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Corporate Governance and Liquidity Risk of Industrial and Commercial Bank of China (ICBC)

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Abstract

In this paper, we are going to exam the relationship between the return on asset (ROA) with internal, external factors of the ICBC. Kupiec, P., & Lee, Y. (2012), stated that ROA is important statistic toward the profitability of banks. The data that we used is get from the annual reports of ICBC from the year of 2014 to 2018. The independent variables in this study which is internal and external factors are current ratio, credit risk, operating margin, CGI, GDP, interest rate, inflation, and also exchange rate, while the dependent variable is return on asset. Therefore, this study is to analyze the relationship between the internal and external factors of ICBC with return on asset. Data was analyzed by utilizing descriptive statistics, correlation, model of summary, ANOVA, and coefficient. In the analysis shows a significant relationship between return on assets and current ratio compare with other factors especially corporate governance index (CGI) and exchange rate.

Keyword: Return on Asset, corporate governance, company performance, liquidity risk

1.0 Introduction

This part of introduction will discuss details about the ICBC's background and its operations, ICBC existing corporate governance mechanism.

1.1 Company's background and its operations.

Industrial and Commercial Bank of China (ICBC) is the largest bank in China today which started as a limited company since 1984. ICBC was successfully recorded on both Shanghai Stock Exchange and The Stock Exchange of Hong Kong limited on 27 October 2006. Besides, it own assets value of US\$ 4.009 trillion at December, 2017 which is the biggest financial institution and public company in the world.

1.2 Existing corporate governance mechanism

ICBC highly values on corporate governance because it is the key to support operation of commercial bank. In the past five years, ICBC remained as the public company in the A-share market with the highest annual total cash dividends which reflected its strong corporate governance. ICBC built up the independent and high-quality directors, ICBC attempted to set up a director recommendation and nomination system and a director orientation training mechanism. ICBC has always valued shareholder's interest and social responsibility by continuing to boost voluntary information disclosure. It improves corporate transparency and shareholders' right to know throughout multiple channels such as analyst meetings, roadshows, and performance promotion. ICBC has encouraged directors to independently voice professional opinions to enhance corporate governance culture and formed the Board culture featuring harmony

1.3 Definition of Corporate Governance

Shleifer and Vishny (1997) say that "deals with the ways in which the suppliers of finance to corporations guarantee themselves of getting a return on their investment". So, corporate governance shows relationship between investors that is utilized to decide and control direction and performance of organizations. Every company is trying to instill the sense of governance into their corporate structure. The improvement of corporate governance is the principle venture to upgrade an enterprise core competitiveness is the way to sustain the development of bank in future. When banks efficiently prepare and dispense funds, this cuts down the cost of firms, helps capital

development, and boost productivity development. So, weak governance of banks brings the result throughout the economy with negative consequences for economic development.

2.0 Literature Review

This part deals with the review of some earlier literature related to this study on corporate governance and its determinants. This part will discuss more on the definition, significance and how does it relate to the corporate governance. An insight into corporate governance and its determinants will be established through this chapter, consisting firm economic factors and also specific factors.

2.1 Credit Risk

McNeil et al. (2015,p.366) “Credit risk as a risk of a loss arising from the failure of a counterparty to honor its contractual obligations.” Credit risk is the risk where loss is caused to the banking business when the borrower or counter party neglects to satisfy its legally binding commitments. Credit risks are determined based on the borrower's overall capacity to repay a loan according to its original terms. The Bank’s credit risks normally originate from loans, treasury operations, receivables and off-balance sheet credit business.

Jakubik, P. (2007). The significance of credit risk is enlarged by the reality that it is associated with the collateral problem. Credit risk is considered as the most common and dangerous risk particularly for the banks that can put them into deep trouble and even they may confront insolvency for example the financial crisis of 2008. Credit Risk Management is significant for banks as it guarantees that the borrower has a good credit standing, the ability to repay their debt, is run and managed by good personnel.

Basel Committee on Banking Supervision (September 2000). Credit risk management is a critical piece of measuring the optimizing profitability of financial institutions. A decent corporate governance of a bank can decrease the credit risk. Banks should now have a sharp consciousness of the need to identify, measure, monitor and control credit risk as well as to determine that they hold adequate capital against these risks and that they are adequately compensated for risks incurred. The credit risk based upon the obtainable internal data which is measured by investigating the adjustments in quality loans (medium or low) over total asset ratio. Credit risk can be controlled and reduced by the chance provided by this ratio.

2.2 Operational risk

(British Bankers Association) Operational risk which is the risk of direct or indirect loss resulting from inadequate or failed internal processes, people or systems or from external events. Operational risk summarizes the uncertainties and perils a company faces when it endeavors to do its everyday business activities within a given field or industry. There are seven major types of operational risks faced by the Bank, including internal fraud, external fraud, employment system and workplace safety, customers, products and business activities, damage to physical assets, IT system, execution and delivery and process management.

According to Hiwatashi banks strive to measure operational risk for a number of reasons. The principal reason is that a bank will be better ready to create objective measures in order to examine the adequacy of internal risk control processes. Also, the expansion in the viability of the methods used to calculate operational risk has induced banks to allocate economic capital to operational risk. Nowadays, operational risks faced by banks which is fraud, system failures, terrorism and employee compensation claims.

Governor Roger Ferguson, FRB Vice-Chairman, March 2002 “Maintaining a culture that values integrity and creates adequate controls is crucial . . . And the effort must start at the top.” Great Corporate Governance gives an approach to understand the vision of mitigating risks and optimizing performance simultaneously in today’s competitive and regulatory environment. If the corporate governance is an important component of business management, it is also need to have operational risk management.

2.3 Liquidity risk

(Basel Committee on Banking Supervision 1997). Liquidity risk which is a risk that the Bank is unable to raise funds on a timely basis or at a reasonable cost to settle liabilities as they fall due, or perform other payment obligations and fulfill other financing requests arising from the normal course of business. Liquidity risk arises from the inability of a bank to oblige decreases in liabilities or to fund increases in assets.

(International Journal of Risk Assessment and Management · January 2016). Liquidity risk has become one of the most significant components in enterprise-wide risk management framework. The financial crisis has emphasized the significance of liquidity risk to the financial system. A

bank's liquidity system should maintain sufficient liquidity to withstand all kinds of stress events that will be faced. Many institutions attempted to keep up sufficient liquidity, which led to both bank failures and the need for central banks to inject liquidity into national financial systems to keep the economy afloat during economic crisis.

(Al-Araj, 2010) Liquidity risk arise from the bank's inability to meet its short-term liabilities. Liquidity risk does not need to be covered by equity but by an adequate volume of liquid assets and highly liquid securities. This is the reason why the regulation of the liquidity risk in banking is focused on liquidity ratio-based financial constraints. The duty of the Board of Directors is deciding techniques by which to control and monitor liquidity risk efficiently, set up an effective framework for liquidity risk management, and distinguish strategies and policies to improve and help the system in a manner consistent with acceptable liquidity risk.

2.4 Market risk

(Basel Committee on Banking Supervision) Market risk is the risk of loss resulting from adverse movements in the level or volatility of market prices, interest rates instruments, equities, commodities, or currencies. Market risk as the risk of losses in on- or off-balance sheet positions that emerge from movement in market prices. The significant components of market risk include interest rate risk, equity risk, currency risk, and commodity risk. The bank is principally presented to currency risk and also interest rate risk.

(Bank for International Settlements, 2013) Market risk is the most outstanding for banks present in investment banking. Dominant factors which may cause emergence of market risk are: equity prices, interest rates, foreign exchange rate and commodity risk. Investors and analysts use the value-at-risk (VaR) method to measure market risk,. VaR modeling is a statistical risk management method to quantify a stock or portfolio's potential loss by the probability of that potential loss occurring.

(McKinsey Working Papers on Risk) Market risk management process ought to include normal situation investigation and stress tests. Financial institution could pick situation dependent based on either authentic information or based on empirical models of movements in market risk factors. The Board of Directors assumes the definitive accountability for monitoring market risk management. The Senior Management is liable for executing the systems, overall policy and

framework concerning market risk management approved by the Board of Directors. The risk management departments at different levels undertake the responsibility of coordinating market risk management at respective levels, and the business departments implement market risk management policies and standards for their respective business areas in accordance with their functions.

3.0 Research Methodology

The research methodology included the methods, and approaches used for the study to analyze the objectives and achieve the goals in this study.

3.1 Research Objectives

Our objectives are to find out the meaning and the importance of corporate governance and how it is related with banking sectors especially to the company we had chosen “ICBC” in the terms of credit risk, operational risk, liquidity risk, and market risk. Besides, we want to find out how can corporate governance affect and relate to the performance of the company. Besides, we have to analyze the data based from the annual report of ICBC.

3.2 Data collection and analysis procedure

Through the ICBC’s annual report, we can find out the relationship between the bank, liquidity risk, credit risk, operational risk, and also market risk. The process of data analysis starts with the collection of data, analyze the data, and find out the relationship between those data. We used the SPSS to analyze the data.

3.3 Data bases

The main database we used is Google Scholar, which can give us insights on the research topic and we can also find out the articles which are related to our research topic from Google Scholar. We also find out the annual report of ICBC to study about the background and its financial statement.

3.4 Research hypothesis

- There is a significant relationship between the internal factors with ROA.
- There is a significant relationship between external factors with ROA.
- There is a significant relationship between both internal and external factors with ROA.

3.4 Research questions

- What is the impact between the internal factors with ROA?
- What is the impact between external factors with ROA?
- What is the impact between both internal and external factors with ROA?

4.0 Analysis and Finding

In this study, correlation implement to determine the data correlation between the dependent variables which is ROA with the independent variables which are current ratio, credit risk, operating margin, CGI, GDP, interest rate, exchange rate, inflation and STDV. We used SPSS to analyze the data and analyze the relationship between the dependent variable with the independent variables. We want to know that which factors affect the most to the ROA of ICBC.

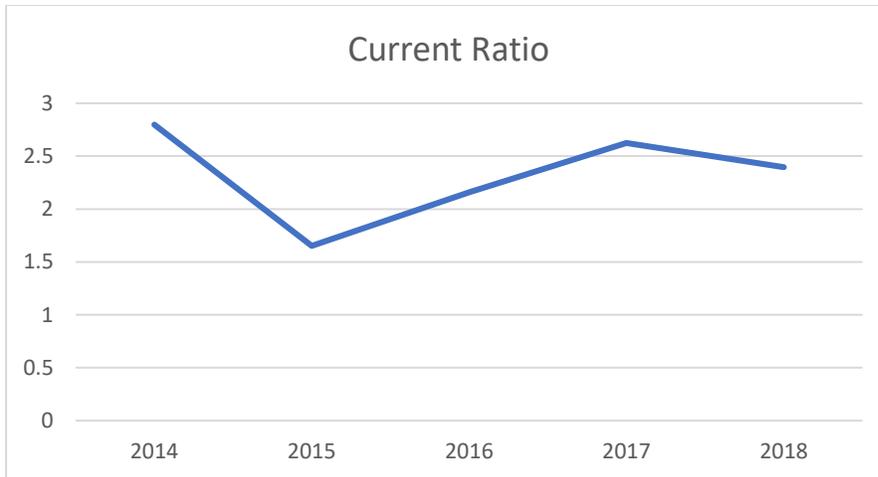
4.1 Relationship between ROA of ICBC and the independent variables.

4.1.1 Descriptive Statistics

	Mean	Std. Deviation	N
ROA	.011860	.0010854	5
CURRENT RATIO	2.325820	.4467546	5
CREDIT RISK	.014640	.0019217	5
OPERATING MARGIN	2.523480	.0811428	5
CGI	.800	.0000	5
GDP	6.8620	.26837	5
Inflation	1.820	.3033	5
InterestRate	2.8300	1.85169	5
ExchangeRate	6.6080	.30532	5

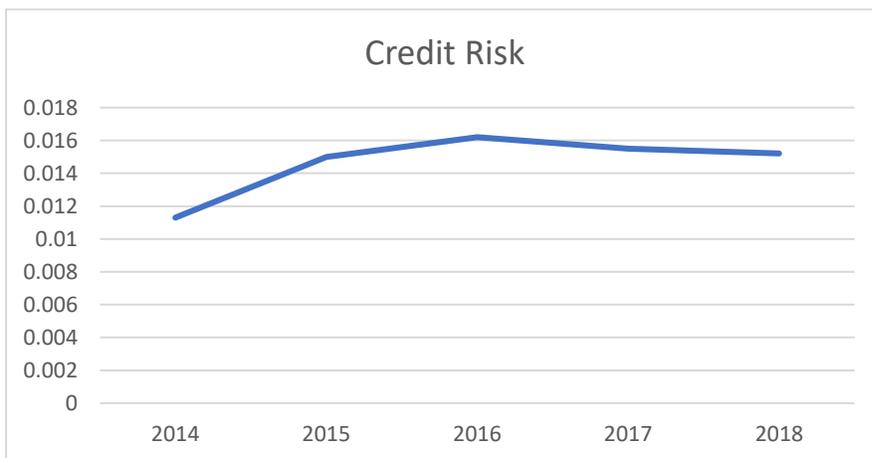
Descriptive statistics represents the features and characteristic of a collection of data for better understanding. Nowadays, people use descriptive statistics to analyze the huge data and it is the simplest and common use of data today.

Based on the table from the above, the mean of ROA is 0.0119. This means every single dollar of assets will generate 0.01 income to the company. The standard deviation for ORA is 0.0011 which is the least volatile among the variables. The most volatile variable is current ratio with the standard deviation of 0.4468. The N from the table represents the number of observations which are the data we chose from the year 2014 to 2018.



The Trend Analysis of ROA from year 2014 to 2018

The graph shows the current ratio of ICBC from the year 2014 to 2018. We used the formula of current asset/current liability to find the current ratio, because the current ratio also indicated the liquidity risk of the company. The current ratio of ICBC had decreased sharply from the year 2014 to 2015 which is from 2.7977 to 1.6521 and then increased steadily to 2017. The current ratio had fall slightly which is from 2.6249 to 2.3947 from the year 2017 to 2018. The liquidity risk is very important for a company especially for the banking sectors.



The Trend Analysis of Credit Risk from year 2014 to 2018

Tan, Y., & Floros, C. (2012) the profitability in the Chinese banking industry is major affected by the level of non-performing loans. The formula used to obtain the credit risk of ICBC is non-performing loans or total loans. Therefore, credit risk of ICBC is increasing from the year 2014 to 2016 which is increased from 0.0113 to 0.0162. At the year 2016, the credit risk of ICBC had

decreased slightly from 0.0162 to 0.0152 at the year 2018. In overall, the credit risk of ICBC is quite stable.

4.1.2 Correlations

		Correlations								
		ROA	CURRENT RATIO	CREDIT RISK	OPERATING MARGIN	CGI	GDP	Inflation	InterestRate	ExchangeRate
Pearson Correlation	ROA	1.000	.004	-.797	.796	.	.946	-.111	.916	-.740
	CURRENT RATIO	.004	1.000	-.519	-.270	.	.305	.538	-.284	-.322
	CREDIT RISK	-.797	-.519	1.000	-.659	.	-.907	-.216	-.573	.805
	OPERATING MARGIN	.796	-.270	-.659	1.000	.	.682	-.298	.757	-.660
	CGI	1.000
	GDP	.946	.305	-.907	.682	.	1.000	-.044	.747	-.863
	Inflation	-.111	.538	-.216	-.298	.	-.044	1.000	-.027	.370
	InterestRate	.916	-.284	-.573	.757	.	.747	-.027	1.000	-.423
ExchangeRate	-.740	-.322	.805	-.660	.	-.863	.370	-.423	1.000	
Sig. (1-tailed)	ROA	.	.497	.053	.054	.000	.007	.430	.015	.076
	CURRENT RATIO	.497	.	.185	.330	.000	.309	.175	.322	.299
	CREDIT RISK	.053	.185	.	.113	.000	.017	.363	.156	.050
	OPERATING MARGIN	.054	.330	.113	.	.000	.102	.313	.069	.113
	CGI	.000	.000	.000	.000	.	.000	.000	.000	.000
	GDP	.007	.309	.017	.102	.000	.	.472	.074	.030
	Inflation	.430	.175	.363	.313	.000	.472	.	.483	.270
	InterestRate	.015	.322	.156	.069	.000	.074	.483	.	.239
ExchangeRate	.076	.299	.050	.113	.000	.030	.270	.239	.	

Correlation is used to measure the degree to which two variables move with relation to each other. For example, GDP is the highest positive correlation to ROA with the value of 0.946. The significant value of GDP is 0.007 which is smaller than the p value < 0.1 , which means GDP influenced the most toward ROA among these factors. If GDP increase, ROA will also increase, and show a positively relationship between ROA and GDP. In contrast, credit risk has the negative correlation to ROA with the value of -0.797. This means if the credit risk decrease, ROA will increase. The significant value of credit risk shows it has significant impact towards ROA.

4.1.3 Model Summary

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.739 ^a	.546	.359	.0012831	1.573

a. Predictors: (Constant), ExchangeRate, CREDIT RISK, CURRENT RATIO, Inflation, OPERATING MARGIN, InterestRate, GDP

b. Dependent Variable: ROA

R-squared shows to what extent the variance of one variable explains the variance of the second variable. So, the R-square value from the table above is 0.546. So, it means that approximately more than half of the independent variables can be used to explain the dependent variable which is ROA. The adjusted R square is 0.359 which illustrate the independent variables can be used to explain the ROA for 35.9%. The Durbin-Watson value is 1.573 which is not more than 3 or less than 1. This means there is no autocorrelation detected in the sample.

4.1.4 ANOVA

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	7	.000	2.917	.034 ^b
	Residual	.000	17	.000		
	Total	.000	24			

a. Dependent Variable: ROA

b. Predictors: (Constant), ExchangeRate, CREDIT RISK, CURRENT RATIO, Inflation, OPERATING MARGIN , InterestRate, GDP

Analysis of variance (ANOVA) is very important in exploratory and confirmatory data analysis. The model 1 shows that the significant value is 0.034 which is less than p value < 0.10. This result show that the independent variables are very significant to the ROA. The F value is 2.917. It represents how much the impact of the independent variables toward the dependent variable. So, the bigger the F value, the larger the impact towards ROA.

4.1.5 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.027	.046		.584	.567	-.071	.125		
	CURRENT RATIO	.001	.000	.376	2.152	.046	.000	.002	.877	1.141
	CREDIT RISK	.001	.002	.113	.546	.592	-.003	.004	.620	1.614
	OPERATING MARGIN	.000	.000	.181	.824	.421	-.001	.001	.552	1.810
	GDP	-.006	.009	-.976	-.720	.481	-.025	.012	.015	68.804
	Inflation	-.005	.005	-.664	-1.062	.303	-.015	.005	.068	14.630
	InterestRate	.004	.004	1.306	1.126	.276	-.003	.011	.020	50.325
	ExchangeRate	.026	.019	.561	1.355	.193	-.014	.066	.156	6.410

a. Dependent Variable: ROA

The coefficients table shows the dependent variable (ROA) effected by the independent variable. Next, t-value of current ratio is the biggest among these variables which is 2.152, and it means the current ratio has the largest impact to the ROA, as the significant value 0.046 of current ratio is also less than the p value < 0.10. Any changes in the current ratio will seriously impact the ROA. For example, if we want to improve the ROA, we can increase the current asset or decrease the current liability.

5.0 Discussion and Conclusion

5.1 Introduction

In this paper, we are going to identify the impact of the internal and external factor for ROA of ICBC whereby ICBC is the largest bank in China. To attain this objective, internal factors (current ratio, credit risk, operating margin and corporate governance index) and external factors (GDP, inflation, interest rate, and exchange rate) were implement in this study. So, we are going to have a discussion based on the findings in chapter four. Lastly, to make a conclusion and recommendations in this chapter.

5.2 Limitations

This research is limited only to the company in banking sector and which is having corporate governance scandals like ICBC. This research only focused for ICBC's annual report from the year of 2014 to 2018. Therefore, only a limited data and information can be obtained.

5.3 Conclusion

In conclusion, we found that have a significant relationship between the return on asset with current ratio by representing for the liquidity risk of ICBC, while the other factors such as corporate governance index and exchange rate show less significant toward ROA. To enhance the ROA of ICBC, the company can make an improvement on current ratio, by the way of reducing current liability and increasing current asset. Besides, company can also improve and enhance the corporate governance of ICBC to increase the confidence of investors toward ICBC and attract more investment to expand the company growth.

6.0 Appendix

Table 1: Company performance of ICBC for the year 2014 to 2018.

PERFORMANCE		
Net Income	Total Assets	ROA
276286000000	20609953000000	0.0134
277720000000	22209780000000	0.0125
279106000000	24137265000000	0.0116
287451000000	26087043000000	0.0110
298723000000	27699540000000	0.0108

Table 2: Liquidity risk of ICBC for the year 2014 to 2018.

LIQUIDITY RISK		
Current Asset	Current Liability	CURRENT RATIO
4306398000000	1539239000000	2.7977
3743426000000	2265860000000	1.6521
4148261000000	1920782000000	2.1597
4479589000000	1706549000000	2.6249
4345150000000	1814495000000	2.3947

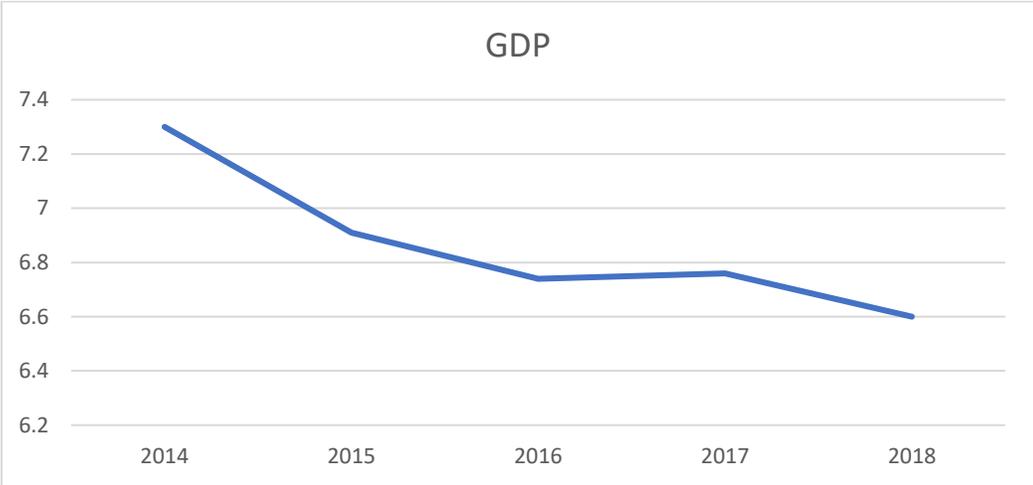
Table 3: Credit risk of ICBC for the year 2014 to 2018.

CREDIT RISK		
Non-performing loan	Total Loan	Credit Risk
124497000000	11026331000000	0.0113
179518000000	11933466000000	0.0150
211801000000	13056846000000	0.0162
220988000000	14233448000000	0.0155
235084000000	15419905000000	0.0152

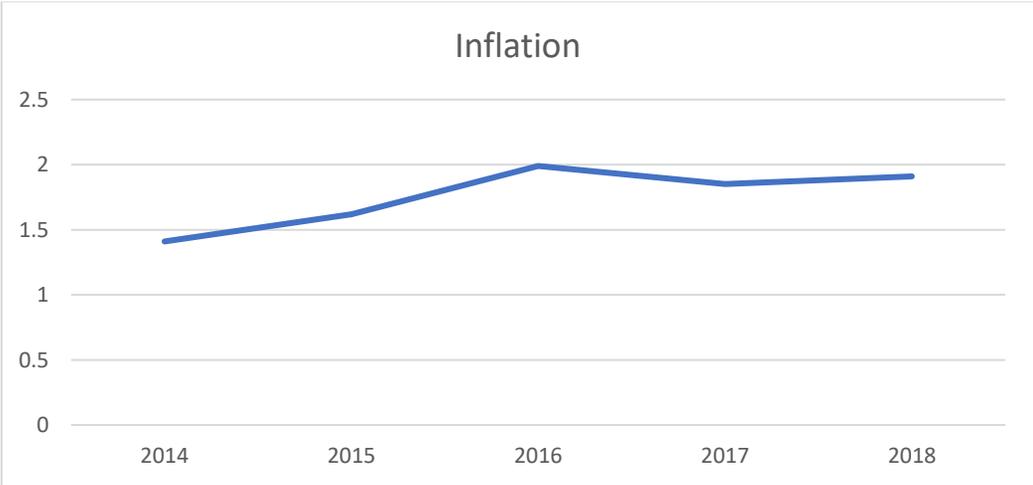
Table 4: Operational risk of ICBC for the year 2014 to 2018.

OPERATIONAL RISK		
EBIT	Revenue	OPERATING MARGIN
717969000000	276286000000	2.5986
727147000000	277720000000	2.6183
682913000000	279106000000	2.4468
704157000000	287451000000	2.4497
747989000000	298723000000	2.5040

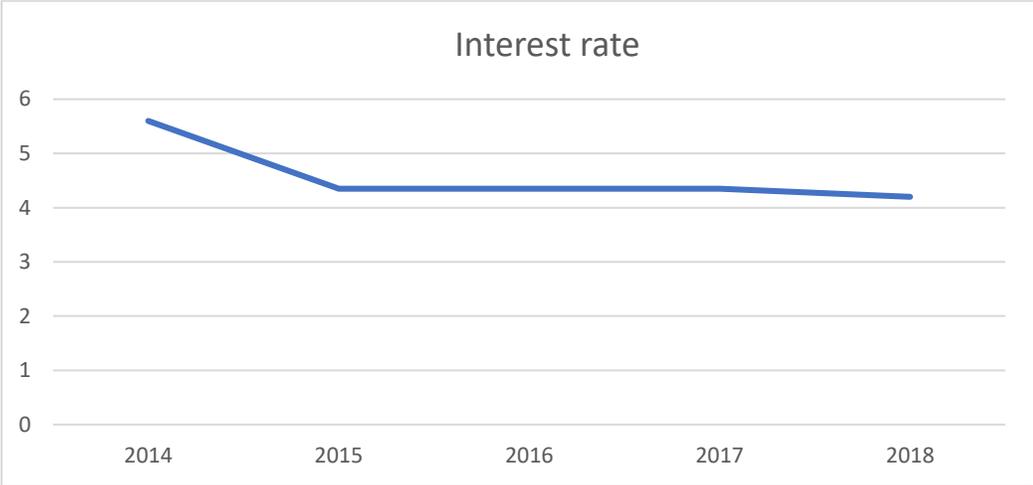
Line graph 1: The trend analysis of China macroeconomics (GDP) from the year 2014 to 2018



Line graph 2: The trend analysis of China macroeconomics (inflation) from the year 2014 to 2018



Line graph 3: The trend analysis of China macroeconomics (interest rate) from the year 2014 to 2018



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