

## EFFECTS OF BANKING FDI IN MEXICO ON PRODUCTIVITY (1985-2006)

### **ABSTRACT**

The Mexican economy is one showing a high penetration by multinational banking. The available empirical evidence has shown that these companies have contributed to the capitalisation of domestic banks, the improvement of risk management, and have expanded the variety and quality of financial assets, contributing to improved productivity in the sector's companies. Banking services transverse sectors in that they represent intermediate inputs to economic activity, and are final demand services to consumers; this feature should facilitate the transfer of the productivity gains achieved at sectoral level to the economy as a whole. We have confirmed that the presence of multinational banking has contributed to the increase in lending activity, but has not had a significant impact on the productivity of the economy of Mexico.

Keywords: Foreign Direct Investment, Economic Growth, Productivity, Services.

JEL: F23, F47

## INTRODUCTION

Due to its nature, it is necessary to contextualise direct investment in foreign commercial banks (retailing) within the multi-domestic or multi-country strategies (Goshal, 1987) which the foreign investment bank must necessarily pursue in this kind of activity or business, in response to adaptations to the local or domestic environment. Among the localisation factors determining banking activity is the competitive and institutional framework of the destination country of FDI, for instance banking regulation and supervision, the level of competition, and the degree of investor and consumer protection. In general, as shown by the available evidence, the foreign bank introduces competition in the banking sector.

The relationship that exists between the financial system and economic growth has been the object of study. The starting point being that banks quantify business risk, mobilise savings, integrate risk and facilitate economic transactions, and thus have a major effect on both investment and consumption, which in turn contribute greatly to the growth and productivity of the economy (Levine and King, 1993; Levine and Zervos, 1996; Levine, 1997). This causal relationship has been questioned, with the suggestion that the process of economic development propitiates the demand for new financial instruments, thus improving the bank; therefore, "development of the financial system can be a better indicator of economic growth than a causal relationship" (Rajan and Zingales 1998). Lastly, we have ample evidence of how the legal, institutional and cultural environment conditions the development of the banking industry and its impact on economic growth (La Porta et al. 1997).

The entry of FDI into the financial system can be associated with the efficiency improvements of the sector. The entry of foreign banks in less developed economies should expand the financial products on offer<sup>1</sup>, facilitating access to international savings, improving risk control, and intensifying competition, thus reducing financial costs; all this should influence the expansion of the domestic industry and increase consumption. As a result, the presence of foreign banks should increase the supply of credit and reduce its costs, in other words a greater number of companies and families should have access to financing on improved terms, with a corresponding effect on productivity and economic growth.

After the debt crisis of 1982, Mexico was one of the first countries in Latin America to undertake macroeconomic and institutional reforms aimed at opening its economy to the foreign market. Thus began a process of privatisation, deregulation, the improvement of the legal processing of FDI, the signing of bilateral agreements, and entry into the FTA (Free Trade Agreement with the U.S. and Canada) (Ramírez, 2000). Macroeconomic and institutional changes have had an effect on the decisions of FDI inflows into Mexico, which

---

<sup>1</sup> The expansion of the variety of intermediate and final inputs is a major cause of spillover generation associated with the entry of foreign direct investment (Rodríguez-Clare 1996).

has become the second largest FDI recipient in Latin America. (Trevino & Mixon Jr., 2004, Treviño et al., 2008).

The inflow of FDI into the Mexican economy has been primarily in the manufacturing industry (Ramírez, 2000), representing over 70% of FDI received between 1985 and 2006. However, the 1994 financial crisis (*Tequilazo*) exposed the deficiencies of the Mexican financial system: inadequate supervision and control, inefficient banking management, inappropriate local bank structures of ownership, and a weak institutional system (Haber, 2005; Laporta et al. 2003; Dages et al., 2000). Barriers to foreign capital were removed in order to solve a serious problem of capital depletion in the local bank, the repercussions were significant as at the beginning of the nineties only Citibank was able to perform banking operations, and only if they did not exceed 1% of the total loans granted at national level; in 1998 foreign banks controlled 18% of lending activity, and presently four of the largest banks in Mexico are owned by foreign banks<sup>2</sup>, as such 80% of bank assets are in foreign hands (Dages et al. 2000, Sidaoui 2005, Schulz 2006, Haber 2005).

At microeconomic level, evidence is available concerning the effects of the entry of foreign banking into Mexico. As such, it has been verified that the entry of foreign capital has been to the advantage of the banking sector, has improved risk management, and has expanded the range and quality of financial assets, which have impacted positively on productivity growth in the sector. These results confirm that multinational banking has generated positive spillovers in the sector. However, there is a lack of evidence on the impact of those spillovers on the economy as a whole (Haber and Musacchio 2005; Schulz 2006). In this paper we consider whether the spillovers identified at the microeconomic level have had a significant impact on the development of the banking system, and on the productivity of the economy as a whole.

A Granger causality analysis has been performed, helping to avert endogenous problems. It is confirmed that, despite the sharp decline in lending activity that has occurred after the 1994 financial crisis, and the transformation of the supply of financial products (Haber & Musacchio 2005), the presence of multinational banking has had a positive effect on the development of lending activities. This result is consistent with the evidence, which confirms with microeconomic information, the spillovers generated by international banks in Mexico. However, growth in lending activity and the entry of FDI into the banking sector have no significant effect on productivity. The economy's relatively low level of banking services, and the strong bias toward short-term funding, could limit the transfer of the spillovers generated at sectoral level to the whole economy.

The rest of this paper is structured into four parts. Firstly, the hypothesis central to the paper is established. Then we describe the variables, state the sources and justify the methodology

---

<sup>2</sup> BBVA merged with Bancomer, Santander acquired Serfin, Citibank bought Banamex, and HSBC absorbed Bital.

for the following analysis. Finally we analyse the results obtained and propose relevant conclusions and recommendations.

## **LITERATURE REVIEW**

The main function of the financial system is the channelling of savings into investment, this involves risk management and the reduction of transaction costs in an economy, which should translate into economic and productivity growth. The available evidence confirms that the level of financial intermediation is a good predictor of the rates of long-term economic growth, capital accumulation and productivity improvements (Levine and King, 1993; Levine and Zervos, 1996; Levine, 1997). However, it is questioned whether this causal link exists in the opposite direction, namely, if economic growth is associated with the demand for financial assets that promotes the development of banking (Rajan and Zingales, 1998).

During the nineties direct investment inputs intensified in the financial sectors of economies defined as emerging (less developed countries with a path of meaningful and sustainable growth). A strong growth in lending activity, controlled by foreign banks, has been detected in Latin America, Asia and Eastern Europe. U.S. and Spanish banks have assumed a special importance in this process (Goldberg, 2007). In this sense, the Mexican economy is a recipient of foreign direct investment inflows instigated by multinational banks.

In general terms, FDI entry can be associated with the transfer of technological knowledge and new management skills<sup>3</sup> to the host economy (Markusen, 1995). Thus, the specific effects of the entry of international banks into the financial sector have been addressed by identifying the main routes for spillover generation (Levine, 1997; Walter and Gray, 1983; Goldberg, 2007).

The presence of foreign banks in a country can be associated with an increase in the variety, quality, price and availability of financial services. A major source of vertical spillover generation<sup>4</sup> is the customer-supplier relationship, which is based on the expansion of the existing variety of different inputs into the domestic market (Rodríguez-Clare 1996).

One would expect greater access to financing for both enterprises and households, with corresponding effects on investment, consumption and adaptability to economic cycles. In addition, FDI in banking has a transverse nature as banking activity represents intermediate inputs into economic activity, and the provision of services of ultimate demand for consumers, which should facilitate the transfer of the productivity gains achieved at the sectoral level to the economy as a whole.

---

<sup>3</sup> The available empirical evidence for the manufacturing industry is covered by the works of: Blomström and Kokko (1998, 2003), Hanson (2001), Lipsey (2002), Mello (1997), Kumar (1996) and Görg and Greenaway (2000).

<sup>4</sup> The spillovers arising from the interaction of the multinational company with its local customers and suppliers are vertical, while the effects of increased competition are horizontal (Caves, 1999).

The improvement and expansion of financial service products should have an impact on domestic banking, propelling the local bank to be more competitive in the sectors where it is confronted by multinational banking. Therefore, the presence of foreign banks should promote the development of capacities in domestic banking, enabling improvements in efficiency. In any event, it would result in a horizontal spillover caused by the demonstration effect and the intensification of competition (Levine, 1997; Goldberg, 2007). The works of Claessens et al. (2001) and Demirgüç-Kunt and Huizinga (1998) provide evidence that the presence of foreign banks results in the reduction of benefits, and an improvement in the efficiency of the domestic bank<sup>5</sup>. These results are confirmed by specific studies at country level<sup>6</sup>.

The presence of foreign banks can be considered as a source of international capital, to finance domestic investment projects and diversify the sources of financing of the economy as a whole (Meltzer, 1998; Dages et al., 2000).

The development of banking activity depends on the quality of available information, the protection offered by the legal framework for creditors, and the degree of applicability of the law (Levine 1998). In this sense, international banks can influence regulatory and supervisory institutions in order to stimulate improvements in financial legislation, supervision mechanisms, accounting standards, transparency, audit requirements and the emergence of rating organisations (Goldberg, 2007). The successes that can be achieved in these aspects would facilitate the development of the financial system, along with the associated positive effects on the economy as a whole.

The entry of multinational banking can have risks for the domestic company. Thus, if we consider that the multinational has a greater allocation of intangible assets (brand image, technology, management skills) which can allow the concentration of its activities in the most profitable and less risky sectors, known as the “cherry picking” strategy, leaving domestic banks with the sectors that have a poorer binomial yield risk. This could lead to an expulsion effect (crowding out) (Dages et al., 2000). A weak legal and institutional environment encourages the "cherry picking" strategy, which can lead to reduced activity in the banking sector and its consequent negative effects on productivity and economic growth.

Multinational banking can have positive or negative effects on the development of banking activity; however, that does not necessarily imply that the effect transcends to the economy as a whole, there must be a minimum level of banking services for the efficiency gains or losses to have an effect on productivity and economic growth. In this paper we analyse the effects of the entry of the multinational bank on the development of banking activity, and the degree of transfer towards total factor productivity in the Mexican economy.

---

<sup>5</sup> Both studies used a sample of banks corresponding to 80 economies for the period 1988-1995.

<sup>6</sup> For example we have the contribution of Crystal et al. (2001) for Latin America, Barajas et al. (2000), for Colombia and Argentina, and Dages et al. (2000), Haber and Musacchio (2005) and Schulz (2006) for Mexico.

## SOURCES, VARIABLES AND METHODOLOGY

The correlation between productivity and FDI entry can be due to the generation of spillovers, but it can also be a result of the reaction of multinationals to the productivity improvements of an economy, which can constitute a factor in attracting direct investment. On the other hand, the development of banking activity can generate improvements in productivity, but in turn this can increase the demand for financial products caused by developed banking services. As such, we are presented with two endogenous problems which we will resolve with a Granger causality analysis. In addition, we are presented with a problem of simultaneity, since the evolution of both variables may be constrained by global economic trends, which can lead to spurious relationships.

In order to compare the effects of the presence of multinational banking on the development of banking and productivity, we specify the following Vector Auto Regression model (VAR), which includes the variations in total factor productivity (*tfp*), the flows of foreign direct investment inflows received into the banking sector (*b-fdi*) and the growth of access to banking services (*bank*):

$$\begin{bmatrix} tfp_t \\ b-fdi_t \\ bank_t \end{bmatrix} = A_0 + A_1 \begin{bmatrix} tfp_{t-1} \\ b-fdi_{t-1} \\ bank_{t-1} \end{bmatrix} + \dots + A_s \begin{bmatrix} tfp_{t-s} \\ b-fdi_{t-s} \\ bank_{t-s} \end{bmatrix} + u_t$$

Where  $A_0$  is the constant terms vector,  $A_i$  is the matrix of parameters for the  $i$ -th lag,  $s$  is the number of lags incorporated in the model, and  $u_t$  is the multivariate error term ( $u_t \sim IN(0, \Sigma)$ ). All variables are expressed in real terms and in logarithms.

We will use the Dickey-Fuller statistic increased to verify the stationarity of the temporary series<sup>7</sup>. We will employ the Schwarz<sup>8</sup> statistic to identify the optimal number of lags.

The estimate of the change in total factor productivity (TFP) has been made from the Cobb-Douglas production function  $Y_t = E_t K_t^\alpha L_t^\beta$  with three inputs: the labour factor or number of workers ( $L_t$ ), the capital factor ( $K_t$ ) and the total productivity of the factors ( $E_t$ ). If we estimate growth and we capture logarithms, we arrive at the expression that allows us to estimate the change in total factor productivity.

---

<sup>7</sup> When the variables are not stationary and are co integrated, the traditional tests (F-test and Wald test) are not valid in a Granger causality analysis because the distribution functions are not usual (Zapata and Rambaldi, 1997). Thus regressions that incorporate integrated variables may generate explicit spurious relationships (Granger and Newbold 1974). In addition, Giles and Mirza (1999) point out that non-stationarity and co integration can lead to an over rejection of the null hypothesis of no causality, keeping open the possibility of distortion in the inference procedure.

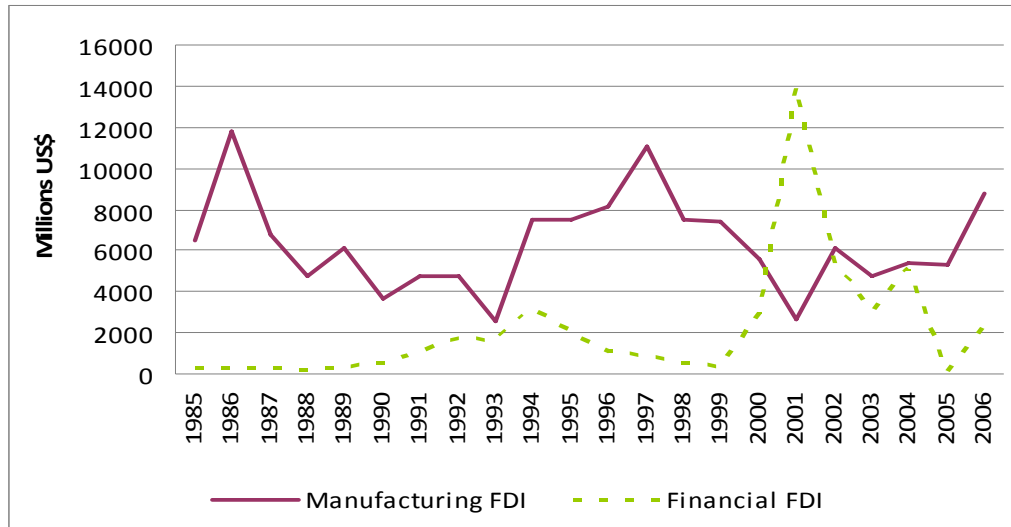
<sup>8</sup> Lutkepohl (1993) proposes using the Schwarz statistic to determine the optimal number of lags when working with small samples.

$$y_t = \beta_0 + \beta_l l_t + \beta_k k_t + e_t + \partial D_t + v_t$$

Where  $(y_t)$  represents the growth of GDP,  $(l_t)$  the growth of the labour factor,  $(k_t)$  the capital growth,  $(e_t)$  the productivity growth,  $D_t$  represents the dummies that capture macroeconomic shocks<sup>9</sup>, and  $v_t$  is the random disturbance.

Production has been measured by the GDP expressed in per capita dollar income for 2006, according to the data provided by the Groningen Growth and Development Centre. The same source has been used for the number of workers, which provides the estimate for the labour factor. The determination of capital has been made using the perpetual inventory method<sup>10</sup>, the data being provided by the World Bank. The estimation of FDI inputs<sup>11</sup> has been performed with information provided by the OECD (see Figure 2).

**Figure 1: Sectoral distribution of FDI inflows into Mexico expressed in 2006 per capita dollar income (1985-2006).**



Source: Prepared from information provided by the OECD & the Groningen Growth and Development Centre.

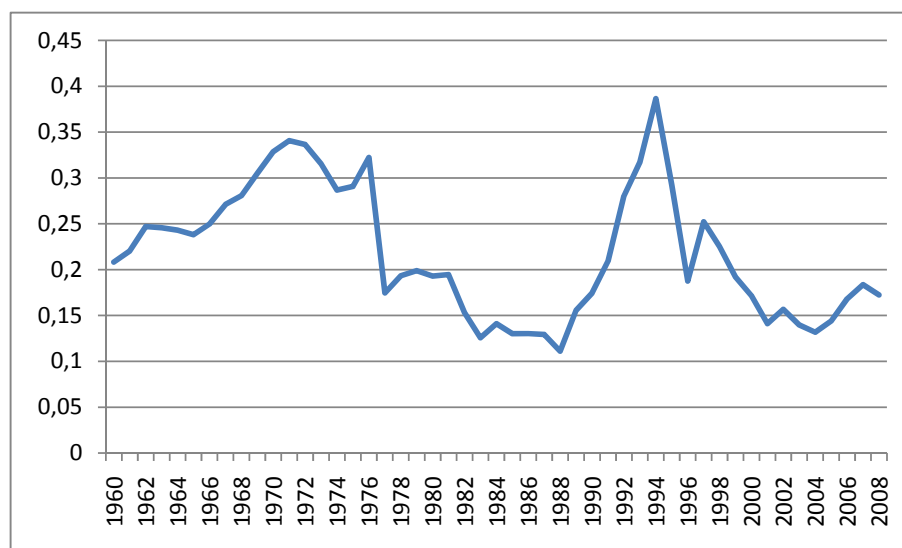
<sup>9</sup> Three dummies have been used, 1986, 1995 and 2000.

<sup>10</sup> The World Bank offers a range of between 1960 and 2007. The traditional expression for the estimation of capital stock has been used:  $K_t = K_{t-1} + I_t - \delta K_{t-1}$ , where  $K_t$  is the capital stock at time  $t$ ,  $I_t$  the investment measured by gross capital formation, and  $\delta$  the depreciation estimated at 10% as proposed by de Mello (1999). Ramírez (2000) uses a depreciation of 5%; however, 10% is opted for when assured that it does not produce significant changes.

<sup>11</sup> We use the GDP deflator proposed by the Groningen Growth and Development Centre, to express them in real terms.

The measure of the development of banking activity is based on the proposal of Levine and Zervos (1998) (*BANK*). Accordingly, as an indicator we use the value of loans made by banks and other financial intermediaries to the private sector, divided by GDP. Specifically, we have used the 22d and 42d sections of the ‘International Financial Statistics’ published by the International Monetary Fund (IMF), and we employ its rate of variation (*bank*) in the model.

**Figure 2: Changes in the volume of loans made to the private sector by banks and other financial intermediaries as a percentage of GDP.**



Source: Prepared with data from the International Monetary Fund and the World Bank.

## RESULTS

The augmented Dickey-Fuller statistic provides evidence that all the variables are stationary, allowing the use of Granger causality test (see Table 1). In accordance with the Scharzt test, we will use four lags (see Annex 1).

**Table 1: Analysis of unitary roots**

	Augmented Dickey-Fuller Statistic		
	(1)	(2)	(3)
<i>tfp</i>	-3.119**	-3.050	-3.217*
<i>b-fdi</i>	-3.377**	-4.479*	0.917
<i>bank</i>	-4.074*	-4.040**	-4.152*

*tfp*: total factor productivity, *bank*: the value of loans made by banks and other financial intermediaries to the private sector, divided by GDP, *b-fdi*: FDI inputs into the banking sector. Time period: 1985-2006.

(1), (2) & (3) correspond respectively to the statistics for a constant model, with constant & trend and without any of the above.

\* The null hypothesis is rejected for a confidence level of 99%, \*\* the null hypothesis is rejected for a confidence level of 95%, \*\*\*\* the null hypothesis is rejected for a confidence level of 90%.



**Table 2: Granger causality analysis**

	Causality Source		
	<i>Tfp</i>	<i>Bank</i>	<i>b-fdi</i>
	$\sum coeff$	$\sum coeff$	$\sum coeff$
	$[X^2]$	$[X^2]$	$[X^2]$
<i>Tfp</i>	--	0.007 [4.209]	-0.0006 [5.751]
<i>Bank</i>	-14.441 [110.252]*	--	0.005 [22.999]*
<i>b-fdi</i>	164.484 [0.697]	-6.305 [0.536]	--

*tfp*: total factor productivity, *bank*: the value of loans made by banks and other financial intermediaries to the private sector, divided by GDP, *b-fdi*: FDI inputs into the banking sector, estimated using OLS. Time period: 1985-2006. Number of optimal lags  $s=4$  according to the Schwartz test. Atypical: 1994,1995.

\*\*\*, \*\*, \* Indicate significance levels of 10%, 5%. and 1% respectively.

Despite the sharp reduction in lending activity that has occurred in Mexico after the 1994 financial crisis, and the redefinition of the structure of the financing granted by financial institutions, mainly oriented towards less risky assets (Haber and Musacchio 2005), the Granger causality test verifies that the presence of multinational banking has had a positive effect on the development of lending activity. It is confirmed that the spillovers identified at the microdata level are generating growth in banking activities.

We can see that productivity growth has a negative effect on the development of banking activity; this result could be explained by the peculiarities of the capital structure of the Mexican company. The relatively low proportion of long-term loans to which the domestic company has access<sup>12</sup>, leads us to assume that in situations of productivity improvement the need for short-term financing is significantly reduced.

Neither the growth in credit activity nor the entry of direct investment into the banking sector has a significant impact on total factor productivity. The cause of this result may be the economy's relatively low level of banking services and the strong bias toward short-term financing, which can be factors limiting the transfer of the spillovers generated at sectoral level to the economy as a whole. In this sense, a weak legal system creates a strong aversion to risk which curbs lending activity (La Porta et al. 1998, 1997; Haber 2005, Haber and

<sup>12</sup> Schmukler and Vesperoni (2001) analyse the financial structure of listed companies in Argentina, Brazil, South Korea, Malaysia and Mexico, demonstrating that Mexican companies have a ratio of short-term funding superior to the rest of the economies analysed.

Musacchio 2006). As an additional factor, it should be mentioned that the limited effort made by banks to control administrative costs and volume of employment, is an indicator of the weakness of competition in the domestic market (Schulz, 2006), which also contributes to the growth of credit.

## CONCLUSIONS

In recent years there has been an intense process of banking multinationalisation. The entry of foreign banks into less developed economies has been perceived as a competitive factor that may contribute to the improvement of local banking and the financial system as a whole. If we consider the designated transverse character of financial services, which represent an intermediate input for all economic sectors and the provision of services of ultimate demand for consumers, it is expected that the spillovers associated with the entry of direct investment have a significant impact on the economic growth and the productivity of economies.

The financial system crisis in Mexico in 1994 resulted in the opening of domestic banking to multinational capital (Haber, 2005; Laporta et al., 2003; Dages et al., 2000; Sidaoui 2005, Schulz 2006; Haber 2005). It has been verified that the presence of foreign banks in Mexico has been to the advantage of the banking sector, and has expanded the range and quality of financial assets, which have had positive effects on increasing the productivity of the sector. These results confirm that multinational banking has generated positive spillovers (Haber and Musacchio 2005; Schulz 2006). This allows us to test whether these spillovers have had an impact on the economy as a whole.

A Granger causality analysis, avoiding endogenous problems, has been performed. This article confirms that, despite the sharp decline in lending activity that has occurred since the 1994 financial crisis, and the transformation of the supply of financial products (Haber & Musacchio 2005), the presence of multinational banking has had a positive effect on the development of lending activity in Mexico.

However, we have observed that the growth in lending activity and the inflows of FDI into the Mexican banking sector do not have a significant effect on productivity. The relatively low level of the economy's banking services, and the strong bias towards short-term financing, could limit the transfer of the spillovers generated at sectoral level to the economy as a whole. In accordance with the criteria proposed by Demirgüç-Kunt and Levine (2001), and applied by Schmukler and Vesperoni (2001), Mexico is considered a market-based economy rather than a bank-based economy, which helps us to understand the obtained results. To this reality it is necessary to add that the weakness of the legal system creates a strong risk aversion, which curbs lending activity. In other words, regulation improvements for the protection of creditors would permit the achievement of a sufficient level of banking services, required in order for the effects on the economy as a whole to be appreciated (LaPorta et al. 1998, 1997; Haber 2005; Haber and Musacchio 2006). As an additional factor it is necessary to mention that the limited efforts made by banks to control administrative costs and the volume of employment, constitute an indicator of the weakness of competition in the domestic market. Similarly, if we take into account the sharp increase in the profits of

subsidiaries of multinational banks, it is conceivable that no strong incentives exist for credit growth (Schulz, 2006).

From the obtained results two areas of action would be recommended; on one hand to carry out institutional reforms for the legal protection of creditors, which would facilitate credit growth. The second issue is more controversial, as it concerns propitiating the optimal level of competition; however, the evidence concerning this type of objective is not conclusive, so a comparative analysis with the economies at a similar level of economic development would be necessary, in order to try to identify what the appropriate level of competitors should be.

## REFERENCE

Barajas, A., Steiner, R. & Salazar, N. 2000. The Impact of Liberalization and Foreign Investment in Colombia's Financial Sector. *Journal of Development Economics*, 63(1):157-196.

Blomström, M. & Kokko, A. 1998. Multinational Corporations and Spillovers. *Journal of Economic Surveys*, 12(3):247-277.

Blomström, M. & Kokko, A. 2003. The Economics of Foreign Direct Investment Incentives. *CEPR. Discussion Paper Series*, 3775.

Caves, R. E. 1999. Spillover from Multinational in Developing Countries: the Mechanisms at Work. *Working Paper William Davidson Institute*, 247

Claessens, S., Demirgüç-Kunt, A. & Huizinga, H. 1998. How does Foreign Entry Affect the Domestic Banking Market? *The World Bank Policy Research Working Paper*. 1918.

Crystal, J.S., Dages, B.G. & Goldberg, L.S. 2002. Has Foreign Bank Entry Led to Sounder Banks in Latin America. *Current Issues in Economics and Finances*, 8(1):1-6.

Dages, G.B., Goldberg, L.S. & Kinney, D. 2000. Foreign and Domestic Bank, Participation in Emerging Markets: Lessons from Mexico and Argentina', *FRBNY Economic Policy Review*, September: 17-36.

Demirgüç-Kunt, A. & Huizinga, H. 1998. Financial Structure and Bank Profitability. In A.

Demirgüç-Kunt & R. Levine (Eds.), *Financial Structure and Economic Growth*: 243-262.

- Ghoshal, S. 1987. Global Strategy: An Organizing Framework. *Strategic Management Journal*, 8(5): 425-440.
- Giles, J.A. & Mirza, S. 1999. Some Pretesting Issues on Testing for Granger Causality. *Econometrics Working Paper. University of Victoria*. EWP9914.
- Goldberg, L.S. 2007. Financial Sector FDI and Host Countries: New and Old Lessons. *FRBNY Economic Policy Review*. 13(1):1-17.
- Görg, H. & Greenaway, D. 2004. Much about Nothing? do Domestic Firms really Benefit from Foreign Direct Investment? *The World Bank Research Observer*, 2(19):171-197.
- Granger, C. W. J. & Newbold, P. 1974. Spurious Regressions in Econometrics'. *Journal of Econometrics*. 2:111-120.
- Haber, S. & Musacchio, A. 2005. Foreign Banks and the Mexican Economy, 1997-2004. *Stanford Center for International Development Working Paper*, 267.
- Haber, S. 2005. Mexico's Experiments with Bank Privatization and Liberalization, 1991–2003. *Journal of Banking & Finance*, 29: 2325-2353.
- Kaufmann, D., Mehrez, G. & Schmukler, S.L. 2005. Predicting Currency Fluctuations and Crises: Do Resident Firms have an Informational Advantage?. *Journal of International Money and Finance*, 24: 1012-1029.
- Kumar, N. 1996. Foreign Direct Investment and Technology Transfer in Development: A Perspective on Recent Literature. *INTECH Discussion Paper Series*. 9606.
- La Porta, R., López-De-Silanes, F. & Zamarripa, G. 2003. Related Lending. *Quarterly Journal of Economics*, 118(1):231.
- La Porta, R., Lopez-De-Silanes, F., Shleifer, A. & Vishny, R.W. 1997. Legal Determinants of External Finance. *Journal of Finance*, 52(3): 1131-1150.

- Levine, R. & King, R.G. 1993. Finance, Entrepreneurship and Growth: Theory and Evidence. *Journal of Monetary Economics*, 3:513-542.
- Levine, R. & Zervos, S. 1996. Stock Market Development and Long-Run Growth. *The World Bank Economic Review*, 10(2):323-339.
- Levine, R. 1997. Financial Development and Economic Growth: Views and Agenda. *Journal of Economic Literature*, XXXV: 688-726.
- Lipsey; R.E. 2002. Home and Host Country Effect of FDI. *NBER Working Paper*. 9293.
- Lutkepohl, H. 1993. *Introduction to Multiple Time Series Analysis*. Guilford UK: Springer.
- Markusen, J.R. 1995. The Boundaries of Multinational Enterprises and the Theory of International Trade. *The Journal of Economic Perspectives*, 9(2):169-189.
- Mello, Luiz R. de 1997. Foreign Direct Investment in Developing Countries and Growth: A Selective Survey. *The Journal of Development Studies*. 34(1):1-34.
- Meltzer, A.H. 1998. Financial Structure, Saving and Growth: Safety Nets, Regulation, and Risk Reduction in Global Financial Markets. *First International Monetary Conference of the Bank of Korea*.
- Rajan, R.G. & Zingales, L. 1998. Financial Dependence and Growth. *The American Economic Review*, 88(3): 559-586.
- Ramírez, M.D. 2000. Foreign Direct Investment in Mexico: A Cointegration Analysis. *Journal of Development Studies*, 37(1):138-162.
- Rodríguez-Clare, A. 1996. Multinationals, Linkages, and Economic Development. *American Economic Review*, 86(4):852-873.
- Schmukler, S. & Vesperoni, E. 2001. Globalization and Firms' Financing Choices:Evidence from Emerging Economies. *William Davidson Working Paper*, 388.

Schulz, H. 2006. Foreign Banks in Mexico: New Conquistadors Or Agents of Change? *Wharton Financial Institutions Center Working Paper*, 06-11.

Sidaoui, J.J. 2006. The Mexican Financial System: Reforms and Evolution 1995-2005. In P. Turner (ed.) *The Banking System in Emerging Economies: How Much Progress has been made?* 277-298. BIS Paper, n°28.

Treviño, L.J. & Mixon, F.G. 2004. Strategic Factors Affecting Foreign Direct Investment Decisions by Multi-National Enterprises in Latin America. *Journal of World Business*, 39(3): 233-243.

Treviño, L.J., Thomas, D.E. & Cullen, J. 2008. The Three Pillars of Institutional Theory and FDI in Latin America: An Institutionalization Process. *International Business Review*, 17(1):118-133.

Walter, I. & Gray, H.P. 1983. Protectionism and International Banking: Sectorial Efficiency, Competitive Structure and National Policy. *Journal of Banking & Finance*, 7(4):597-609.

Zapata, H.O. & Rambaldi, A.N. 1997. Monte Carlo Evidence and Cointegration and Causation. *Oxford Bulletin of Economics and Statistics*. 59(2):285-298.

## ANEX I

**Table 3: Schwarz Test**

Own lags	SC
0	-6.575
1	-5.558
2	-4.459
3	-4.628
4	-13.174