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# Determinants of loans and deposits strategies of foreign bank subsidiaries in emerging countries

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## Abstract

This paper focuses on the transmission of bank liquidity shocks in Loan and deposit in emerging markets. First, we attempt to identify the factors that affect the credit strategy of foreign banks in emerging countries. Second, we test whether depositors do exert market discipline on foreign subsidiaries. Combining between financial variables of subsidiaries, their parent banks, and macroeconomic variables of host and home countries, we investigate the factors that are likely to impact the depositors' behaviour. Our empirical approach is based on a Partial Least Squares-Path model, through which we can identify the causal relationships between the various groups of variables. Our results show that foreign bank lending is determined by the specific financial variables of the parent bank as well as macroeconomic variables of the country of origin. This means that the foreign subsidiary's strategy credit is centrally managed at the parent bank and that subsidiaries' credit supply depends primarily on the financial situation of its parent bank. Finally, we evidence market discipline as applied to foreign subsidiaries in emerging countries. We demonstrate that market discipline is strongly affected by the specific characteristics of the subsidiary.

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## 1. Introduction

Foreign banks have significantly expanded their range of activities in emerging economies. The problem of transmission of liquidity shocks has been widely discussed in the context of emerging countries, especially after the 2007-2009 crisis. Major studies in this context show that the strategy of credit may be affected by specific characteristics of both subsidiaries and parent banks. But it was also proved that the macroeconomic conditions of the country and the home country might also affect the credit subsidiaries. Allen et al. (2012) show that foreign bank lending is determined by different factors in emerging markets and in developed countries. But one limit to their models is that macro variables of emerging country can be themselves affected by macroeconomic variables of developed country. Similarly, the home country macroeconomic variables can also affect specific characteristics of the parent bank which is located in a developed country. This presents a major problem of colinearity between the variables considered in the same model. In this study, we intend to remedy this limit by considering a type of econometric approach PLS Path that will allow us to take account of interdependent relationships between different groups of variables (Chin, 2000). The rest of the paper is organized as follow. Section 2 presents a literature review on the role of foreign affiliates in the transmission of liquidity socks in emerging countries. The third section describes our methodology and the database used in this study. The following section provides a synthesis of the results. Section 5 concludes.

## 2. Lending shock transmission to emerging countries by bank subsidiaries and market discipline

### 2.1. Lending shock transmission by bank subsidiaries

The last financial crisis and the need for sound banking systems have provided the opportunities to invest in financial institutions and to develop activities in emerging countries. Monetary authorities in these areas attempted to overcome this crisis by accelerating the liberalization of their financial sectors to facilitate the recapitalization of banks and the concentration of the banking sector. The expansion of credit via foreign banks is also considered as a major problem of financial stability authorities of the host country. The foreign banks' invasion in the emerging country has direct effects on the transmission of credit shocks from developed countries to developing countries. Arvai et al. (2009) present two different contagious channels that can be carried through inter-bank linkages and parent-subsidiaries' relationships. In the first channel, the problems of liquidity or solvency of a subsidiary may affect its parent, which feeds back on its other subsidiaries in other host countries through the channel of the common creditor. The parent banks of subsidiaries operating in host countries are in spin affected. In the second channel, the problems of liquidity or solvency of the parent affect its subsidiaries, which are propagated by inter-bank linkages or through distrust in the banking system. This is also related to the banks of the host country, which has an impact on their respective parent companies. In the same perspective, some authors (like Claessens et al.; 2009, Cetorelli and Goldberg, 2012) suggest that foreign subsidiaries may be a factor of a financial instability. In fact, the reduction of restrictions on foreign banks' entry can bring risks, particularly, by increasing competition and thereby lowering the profits of domestic banks, foreign entry may reduce charter values of domestic banks, making them more vulnerable. This may have a destabilizing effect on the financial system, especially if the domestic prudential regulations and supervision are not sufficiently sturdy. From a public policy standpoint, Peek and Rosengren (2000) indicate that credit flows by global banks are influenced by both domestic and foreign conditions. De Haas and van Lelyveld (2010) explain the supply of credit by banking subsidiaries of the macroeconomic environment in the host country as well as the financial characteristics of the subsidiary of its parent company and other subsidiaries. Their results support the existence of internal capital market banking groups, in which the parent bank manages the supply of credit to their subsidiaries.

### 2.2. Market discipline of foreign subsidiaries

Market discipline can be described as a situation in which depositors penalize riskier banks by withdrawing deposits. Market discipline was stated by the Basel regulatory framework as one of the three pillars required for the stability of the international financial system. According to Berger (1991), market discipline in the banking sector is generally interpreted as a situation where the costs incurred by the partners of the bank on the risk of bank risk and react on the basis of these costs. Thus, the

analysis of market discipline can be reclined through problems that may exist between agencies, mandating and agent. The applicant wants to ensure that the bank (agent) protects its assets. Thus, applicants will respond to any increased risk of the bank through prices or quantities, demanding higher interest rates on their deposits or withdraw completely. This leads to penalize banks following an excessive risk-taking. We tackle this issue wondering whether depositors require controlling risk-taking by foreign subsidiaries in emerging countries. The last global financial crisis has sparked a debate on incentives that may assist depositors to discipline risk-taking by their banks. Klapper and Love (2002), Mitton (2002) note that market discipline, which is an essential factor for banking stability is low in emerging countries and remains under the influence of banking regulations. Indeed, the regulatory and supervisory practices and institutional factors greatly influence and shift the mechanisms of discipline.

## 3. Methodology and data

In this study we investigate the transmission of liquidity crises from developed to developing countries through foreign subsidiaries. Following the approach of De Haas and van Leyveld (2010), we use the annual change of the logarithm of total loans of a subsidiary (*ΔLoans*) as the variable that describes the subsidiaries' loan strategy. Then, we present a stylized model which specifies the loan supply decision of bank subsidiaries relying on four blocks of exogenous latent variables. The first two groups are specific variables of subsidiaries and their parent banks. The third and the fourth groups are macroeconomic variables of home and host countries, respectively. Specific financial variables banks for subsidiaries and parent banks include return on equity (*ROE*), equity to total assets (*equity*), assets liquid to total assets (*liquidity*) and we consider provisions for loan losses to net interest income (*Loan Loss Provisions*) as a proxy for credit risk following. We expect that the capitalization of subsidiaries affect positively loan growth since credit transactions are generally linked to effective and a real business which is based on risk sharing between the bank and its customers. However, non-performing loans' provision should have a negative sign, as banks reduce exposure in countries where they are experiencing problems. We include a variable size (Size), as a variable control, defined as the logarithm of total assets (Gambacorta, 2005). The same specific variables are used to describe the financial situation of the parent bank and to construct the latent variable: Parent fundamentals.

For macro-economic variables, we include the growth rate of GDP (*GDP Growth*) and the real exchange rate of the U.S. dollar (*Real Exchange Rate*). We expect that lending by foreign banks increases with the local GDP and appreciation of the local currency. The study of the effect of GDP on the credit supply is carried by the assumption that better economic conditions increase the investor's optimism. A higher exchange rate results in higher imports prices and in turn, increases domestic prices (Kia and Darrat, 2007). In addition, to test whether the structure of the banking sector's liquidity affects the transmission of liquidity shocks we include the variable (*Concentration*). The concentration of the banking sector implies the importance of local banks in the host country. We estimate that much higher concentration lowers the role of foreign subsidiaries in the transmission of liquidity shocks.

In the following step, we test the existence of market discipline and we identify its mechanism using the change in bank deposits (*ΔDeposits*) as a measure for market discipline. We assume that a double evaluation of risks by both the counter-party and the bank should help us introduce a healthy discipline in the whole banking business and eliminate a range of undesirable lending practices. The sample used in this study focuses on banks' subsidiaries in emerging countries and whose parent banks are located in developed countries. We collect data on 590 foreign subsidiaries operating in emerging countries and that are associated with 270 parent banks that operate in developed countries. This paper combines financial data of subsidiaries and macroeconomic variables of both host and home countries to investigate determinants of loans shock transmission from developed to emerging countries. The financial information on subsidiaries was collected from Bank scope database. Table 1 shows that *total assets* of parent banks are on average much higher than those subsidiaries. However, liquidity and the ROE subsidiaries exceed those of parent banks.

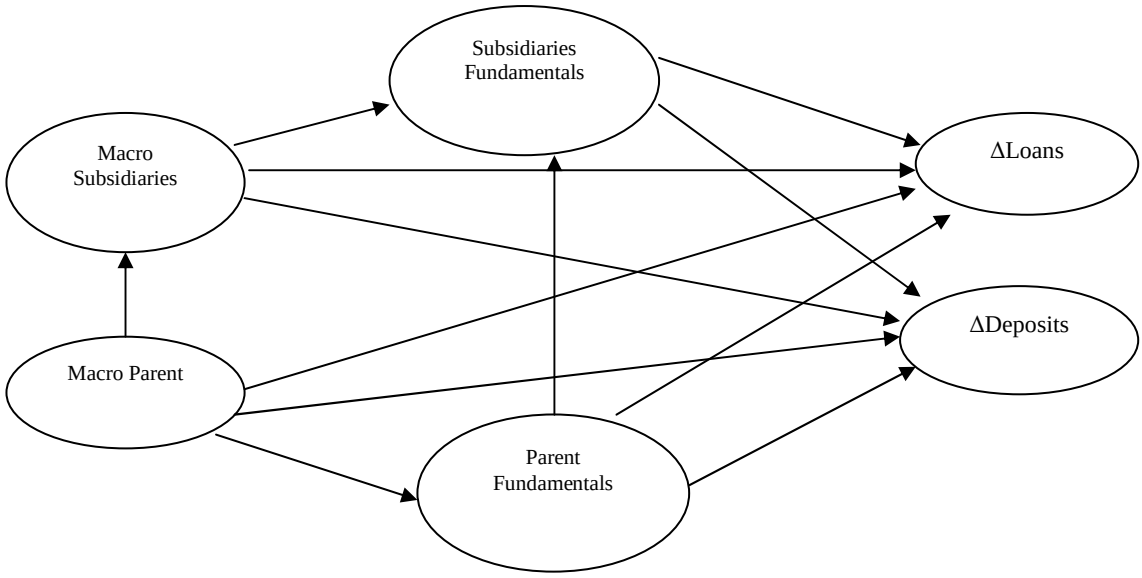
**Table 1. Summary statistics of all subsidiaries**

| | Banks Subsidiaries | | Parent Banks | |
|---|---|---|---|---|
| | Mean | Std. dev | Mean | Std. dev |
| Δ Ioans | 0.037 | 1.837 | 0.182 | 0.631 |
| ΔBank Deposits | 0.169 | 1.521 | 0.071 | 2.998 |
| Total Assets | 3681 | 11.632 | 15972 | 23.061 |
| Loan Loss | 0.391 | 2.635 | 1.517 | 4.713 |
| Equity | 0.422 | 2.641 | 0.572 | 8.671 |
| ROE | 0.731 | 4.729 | 0.341 | 2.742 |
| Liquidity | 0.389 | 2.631 | 0.277 | 3.974 |
| Interbank | 5.363 | 0.644 | 2.731 | 6.370 |

Notes: This table reports the descriptive statistics of financial variables of subsidiaries and parent banks that will be used in our estimations. All variables are described in the text.

To test the impact of each group of variables on both credit strategy of foreign subsidiaries and market discipline exerted by the depositors in emerging markets, we apply a consistent econometric approach PLS Path that allows us to estimate complex causal relationship between latent variables and manifest observed variables. PLS is a structured equation modelling technique that can analyze structural equation models (SEMs) involving multiple-item constructs, with direct and indirect paths. This approach is a method of analysis to study the impact of a number of blocks of variables on the same individuals (Chin, 1998). Then, we consider the following causal model:

**Figure 1. The PLS-PM model**




## 4. Results and interpretation

We perform PLS-PM analysis involving only reflective indicators for the inner estimation. Since each reflective block represents only one latent construct, it needs to be one-dimensional. This is why a preliminary exploratory analysis for verifying the composite reliability of blocks is required with Dillon-Goldstein's rho. According to Chin (1998), Dillon-Goldstein's rho is considered a better indicator than Cronbach's alpha as it is based on the results from the model rather than on the correlations observed between the manifest variables in the dataset. Following Werts et al. (1974), a block is considered homogeneous if this index is greater than 0.7. The results of composite reliability test are summarized in table 2. Since the Dillon-Goldstein Rho index is always greater than 0.7, we can deduce that all six blocks of manifest variables can be considered one dimensional.

**Table 2. Composite reliability**

| Latent Variables | Dimensions | Cronbach's Alpha | D.G.'s Rho (ACP) | Critical Value | Eigenvalues |
|---|---|---|---|---|---|
| **Macro subsidiaries** | 3 | | 0,890 | 0,888 | 1,685 |
| | | | | | 0,844 |
| | | | | | 0,099 |
| **Macro parent** | 2 | 0,067 | 0,993 | 0,774 | 1,605 |
| | | | | | 0,643 |
| **Subsidiaries fundamentals** | 5 | | 0,917 | 0,829 | 1,811 |
| | | | | | 0,714 |
| | | | | | 0,403 |
| | | | | | 0,227 |
| | | | | | 0,054 |
| **Parent fundamentals** | 5 | 0,059 | 0,844 | 1,311 | 1,529 |
| | | | | | 0,979 |
| | | | | | 0,362 |
| | | | | | 0,158 |
| | | | | | 0,124 |
| **Loan strategy** | 1 | | 0,730 | 0,749 | 1,319 |
| **Market discipline** | 1 | 0,106 | 0,857 | 1,135 | 1,477 |

Another method of assessing the *discriminant validity* is to compare the square root of average variance extracted (AVE) for each construct correlating between the construct and other constructs in the model. The measures are considered to have adequate discriminant validity if the square root of the AVE for each construct is larger than the correlation between the construct and any other construct in the model. As shown in Table 3, all constructs in the estimated model also fulfil this condition of discriminate validity.

**Table 3. Correlation among Construct Scores**

| | Macro subsidiaries | Macro parent | Subsidiaries fundamentals | Parent fundamentals | Loan strategy | Market discipline |
|---|---|---|---|---|---|---|
| Macro subsidiaries | **0,251** | | | | | |
| Macro parent | 0,119 | **0,520** | | | | |
| Subsidiaries specific | 0,101 | 0,238 | **0,210** | | | |
| Parent specific | 0,172 | 0,157 | 0,171 | **0,133** | | |
| Loan strategy | 0,156 | 0,026 | 0,192 | 0,089 | **0,234** | |
| Market discipline | 0,034 | 0,162 | 0,081 | 0,116 | 0,153 | **0,490** |

Notes: The bold diagonal figures are the square root of the average variance extracted; the off-diagonal figures are the correlations of the latent constructs.

Once the composite reliability is verified, we may look at the relationships between each manifest variable and its own latent variable. In table 4 we present the weights of the relationships between each manifest variable and its own latent variable, together with the standardized loadings. On the same table we report also average communality index that measure the ability of each latent variable to explain its own manifest variables. Since this index is always higher than 0.5, we can conclude that globally all the latent variables are powerful at explaining their own manifest variables. A low value in a loading factor suggests that the indicator has little relation to the associated construct. All indicators of a block of variables must reflect the same construct.

Table 5 shows that the goodness of fit index[1] for both the structural and measurement models are satisfactory with an absolute GoF value of 0.523 and an equal contribution of measurement model in constructing it. The relative GoF is very high. So are inner and outer models GoF. After checking the

[1]A global criterion of goodness-of-fit (GoF) can be given (Espisit., 2008) by the geometric mean of the average communality and the average $R^2$: $GoF = \sqrt{(average\ communality)x\ (average\ R^2)}$

reliability and validity of the relationship between manifest and latent variables, we present in the following the results of the structural model and the relationships between latent variables. Since the PLS approach is distribution free, the nonparametric bootstrap procedure is used to estimate the t-statistics and the significance levels for the structural path coefficients (Chin, 1998).

**Table 4.** Normalized outer weights and average communalities

| Latent Variables | Manifest Variables | Loadings | Normalized outer Weights | Average communality |
|---|---|---|---|---|
| Macro subsidiaries | SGDPgrowth | 1,042** | 0,905 | |
| | SExchange | -1,377 | 0,026 | |
| | Sconcentration | -0,010* | 0,055 | 0,541 |
| Macro parent | PGDPgrowth | 4,427** | 0,833 | |
| | Crisis | 0,077* | 0,166 | 0,628 |
| Subsidiaries Specific | StotalAssets | 4,981** | 0,715 | |
| | Sequity | 2,354* | 0,103 | |
| | SloanLoss | -1,785** | 0,037 | |
| | SROE | 2,982* | 0,103 | |
| | Sliquidity | 1,254 | 0,040 | 0,587 |
| Parent specific | PtotalAssets | 3,258** | 0,477 | |
| | Pequity | 1,249* | 0,051 | |
| | PloanLoss | -0,955** | 0,097 | 0,721 |
| | PROE | 4,111** | 0,131 | |
| | Pliquidity | -1,281* | 0,041 | |
| Loan strategy | SIoan | 1,767** | 1,000 | 0,591 |
| Market discipline | SbankDeposits | -0,184** | 0,136 | 0,570 |

**Table 5. Goodness of fit index for the hole model**

| | GoF | GoF (Bootstrap) | Lower Bound (95%) | Upper Bound (95%) |
|---|---|---|---|---|
| Absolute | 0,523 | 0,526 | 0,515 | 0,584 |
| Relative | 0,842 | 0,844 | 0,811 | 0,876 |
| External Model | 0,869 | 0,869 | 0,848 | 0,882 |
| Internal Model | 0,978 | 0,9769 | 0,948 | 0,985 |

Let's first study factors affecting loans strategy of subsidiaries in emerging market. The results of structural model with *Δloans* as the dependent variable are summarized in figure 2[2].

The regression coefficients and associated *t-values* are shown on the links (arrows) between exogenous and endogenous latent variables. The constructs in the model have both small and large effects on *loans growth*. The results show that the proposed model for loan growth has a R-square of 0.328. Additionally, the R-squares for the outcome constructs of parent and subsidiaries fundamentals variables are 0.262 and 0.231 respectively.

A positive effect was found for the built variables "Parent and Subsidiaries fundamentals" on loans growth with coefficients of 0.329 and 0.271 respectively. This implies that the strategy of subsidiaries' loans supply in emerging countries depends more heavily on fundamentals of the parent bank rather than on specific variables of subsidiaries. We deduce that the liquidity of the subsidiaries is centrally managed at the parent bank and credit supply of subsidiaries depends primarily on the financial situation of its parent bank.

Other relationships, that justify our use of PLS Path approach can be highlighted with falling multicollinearity problems between variables. In particular, the specific variables of the subsidiary appear strongly affected by macro-economic characteristics of the home country. Parent bank appears also strongly influenced by macro-economic variables of the country of origin.

[2] To simplify the figure, we do not present the regression results of exogenous latent variables on the variable *Δdeposit*.

We also note that credit growth of the subsidiary depends mainly on macroeconomic conditions of the country of origin (table n°6, path coefficient = 0.564, contribution to $R^2$ = 55%). This means that changes in aggregate claims on home countries explain a significant share of the variance in the dependent variable. The latent variable "parent fundamentals" affects significantly foreign subsidiaries' credit growth with a contribution to $R^2$ of 28%. Table 7 shows that all latent variables account for 52.4% of the development funds of foreign subsidiaries.

**Figure 2. Results of PLS Estimation for the Theoretical Model**

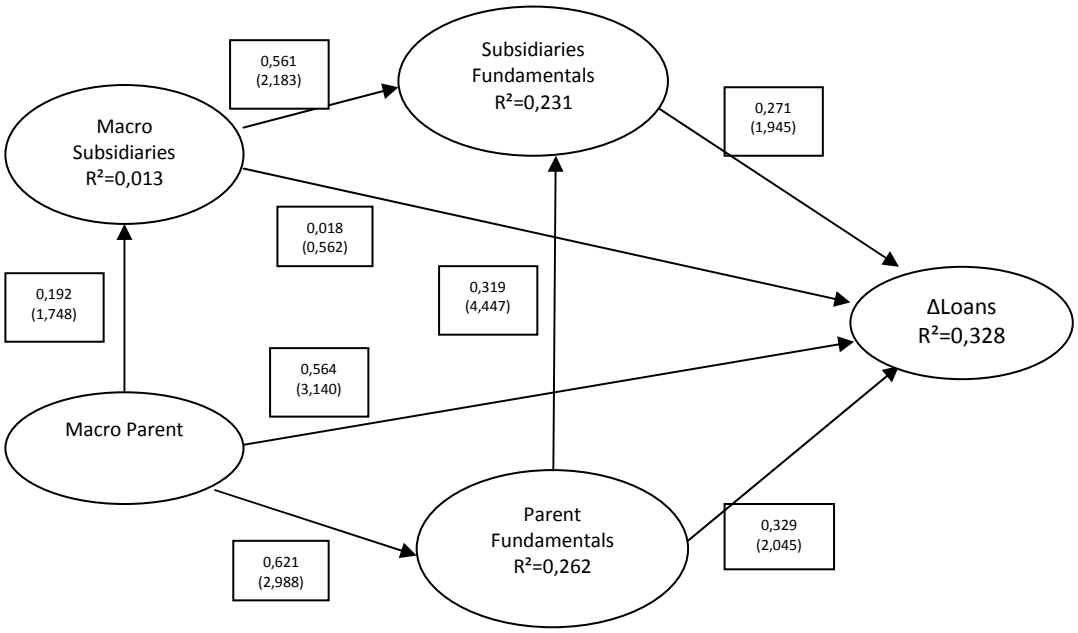



**Table 6. Impact and contribution of exogenous latent variables on the endogenous *ΔLoans***

| | Macro parents | Parent fundamentals | Macro subsidiaries | Subsidiaries fundamentals |
|---|---|---|---|---|
| Correlation | 0,161 | 0,001 | 0,005 | 0,043 |
| Path coefficient | 0,564 | 0,262 | 0,129 | 0,231 |
| t-statistic | 3,140 | 0,245 | 0,562 | 0,645 |
| Contribution to $R^2$ (%) | 55,529 | 28,352 | 9,309 | 6,810 |

**Table 7. Goodness of fit index for the structural model**

| $R^2$ | $R^2$(Bootstrap) | Std. dev. | Lower Bound (95%) | Upper Bound (95%) |
|---|---|---|---|---|
| 0,524 | 0,527 | 0,034 | 0,518 | 0,557 |

The variable GDP is the most important one among the macroeconomic variables of the country of origin which is the most relevant group that directly affects subsidiaries' credit growth. This confirms that the transmission of liquidity shocks across countries is intensified by the foreign subsidiaries in emerging countries. This result contradicts with those of Classens and Horen (2009), who document that the income level of the home country does not significantly affect the supply of loans of conventional subsidiaries banks.

From table 3 and 6, the manifest variable *exchange rate* also matter for the construct *subsidiaries fundamentals* but at lower degrees. This corroborates the results of Cook and Devereux (2011) who argue that the exchange rate impairs the impact of shocks in a liquidity trap for conventional banks that are increasingly affected by a systemic risk with the opening of capital markets.

Parent banks' fundamentals seem to be crucial in establishing the potency of the bank's lending channel since Loan growth is significantly related to specific variables of parent banks. Bank

capitalization of the parent bank positively affects the subsidiary's credit growth while loan loss provision has a negative effect on the latent construct *Parent Fundamentals*, which allows us to deduce that the financial situation of parent bank reduces loans of subsidiary in the emerging countries.

The combination of both results of subsidiaries' credit growth depends on the overall strategy of the parent bank. It also depends on the macroeconomic conditions of the country since deduction of credit supply in emerging markets may occur due to economic downturn in developed countries. Accordingly, the foreign subsidiaries will result in a destabilizing role in the emerging country.

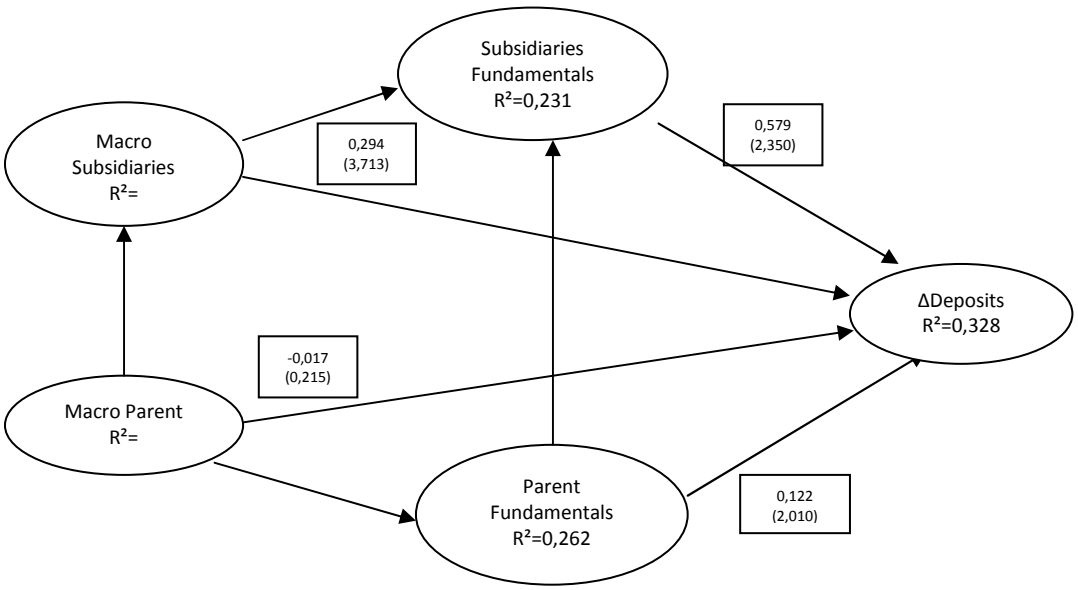
These findings highlight the theoretical mechanisms of the relationship between foreign banks and economic stability of the host country which argue that subsidiaries of foreign banks depend heavily on the decision of their parent banks with a globally diversified portfolio of assets. Indeed, in line with the results of Stein (1997), parent banks can perform the role of last-resort lender in times of crisis. It can also run an internal capital market operations and centralized allocated capital and liquidity of its subsidiaries. This helps to stabilize the supply of credit by foreign banks in the host country where foreign branches undergo financial shocks. Subsidiaries of foreign banks may be able to recover relatively quickly, compared to domestic banks.

The fact that macro-economic conditions of the host country have no significant impact on credit supply of subsidiaries shows that in periods of crisis in the home country, the parent bank can support its subsidiary by providing necessary liquidity. In this case, the subsidiary may act as a stabilizer in the host country.

To examine the application of market discipline on subsidiaries in emerging markets, we use the same set of variables employed in the previous section. We measure market discipline by the manifest variable; Δ*Deposits*. The market must have the power to restore stability to the banking system through an outstanding depositors' behaviour against the risk. The reaction of depositors results in an effect on deposits of subsidiaries.

Figure 3[3] shows general results of structural model with *Δdeposit* as endogenous variable. We reveal that market discipline is strongly affected by the specific characteristics of the subsidiary (Path coef = 0.579). The fundamental variables of the parent bank also significantly affect market discipline but at a lower level. Macroeconomic variables of the host emerging country have an impact on market discipline as opposed to macro variables of the country of origin which appear globally uninformative regarding the mechanism through which depositors exert market discipline on foreign subsidiaries in emerging countries.

**Figure 3. Results of PLS Estimation for the Theoretical Model**




[3] For simplicity reasons, only the regression results of exogenous latent variables on the variable deposit are shown in this figure.

**Table 8. Impact and contribution of exogenous latent variables on the endogenous *ΔDeposits***

| | Subsidiaries specific | Macro subsidiaries | Parent specific | Macro parent |
|---|---|---|---|---|
| Correlation | 0,070 | 0,020 | 0,026 | -0,045 |
| Path coefficient | 0,579 | 0,294 | 0,121 | -0,017 |
| t-statistic | 2,350 | 3,713 | 2,297 | 0,215 |
| Contribution to $R^2$ (%) | 65,019 | 21,748 | 8,721 | 4,512 |

The results of PLS path regression of the structural model with market discipline as dependent variable are summarized in table 8. The results confirm the existence of market discipline exerted by depositors on their foreign subsidiaries in emerging countries. We demonstrate that the specific variables of the subsidiary affect market discipline more significantly than specific variables of the parent bank. They also contribute up to 65% of the $R^2$ of the model.

The construction of specific variable of subsidiaries is likely the group that affects most the market discipline exerted on foreign subsidiaries. This means that depositors are more concerned than their parent banks with the risk taken by the subsidiaries in host countries. Macroeconomic variables of parent banks have insignificant effects globally on market discipline of their subsidiaries.

As the *total equity* positively affects the latent variable "Specific subsidiaries", then we can deduce that the capitalization of the subsidiary bank is a determining factor of *deposit growth*. This may be explained by the fact that strengthening the capital of the bank is likely to restore depositors' trust and to insure convergence of interests with depositors. Similarly, *loan loss provision* negatively affects specific variables of the subsidiaries (see table 4). So, high level of *loan loss provision* reduces deposits of subsidiaries. This may be due to the fact that problems encountered by the parent bank on its loan portfolio make it reduce funding for subsidiaries. Thus, if the parent bank seeks to preserve its liquidity crisis in the country of origin, their subsidiaries generally experience a reduction in their deposits. As a further analysis, an increase in loan loss provisions should be associated to a higher expected write-off and therefore, should indicate a riskier institution. Thus, higher level of loan loss provisions is not viewed as a better protection.

Parent banks significantly affect deposit growth. This result challenges the limited role of the parent bank to support their subsidiaries in times of crisis in the receiving country. This finding is in line with that of Allen et al. (2010) who show that in times of crisis, parent banks support their subsidiaries in host countries, which reassures depositors. Parent banks facing difficult financial situations can engage their subsidiaries in gathering deposits more aggressively, especially in times of crisis.

Similarly, we can infer that liquidity of parent banks significantly increases the deposits in foreign subsidiaries in the period of crisis. This may be explained by the fact that depositors can expect that the parent bank supports their subsidiaries by providing them with a sufficient liquidity in order to achieve their commitments at maturity stage. Being persuaded to withdraw their funds without incurring losses, the depositors increase their deposits in subsidiaries.

Out of this synthesis, we argue that financial sectors in emerging countries are relatively small compared to those of developed countries. If the subsidiary has a substantial market share in the host country, it will be more inclined to bailout to limit systemic consequences. This fact establishes the premises to increased risk-taking by the subsidiary conditions. This situation is particularly destructive as the supervisor of the developed country is discharged of its responsibilities towards the host country of the subsidiary and has little incentive to control the transfer of risk from the parent bank to its subsidiary.

## 5. Conclusion

The presence of foreign banks in emerging countries can be a source of destabilization in emerging countries and may constitute a channel for the transmission of liquidity shocks. In this study, our aim was to investigate factors affecting the credit strategy of foreign banks in emerging countries. We apply a PLS-Path model that allows us to indentify the causal relationships between the various groups of variables. An interesting result derived from our study is that foreign bank lending is determined by the specific financial variables of the parent bank and macroeconomic variables of the country of origin. The internal capital market group can carry instability when the parent bank reallocates

liquidity. Consequently, we conclude that the expansion of credit via foreign banks can bring about some problems of financial stability to the authorities of the host country.
Our purpose was also to test whether depositors exert market discipline on foreign subsidiaries. We tried to identify factors that may explain the behaviour of depositors. We show that "specific variable of subsidiary" is the group that affects most the market discipline exerted on foreign subsidiaries. This implies that the behaviour of depositors is more affected by the risks taken by the subsidiaries in the receiving country. Despite the fact that the parent banks affect the strategies of their subsidiaries in developing countries, it does not affect the behaviour of depositors.
One way to tackle weaknesses of the banking sector in emerging countries is to submit banks to market discipline. This can be made by promoting other financial intermediaries that will compete with banks or by developing efficient capital markets so that depositors receive information and their responses will be reflected on the share price of the bank on the market.

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