Chapter 5

Conclusions, Discussions, and Recommendations

Conclusion

This research utilizes data from China's A-share listed companies spanning from 2000 to 2020 to construct corporate financing structure indicators and analyze the influence of financing structure on their overseas direct investment behavior, along with its underlying mechanism. Based on empirical regression analysis, the following conclusions are drawn:

Firstly, financing structure has a significant negative impact on enterprises' overseas direct investment. The measurement of financing structure in this study focuses on external financing of enterprises, with the core explanatory variable being the ratio of debt financing to equity financing. The findings indicate that a higher proportion of equity financing in corporate financing is conducive to overseas investment activities and increases the likelihood of foreign direct investment. Additionally, larger enterprise scale, higher internal management level, and stronger future growth ability are positively associated with enterprises' overseas direct investment. The robustness tests conducted through different models and methodologies support the stability of the research conclusions.

Secondly, through the mediation effect model, it is revealed that the impact of financing structure on enterprises' overseas direct investment operates through two channels: innovation research and development (R&D) and productivity. The analysis of the transmission mechanism indicates a significant negative relationship between financing structure and innovation R&D input, while there is a significant positive impact between innovation R&D and overseas direct investment. In other words, a higher proportion of equity financing in corporate financing drives increased innovation R&D, which, in turn, facilitates more overseas direct investment. Furthermore, there is a significant negative relationship between financing structure and enterprise productivity, while productivity is positively correlated with enterprise overseas direct investment. Overall, an increase in equity financing within the corporate financing structure promotes higher levels of innovation input and productivity, thereby encouraging enterprises' overseas direct investment.

Thirdly, the research examines the influence of financing structure on the overseas direct investment of heterogeneous enterprises and finds that the conclusions hold true for both state-owned and non-state-owned enterprises, as well as across different regions. Analyzing industry heterogeneity reveals that the financing structure of the manufacturing industry does not have a significant negative impact on enterprises' overseas direct investment. The regression coefficient is positive but not significant, indicating that financing structure is not a key factor influencing overseas direct investment in the manufacturing industry. When considering external financing constraints, it is observed that a higher proportion of equity financing within the financing structure has a more pronounced impact on the overseas direct investment of enterprises with greater debt financing constraints. Moreover, regardless of the degree of dependence on external financing, the conclusions remain valid, with the financing structure exerting a significant negative effect on overseas direct investment.

In summary, this research provides insights into the influence of corporate financing structure on overseas direct investment, highlighting the mediating role of innovation R&D and productivity. The conclusions are supported by robustness tests and hold true for heterogeneous enterprises and different regions.

Discussion

Based on the results and test of the research hypothesis, the findings and research contributions derived from this study can be discussed as follows:

1. Proof of Hypothesis 1:

According to the benchmark regression conducted in Chapter 4, Hypothesis 1 is verified: the external financing structure of an enterprise does indeed influence its overseas direct investment, and a smaller debt-equity ratio is more favorable for the occurrence of overseas investment. The regression results of control variables indicate a positive correlation between enterprise scale and overseas investment, suggesting that larger enterprises exhibit stronger overseas investment behavior. Furthermore, there is a significant positive effect between the future growth ability of enterprises and overseas investment, indicating that a better growth prospect for enterprises enhances their propensity for overseas investment. The coefficient of the enterprise's internal management level is significantly positive at a 1% level, confirming that an improvement in management level facilitates the occurrence of overseas direct investment, aligning with the expected outcome.

However, at a 1% level, the return on assets of enterprises and foreign direct investment (FDI) show a significant negative relationship, contrary to the expected sign. Similarly, profitability of enterprises exhibits a negative correlation with overseas investment behavior at a 1% level, contradicting the expected symbol. This can be attributed to enterprises prioritizing the expansion of the domestic market in the presence of favorable domestic profitability, thereby neglecting international market expansion. The coefficient of the liquidity ratio is insignificant, indicating that short-term solvency does not significantly impact overseas direct investment. Additionally, the regression coefficient of capital intensity is significantly negative, suggesting that higher capital intensity reduces foreign direct investment.

Furthermore, the robustness test results confirm that, regardless of the regression results from the mixed Logit model or the random effects Probit model, financing structure has a negative impact on overseas direct investment. Changing the explanatory variable or the measurement method of the explained variable does not alter the empirical results significantly. For example, when the calculation formula of debt financing is modified to long-term borrowings divided by total assets, resulting in changes to the debt-to-equity ratio, the regression coefficient of the new debt-to-equity ratio (DEVN) remains significantly negative, while the coefficients of other control variables remain largely unchanged. Thus, the research hypothesis is upheld, and the robustness of the model is ensured.

Additionally, by altering the measurement method of the explained variable, the study examines enterprises' overseas direct investment from a scale perspective. Although obtaining the precise amount of overseas direct investment is challenging, the use of the number of overseas investments (OFDITIMES) as a proxy variable to reflect the scale of enterprises' overseas investment through a negative binomial regression model yields a negative impact of financing structure on the number of overseas investments, consistent with previous findings.

Moreover, by employing instrumental variable regression, instrumental variables with a one-stage lag are used to test the influence of financing structure, thereby addressing endogeneity issues. The results of the weak instrumental variable test indicate a rejection of the null hypothesis of weak instrumental variables, affirming the significant positive impact of instrumental variables on financing structure. The second-stage results demonstrate that financing structure continues to exert a negative impact on the overseas direct investment of enterprises, indicating the resolution of the endogeneity problem and the robustness of the research outcomes.

2. Proof of hypothesis 2:

The regression models 4.2 to 4.4 were established to examine the relationship between overseas investment, innovation research and development, and corporate financing, and to conduct an intermediary effect test. The results of the test are presented in the table.

Column 1 represents model (4.2), which explores the impact of the debt-equity ratio of corporate financing structure on whether enterprises engage in overseas direct investment. The regression coefficient is significantly negative at a 1% level, consistent with the previous findings, indicating that a higher proportion of equity financing in corporate financing structure promotes overseas direct investment.

Column 2 corresponds to model (4.3), which examines the effect of corporate financing structure on innovation research and development (R&D) input. The regression coefficient is significantly negative at a 1% level, suggesting that corporate financing structure negatively influences innovation R&D input. In other words, a higher emphasis on equity financing in the financing structure promotes corporate innovation R&D.

Column 3 represents model (4.4), which explores the regression results of independent variables and intermediary variables with dependent variables after the inclusion of innovation research and development. The results indicate a significant positive relationship between enterprise innovation R&D and overseas direct investment at a 1% level. Additionally, the debt-equity ratio of financing structure exhibits a significant negative impact at a 1% level, and the regression coefficient is smaller than that of the model without the intermediary variable. Each coefficient in the regression result aligns with the expected intermediary effect, indicating that innovation research and development plays an intermediary role between corporate financing structure and foreign direct investment (FDI). Consequently, a lower debt-equity ratio in corporate financing structure, favoring equity financing, promotes enterprise innovation and research and development, leading to increased overseas direct investment. Thus, hypothesis 2 is confirmed.

3. Proof of hypothesis 3:

We conducted tests using models 4.5 to 4.7 to examine the intermediary effect of productivity on the relationship between financing structure and enterprises' overseas direct investment.

Based on the results of the benchmark regression model, we found that the impact of financing structure on enterprises' overseas direct investment is significantly negative at a 1% level. Additionally, the impact of financing structure on

enterprise productivity is also significantly negative at a 5% level. This suggests that a higher proportion of equity financing in the corporate financing structure contributes to improved corporate productivity.

Furthermore, according to model 4.7, which includes corporate productivity and financing structure as independent variables, we found that the influence of financing structure on overseas direct investment remained unchanged, while the impact of productivity on overseas direct investment was significantly positive at a 1% level. This indicates that corporate productivity can promote overseas direct investment.

In summary, each coefficient in the regression results aligns with the coefficients expected in the established mediating effect. This confirms the establishment of the transmission mechanism between enterprise productivity and overseas direct investment. Changes in financing structure affect changes in enterprise productivity, and productivity, in turn, impacts overseas direct investment. Specifically, a financing structure that favors equity financing promotes increased enterprise productivity. Stronger enterprise productivity is favorable for overseas direct investment, leading to increased investment abroad. Therefore, hypothesis 3 is validated.

4. Research Contribution

Based on the empirical research conducted above, we have gained insights into the impact of financing structure and productivity on corporate financing:

1) Financing structure has a significant negative effect on enterprises' overseas direct investment. Robustness tests using different models and methods confirm the stability of the regression results, aligning with the expected hypotheses.

2) Through the analysis of the transmission mechanism, we observe a significant negative relationship between financing structure and enterprises' investment in innovation and R&D. On the other hand, there is a significant positive impact between innovation and R&D and enterprises' overseas direct investment. This implies that a higher proportion of equity financing in the financing structure promotes increased investment in innovation and R&D, which in turn facilitates greater overseas direct investment by enterprises.

3) We find a significant negative association between financing structure and enterprise productivity, as well as a significant positive correlation between productivity and enterprise overseas direct investment. Overall, an increase in the proportion of equity financing in the financing structure enhances innovation input and productivity, thereby promoting enterprises' overseas direct investment.

4) The impact of financing structure on overseas direct investment remains consistent across heterogeneous enterprises, including state-owned and non-state-owned enterprises, as well as regional differences. However, the influence of financing structure on overseas direct investment in the manufacturing industry is positive but not statistically significant, indicating that it is not a significant factor affecting overseas investment for this industry.

In conclusion, this study contributes to the theory of firm heterogeneity and overseas direct investment. It examines Chinese enterprises' current overseas direct investment from the perspective of financing structure, enriching theories related to corporate heterogeneity and bridging gaps in the micro perspective of Chinese enterprises' foreign direct investment in terms of capital structure. Additionally, it provides theoretical guidance for enterprises participating in overseas direct investment and integrating into the international investment system by exploring financing structure issues encountered during overseas investment activities.

From a practical standpoint, although China's overseas direct investment is expanding, the current financing structure of Chinese enterprises exhibits some deficiencies and lags behind that of Western enterprises. Developed countries have market-oriented financing structures, with direct financing through stocks and bonds being predominant. In China, enterprises tend to rely heavily on bank loans and indirect financing. Therefore, this research on the relationship between enterprise financing structure and overseas direct investment behavior aims to assist enterprises in upgrading their financing structures, enhancing equity financing, and promoting improved economic benefits and rapid socioeconomic development. It also facilitates better integration of Chinese enterprises into international markets.

Recommendations

1. Policy Recommendations

Based on the above conclusions, the following policy recommendations are proposed:

First, accelerate the reform of corporate financing structure and increase equity financing. Efforts should be made to develop direct financing in the market, such as the stock market and bond market. Enterprises should promote the reform of external financing structure, reduce dependence on loans, and increase the proportion of equity financing. This will provide more funds at a lower cost and enable enterprises to have more control over their financing. Manufacturing enterprises, in

particular, should consider their specific financing needs when determining the optimal financing structure. Active participation in the capital market will attract more investors and raise more investment funds.

Second, strengthen enterprise development and invest in talent management. Enterprises need to continuously improve their production, operation, and development capabilities. This includes both enhancing "hard power" through adjusting the financing structure and building a robust production system, and investing in "soft power" by providing cultural quality training to managers and other production personnel. Increasing investment in human capital and cultivating a talented workforce will contribute to enterprise management and international operations, attracting more capital for foreign investment opportunities.

Third, encourage active innovation and improve production efficiency. Innovation is crucial for technological progress and enhancing enterprise competitiveness. Enterprises should increase investment in innovation research and development, establish dedicated R&D teams, and actively introduce research and development personnel. Innovation drives the generation of new foreign investment projects and enables the absorption of advanced production technology in host countries. Technological innovation also facilitates product structure adjustment and ensures competitiveness in the international market, ultimately improving production efficiency and expanding influence.

Fourth, the government should enhance diversified financing platforms to alleviate the financing pressure on enterprises. Current financing sources for enterprise investment primarily rely on self-capital, and few enterprises have access to investment funds. The government should establish specialized financing channels and examination departments for foreign investment projects, encourage financial intermediaries to participate in enterprise financing, and develop specialized financial institutions for foreign investment. Additionally, supporting the development of the bond market and establishing financial institutions abroad will ensure a stable source of funds for enterprises. Diversified financing channels and effective financing instruments should be promoted to provide enterprises with more financing options and facilitate financial innovation.

By implementing these policy recommendations, enterprises can enhance their financing structure, promote innovation and productivity, and ultimately contribute to their overseas direct investment activities. Simultaneously, the government's support in creating a conducive financing environment will facilitate the expansion of enterprises' international presence and stimulate economic development.

2. Future Research Recommendation

Based on the above conclusions, the future research recommendations of this paper are as follows:

First, the potential future research direction could be to investigate the impact of specific types of financing sources on enterprises' overseas direct investment. While this study focuses on the ratio of debt financing and equity financing, future research could explore the effects of alternative financing sources such as venture capital, government grants, or crowdfunding on enterprises' foreign investment activities. This would provide a more comprehensive understanding of how different financing structures influence overseas direct investment and could lead to valuable insights for businesses and policymakers.

Second, future research could be to explore the specific mechanisms and factors that mediate the relationship between equity financing, innovation input, productivity, and overseas direct investment in enterprises. This could involve conducting in-depth case studies or empirical analyses to identify the underlying drivers and processes that facilitate the positive impact of equity financing on innovation input and productivity, leading to increased overseas direct investment. Additionally, examining the moderating effects of industry-specific characteristics or contextual factors on these relationships could provide valuable insights for understanding the dynamics and variations across different sectors and environments.

Third, future research could be to investigate the impact of financing structure on the overseas direct investment of specific industries or sectors other than manufacturing. This would provide a more comprehensive understanding of how financing structure influences overseas investment decisions in various economic sectors. By examining different industries, such as services, technology, or natural resources, researchers can identify potential variations in the relationship between financing structure and overseas direct investment. Additionally, exploring the effects of financing structure on specific industries may uncover sector-specific factors that could affect the significance and direction of the relationship between financing structure and overseas investment.