

The Influence of Party Secretaries on Bank Operational Prudence: An Empirical Analysis of their Characteristics

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Abstract As the leader of the China Commercial Bank, the Party Secretary is responsible for the stability and development of banks. We used data from 49 Chinese banks from 2015 to 2022 to study the relationships between gender, age, education level, regulatory work experience, overseas study or work experience, tenure characteristics of party secretaries, and bank operational prudence. The results show that gender, age, regulatory experience, and overseas experience of party secretaries have no significant impact on the prudence of bank operations, while party secretaries with higher education and longer tenure enhance the prudence of bank operations by strengthening the bank's risk control culture and risk prevention mechanisms. This provides a new perspective for deepening socialist reforms with Chinese characteristics and extending the prudent operations of Chinese commercial banks.

Index Terms Commercial Bank, Party Secretary, Prudence, Corporate Culture, Risk Prevention and Control Mechanism

I. Introduction

The 2008 subprime mortgage crisis bought attention to prudent supervision, emphasising the external pressure on financial institutions and highlighting the operational requirements for risk control capabilities [1]. Relevant regulatory agencies set high requirements for banks, with Basel III requiring them to strengthen risk control resilience and have a prudent attitude to capital adequacy ratios [2]. The International Monetary Fund emphasised the importance of cautious operations in constructing financial stability and banks' risk control capabilities [3]. According to the China Banking Regulatory Law¹, it is necessary to strengthen the professionalism of regulatory agencies and supervise financial institutions to operate sensibly to maintain the stability of the socialist economic system with Chinese characteristics and protect the interests of the people. Prudent operations are the foundation of safe bank operations and guarantee long-term bank development. Regulatory requirements for prudent operations have become increasingly strict to meet the needs of the times. Improving operational prudence is an operational proposition banks cannot ignore.

The corporate risk prevention and control mechanisms of Chinese commercial banks have distinct Chinese characteristics and deeply integrate the leadership of the party into corporate governance. The 2015 "Guiding Opinions on Deepening SOE Reform²" mandates that one person serve as both party committee secretary and chairman, integrating the Party committee into enterprise governance. This is a significant feature of the decision-making and risk prevention mechanism of Chinese commercial banks; that is, Chinese commercial banks have the party committee secretary as the highest leader, rather than the president or CEO of other national banks [4], [5]. The selection of enterprise party secretaries is a highly valued issue for Chinese party committees and the government. Strict requirements have been established for the selection of party secretaries from various perspectives, and the relevant literature has extensively discussed the impact of party secretaries on enterprises. However, there is little research on the relationship between party secretaries and the prudent operation of commercial banks, with most research focusing on the operational efficiency and profitability of enterprises [6], [7]. The asset structure and business model of commercial banks are unique compared with those of general industrial banks. Given the global and contagious nature of risks in commercial banks, regulatory agencies have higher standards for risk control in their operations, and leaders should maintain greater prudence than in other enterprises. As the highest leader of the China Commercial Bank, the main responsibility of the Party Secretary is to ensure the

1 To strengthen financial regulation, Chinese regulators have grouped policy banks, commercial banks and rural depository institutions (excluding investment banks and securities companies) into the banking sector.

2 SOE (state-owned enterprises). Compared with commercial banks in other countries, all Chinese commercial banks belong to public ownership and are controlled by the government or state-owned investment groups. All commercial banks in the sample belong to state-owned enterprises.

long-term stable development of the bank and to play a leading role in its prudent operation. However, there is still a lack of empirical research on the prudent operation of banks by party secretaries, which urgently needs to be addressed.

The Upper Echelons Theory points out that bank operators' decisions are often influenced by emotional cognition, which comes from personal characteristics such as education, age, and gender [8]. Hence, the personal characteristics of party secretaries affect banks' prudent operations. The heterogeneity of the party secretary's personal characteristics leads to differences in their decision-making during the operational process, and the results of these differences can impact the bank's prudent operations. It remains unclear which characteristics of party secretaries impact prudent bank operations and how. This paper examines their influence and mechanisms, identifying which types promote prudent banking and analysing how various personal traits of party secretaries support operational prudence.

This study offers several potential contributions. First, it expands our understanding of the influence of party secretaries on enterprises to banks, exploring the impact of party secretaries on the prudence of bank operations and its mechanism and path. It also investigates the impact of party secretaries on the development of market entities through wind and rain. Second, the discussion about influencing factors of risk control in commercial banks from the perspective of characteristics enriches the relevant literature on bank risk management.

II. Methodology

II. A. Model construction

To explore the potential relationship between the personal characteristics of party secretaries and the prudence of bank operations, a panel model is used for the regression estimation. The model is as follows:

$$OPL_{it} = \alpha_0 + \beta ECV_{it} + \gamma Control_{it} + \delta_i + \varepsilon_{it} \tag{1}$$

where i refers to the bank, and t refers to the year. OPL_{it} refers to operational prudence level. ECV_{it} is a variable characteristic of the Party Secretary. $Control_{it}$ is the control variable group, δ_i represents the individual fixed effects of bank i , ε_{it} is the error term.

II. B. Variable description

In this model, the dependent variable is the operational prudence (OPL) of banks, referring to existing literature [9], and the indicators involved in the CAMELS supervisory rating system. The prudence of bank operations is measured from three aspects: asset quality, capital adequacy, and liquidity. The entropy method is used to calculate the operational prudence of banks; the larger the value, the more prudent the bank's operations. The explanatory variables are the personal characteristics (EVC) of the Party Secretary, including gender (Gd), education (Dg), natural logarithm of age (La), length of tenure (Los), regulatory experience (Se), and overseas experience (Oe). The control variables include economic development (GDP), inflation (CPI), industry concentration (HHI), asset size (Size), banking business structure (Dbd), and profitability (ROE).

The composition of the prudence indicators is shown in Table 1, and Table 2 lists the definitions and sources of the variables.

Table 1: Calculation Data of Prudence Level Indicator

Operational prudence <i>OPL</i>	First level indicator	Secondary indicators
	Asset quality prudence <i>APL</i>	
		Loan provision ratio (<i>Pc</i>)
		Provision coverage ratio (<i>Lpr</i>)
Adequacy ratio prudence <i>CPL</i>		Leverage ratio (<i>Lgr</i>)
		Capital adequacy ratio (<i>Car</i>)
		Core capital adequacy ratio (<i>Tcr</i>)
Liquidity prudence <i>LPL</i>		Liquidity ratio (<i>Lqr</i>)
		Loan to deposit ratio (<i>Ldr</i>)

Note: The non-performing loan ratio and loan to deposit ratio belong to the "upper limit indicators" in the regulatory system, which means that the regulatory requirements stipulate that they cannot exceed a certain level. China's regulatory agencies require that the non-performing loan ratio of commercial banks should not exceed 4%, and the loan to deposit ratio should not exceed 75%. When measuring prudence, these are reverse indicators: the higher the indicator, the lower the prudence. Therefore, negative treatment is applied to the non-performing loan ratio and loan to deposit ratio. Aside from the two previously mentioned indicators, all other indicators are lower limit indicators in regulatory requirements,

meaning they cannot fall below a certain level. When assessing prudence, these are viewed as positive indicators and do not require special treatment.

Table 2: Definition and Source of Variables

Variable	Symbol	Calculation
Prudential management	<i>OPL</i>	Scoring based on the entropy method of regulatory indicators
Educational background	<i>Dg</i>	1 for vocational school and below, 2 for associate degree, 3 for undergraduate degree, 4 for master's degree, and 5 for doctoral degree
Tenure	<i>Los</i>	Tenure of Party Secretary's Appointment
Age	<i>La</i>	The natural logarithm of the age of the Party Secretary
Gender	<i>Gd</i>	Male assigned a value of 1, female assigned a value of 0
Regulatory experience	<i>Se</i>	A value of 1 is assigned for work experience with the central bank or the State Administration of Financial Supervision; otherwise, the value is 0.
Overseas Experience	<i>Oe</i>	A value of 1 is assigned for overseas education or work experience exceeding one year; otherwise, the value is 0.
Inflation	<i>CPI</i>	National or provincial (municipality) consumer price index
Economic growth rate	<i>GDP</i>	Real GDP growth rate of the whole country or each province (municipality directly under the central government)
Industry concentration level	<i>HHI</i>	$HHI_{it} = \sum_i^n \left(\frac{x_{it}}{\bar{x}}\right)^2$, the numerator is the total assets of bank <i>i</i> at time <i>t</i> , and the denominator is the total assets of all financial institutions at time <i>t</i>
Asset size	<i>Size</i>	Total assets of the bank
Business diversification level	<i>Dbd</i>	Non interest net income ÷ operating income
Profitability	<i>Roe</i>	Net profit ÷ Owner's equity

II. C. Data

Informed by the 2015 Guiding Opinions on Deepening the Reform of State-Owned Enterprises and data availability, this article selects 49 Chinese commercial banks from 2015 to 2022 as research samples. The primary data sources include annual reports from CSMAR, NBS, PBOC, and the relevant banks, as well as third-party tracking rating reports on commercial banks.

The descriptive statistics of the main variables are shown in Table 3.

Table 3: Descriptive statistics of main variables

Variable	Obs	Mean	SD	Min	Max
<i>OPL</i>	392	0.345	0.101	0.135	0.654
<i>Dg</i>	392	3.997	0.738	2	5
<i>Los</i>	392	4.531	0.235	1	19
<i>Gd</i>	392	0.941	0.235	0	1
<i>La</i>	392	4.006	0.088	3.638	4.29
<i>Se</i>	392	0.306	0.461	0	1
<i>Oe</i>	392	0.117	0.322	0	1
<i>CPI</i>	392	1.944	0.64	0.1	3.72
<i>GDP</i>	392	6.415	2.525	0.5	14.61
<i>HHI</i>	392	5.035	4.513	0.42	20.61
<i>Size</i>	392	3.546	7.141	0.05	39.61
<i>Roe</i>	392	11.9	4.741	0.76	30.07
<i>Dbd</i>	392	22.03	12.32	2.81	87.82

III. Results and discussion

III. A. Benchmark regression

Ordinary Least Squares (OLS) estimation (equation 1) is used in our study. Based on the Hausman test, a fixed effects model is adoptable. The F-test of each model is significant, indicating that the overall performance of the model is good. The VIF test shows that the variance inflation factors between variables are all less than 2, indicating that the model does not have collinearity issues. The results of heteroscedasticity and sequence correlation tests indicate that there are no relevant issues. The regression results of each model are shown in Table 4.

The results in Column (1) show that the coefficient of the Party Secretary's education level (Dg) is 0.022, which is significant at the 1% level. This indicates that the Party Secretary's education level has a promoting effect on business prudence. The results in Column (2) show that the coefficient for the length of service of the Party Secretary (Los) is 0.022, which is significant at the 1% level, indicating that the length of service of the Party Secretary has a promoting effect on business prudence. If managers have a higher academic background, they have stronger information recognition and innovation abilities, which can significantly improve their risk identification and prevention capabilities [10]. Long-term executives, owing to their accumulated experience, are more inclined to adopt robust risk-management strategies [11]. As the chairman of the board, the party secretary's long tenure fosters a stronger alignment with the enterprise's interests and increases the likelihood of establishing trusting relationships with other members [12], which will lead to an increase in operational prudence. The results of the two regressions indicate that the education level and tenure of party secretaries significantly affect banks' operational prudence. The higher the education level or the longer the tenure of party secretaries, the higher the operational prudence of banks.

Table 4: Results of benchmark regression

	(1)	(2)	(3)	(4)	(5)	(6)
	<i>OPL</i>	<i>OPL</i>	<i>OPL</i>	<i>OPL</i>	<i>OPL</i>	<i>OPL</i>
<i>Dg</i>	0.022*** (0.007)					
<i>Los</i>		0.006*** (0.001)				
<i>La</i>			0.091 (0.064)			
<i>Gd</i>				-0.009 (0.023)		
<i>Se</i>					0.005 (0.012)	
<i>Oe</i>						-0.020 (0.016)
<i>Size</i>	0.014*** (0.002)	0.014*** (0.002)	0.015*** (0.002)	0.015*** (0.002)	0.015*** (0.002)	0.016*** (0.002)
<i>Roe</i>	-0.004*** (0.001)	-0.005*** (0.001)	-0.004*** (0.001)	-0.004*** (0.001)	-0.004*** (0.001)	-0.004*** (0.001)
<i>Dbd</i>	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
<i>HHI</i>	0.009** (0.004)	0.007* (0.004)	0.010** (0.004)	0.010** (0.004)	0.010** (0.004)	0.010** (0.004)
<i>CPI</i>	0.004 (0.006)	0.004 (0.006)	0.006 (0.006)	0.005 (0.006)	0.005 (0.006)	0.005 (0.006)
<i>GDP</i>	-0.004*** (0.002)	-0.004** (0.002)	-0.004** (0.002)	-0.004** (0.002)	-0.004** (0.002)	-0.004** (0.002)
Constant	0.229*** (0.044)	0.315*** (0.035)	-0.046 (0.258)	0.323*** (0.042)	0.311*** (0.036)	0.312*** (0.036)
Bid	YES	YES	YES	YES	YES	YES
Observations	392	392	392	392	392	392
R-squared	0.291	0.309	0.273	0.269	0.269	0.272
F	19.66	21.46	18.05	17.70	17.70	17.94

Note: *p<0.1;**p<0.05;***p<0.01.

III. B. Robustness test

To ensure the robustness, we exclude samples from the years affected by COVID-19 (2020-2022) [13] and lag the explanatory variables and control variables by one period [6], as shown in Table 5 and Table 6.

Table 5: Robustness test for reducing sample size

Method		Exclude 2020-2022		Exclude 2020	
		OPL	OPL	OPL	OPL
Reduce sample size	<i>Dg</i>	0.017*		0.021***	
		(0.009)		(0.008)	
	<i>Los</i>		0.004*		0.007***
			(0.002)		(0.001)
	Control	YES	YES	YES	YES
	Bid	YES	YES	YES	YES
R-squared	0.359	0.360	0.290	0.326	

Table 6: The robustness test results considering the lag in decision-making of the Party Secretary

Method		Explanatory variables lag behind control variables by one period	
		OPL	OPL
Explanatory variables lag behind control variables by one period	<i>L.Dg</i>	0.018**	
		(0.007)	
	<i>L.Los</i>		0.003**
			(0.001)
	Control	YES	YES
	Bid	YES	YES
R-squared	0.312	0.312	

Results in Table 5 show that, after excluding special years, the influence of education level and tenure on prudence still meets the significance standard. This indicates that the findings remain valid regardless of the impact of economic conditions. The results in Table 6 show that after controlling for the time lag effect of the Party Secretary's decision-making using lagged explanatory and control variables, the impact of the Party Secretary's education and tenure on prudence still reached a positive and significant level. Based on these robustness tests, the empirical results of this study are robust.

IV. Mechanism analysis

The results of the benchmark regression show that the educational level and tenure of the Party Secretary have significant promotional effects on banks' operational prudence. However, the mechanism through which the Party Secretary affects prudent operations remains unclear. This section analyses the impact mechanism of the Party Secretary on prudent management.

IV. A. The influence of the party secretary's characteristics on prudence at different levels

To further explore the impact of party secretaries' personal characteristics on their prudence when dealing with risks at different levels, this section divides operational prudence (OPL) into three aspects: asset quality prudence (APL), adequacy ratio prudence (CPL), and liquidity prudence (LPL). Based on the model shown in equation (1), we replace the prudence of different risk levels with operational prudence (OPL) and explore the impact of party secretaries on prudent operations from different risk control levels.

Columns (7), (8), and (9) of Table 7 show the regression results of the Party Secretary's personal characteristics for different prudential risks. The Party Secretary's education level has a significant positive impact on the prudence level of asset quality and adequacy ratio. Higher education represents a more comprehensive knowledge reserve, improved learning abilities and higher professionalism. Party secretaries with higher levels of education also

maintain a more stable business style, strive for stronger operating conditions in banks. They have higher requirements for the quality and adequacy of their managed assets.

Columns (10), (11), and (12) in Table 7 show that the Party Secretary's tenure has a significantly positive impact on the levels of asset quality and liquidity prudence. With an increase in tenure, the Party Secretary accumulates understanding and experience in the banking business, which enables him to make more stable and prudent decisions in managing asset quality and maintaining liquidity. An increase in the tenure of the Party Secretary is usually accompanied by a higher level of operational prudence, reflecting the positive impact of accumulated experience on the quality of decision-making.

Table 7: Regression Results of Personal Characteristics of Party Secretary on Prudence of Different Risk Risks

	(7)	(8)	(9)	(10)	(11)	(12)
	APL	CPL	LPL	APL	CPL	LPL
<i>Dg</i>	0.012*** (0.004)	0.007* (0.004)	0.003 (0.003)			
<i>Los</i>				0.004*** (0.001)	0.001 (0.001)	0.001* (0.001)
Control	YES	YES	YES	YES	YES	YES
Bid	YES	YES	YES	YES	YES	YES
R-squared	0.122	0.229	0.161	0.156	0.226	0.167

Note: *p<0.1; **p<0.05; ***p<0.01.

IV. B. Analysis of the mechanism by which the characteristics of party secretaries affect the prudential operation of banks

To explore the impact of the education level and tenure of party secretaries on the prudence of bank operations, bank corporate culture and risk prevention and control mechanisms [14] are introduced as mediating variables. A two-step mechanism [15] is used to test this mediating effect.

IV. C. The role of corporate culture in how party secretary characteristics affect bank prudence

The corporate culture of banks is an important factor affecting prudent operations [16], and the emotional preferences of top leaders can shape corporate culture [17]. The characteristics of the bank party secretary can affect the corporate culture of the bank, and different attitudes towards prudence in the corporate culture can further affect the operational prudence of the bank. Therefore, this article uses text analysis and an entropy method to score the corporate culture of banks based on the frequency of words such as 'Risk Control', 'Compliance', 'Prudence', and 'Responsibility' in bank annual reports. This enables us to measure the cautiousness present in bank corporate culture.

Table 8 presents the results of the two-step test for the mediating effects of corporate culture. Column (13) is based on the regression between the educational background of the Party Secretary and the corporate culture variables, with a coefficient of 0.028, which is significant at the 5% level. The regression coefficient of Column (14), based on the relationship between the duration of the Party Secretary's tenure and the corporate culture variables, did not pass the significance test. The results of this two-step test mechanism indicate that corporate culture mediates the influence of party secretaries on operational prudence. The higher the education level of the party secretaries, the more rigorously a cautious corporate culture is created in banks, thereby improving their operational prudence.

Table 8: The intermediary effect test of corporate culture

	(13)	(14)
	Ccs	Ccs
<i>Dg</i>	0.028** (0.012)	
<i>Los</i>		0.005 (0.003)
Constant	0.440*** (0.093)	0.561*** (0.077)
Bid	YES	YES
Control	YES	YES

R-squared	0.373	0.364
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Note: *p<0.1; **p<0.05; ***p<0.01.

IV. D. The role of risk prevention and control in how party secretary characteristics affect bank prudence

The long-term tenure of the top decision maker can impact prudence by improving the corporate governance structure [18], [19]. During a long-term tenure, the Party Secretary will adjust the risk prevention and control mechanism of the bank according to his own business philosophy. As the chairperson, the independence and diversity of the party secretary’s board of directors can effectively improve the governance structure of the bank, especially in reducing risk management issues [20]. A bank’s governance structure is a mandatory facility for risk control, and the completeness of risk prevention and control mechanisms is an important aspect in measuring the prudence of bank operations. Hence, this study uses the entropy method to construct a bank risk prevention and control mechanism index to measure the soundness of the bank’s risk prevention and control mechanism and discusses its transmission role in the influence of the party secretary on the bank’s prudent operation path.

Table 9 presents the results of the two-step test for the mediating effects of corporate culture. The regression results in Columns (15) and (16) show that both the educational level and tenure of the Party Secretary have a significant promoting effect on the bank’s risk prevention and control mechanisms at a level of at least 5%. This result passes the two-step test mechanism, indicating that the risk prevention and control mechanism has a mediating effect on the path of the Party Secretary’s influence on banks’ operational prudence. The higher the education level or longer the tenure of the Party Secretary, the more it promotes the improvement of the bank’s risk prevention and control mechanism construction, thereby enhancing its operational prudence.

Table 9: The intermediary effect test of risk prevention and control mechanism

	(15)	(16)
	<i>lps</i>	<i>lps</i>
<i>Dg</i>	0.095*** (0.024)	
<i>Los</i>		0.013** (0.006)
Constant	0.451*** (0.160)	0.798*** (0.130)
Control	YES	YES
Bid	YES	YES
R-squared	0.355	0.307

Note: *p<0.1; **p<0.05; ***p<0.01.

V. Conclusion

We investigate the relationship between the personal characteristics of bank party secretaries and prudence in bank operations. Our findings show that the educational level and tenure of party secretaries significantly promote the prudence of bank operations. The analysis across different dimensions reveals that the Party Secretary’s educational level significantly affects asset quality and adequacy ratios, while tenure length has a greater impact on asset quality and liquidity. The results of the mechanism discussion further show that the educational level of the Party Secretary has a positive impact on shaping a more cautious corporate culture, thereby improving operational prudence, as the educational level and tenure of the Party Secretary have a significant impact on the construction of the bank’s risk prevention and control mechanism, and will also promote the improvement of the bank’s operational prudence.

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