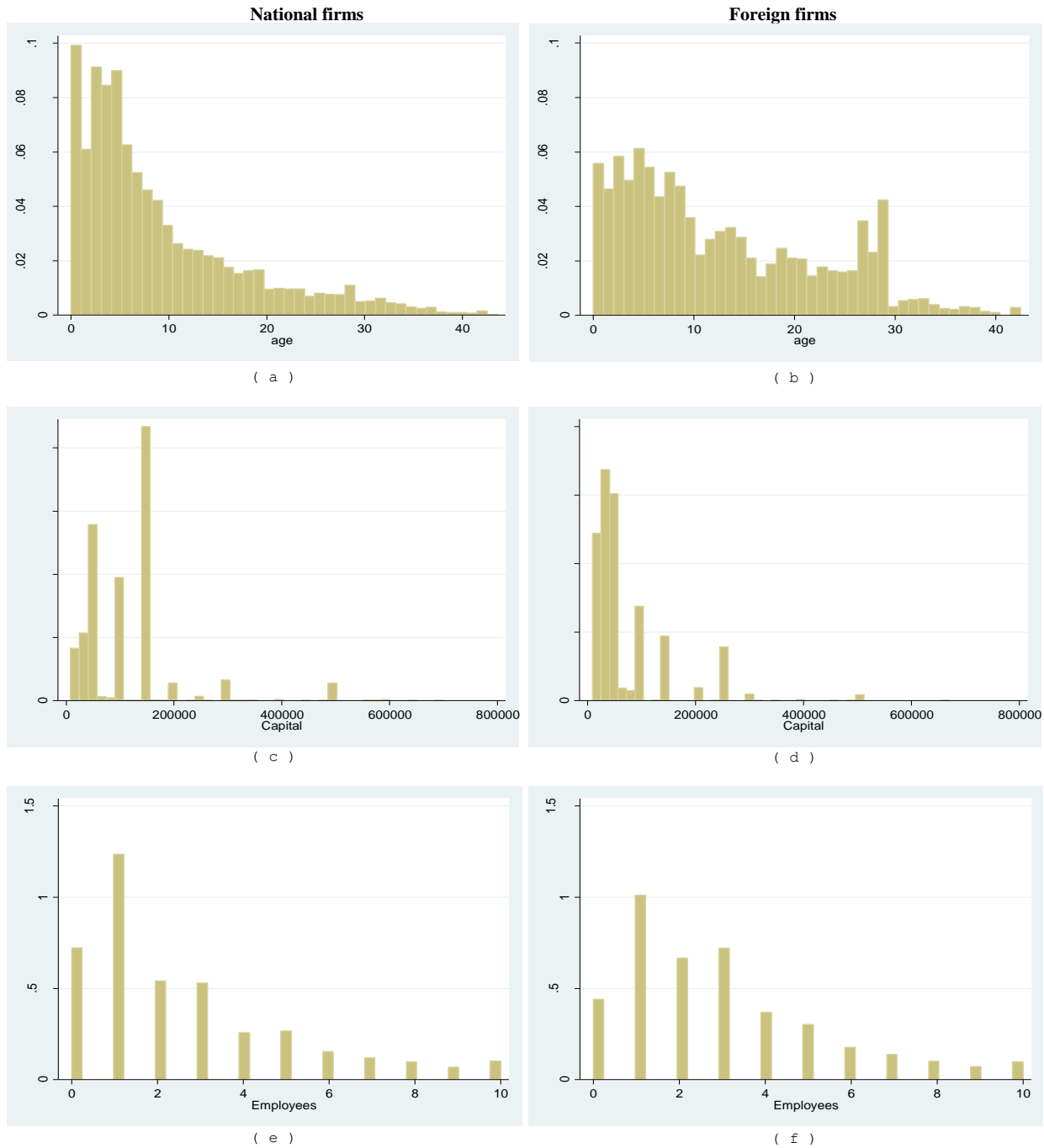


Figure 1: Histograms for Age, Capital, and Number of Employees

Econometric Analysis

The main theoretical hypothesis of the paper is whether the relationship between the capital labor ratio and the share of foreign ownership is positive or negative. In the main regression analysis below, the authors make use of the fact that firms report the particular business activities in which they are involved, out of 33 possible activities (see Table A1 in the Appendix). The authors want to take advantage of this additional information in the analysis but face the problem that the firms do not report the proportion of capital and labor assigned to each of these activities. Thus, the authors designed an imputation procedure to fill this vacuum. An auxiliary regression was used

where the value of firms' input $I_i \in (K_i, L_i)$ is run against a constant and a list of 32 dummy variables in order to assess the relative importance of each of the activities in determining the size of input I_i :

$$I_i = \alpha_0 + \sum_{j=2}^{33} \alpha_j d_j + \epsilon \tag{1}$$

where $d_j: j \in (1, 33)$ are the dummy variables for each of the 33 business activities, α_0 and α_j are parameters, $j = 1$ is the reference activity and ϵ is the error term. The parameters of Equation 1 are then used to calculate the input (capital and number of employees) for each activity j in each firm i , as follows:

$$I_{ij} = \frac{\alpha_0 + \alpha_j}{\alpha_0 \eta_i \sum_{\Theta} \alpha_h} I_i \tag{2}$$

where Θ_i and η_i are, respectively, the set of activities and the total number of activities in which firm i is involved. The first factor in Equation 2 is the share that activity j has in the input of firm i , I_i .

Equation 2 allows obtaining an estimation of the amount of capital and labor each firm assigns to each activity. The next step is to determine the main independent variable, which is the logarithm of the foreign ownership share in the capital of each activity. This is calculated as follows:

$$Foreign_Sh_j = \ln \left(\frac{\sum_{i \in N_{fj}} K_{ij}}{\sum_{i \in N_{lj}} K_{ij} + \sum_{i \in N_{fj}} K_{ij}} \right) \tag{3}$$

where N_{lj} and N_{fj} are the number of local and foreign firms in each activity.

It is clear from Equation 3 that the foreign share ownership in each activity is invariant for all the firms in the same activity.

Time invariance also occurs with the average capital labor ratio of each activity, which the authors would like to use in the regression analysis to control for the possibility that foreign direct investment may occur in capital or labor intensive sectors. It is clear that the inclusion of these two variables as regressors will produce multicollinearity; hence, in order to avoid it, the research includes the average capital labor ratio of each activity in the dependent variable. That is, the dependent variable is the logarithm of the capital labor ratio of a local firm in a particular activity relative to the average capital labor ratio of all the local firms in this activity (hereafter 'the firm-activity's relative capital labor ratio' for short). It is defined as:

$$K_L_{ij} = \ln \left(\frac{K_{ij}/L_{ij}}{\sum_i K_{ij}/\sum_i L_{ij}} \right) \quad \forall i \in N_{lj} \tag{4}$$

Then, the following regression is run:

$$K_L_{ij} = \beta_0 + \beta_1 Foreign_Sh_j + \beta_2 Trade_i + \beta_3 Size_{ij} + \beta_4 Al_Ain_i + \beta_5 Age_i + v_{ij} \tag{5}$$

The independent variables are the foreign ownership share in the capital of each activity j ($Foreign_Sh_j$); a dummy variable taking the value one if the firm is involved in exporting or importing and zero otherwise ($Trade_i$); the size of a local firm i in activity j ($Size_{ij}$, alternatively measured by the logarithm of the number of employees and the logarithm of capital used in each activity); a dummy variable taking the value one if the firm is located in the town of Al Ain and zero otherwise (Al_Ain_i); and the logarithm of the age of the local firms (Age_i); v_{ij} is the error term.

The results of the OLS regression analysis under different specifications are reported in Table 3. The only difference between Tables 3(a) and 3(b) is that the proxy for *Size* is the logarithm of labor and the logarithm of capital, respectively. It is clear that with a 99% level of confidence, the existence of a larger proportion of foreign ownership in a particular activity results in a higher capital labor ratio for the local firms. This result is supportive of

the first hypothesis that foreign presence in a market may create a value added consisting of technology and knowledge transfers to the local firms, which is expected to be associated with a higher capital labor ratio in the latter. This result suggests either that this motive is stronger than the negative effect of the ‘competition hypothesis’ or that both effects complement each other in the case that the latter effect is also positive.

Table 3: Regressions

a. Size of the Firms Proxied by Number of Employees					
Variable	(1)	(2)	(3)	(4)	(5)
Foreign_Sh	0.0807*** (0.002)	0.0806*** (0.003)	0.0819*** (0.003)		
Trade	0.5158*** (0.016)	0.489*** (0.017)		0.5244*** (0.016)	0.4976*** (0.017)
Size	-0.3095*** (0.001)	-0.3411*** (0.001)	-0.3396*** (0.001)	-0.3105*** (0.001)	-0.3421*** (0.001)
Al_Ain	-0.0096*** (0.007)	-0.0037*** (0.007)	-0.0082*** (0.007)	-0.0093*** (0.007)	-0.0035*** (0.007)
Age	-0.1328*** (0.002)			-0.1327*** (0.002)	
N	203,695	203,695	203,695	203,697	203,697
R-Squared	0.32	0.31	0.30	0.32	0.30
b. Size of the Firms Proxied by Amount of Capital					
Foreign_Sh	0.1089*** (0.003)	0.1095*** (0.003)		0.1101*** (0.003)	
Trade	0.2884*** (0.015)	0.2046*** (0.016)	0.3013*** (0.015)		0.2176*** (0.016)
Size	0.1304*** (0.002)	0.0549*** (0.002)	0.1282*** (0.002)	0.0562*** (0.002)	0.0527*** (0.002)
Al_Ain	-0.1128*** (0.007)	-0.1081*** (0.007)	-0.1124*** (0.007)	-0.1101*** (0.007)	-0.1077*** (0.007)
Age	-0.4266*** (0.002)		-0.4267*** (0.002)		
N	203,695	203,695	203,697	203,695	203,697
R-Squared	0.10	0.09	0.09	0.07	0.07

Note: Robust standard errors in parentheses. *** indicates significance at 1%, ** at 5%, and * at 10%.

Table 3 also shows that being involved in trade increases the capital labor ratio of a local firm. This finding is very much consistent with the theoretical literature, which shows that exporting firms exhibit a better performance than non-exporting ones through a variety of indicators (see Wagner, 2007).

Table 3a also shows that the size effect, measured as the logarithm of labor, is positive. This result tells us that the firm-activity’s relative capital labor ratio increases with the firm-activity’s size. Conversely, Table 3b shows the opposite result when size is proxied by the size of capital, which is expected because both measures of size are related in exactly the inverse form with the capital labor ratio. However, the study only uses this variable as a control and the important thing is that whether one or the other is used, there is not substantial change in the effect produced by the other variables. The variable Al Ain shows that firms located in this town have, on average, a lower capital labor ratio. This is not a surprise given that the town of Al Ain is relatively small as well as landlocked.

Finally, the variable age shows a negative effect on the firm-activity’s relative capital labor ratio. In principle, the authors were expecting to see a positive sign because older firms are usually bigger and also have more certainty about their future, which make them more prone to rely more on fixed rather than variable resources. However, the result may be explained by the fact that, after controlling for size, younger firms easily adapt to newer and more expensive technologies and hence embrace to more capital deepening than their older counterparts. This may be part of a survival strategy adopted by younger firms when competing with the more established older ones. This explanation is particularly relevant given that the data is only available for the surviving firms. Given that the majority of the firms exiting the market are generally relatively small, only those with higher capital ratio survive.

The authors can also read the results of Table 3 in terms of the economic significance. That is, the results of the first regression of Table 3a indicate that a 10% increase in the foreign share in a particular activity is associated with an average increase of 0.81% in the capital labor ratio of a local firm relative to the average capital labor ratio of all the local firms in this activity. Similarly, these results indicate that the capital labor ratio of a local firm is 52% higher if it is involved in foreign trade than if it is not.³

In what follows, the study does a robustness check by running the first regression of Table 3a, but for five different sub-groups of local companies defined according to their size in terms of number of employees; i.e., (a) between 1 and 19, (b) between 20 and 39, (c) between 40 and 59, and (d) 80 or more. The results are shown in Table 4. In terms of the main variables (i.e., $Foreign_Sh_j$ and $Trade_i$), the results show very little difference with the ones in the first column of Table 3a. The only noticeable one is the vanishing of the foreign investment effect for the group of large companies (with 60 or more employees). Moreover, the effect does not seem to be a linear one and shows a pick for the group of firms having between 40 and 59 employees.

Table 4: Regressions for Four Sub-Groups of Firms, According to the Number of Employees

Variable	(1-19)	(20-39)	(40-59)	(≥ 60)
Foreign_Sh	0.1119*** (0.003)	0.1095*** (0.007)	0.1783*** (0.013)	-0.0003 (0.008)
Trade	0.2613*** (0.014)	0.1797*** (0.041)	0.985*** (0.121)	1.161*** (0.065)
Size	-0.2528*** (0.002)	-0.1227*** (0.007)	-0.1304*** (0.012)	0.1059*** (0.005)
Al_Ain	-0.2575*** (0.008)	0.3425*** 0.0187	0.6172*** (0.032)	0.4007*** (0.016)
Age	-0.129*** (0.002)	0.2072*** 0.0091	0.2815*** (0.014)	0.1867*** (0.012)
N	136,766	23,609	12,335	30,985
R-Squared	0.23	0.07	0.09	0.06

Note: Robust standard errors in parentheses. *** indicates significance at 1%, ** at 5%, and * at 10%.

The behavior of the variables Al_Ain_i and Age_i are quite irregular. For the firms with less than 19 employees, both variables have a negative effect, but these effects get reverted for the other size groups. The age pattern is consistent with the previous interpretation of Table 3 results; i.e., that the negative effect may be steered by the smallest firms. On the other hand, the pattern of the Al Ain variable may be explained by the fact that the state-owned companies, which are allegedly proportionally more represented in Al Ain than in the rest of the Abu Dhabi emirate, show a relatively larger capital labor ratio.⁴ The variable $Size_{ij}$ also shows a change in its sign, but only for the group of firms with 60 or more employees. This last result may be explained by the existence of a few very large firms with extremely high capital labor ratio dominating the effect.

CONCLUSION

In the context of an oil rich and young economy, this paper finds evidence that local firms can highly benefit from their closeness to foreign firms. The research complements previous studies getting to similar results in other contexts.

Abu Dhabi and the UAE performance in the last decade have been outstanding, as clearly shown by the indicators mentioned in the introduction. However, it is evident that there is still potential to further increase the benefits accruing from foreign investment. There are at least three reasons for this to be the case. First, the UAE has a very good business environment as indicated by the high ranking achieved in terms of *Ease of Doing Business*

³ This is calculated as $100(\exp(\beta_2) - 1)$, which is the right way when the dependent variable is in a logarithmic form and the explanatory variable is a dummy. Clearly, this conclusion is obtained by making the reasonable assumption that the foreign trade status of one individual firm would have an insignificant effect on the denominator of Equation 4.

⁴ This interpretation was done through the pinpointing of some well-known state-owned companies but could not be formally tested because the dataset does not distinguish between private and state-owned companies.

indicators. As already mentioned, previous studies find that economies with more effective regulations for starting a business are more susceptible to benefit from inward FDI. Second, the UAE has a very elastic labor supply, which reduces the probability of seasonal labor supply shortages. This elastic supply is the result of the large high proportion of expatriates from neighboring countries with impoverished working conditions and wages. Previous studies show that foreign firms are very sensitive to changes in host-country labor market fluctuations (Levasseur, 2010). Third, the large number of expatriates in the UAE and Abu Dhabi creates a good ground for the attraction of FDI that better fits the necessities of the country. Foreign firms could benefit from the building of links with the expatriate communities of their own nationalities to better assess and perform the appropriate type of (way of making) business, which ultimately would also benefit the local economy.

In conclusion, the UAE should try to make the most of its achieved stability in a very volatile region as well as of its proximity to both the developed West and the fast-growing East. The attraction of foreign firms is one important way by which this can be achieved. Arguably, many foreign companies, and mainly those with high knowledge capital, may be reluctant to accept the current outside-Free-Zones' almost universal required local share majority. However, if this situation is changed, there is potential for them to choose the UAE, perhaps as the hub through which to supply the neighboring region. Fortunately, some steps in this direction are on the make - a draft at the UAE *Minister of Economy* contemplates to allow foreigners full ownership in certain areas. Ideally, the areas to be selected should be those that better fit the resources and location advantages of the UAE as well as show the highest potential for knowledge externalities. A deep assessment should be done, but possible candidates are petrochemicals, renewable energy and food security. The indigenous capabilities in these industries, as well as related ones, may have already achieved a critical mass of absorptive capacity, which is very much needed in order to benefit from the presence of foreign investment.

ACKNOWLEDGEMENT

Financial support from the National Research Foundation Grand # 77 UAEU-NRF is greatly acknowledged. The authors would also like to thank the cooperation provided by the Abu Dhabi Chamber of Commerce and Industry, in particular, with respect to data provision and technical assistance. This paper has greatly benefited from suggestions made by Wasseem Mina, Amany Elanshasy, Selini Katsaiti, and Fernando Zanella. Finally, the authors also acknowledge the comments from the participants at both the Middle Essex University ERPBS conference and the Second Critical Studies in Accounting and Finance Conference, Abu Dhabi.

AUTHOR INFORMATION

Osiris Parceró is currently an Assistant Professor at the CBE, UAEU. His Ph.D. thesis has been awarded the first prize (\$9,000) in a European Committee of the Regions Doctoral Thesis Competition (2006). He has been a Research Fellow at the University of St Andrews (Scotland) and a Visiting Professor at the Universidad Carlos III de Madrid. Recently, Dr. Parceró has been awarded a UAE National Research Foundation Grant (\$210,000) to study the effect of FDI on UAE firms. Parceró is an active and collaborative researcher and has published papers in international renowned journals as well as participated in many conferences. E-mail: Osirisparceró@uaeu.ac.ae (Corresponding author)

Abdul-Aziz Osman Abahindy is a Research Assistant in the College of Business and Economics at the United Arab Emirate University. His research interests include economic and educational development of the developing and emerging countries, productivity analysis as well as Middle East economy. He has presented papers in many conferences and got an award to the best paper at the World Leaders' Assembly, Gadga Madah University. He previously held positions such as UAEU Debate Center Chair as well as the Al-Reyada Middle East Ambassador. E-mail: abahindy@yahoo.com

Abdul Rashid Faizi is a Research Assistant at the College of Business and Economics, at the United Arab Emirates University. His research interest is in the areas of foreign direct investment, political economy, international economic, and economics of development. E-mail: rfaizi08@gmail.com

Ahmad Kamalsada is currently at Al Ain University. He previously was a research fellow at the College of Business and Economics at the United Arab Emirates University. His research interest is in the areas of foreign direct investment, productivity analysis, and supply chain management. E-mail: a.ibn.kamal@gmail.com

REFERENCES

1. Aitken, B., & Harrison, A. (1999). Do domestic firms benefit from direct foreign investment? Evidence from Venezuela. *American Economic Review*, 89, 605-618.
2. Blomström, M., & Kokko, A. (1998). Multinational corporations and spillovers. *Journal of Economic Surveys*, 12, 247-277.
3. Busse, M., & Groizard, J. L. (2008). Foreign direct investment, regulations, and growth. *World Economy*, 31, 861-86.
4. Crespo, N., & Fontoura, M. P. (2007). Determinant factors of FDI spillovers: What do we really know? *World Development*, 35, 410-425.
5. Greenaway, D., & Kneller, R. (2007). Firm heterogeneity, exporting and foreign direct investment. *The Economic Journal*, 117, 134-161.
6. Görg, H., & Greenaway, D. (2001). Foreign direct investment and intra-industry spillovers: A review of the literature. (Research Paper Series No. 37). University of Nottingham.
7. Harrison, A. (1994). Productivity, imperfect competition and trade reform. *Journal of International Economics*, 36, 53-73.
8. Kokko, A. (1994). Technology, market characteristics, and spillovers. *Journal of Development Economics* 43, 279-293.
9. Lévassieur, S. (2010). International outsourcing over the business cycle: Some intuition for Germany, the Czech Republic and Slovakia. *Eastern Journal of European Studies*, 1, 165-185.
10. Mina, W. (2012). *Inward FDI in the United Arab Emirates and its policy context*. Columbia FDI Profiles.
11. Naimy V. (2006). Applying Solow model to measure the appropriate capital sock and the contribution of productivity to the economic growth in Lebanon, Jordan, Egypt, and Syria. *The Journal of Business & Economics Research*, 4, 1-9.
12. Perez, T. (1997). Multinational enterprises and technological spillovers: An evolutionary model. *Journal of Evolutionary Economics*, 7, 169-192.
13. Wagner, J. (2007). Exports and productivity: A survey of the evidence from firm-level data. *The World Economy*, 30, 60-82.
14. World Bank Group (2013). *Doing business 2013: Smarter regulations for small and medium-size enterprises*. World Bank Publications.
15. World Trade Organization (2012). *International trade statistics 2012*. Geneva, Switzerland.

APPENDIX

Table A1: Activities in Which the 15,326 Firms are Involved

Activities	Number of Activities
1. Accounting & Auditing	4
2. Advertisement, Marketing, & Media	255
3. Agricultural, Fishing, & Breeding	105
4. Automobiles	510
5. Cleaning Works & Laundering	654
6. Construction & Maintenance	10,708
7. Educational & Training Institutions	6,037
8. Electronics & Electricals Devices	5,852
9. Engineering, Legal, & Other Consultancie	7,065
10. Entertainment, Cinema, & Video Librarian	5,672
11. Environmental Services	6,700
12. Foodstuff	6,043
13. Furniture, Furnishings, & Décor	5,831
14. Hospitals, Clinics. & Pharmacies	5,303
15. Hotels & Furnished Apartments	6,848
16. Information Technology & Computers	6,697
17. Insurance & Money Exchanges	6,082
18. Investment & Financial Services	6,904
19. Machinery, Tools, & Spare Parts	8,497
20. Manpower & Recruitment Services	7,301
21. Manufacturing Industries	7,425
22. Oil & Gas Well Drilling & Exploration	6,676
23. Onshore & Offshore Gas & Oilfield Suppl	11,391
24. Real Estate Brokers	9,109
25. Real Estate Investment & Development	8,070
26. Restaurants & Cafe	11,185
27. Dhopping, Specialty Stores & Retail	8,215
28. Telecommunications	9,741
29. Textiles, Clothing, & Apparels	9,507
30. Transportation (Land, Sea, & Air)	12,071
31. Travel, Tourism, & Rental	10,447
32. Utilities & Services	11,254
33. Vocational & Skill Jobs	11,664
Total	229,823