Bank Diversification and Firm Investment Decisions

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Firms are financially constrained as well as there being a positive relationship between cash flow and investment among listed firms. Additionally, bank diversification significantly reduces the investment-cash flow sensitivity of firms, suggesting that bank diversification mitigates the financial constraints to borrowing firms. Moreover, the multi-diversification of a bank compared to single-diversification will have greater impact on mitigating the firms' financial constraints on investment. Thus, bank diversification strategies are proposed in a bank-based financial system, leading to the easing of the borrowing firms' financial constraints to investments.

Keywords: bank diversification ; financial constraints ; investment decisions ; financial sustainability

1. Introduction

Banks are delegated monitors [1] and proprietary information acquirers of the borrowers [2], and the role of banks in financial sustainability and sustainable economic growth is crucial [3]. In addition, banks, by their nature, are designated as diversified institutions [4]. In recent decades, a substantial body of literature has emerged on the relationship between bank diversification and stability [5][6][7][8], performance [9][10][11][12], or liquidity creation [13][14]. However, besides the empirical evidence documented on the effect of bank diversification to the bank itself, prior research has not looked into the related impact of a bank's diversification on its borrowing firms' financial constraints and investment decisions.

There are numerous empirical studies that have devoted considerable effort to investigating the impact of financial constraints on firm investment behavior [15][16][17][18][19][20] since the pioneering research by Fazzari et al. [21]. By financial constraints, these studies depict frictions in the supply of capital as primarily caused by the distorting effects of information asymmetry, agency problems, or transaction costs, which leads to a wedge between internal and external financial costs [22][23]. In order to ease such market frictions, an impressive series of financial reforms have been implemented around the world. The purpose of these financial reforms has been to promote a diversified, efficient and competitive financial system, with the ultimate goals of improving bank lending efficiency [5][9][22][23][24] and firm financial sustainability. In addition, since the banking sector is a key component in most financial systems, financial reforms have been primarily aimed at it, so it can be predicted that the effects of such reforms are also reflected in bank diversification [6].

2. Bank Diversification

After investigating the impact of focus and diversification on bank performance in an emerging market [11] and reviewing the extensive research on the reasons for bank diversification [25], these studies suggest that bank revenue diversification may be effective and desirable because it reduces idiosyncratic risk as well as total risk. Additionally, bank revenue diversification may facilitate risk absorption [5][12], improve efficiency [9], reduce total volatility [8][26], improve capital savings [27], and increase bank profits [12][26], which may lead to more bank liquidity creation [14], assuming bank profits are given by providing stronger financial foundations to meet lending firms' demand for investment funds. On the contrary, several studies have identified the negative impact of diversification on banks. For example, non-interest diversification is negatively related to performance [28]; there are diseconomies of scope that arise through weaker monitoring incentives and poorer quality of loans when a risky bank expands into other industries and sectors [4][10]. Additionally, under certain circumstances, bank diversification may disperse managerial resources and operating stability, which will lead to the inability to meet the funding needs of bank borrowers and harm bank performance [25]. Overall, whether positive or negative, researchers expect bank revenue diversification to significantly impact financial constraints of borrowing firms' investments.

The delegated monitoring model shows that diversification helps to reduce the delegation cost of financial intermediaries (such as banks), which can lower their default probability by adding more independent risks [1]. Consistent with this argument, diversification of bank loan portfolios has reduced the realized risk determined by the amount of bad loan reserves for large Austrian commercial banks [29]. In addition, by investigating the interaction of loan diversification and market concentration on bank financial stability, the concluding results show that increasing loan diversification has a positive impact on banks' financial strength [7]. Moreover, banks obtain specific information about borrowers from their lending relationships, which may help effectively provide other financial services, such as underwriting securities of insurance [30]. The information acquired through securities and insurance underwriting, and other activities enables banks to better assess potential borrowers' credit risk and improve loan quality [31]. Consequently, expanding banks' loan portfolios into broad sectors may reduce the riskiness of bank through diversification effects. Researchers thus expect that bank loan diversification is positively associated with firm investment by alleviating financial constraints if the benefits of diversification outweigh its potential costs.

In addition to the diversification in product and line of service dimensions, banks also have a trend for geographic diversification. Benefits of geographical diversification include the following: better access to capital markets in other regions (or countries), which may reduce the cost of capital [32], greater market power [33], and tax benefits by shifting income from high-tax areas to low-tax areas [11]. Conversely, there are several disadvantages related to geographical diversification, such as increased exchange rates and political risk and difficulties in dealing with different languages, laws and customs all of which can also undermine shareholder value [34][35]. Therefore, the net effect of geographical diversification on bank performance is still an open empirical question.

Recently, a lot of studies have examined the impact of geographical (internationalization) diversification on banks' funding costs [36] and risk [37][38][39]. Among these existing studies, in particular, results show that in better-governed and managed banks, geographic diversification can reduce the cost of interest-bearing liabilities more [36] and suggest that geographic expansion significantly reduces bank risk without affecting the bank's loan quality [37]. However, by analyzing the effect of changes in geographical complexity on bank risk, results suggest that complexity is associated with higher levels of banking risk [38]. Consequently, these studies offer differing perspectives of the impact of geographical diversification on banks' funding cost and risk, as well as emphasize that geographical proximity enhances the provision of banking services. Researchers thus expect that bank internationalization diversification is positively associated with firm investment by alleviating financial constraints if the benefit of diversification empirically dominates its potential costs and risk.

Based on a research of the above relevant literature, in order to sufficiently understand the impact of bank diversification on firms' investment decisions, researchers simultaneously consider three widely used dimensions of diversification, such as revenue sources, loan portfolios, and degree of internationalization to respectively examine the impact of bank diversification on financial constraints to borrowing firm investments.

3. Financial Constraints on Investment

Research on financial constraints has been endlessly disputed in the corporate finance literature since the seminal research was presented [21]. It investigated the role of financial factors in capital structure and found that financially constrained firms have higher investment cash flow sensitivities than financially unconstrained firms. Empirical research has devoted a great deal of effort to examine the impact of financial constraints on firm investment behavior, documenting that financial constraints caused by the imperfection of capital markets have been considered to represent a decisive and important investment factor, and concluding that the sensitivity of investment to cash flow is higher for constrained firms [15][18][19]. Additionally, financial constraints prevent firms from having access to external finance and eventually limit them to make the optimal investment that they would have if internal funds had been adequate to finance investment [20][23][40].

Based on the existing literature on corporate finance, financial constraints are often seen as a result of information asymmetry, managerial agency problems, and transaction costs that in an imperfect market, create a wedge between internal and external financial costs [18][19][40]. However, to mitigate this market friction, several studies have attempted to determine bank market structure and bank lending behavior through which the cash flows of firms were altered independently of investment opportunities. For instance, firms have fewer financial constraints in highly concentrated banking sectors, suggesting that bank concentration may reduce information asymmetry and agency costs in the market [22][23]. Similarly, higher banking competition may reduce the incentive for banks to establish lending relationships, thus increasing firms' financial constraints [24]. In addition, the reduction in financial constraints is based on private and soft information on borrower quality and is consistent with relationship lending [41]. During the global financial crisis, firms were able to replace public debt with bank loans in Japan because the problems of information asymmetry through existing bank relationships were eased [42]. Consequently, these studies provide causal evidence and contribute to the existing empirical literature on corporate finance and banking, which deals with information-based hypothesis and the role of the banking sector on financial constraints to firm investment.

However, this seeks to contribute to the literature by providing new evidence from a different direction, that is, the impact of lending banks' diversification on borrowing firms' financial constraints to investment in the Taiwanese financial market. Debt financing of Taiwanese firms is substantially limited to bank loans, mainly provided by domestic banks that maintain close relationships with their debtors [43]. In addition, in an emerging economy such as Taiwan, which has a bank-based financial system [44][45], banks have little competition for providing capital due to lack of access to public debt and equity markets [46]. According to literature surveys [44], the bank-based system highlights the active role of banks in gaining access to information about firms and managers, thereby improving capital allocation and corporate governance [1] and mobilizing capital to exploit economies of scale [47]. Further, by examining whether bank-based or market-based groups would alter the effect of diversification on individual bank performance, the results show that for bank-based groups, bank performance can be improved by diversification, which supports the bank-based view hypothesis [45].

Consequently, banks obtain information about clients in the process of disbursing loans, which helps them effectively provide other financial services [1]. Furthermore, screening and monitoring bank loans require the collection of soft information about borrowers that is not easily accessible, disseminated or verified without direct and often frequent personal contact with the borrowers [2]. In addition, the diversification hypothesis suggests that international banks may have lower risk because they diversify their portfolios [10] and internationalization allows banks to reduce risk through diversification of their operations [39]. Hence, researchers expect that bank diversification significantly reduces the firms' financial constraints on investment caused by the bank acquiring borrowing firms' inside information, and thus increasing incentives to generate information on lending borrowers in the bank-based financial system.

Based on a research of the above related literature on bank diversification, most studies focus on the direct link between bank diversification and banks themselves (e.g., bank performance, business models, efficiency, or risk-taking) [5][9][11][12][25]. However, to the knowledge no prior study has focused on the impact of bank diversification on borrowing firms. Likewise, prior work has little to say about the effects of bank multi-diversification on financial constraints in explaining firm investment decisions. For bank multi-diversification, researchers primarily consider that each firm may interact with different lending banks that have different characteristics and operating conditions. For example, banks with strong customer service networks and marketing capabilities are more devoted to diversify revenue [12][26]; some banks are more diversified internationally because they follow customers to internationalize [36][37], while others are limited by their size and cannot actively engage in international diversification [38]. This aims to fill these gaps in the literature and therefore attempts to investigate the effect of the multi-diversification on financial constraints to firm investment, in order to compare it with the impact of a single diversification.

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