Research Article

Bank Competition, Financing Constraints, and Enterprise Innovation Investment

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Based on the data of China’s listed companies from 2007 to 2020 and the financial license of the China Banking and Insurance Regulatory Commission, this paper analyzes the influence of bank competition on enterprise innovation investment and its mechanism. It is found that bank competition can improve the enterprise innovation investment, which still holds true after endogenous treatment and robustness test. Further research demonstrates that bank competition plays a stronger role in enterprise innovation for non-state-owned enterprises and small-scale enterprises. The mechanism analysis shows that bank competition can promote enterprise innovation investment and enterprise financialization by easing financing constraints. Moreover, enterprise financialization has a crowding-out effect on enterprise innovation investment. Therefore, moderately intensifying bank competition, further improving the financial system, and deepening the financial marketization reform have profound effects on driving enterprise innovation and its high-quality development.

1. Introduction

Nowadays, the world is experiencing major changes unprecedented in a century. The internal conditions and external environment of China’s economic development are undergoing profound and complex changes. Internationally, the growth of the world economy is sluggish. Meanwhile, the international economic and trade friction is intensifying, and the competition among major powers is becoming increasingly fierce. Domestically, China’s economic development is confronting tremendous challenges under the COVID-19 epidemic and the pressure of a downward domestic economy. As China’s economic development enters the “new-normal” stage, it is also a necessary path to transform the economic growth mode by promoting innovation and improving the efficiency of resource allocation to achieve the “quality and efficiency improvement” of innovative output. At the micro level, the R&D of enterprises is the main source of technological innovation and economic growth [1]. However, because of the high investment, high risk, and long cycle of innovation projects, financial institutions are reluctant to take risks to invest in innovative projects. Although China insists on reforming the financial market, constantly improving the financial system, and actively implementing the “innovation-driven development strategy,” the effect and the transmission mechanism of these policy measures on the development of the banking sector and enterprise innovation are still issues that need to be figured out by the academic circles and the leadership.

Based on the financial license data on the official website of the China Banking and Insurance Regulatory Commission, and the data of China’s A-share listed companies from 2007 to 2020, this paper examines the influence of bank competition on enterprise innovation investment. The possible marginal contributions of this paper are as follows: First, the existing literature mainly focuses on the influence of bank competition on enterprise innovation when enterprises are faced with financing constraints. This paper refines the perspective of financing constraints and profoundly explores the behavior mechanism of enterprise financialization when enterprises are faced with financing constraints under the financial resource mismatch. It strives to further understand the internal influencing factors of enterprises in the process of innovation and R&D, which
makes a supplement to the existing literature. Second, the research findings of this paper enrich the research in the field of bank competition and enterprise innovation and more thoroughly analyze the high leverage ratio and insufficient innovation level of Chinese enterprises, thus providing a new explanation, and pointing out that the investment in financial assets is an essential factor hindering enterprise innovation.

Other parts of the paper are arranged as follows: Section 2 is the Theoretical Analysis and Research Hypothesis; Section 3 is the Model Design; Section 4 is the Empirical Analysis; and Section 5 is the Research Conclusion and Policy Implication.

2. Theoretical Analysis and Research Hypothesis

2.1. Bank Competition and Enterprise Innovation Investment.

The monopolistic market structure of the banking industry will make the society suffer welfare losses, because banks can pay low deposit interest rates and increase loan interest rates, so as to obtain higher economic benefits. According to the traditional model, banks will make loans at higher interest rates to make profits if there are only a few banks in the market, resulting in an increase in loan cost and a decrease in the social welfare of enterprises [2]. Due to the unique nature of enterprise innovation activities, the stronger the monopoly of the banking industry is, the more reluctant it is to invest in high-risk projects such as R&D, which reduces the speed and efficiency of enterprise innovation [3]. The market structure of the banking industry is constantly changing with the progress of China’s market economy. The bank competition has begun to intensify, because the number, types, and scale of banks are constantly rising, and the influence of local governments on local banks is declining. Currently, there are two opposing views in academic circles on whether such a competitive structure can help banks to increase credit to enterprises, thus boosting their innovation investment. The “information hypothesis” suggests the excessively competitive market structure leads banks to be unable to screen borrowers’ information in a short time to reduce moral hazard. The increase in asymmetric information will lead banks to take more risks when investing in enterprises, thus reducing loans to enterprises and lowering the borrowing efficiency of enterprises. However, the monopolistic banking market can effectively address the information asymmetry [4]. Through the model analysis, they found that enterprises with small financial constraints and smaller scale may be more favored by banks, since they have enough time and ability to dig into enterprise information and predict the development prospects of enterprises. This information symmetry can ensure that banks can obtain higher profits in the process of enterprise growth. The “market power hypothesis” holds that the bank competition can weaken the seller’s dominant position in the credit market to some extent, reduce the loan cost of enterprises, and improve the efficiency of bank-to-enterprise loans, and middle- and small-sized enterprises will benefit from it. Dewatripon and Maskin [5] conclude that the competitive market structure of banks forms stronger budget constraints for enterprises, so it is beneficial for banks to provide credit funds for emerging enterprises with high innovation efficiency.

The existing literature cannot draw a unified conclusion, because the different characteristics of the real economy and the demand for financial services are different when discussing the relationship between the banking structure and the credit demand of enterprises [6]. In addition, Beck et al. [7] found that the high level of government regulation will raise the threshold of the banking industry without considering the market structure, which affects the bank competition. However, the advantage of China’s bank competition has just begun to emerge, so it may be too early to discuss excessive competition.

In the research on domestic bank competition, some studies show that the intensification of bank competition and the gradual improvement in the financial system promote the innovation activities of enterprises [8]. Xie and Fang [9] pointed out that the development of the banking industry increases the supply of credit funds, provides financing for large-scale and long-term investment projects, alleviates the difficulties and high cost of financing among small- and medium-sized enterprises, and promotes the R&D and enterprise innovation investment. Some studies also support the viewpoint of the “information hypothesis.” Their studies discovered that the information asymmetry between banks and enterprises worsens under excessive competition among banks, which is not conducive to the issuance of relational loans [10]. Based on the above analysis, the following alternative hypotheses are put forward:

(i) H1a: the intensification of the bank competition inhibits the enterprise innovation investment
(ii) H1b: the intensification of bank competition promotes the enterprise innovation investment

2.2. Bank Competition, Financing Constraints, and Enterprise Innovation.

The R&D and innovation of enterprises is a long-term project, which has uncertainty and needs to introduce technology, talents, equipment, etc. It is difficult to meet its capital demand only by relying on internal funds, so external financial support is an effective support for enterprises to carry out innovation activities. China’s financial system is an indirect financing system dominated by banks, and bank credit is generally a significant source of funds for enterprises. The intensification of bank competition may ease the issue of funds required for enterprise innovation due to the following reasons: On the one hand, the intensification of bank competition prompts banks to relax the standards of loans, lower thresholds of loads, improve the availability of credit funds, and ease financing constraints for enterprise innovation [11]; and on the other hand, when market competition intensifies, banks will be more active in mining customer information, thus reducing information asymmetry and the risk of default [12]:

(i) H2: the intensification of the bank competition eases the financing constraints and thus promotes the enterprise innovation investment
2.3. The Crowding-Out Effect of Financialization on Enterprise Innovation Investment. The crowding-out effect of financialization mainly comes from the comparative advantage of financial assets. Due to the inefficient allocation of credit resources, China’s small- and medium-sized enterprises are deeply troubled by financing constraints, resulting in frequent loans from informal financial institutions. China’s state-owned enterprises and large-scale listed companies are easier to obtain funds from banks and securities markets through government guarantees and strong antirisk ability [13]. However, a large number of funds are not used for physical investment or technological innovation but are idle within enterprises [14]. Compared with fixed assets, financial assets are characterized by strong liquidity and short term, and they can be quickly turned into funds to prevent the fund flow from breaking when enterprises are short of funds [15]. Moreover, the return rate of the financial market is higher than that of the traditional industry. Driven by the “profit-seeking” behavior of enterprises, enterprises invest funds in financial assets in order to obtain high financial returns [16], causing the real economy to “break away from reality and become virtual,” and then crowd out funds for the physical development and innovation of enterprises. Thus, the following hypothesis is proposed:

(i) H3: enterprise financialization crowds out the innovative funds’ mitigation effect brought by bank competition

3. Model Design

3.1. Data Source. The enterprise data of this paper take A-share listed companies from 2007 to 2020 in the CSMAR Database as samples, excluding listed companies in financial industry, ST companies, and companies with missing financial data. Referring to Cai and Dong [17], the banking industry data of this paper come from the license information of national financial institutions published on the official website of the China Banking and Insurance Regulatory Commission, from which all the branch information of state-owned commercial banks, joint-stock commercial banks, city commercial banks, foreign banks, postal savings banks, and other financial institutions can be obtained. According to the establishment and cancellation records of the institutions on the official website, the number of bank branches in various prefecture-level cities in different years is manually sorted out, and the index of bank competition is calculated. Furthermore, the data of listed companies according to the years and regions are matched. In addition, all the continuous variables in the sample are winsorized by 1% on both sides to eliminate the influence of extreme values on the estimation results.

3.2. Selection of Variables. Innovation Investment Level of Enterprises (RDR). Enterprise innovation investment usually reflects the resource investment of technological innovation activities, which is measured by the intensity of R&D investment, i.e., the ratio of R&D investment to operating income [18]. The logarithmic value of R&D investment will be used for the robustness test in the later part.

Bank Competition (HHI). Due to the limitation of data, it is difficult to obtain the banking industry data of different regions through public channels. The author of this paper manually sorts out the number of all branches of commercial banks on the official website of the China Banking and Insurance Regulatory Commission, and refers to Cai and Dong [17] to construct the Herfindahl–Hirschman index (HHI) using the number of branches of commercial banks in prefecture-level cities. The specific calculation formula is the Herfindahl–Hirschman Index (HHI) = \( \sum_{i=1}^{N} s_i^2 \), in which \( S \) is the share of commercial banks in the city. Among them, the HHI represents the reverse index of competition degree, and its value ranges from 0 to 1. The closer it is to 1, the higher the concentration of the banking industry is and the lower the competition degree is. The closer it is to 0, the lower the concentration of the banking industry is and the higher the competition degree is.

Enterprise Financialization (Finratio). Using the measurement methods of Song and Lu [19] and Du et al. [20] for reference, the proportion of financial assets held by enterprises to total assets at the end of the period is used to measure the enterprise financialization. Financial assets include trading financial assets, derivative financial assets, investment real estate, net held-to-maturity investment, net available-for-sale financial assets, net financial assets sold for repurchase, net loans and advances issued, and the equity of financial institutions held by enterprises in long-term equity investment.

Financing Constraints (KZ). Referring to the practice of Kaplan and Zingales [21], this paper takes five factors of operating net cash flow, cash holdings, cash distribution level, debt degree, and growth rate as proxy variables to represent financing constraints. Meanwhile, it constructs a comprehensive index (KZ index) through regression analysis to measure the financing constraints of enterprises. The larger the KZ index, the greater the financing constraints faced by enterprises.

Control Variables. Referring to the existing literature, this paper introduces a series of enterprise-level control variables to alleviate the errors caused by missing variables as much as possible, including enterprise size (Size), asset-liability ratio (Lev), net profit margin (Roa), fixed asset ratio (Cinten), enterprise growth (Growth), net operating cash flow (Cf0), and the shareholding ratio of the largest shareholder (Top1); see Table 1 for definitions of variables.

3.3. Model Setting. Referring to the research design of Jiang et al., this paper establishes the following baseline model:

\[
RDR_{i,j,t} = \alpha_1 + \alpha_2 \text{HHI}_{i,j,t} + \alpha_3 \sum Z_{i,t} + \sum \text{year} + \sum \text{ind} + \sum \text{pro} + \epsilon_{i,j,t}. \tag{1}
\]

Among them, RDR\(_{i,j,t}\) is the outcome variable, which represents the innovation investment level of enterprise \( j \) located in the city \( t \) in the year \( t \). HHI\(_{i,j,t}\) represents the bank
competition level of the city \( j \) in the year \( t \), which is a control variable at the enterprise level. \( \sum \) year represents the year fixed effect. \( \sum \) ind represents the industry fixed effect. \( \sum \) pro represents the region fixed effect. \( \varepsilon_{ijt} \) represents the random disturbance term.

3.4. Descriptive Statistical Analysis. Table 2 displays the basic statistical characteristics of variables. The average innovation investment level (RDR) of enterprises is 4.586, suggesting that the innovation investment level of nonfinancial enterprises is low on average. The standard deviation is 4.694, indicating that the innovation level of different enterprises is quite different. From 2007 to 2020, the bank competition level (HHI) has a maximum value of 0.301, a minimum value of 0.002, and an average value of 0.038, showing that there is a big gap between the bank competition levels of different samples, and the degree of competition varies. In addition, the maximum value of enterprise financialization (Finratio) is 0.451, and the minimum value is 0, indicating that the financialization degree of different enterprises is quite different. The average value of financing constraints (KZ) is 0.244, and the standard deviation is 2.232, revealing that different enterprises face different financing constraints.

4. Empirical Analysis

4.1. Analysis of Baseline Regression Results. Firstly, based on Model (1), this paper analyzes the influence of bank competition on enterprise innovation investment, and adopts the fixed-effect model to eliminate the possible deviation, including the year fixed effect, the industry fixed effect, and region fixed effect. Table 3 shows the process of gradually involving control variables and fixed effects. The significance of the core explanatory variable, bank competition (HHI), is steady. It can be seen from columns (1) and (2) that the coefficient of HHI is −0.0355, and it passes the significance test at the level of 1%, respectively. Among them, the coefficient of bank competition (HHI) in column (6) to enterprise innovation investment is −5.6912, which is significant at the level of 1%. It indicates that the reduction of bank competition level reduces the enterprise innovation investment, thus verifying H1b. The results of control variables are close to those of previous studies. For example, the larger the enterprise size (Size), the lower the innovation investment level of enterprises. The higher the asset-liability ratio (Lev), the lower the innovation level of enterprises. The cash holding of enterprises has a positive and significant role in promoting the enterprise innovation investment. The cash holding of enterprises is an essential source of funds for R&D. Therefore, the higher the cash holding level of enterprises is, the more the R&D investment of enterprises may be.

4.2. Robustness Test

4.2.1. Endogenous Problem. In the previous regression, the core explanatory variable, the degree of bank competition, may have an endogenous problem. Bank competition promotes the R&D investment of enterprises, and the regions with more innovative activities of enterprises also enable more banks to enter and expand, thus intensifying the bank competition. The two-way causal relationship between them may generate the endogenous problem of the model. In addition, there may be some missing variables in the model that have not been observed yet. To alleviate the above endogenous problem, this paper further constructs the
instrumental variable. Referring to the studies of Zhang et al. [12] and Jiang et al. [22], the average value of the bank competition level of three cities in the same province with the closest GDP to the prefecture-level city where the enterprise is located is used as the instrumental variable of the bank competition level of the prefecture-level city. The reasons are as follows: On the one hand, cities with similar economic development levels in the same province often have similar appeals to banks, so their bank competition degree has a high correlation; and on the other hand, due to the geographical segmentation of banking business, deposits and loans in other cities have no obvious influence on the innovation activities of enterprises in this prefecture-level city. Columns (1) and (2) of Table 4 are the regression results of the instrumental variable. It can be observed that after considering the endogenous problem of bank competition, the intensification of bank competition significantly promotes the enterprise innovation investment, and the regression results are consistent with those of the previous ones, thus proving the robustness of the conclusion. In addition, the Anderson LM value and the CDWF value in the validity test of the instrumental variable are 385.20 and 389.98, respectively, which indicates that the instrumental variable is reasonable and effective.

4.2.2. Robustness Test. To ensure the robustness of the regression analysis results, this paper makes the following robustness tests: ① Change the measurement method of the explained variable and use the measurement method, i.e., measuring the innovation level of enterprises by the logarithmic value of the enterprise innovation investment, and making a new regression model. The regression results are shown in column (3) of Table 4, and the estimated coefficient of bank competition is −0.0061, which is significant at the level of 1%. ② Change the measurement method of explanatory variables. Considering that enterprises are also partially influenced by banks in other areas of the province, the bank competition level in prefecture-level cities is replaced by that of the provincial cities, and Model (1) is regressed again. In the meantime, the regression results are presented in column (4) of Table 4. The estimated coefficient of bank competition is −3.5037, which is significant at the level of 5%. ③ Exclude the impact of the financial crisis. The global financial crisis that broke out in the second half of 2007 has a continuous and profound impact on the risk-taking ability of Chinese banks, and the investment and financing behavior of enterprises. To eliminate the interference of the financial crisis, the sample data from 2007 to 2011 are excluded and Model (1) is regressed again. The regression results suggest that the estimated coefficient of bank competition is −6.6018 as shown in column (5) of Table 4, which is significant at the level of 1%. All the above results demonstrate that the core conclusion of this paper is robust.

4.3. Heterogeneity Analysis of Enterprises. The influence of bank competition on enterprise innovation investment is related to the characteristics of enterprises themselves. To further analyze the bank competition on the innovation
investigation among enterprises with different ownership types and scales, this paper divides samples according to the nature and scale of enterprises. As can be seen from the results in columns (1) and (2) of Table 5, regardless of the enterprise size, the intensification of bank competition can increase the enterprise innovation investment, but the coefficient for small-scale enterprises is −9.6907, which is significant at the level of 1%. For large-scale enterprises, it is −1.8278, which has not passed the significance test. The possible reason is that large-scale enterprises are less affected by the fund supply because of their large assets and relatively sufficient funds, while small- and medium-sized enterprises in China often confront financing problems. Therefore, the intensification of bank competition is more conducive to alleviating the credit constraints of small- and medium-sized enterprises and promoting their innovation investment.

Columns (3) and (4) of Table 5 show the subsample regression results of different ownership types. The corresponding coefficients of the HHI for state-owned enterprises and non-state-owned enterprises are −6.3871 and −8.1141, respectively. However, the influence of bank competition on innovation investment of non-state-owned enterprises is more significant and greater. The possible reason is that state-owned enterprises naturally have financing advantages due to political reasons and other conditions, so they are less affected by the fund supply. However, non-state-owned enterprises have less collateral, higher business risks, and greater information asymmetry, which leads to various restrictions on financing channels and market access [23]. Therefore, the intensification of bank competition has a more obvious role in promoting innovation investment of non-state-owned enterprises than that of state-owned enterprises.

### 4.4. Mechanism Channel Analysis

The above results show that the intensification of bank competition improves the enterprise innovation investment, so what is the mechanism behind the influence? The aforementioned theoretical analysis suggests that alleviating financing constraints may be the mechanism channel for the intensification of bank competition improving the enterprise innovation investment. Moreover, the alleviation of enterprise financing constraints may also enhance the level of enterprise financialization, thus forming a capital competition relationship for enterprise innovation investment. To explore this relationship, this study refers to Song et al. [24] and constructs the following model:

\[
KZ_{it} = \beta_1 + \beta_2 \text{HHI}_{it} + \beta_3 \sum Z_{it} + \sum \text{year} + \sum \text{ind} + \sum \text{pro} + \epsilon_{it},
\]

\[
\text{Finratio}_{it} = \gamma_1 + \gamma_2 \text{HHI}_{it} + \gamma_3 \sum Z_{it} + \sum \text{year} + \sum \text{ind} + \sum \text{pro} + \epsilon_{it},
\]

\[
\text{Finratio}_{it} = \delta_1 + \delta_2 \text{HHI}_{it} + \delta_3 KZ_{it} + \delta_4 \sum Z_{it} + \sum \text{year} + \sum \text{ind} + \sum \text{pro} + \epsilon_{it},
\]

\[
\text{RDR}_{it} = \theta_1 + \theta_2 \text{HHI}_{it} + \theta_3 KZ_{it} + \theta_4 \sum Z_{it} + \sum \text{year} + \sum \text{ind} + \sum \text{pro} + \epsilon_{it},
\]

In the test mechanism, the relationship between bank competition and enterprise financing constraints, and the relationship between bank competition and enterprise financialization shall be firstly explored. Column (1) in Table 6 reports the results of Model (2). It can be seen that the coefficient of bank competition is 0.6876, and it is significant at the level of 1%, indicating that the intensification of bank competition level alleviates the financing constraints of enterprises. Furthermore, according to Model (3), the effect of bank competition on enterprise financialization is observed. The results are shown in column (2) of Table 6. The coefficient of bank competition (HHI) is −0.0260, which is significant at the level of 1%, indicating that the intensification of bank competition improves enterprise financialization. Furthermore, this paper analyzes

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### Table 4: Robustness test results.

| IV     | (1) HHI | (2) RDR | (3) Lnrdf | (4) RDR | (5) RDR |
|--------|---------|---------|-----------|---------|---------|
| HHI    | 0.1904*** (0.0096) | −2.9691*** (1.3837) | −0.0061*** (0.0014) | −6.6018*** (1.8922) | −3.5037*** (1.4346) |
| HHI_prov |         |         |           |         |         |
| Controls | YES      | YES     | YES       | YES     | YES     |
| Year FE | YES      | YES     | YES       | YES     | YES     |
| Ind FE | YES      | YES     | YES       | YES     | YES     |
| Prov FE | YES      | YES     | YES       | NO      | YES     |
| N      | 21380    | 21706   | 21706     | 19260   | 19260   |
| R²     | 0.075    | 0.592   | 0.391     | 0.406   | 0.406   |

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the role of financing constraints in the influence of bank competition on enterprise innovation investment and enterprise financialization, namely, Model (4) and Model (5). Column (3) of Table 6 indicates that the coefficient of financing constraints (KZ) to enterprise financialization (Finratio) is $-0.0021$, and it is significant at the level of 1%, indicating that the alleviation of enterprise financing constraints can boost the investment in financial assets. Combining the results of columns (1), (2), and (3), bank competition can promote enterprise financialization by alleviating enterprise financing constraints. Column (4) of Table 6 suggests the coefficient of financing constraints (KZ) to enterprise innovation investment (RDR) is $-0.1185$, and it is significant at the level of 1%, indicating that the alleviation of enterprise financing constraints can enhance enterprise innovation ability. Based on the results in column (6) of Table 3, and columns (1) and (4) of Table 6, bank competition improves enterprise innovation ability by alleviating enterprise financing constraints.

To sum up, there are two main flows of financing constraint alleviation brought about by bank competition: investment in financial assets and R&D. However, enterprise financialization is the “profit-seeking” behavior of enterprises, and the surplus funds after investing in financial assets can also flow to the enterprise innovation investment [25]. Therefore, although the intensification of bank competition promotes enterprise financialization, the impact does not necessarily undermine enterprise innovation. To explore the impact of this competition on enterprise innovation, this paper constructs the following model:

$$ R_{DR,t} = \rho_1 + \rho_2 Finratio_{t} + \rho_3 \sum Z_{it} + \sum year + \sum ind + \sum pro + \epsilon_{t} $$

Equation (3)

Table 7 presents the results of Model (6). Column (1) shows the results without considering the control variables, and column (2) displays the results of the complete model. It can be seen that the significance of the model coefficient is robust. The results in column (2) suggest that the coefficient of enterprise financialization to enterprise innovation investment (RDR) is $-0.8156$, which is significant at the level of 1%, indicating that the higher the degree of enterprise investment in financial assets, the lower the level of enterprise innovation investment, thus verifying H3. The possible reason is that financial investment products have the characteristics of strong liquidity, high returns, and quick cash conversion. The involvement of enterprises further increases their investment in the virtual economy, further “breaks away from reality and becomes virtual,” and crowds out the funds for enterprise innovation [26].
Therefore, it is of great significance to continuously cope with the credit allocation problem of financial intermediaries, speed up the development of the securities market, and realize the original intention of financial services for the real economy.

Data Availability

The data used to support the findings of this study are available from the author upon request.

Conflicts of Interest

The author declares no conflicts of interest.

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Table 7: Competition test.

|                  | (1) RDR | (2) RDR |
|------------------|---------|---------|
| Finratio         | -1.6969*** | -0.8156*** |
| _cons            | 4.4813*** | 12.1189*** |
| Controls         | NO      | YES     |
| Year FE          | YES     | YES     |
| Ind FE           | YES     | YES     |
| Prov FE          | YES     | YES     |
| N                | 21706   | 21706   |
| R²               | 0.351   | 0.402   |

5. Research Conclusion and Policy Implication

5.1. Research Conclusion. According to the financial license information published on the official website of the China Banking and Insurance Regulatory Commission, this paper calculates the number of branches of commercial banks in various prefecture-level cities, and then constructs the level of bank competition in prefecture-level cities by using the Herfindahl-Hirschman index. Combined with the data of A-share nonfinancial enterprises in stock markets of Shanghai and Shenzhen from 2007 to 2020, this paper analyzes the role of bank competition in enterprise innovation investment. The empirical results demonstrate that the intensification of bank competition promotes an increase in enterprise innovation investment. Among small- and medium-sized enterprises and non-state-owned enterprises, the positive effect of bank competition on enterprise innovation investment is more significant. The mechanism analysis shows that bank competition promotes enterprise innovation by easing the financing constraints of enterprises, and also drives enterprise financialization. Enterprise financialization has a competitive effect on enterprise innovation, and the improvement of enterprise financialization reduces enterprise innovation investment.

5.2. Policy Implication. The policy implication of this paper can be summarized in the following aspects: First, it can guide the banks to compete reasonably, ease the financing constraints of enterprises, and steadily stimulate innovation. Currently, the banking structure in many areas of China is still dominated by the five major state-owned banks. It is necessary to reasonably strengthen the competitiveness of joint-stock commercial banks and other commercial banks, continue to expand the corresponding reform measures of the banking system, optimize the business distribution of the banking industry, and provide support for enterprise innovation. Second, it can guide the banks to curb the trend of “breaking away from reality and becoming virtual” among enterprises and improve the allocation efficiency of financial resources. The results of this paper reveal that the intensification of bank competition makes enterprises invest some funds in financial assets after they obtain the credit support due to the “profit-seeking” behavior, thus weakening the impact of innovation on high-quality development.
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