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The Impact of IFRS Financial Instrument Standards on Commercial Banks and its Application

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Abstract

Financial instruments have always been a topic of concern in accounting practice and theory. International Accounting Standard No. 39 - financial instruments: recognition and measurement (IAS39), originally issued by the U.S. financial accounting standards board (FASB), has been criticized because of its complexity and incomprehensibility. In July 2014, International Financial Reporting Standard No.9-financial instruments (IFRS9) was officially promulgated, which has made great improvements in the classification and measurement of financial instruments, impairment of financial assets and general hedge accounting. On the basis of reviewing the formulation process of IFRS 9, this paper interprets and evaluates the contents of IFRS 9, then analyzes the overall impact of positive IFRS 9 on China's commercial banks, discusses the application of positive IFRS 9 in China's commercial banks and its implementation difficulties and challenges, and finally puts forward suggestions to China's commercial banks and standard setting institutions.

Keywords

Financial Instruments; Asset Impairment; Hedge Accounting.

1. Introduction

The accounting treatment of financial instruments has been concerned by the theoretical and practical circles because of its importance and complexity. In 1999, as the international accounting standards board (IASB), for more than ten years, the complexity and incomprehensibility of its provisions made it difficult to meet the needs of financial report users and other stakeholders, which was widely criticized. The financial crisis broke out in 2008 has aroused the attention and thinking of all walks of life about the defects of the existing international accounting standards, and pushed the accounting standards for financial instruments to the forefront of public opinion. Since then, with the convening of a series of G20 summits and the inaugural meeting of the Financial Stability Board (FSB), theorists and practitioners have reached a consensus on establishing a unified set of high-quality and authoritative international financial reporting standards. Therefore, the joint project of IFRS financial instrument accounting standards jointly cooperated by IASB and the US financial accounting standards board (FASB) came into being in 2009, which aims to improve the disadvantages of $39 and provide more scientific and standardized guidance for the accounting treatment of financial instruments. After years of efforts, IASB officially issued International Financial Reporting Standard No. 9 - financial instruments (IFRS 9) in July 2014, including three parts: classification and measurement of financial instruments, impairment of financial assets and hedge accounting, so as to comprehensively replace IAS39. As a member of G20 and a developing country representing emerging market economy, China has always supported and actively promoted the international convergence of accounting standards. In April 2010, China's Ministry of Finance issued the roadmap for the convergence of China's accounting standards for business enterprises and international financial reporting standards, marking a deeper stage of the international convergence of China's accounting standards. In April 2017,

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China's Ministry of Finance issued the revised version of accounting standards for financial instruments to achieve timely docking with international financial reporting standards. Under this background, based on reviewing the development of accounting standards for financial instruments, combing relevant research literature and interpreting IFRS 9, this paper analyzes the impact of IFRS 9 on commercial banks, the subject most affected by accounting standards for financial instruments in China, and takes bank x as an example to analyze the application of IFRS 9, Finally, it puts forward some suggestions for China's commercial banks and standard setting institutions.

2. Overall Impact of IFRS Financial Instrument Standards on Commercial Banks

2.1. Impact of Classification and Calculation of Financial Instruments on Commercial Banks

2.1.1. Impact on Financial Instruments of Commercial Banks

As IFRS9 has the same requirements for the classification and measurement of financial liabilities as IAS39, the impact of IFRS9 on financial instruments of commercial banks is mainly focused on financial assets.

According to China's accounting standards for Business Enterprises No. 22 - recognition and measurement of financial instruments (cas22), the financial assets of commercial banks are mainly divided into four categories: financial assets measured at fair value and whose changes are included in the current profit and loss, available for sale financial assets, loans and receivables (including loans, advances and receivables), and held to maturity investments. According to Article 189, most trading financial assets (including derivative financial instruments) are still measured at fair value and the changes are included in profits and losses, and most loans, advances and held to maturity investments are still measured at amortized cost. Therefore, the classification and measurement attributes of these financial assets have not changed. The main changes focused on available for sale financial assets and receivables.

Available for sale financial assets include available for sale debt instruments and available for sale equity instruments. Available for sale debt instruments are usually held to meet liquidity needs. The business model is to receive both contractual cash flow and sale. The cash flow is characterized by the payment of principal and interest, Therefore, it is still classified as measured at fair value and its changes are included in other comprehensive income (fvocdo for available for sale equity instruments, because they are held for trading purposes, they do not meet the applicable conditions of IFRS9 option of fair value measurement of equity instruments and their changes are included in equity, that is, commercial banks cannot apply the option to classify them as Shan 0. Because their cash flow is not the payment of principal and interest, they should be classified as measured at fair value and their changes Financial instruments included in profit or loss (FVTPL), which is different from the change in fair value originally included in owner's equity under $39.

Loans and receivables include loans and advances, deposits with the central bank, deposits with other banks, lending funds, purchase of resale financial assets and receivables, among which receivables include accounts receivable investment, interest receivable, other receivables, etc. For accounts receivable investments, most of them are bonds issued by the government, banks or other non bank financial institutions and enterprises held by banks, financial products issued by banks, trust plans and asset management plans issued by other financial institutions, etc. because the business model is not simply held to collect contractual cash flow, Therefore, it should be included in the scope of fair value measurement according to the requirements of

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IFRS9, and the changes in fair value should be included in the current profit and loss or other comprehensive income, which is different from that measured at amortized cost under IAS39.

2.1.2. Impact on Financial Reports of Commercial Banks

(1) Impact on financial asset structure

The classification of IFRS 9 will lead to an increase in the proportion of financial assets measured at fair value of commercial banks. According to IAS39 and IFRS9, the author evaluated 26 listed commercial banks in China as of December 31, 2016. The data of financial assets at the end of 2015 were sorted out, and the amount of financial assets measured at fair value and amortized cost.

Under IAS39, the proportion of fair value measurement items in total financial assets is 8.09%, and the proportion of amortized cost measurement items in total financial assets is 91.91%. Under IFRS9, due to the change of receivables from amortized cost to fair value measurement, the proportion of fair value measurement items has increased by 8.68%, to 16.77%, and the proportion of amortized cost measurement items has decreased by 8.68%, to 83.23%.

(2) Impact on other comprehensive income and profit and loss from changes in fair value

IFRS9 classification method will affect the amount of profit or loss from changes in fair value and other comprehensive income. The author sorted out the impact of available for sale financial assets on other comprehensive income in the 2015 annual report of China's listed commercial banks ①. As can be seen from table 5-4, in 2015, the amount of changes in the fair value of available for sale financial assets of Shanghai and Shenzhen listed commercial banks included in other comprehensive income was 126894.2 million, with an average of 8459.614 million per bank, of which the changes in the fair value of debt instruments accounted for 97.31% and equity instruments and others accounted for 2.69%. Available for sale equity instruments are measured at fair value under IFRS 9 and their changes are included in the current profit and loss, while the changes in fair value under IAS39 are included in other comprehensive income. Therefore, this change will affect the amount of profit and loss of changes in fair value and other comprehensive income, and then affect the current profit. Assuming that all changes in the fair value of available for sale equity instruments are included in the current profits and losses, the amount of profits and losses from changes in the fair value in the income statement will increase by 3407815000, with an average increase of 227187700 for each company, with an average increase of 18.14%.

Secondly, available for sale debt instruments can usually be classified as measured at fair value through cash flow test and their changes are included in other comprehensive income. However, if some available for sale debt instruments fail to pass cash flow test, this part also needs to be classified as measured at fair value and their changes are included in current profits and losses, It will have a great impact on the profit and loss of changes in fair value and other comprehensive income. From the annual reports of 26 listed commercial banks, the author concludes that considering impairment, transfer of sale into current profit and loss and income tax, the net change in the fair value of available for sale financial assets is 102168.7 million, accounting for 89.15% of the net amount of other comprehensive income after tax of 114607.5 million. Most of the changes in other comprehensive income come from the change in the fair value of available for sale financial assets, Therefore, once the available for sale financial assets fail to pass the cash flow test, it will have a great impact on other comprehensive income and profit and loss from changes in fair value.

Finally, under IFRS 9, the changes in fair value of debt instruments in such investments of receivables are usually included in other comprehensive income. Under IFRS 9, the changes in fair value of other types of receivables may be included in other comprehensive income or current profit and loss, as appropriate, Therefore, on the whole, the new changes in IFRS9 will affect the amount of profit or loss from changes in fair value and other comprehensive income,

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but the degree of impact depends on the specific conditions of available for sale equity instruments and receivables investments of commercial banks.

The author believes that the difficulty and challenge in the implementation of this part is that IFRS 9 does not provide specific operation guidelines for the judgment of business model and cash flow characteristics according to the business characteristics and risk management practices of China's commercial banks. Commercial banks must re sort out the business model and cash flow characteristics of various financial assets based on facts and professional judgment, And reconstruct the existing accounting subject system and business system according to IFRS9 classification, which itself has great complexity and will invest a lot of human and financial resources.

2.2. Impact of Expected Loss Impairment Model on Commercial Banks

As loans and advances are the financial assets with the largest proportion of commercial banks, the expected loss model has the greatest impact on loans and advances. At present, most of China's commercial banks withdraw loss reserves for loans and advances in a combination of single and combined withdrawal. The basis of withdrawal takes into account both accounting standards and regulatory policies, reflecting the coordination of the two. Specifically, the basis for the provision of loss reserves mainly includes accounting standards for Business Enterprises No. 22 - recognition and measurement of financial instruments, guidelines for loan risk classification, measures for the administration of loan loss reserves of commercial banks, measures for the administration of provision of financial enterprises, etc.

At present, in practice, China's large and medium-sized commercial banks have implemented the provisions of the internal rating method of the New Basel Capital Accord and accrued loss reserves for all loan assets. For normal or concerned loans and advances that have no objective evidence of impairment, the loss reserves are evaluated in a combined manner; For subordinated, doubtful or loss company loans and advances with objective evidence of impairment, the loss reserves shall be assessed individually by comparing the difference between the book value and the present value of future cash flows; For personal loans and advances that have objective evidence of impairment, such as subordinated, suspicious or loss, the provision for loss shall be assessed in combination through specific measurement models (such as "mobility model" or "rolling rate model").

IFRS9 expected credit loss uses forward-looking impairment thinking. For all financial assets within the scope of impairment, the expected credit loss in the next 12 months shall be recognized at the initial recognition. For those with significant increase in credit risk, the full cycle credit loss shall be recognized on the reporting date, and the expected credit loss shall be adjusted on each reporting date, which will affect the profit, capital adequacy ratio Product pricing, information comparability and model establishment have a significant impact.

First, the expected loss model will lead to a significant increase in the provision for impairment of financial assets of commercial banks and reduce the amount of profits and owner's equity. The reduction of profits will lead to performance fluctuations. The reduction of owner's equity will affect the accumulation of capital, thus reducing the capital adequacy ratio and affecting the regulatory indicators of commercial banks. According to Deloitte's survey of 54 major banks around the world in 2014, the change of impairment mode will increase the impairment provision of loan products by 30% to 250% (Deloitte, 2014), which will have a significant impact on the current profits. On the one hand, the significant increase in impairment provision comes from the expansion of the asset base requiring impairment. Off balance sheet items that originally did not require impairment under IAS39, such as credit commitments and financial guarantee contracts, should also be included in the scope of impairment under IFRS 9; On the other hand, the impairment calculation period extends to the whole product life cycle. Even for financial assets without large default risk at initial recognition, the expected credit loss for at

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least 12 months should be accrued. For financial assets with significantly increased credit risk after initial recognition, the expected credit loss for the whole cycle needs to be accrued, so the amount of impairment also increases significantly.

At present, most of the financial assets of commercial banks are loans, so the impact analysis is based on loans below. The risk management of commercial banks listed in Shanghai and Shenzhen is relatively mature and the loan information disclosure is relatively perfect. Based on the data of commercial banks listed in Shanghai and Shenzhen at the end of 2015, the author briefly simulates the changes of impairment reserves after adopting the expected credit loss model through a simple loan migration rate model, as shown in table 5-6. At present, each bank adopts the five-level classification method for the classification of loans, which is divided into normal category, concern category, secondary category, suspicious category and loss category according to the credit quality. For the convenience of calculation, it is assumed that the normal category of loans corresponds to the first stage of credit assets, and the other four categories of loans correspond to the second and third stages of credit assets. It is assumed that the average life cycle is five years, Within five years, it will migrate downward according to the average loan migration rate, multiply the amount at the end of the life cycle by the standard risk coefficient issued by the CBRC, and obtain the potential risk estimate of various loans as the estimate of impairment loss under IFRS9.

The increase of RMB 100 million to RMB 302.7245 billion, an increase of RMB 135.8697 billion, an increase of 81.40%. Part of the increase comes from the inclusion of credit commitments and financial guarantee contracts into the provision scope of impairment losses, accounting for 20.70%, and the other part comes from the increase of reserves caused by the provision of expected credit losses in the whole cycle in the second and third stages, accounting for 79.30%.

Second, due to the requirements of prudential supervision of the banking industry, the loan assets of commercial banks are affected by the supervision of the loan provision rate and provision coverage rate of the CBRC. The increase in the amount of loss provision caused by the expected credit loss model requires banks to increase their holdings of more capital and increase the cost of bank capital, which will affect the pricing of financial products and asset structure. Firstly, in order to maintain the profit margin and make up for the cost caused by the increase of impairment amount, the pricing of some credit products may change, so as to transfer the cost to customers. However, at present, China's financial institutions are highly competitive, the market does not give commercial banks much bargaining space, and the transfer of cost may lead to the loss of customers, So as to bring greater pressure to the operation and management of commercial banks; Secondly, in order to reduce the amount of expected credit loss from the source, commercial banks may change the asset structure by increasing their holdings of low credit risk assets and control the change of credit risk at a specific level.

Third, since the standards do not provide quantitative guidance for the significant increase of credit risk in the second stage and the objective evidence of impairment in the third stage, they only cite the situations that may indicate the significant increase of credit risk in an incomplete way, resulting in the subjective division of the first stage, the second stage and the third stage Due to different risk management strategies and risk tolerance, different judgments may be made, or the risk tolerance may be artificially adjusted for the purpose of adjusting the loss reserve, resulting in incomplete comparability of information among commercial banks. In addition, the current five-level loan classification and the three-stage division of the expected loss model cannot simply correspond one by one, and the division results of commercial banks may be different, It increases the space of earnings management and can not truly reflect the risk management practices of commercial banks, so as to mislead the users of financial statements.

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The difficulties and challenges in the implementation of this part of the guidelines lie in three aspects. First, a large number of quantitative risk management, expected credit loss and cash flow data are required. At present, most domestic commercial banks do not have corresponding data reserves. Second, the expected loss model is a new impairment model. At present, commercial banks use the internal rating method or the standard risk coefficient method to withdraw reserves. Even if some large commercial banks have adopted the internal rating method in accordance with the provisions of the Basel agreement, this method only requires to withdraw loss reserves based on the next 12 months, Therefore, extending the accrual period to the whole product life cycle is a new challenge. Third, commercial banks are required to re-establish an applicable database on the basis of reviewing the existing risk management. As the establishment of expected loss model is a systematic project, commercial banks lack relevant experience and time is urgent. For personnel's professional judgment, professional quality and database system,the completeness of the system and the connection with the financial accounting system are very difficult.

2.3. Impact of Hedge Accounting on Commercial Banks

IFRS9 general hedge accounting removes the quantitative standard of hedge effectiveness and the requirements of retrospective test, and expands the scope of hedging instruments and hedged items, which helps to reduce the accounting cost of commercial banks using hedge accounting, improve the flexibility of hedge accounting, and enable more hedging businesses to be reflected in hedge accounting, It reduces the impact of changes in operating profit and loss of hedged items and financial profit and loss of hedging instruments on the fluctuation of internal profit and loss items in the income statement.

As can be seen from the above table, the hedging disclosure of listed commercial banks in China presents the following characteristics:

First, all banks have used derivative financial instruments to avoid risks to a certain extent, but only nine banks such as industrial and Commercial Bank of China, China Construction Bank, Bank of China, China Merchants Bank, Bank of communications, Shanghai Pudong Development Bank, China CITIC Bank, Chongqing rural commercial bank and Bank of Ningbo have disclosed hedging accounting policies, Most of the other joint-stock commercial banks and urban commercial banks did not adopt or disclose hedging accounting policies. Second, the banks that disclosed hedging accounting policies disclosed the nature of hedging instruments, hedged items or transactions, risk aversion, how to evaluate the effectiveness of hedging, as well as the definition and accounting treatment of fair value hedging and cash flow hedging. However, only bank of China, Bank of communications and China CITIC Bank disclosed the contents of the hedged items, while other banks simply listed the nominal amount and fair value of the hedging instruments analyzed according to the remaining maturity date, as well as the effectiveness evaluation of hedging activities this year. Third, in terms of hedge accounting, only industrial and Commercial Bank of China, China Construction Bank, Bank of China, Bank of communications and China CITIC Bank disclosed hedge accounting, and other banks did not adopt or disclose hedge accounting.

IFRS9 has made many extensions to the information disclosure requirements of hedge accounting. It is not easy for commercial banks to make full and detailed disclosure for the first time, which increases the disclosure cost of commercial banks using hedge accounting. Once the requirements of IFRS 9 are implemented, commercial banks shall disclose not only the hedging instruments, hedged items, hedged risks and the evaluation methods and results of hedging effectiveness, but also the impact of hedging accounting treatment on the time, amount and risk of the entity's cash flow, the impact of hedging accounting treatment on the entity's financial statements How the risk management strategy of the entity is applied to risk management, so the implementation cost of hedge accounting disclosure will increase greatly.

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In addition, the general hedge accounting standards are too principle oriented and do not provide specific methods to measure the effectiveness of hedging, which provides an opportunity for commercial banks to speculate by using hedge accounting. The difficulties and challenges in the implementation of this part lie in the correct identification of fair value hedging and cash flow hedging and the technical design of hedge accounting system.

3. Application of IFRS Financial Instrument Standards in Commercial Banks --Taking Bank X as an Example

3.1. Overview of Bank X

Yi bank is a joint-stock commercial bank established with the approval of the CBRC. Its registered capital was about 14.5 billion yuan as of December 31, 2015. At present, it has been listed on the Hong Kong stock exchange. It has flexible market-oriented mechanism and efficient operation and management ability. It is a commercial bank with rapid growth and perfect risk management. In order to adapt to the development of the times, * bank put forward the all asset business strategy, including credit assets, interbank assets and investment assets, and realized the integration of on balance sheet and off balance sheet, local currency and foreign currency. Driven by this business strategy, the total assets of bank x exceeded trillion for the first time in 2015, with an increase of 54%, ranking in the forefront of all listed joint-stock commercial banks. Yi bank takes the international financial reporting standards, the Hong Kong Companies Ordinance and the stock exchange of Hong Kong Limited Securities Listing Rules as the basis for financial reporting. Therefore, the revision of IFRS financial instrument standards will have a great impact on bank X.

3.2. Classification and Calculation of Financial Instruments

IFRS9 follows the main provisions of IAS39 in the classification and measurement of financial liabilities and has little impact on the financial liabilities of bank X. therefore, the following analysis is based on the financial assets of bank X.

At present, the bank's financial asset accounting involves the capital trading system, credit system, financial management system and bill system. The finance and accounting department configures the accounting processing of business accounting to the system. After the current trader enters the transaction related information into the corresponding system, the system performs the accounting processing in a linkage manner after the business elements are reviewed by the relevant personnel in the middle and back office.

The financial assets involved in IFRS 9 are classified into trading financial assets, derivative financial assets, available for sale financial assets, held to maturity investments, loans and advances, and receivables according to business and processing processes.

3.2.1. Trading Financial Assets

Trading financial assets mainly refer to trading bonds, trading funds and interbank certificates of deposit held by banks, which are accounted in the capital trading system and distinguished from derivative financial assets. Trading bonds are divided into bonds purchased in financial market business and bonds held by balance subscription in investment banking business. Their holding is mainly for the purpose of trading. Although the cash flow received during the non trading period may be only principal and interest, because it is held for trading, the cash inflow of principal and interest is only incidental, Therefore, it should be classified as financial assets measured at fair value through profit or loss (FVTPL) O for trading funds, their purchase, valuation and accounting are similar to bonds, but the amount of dividends is uncertain, so sppi test is not applicable. It should be classified as financial assets measured at fair value through profit or loss (FVTPL). As for interbank certificates of deposit, like bonds, they are mainly held for trading. The cash inflow during the holding period is only incidental and should be classified

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as financial assets measured at fair value and the changes of which are included in the current profit and loss (FVTPL).

3.2.2. Derivative Financial Assets

Derivative financial assets mainly include foreign exchange forward, foreign exchange swap, option contract, currency swap, interest rate swap and other contracts, as well as bond derivatives such as standard bond forward, treasury bond futures and bond forward. According to IFRS 9, derivative financial instruments do not need to be tested for cash flow and are directly classified as financial assets measured at fair value through profit or loss (FVTPL) -

3.2.3. Available for Sale Financial Assets

Available for sale financial assets mainly refer to the bonds, funds, interbank certificates of deposit and other investments issued by the government, companies, banks and other financial institutions. For available for sale bond investments, most of them are held to meet liquidity needs. The contractual cash flow is the payment of principal and interest. The business model is held and sold. They should be classified as financial assets measured at fair value and their changes included in owner's equity (fvoci) O for available for sale fund investments, because they are equity instruments, The amount of dividends is uncertain, so the sppi test is not applicable. It is directly classified as financial assets measured at fair value and whose changes are included in profit and loss (FVTPL) » for available for sale interbank certificate of deposit investment, similar to the accounting of bonds, the contract cash flow is the payment of principal and interest, and the business model is hold and sell, Financial assets that should be classified as financial assets measured at fair value and whose changes are included in owner's equity.

3.2.4. Held to Maturity Investment

Held to maturity investments mainly refer to bonds, inter-bank certificates of deposit and other investments issued by governments, companies, banks and other financial institutions with clear intention and ability to hold to maturity. Since the contractual cash flow is the payment of principal and interest, and the business model is to hold to collect the contractual cash flow, it should be classified as amortized cost financial assets.

3.2.5. Issuing Loans and Advances

Loans mainly include general loans in credit business (including corporate loans and personal loans), trade financing, international agent payment, interbank loans in financial assets business, and bill discount and rediscount in a small amount of bill business. As for the loans and advances involved in the credit business, the handling charges account for a relatively small proportion, which can be ignored, and are only incurred for the completion of the transaction, the contractual cash flow is only the payment of principal and interest. The business model is to hold to collect the contractual cash flow, which should be classified as amortized cost financial assets. For interbank borrowings in financial market business, accounting shall be conducted for similar loans. The contractual cash flow is only the payment of principal and interest. The business model is holding to collect contractual cash flow, which shall be classified as amortized cost financial assets. For bill business, since it is impossible to predict whether it is held to maturity at initial recognition, it should be clear at the beginning whether it is expected to be held to maturity in accordance with IFRS 9. If it is expected to be held to maturity, its contractual cash flow is the payment of principal and interest, and its business model is holding to obtain contractual cash flow, which should be classified as amortized cost financial assets, If it is not expected to be held to maturity, the business model shall be classified as both held and sold, and shall be classified as financial assets measured at fair value with changes included in owner's equity (fvocd).

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3.2.6. Accounts Receivable Investment

Accounts receivable investments mainly include private placement bonds issued by the company held, as well as the purchase of financial products of other banks and interbank investment in financial market business. For bond investment, the contract cash flow is the payment of principal and interest, and the business model is holding to obtain the contract cash flow and sale, which should be classified as fvocl. For the purchased financial products, whether the contract cash flow is the payment of principal and interest and the business model depends on the situation. If it is a structured financial product, it should be classified as fvtpl0. For interbank investment, Similarly, depending on the situation, the test of contract cash flow may produce different results, and the business model is also divided into holding to obtain contract cash flow or holding and selling.

Generally speaking, trading financial assets, derivative financial assets and held to maturity investments will still be measured according to the original measurement attributes, and IFRS 9 has a great impact on the classification of available for sale financial assets, loans and receivables. Criticism 1 ^ 9 significantly increased the range of financial assets measured at fair value by * bank, from 5.89% to 48.01%, which had a significant impact on * bank. In addition, as the available for sale equity instruments and others of Yi bank account for only 0.10%, the impact of the change in measurement method is negligible, so the impact on the profit and loss of changes in fair value and other comprehensive income is relatively small.

From the perspective of application, the challenge of bank x comes from the judgment of business model, cash flow characteristics and technical problems of fair value valuation. Although it is not difficult to roughly classify the current financial assets in general, there may be many complex details at the specific implementation level, which may affect the judgment of asset categories. For example, financial products and inter-bank investments in accounts receivable investments are often unable to determine whether they can be held to maturity at the beginning of the holding period. The uncertainty of the business model will affect the classification of these types of financial assets and rely more on bank x to clarify the judgment principles and processes of the business model of such financial assets on the basis of past experience and historical data. In addition, the financial assets measured at fair value under Taguchi 59 have increased significantly, which requires high accuracy of fair value, increasing the uncertainty of measurement results.

3.3. Expected Loss Impairment Model

It can be seen that the provision for loan impairment accounts for the largest proportion of the impairment loss of financial assets of bank x, reaching 86.04%, followed by 13.60% of the provision for impairment of accounts receivable investments, and the annual amount of impairment of financial assets accounts for 20.17% of the cost. Due to the high sensitivity of expected credit loss model to loans, the following analysis will be based on loans.

For loans, bank x currently divides loans into five categories: normal, concerned, subordinated, suspicious and loss in accordance with the guidelines for loan risk classification issued by the CBRC, and the latter three categories are collectively referred to as non-performing loans. In 2015, bank x made a total of 109.4 billion yuan of impairment provision for loans, including 7.724 billion yuan for normal and concerned loans and discounting, accounting for 75.77%, and 2.470 billion yuan for non-performing loans and discounting, accounting for 24.23%.

The impairment test of bank X's loans adopts the method of combining single and combined withdrawal, and evaluates the credit risk in combination with the internal rating method of the New Basel Capital Accord. For normal and concerned loans, * banks divide such loans into several groups according to different industries and businesses, and withdraw impairment reserves in a combined manner; For non-performing loans, * banks withdraw the impairment provision in the way of both single and combination. All identified single non-performing loans

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with significant amount shall be subject to impairment test and withdraw the impairment provision separately. If the amount of non-performing loans is not significant, the impairment provision shall be withdrawn in the way of combination. The specific impairment model refers to the internal rating method of the New Basel Capital Accord, and the corresponding impairment amount is automatically generated by the program according to the credit risk model of expected loss rate (EL) = loss on default (LGD) * probability of default (PD) * exposure to default (EAD). The model is actually proposed by the Basel Committee after weighing the accounting standards and financial regulatory requirements. The estimation of expected loss rate, default loss rate and default risk exposure is based on the next 12 months, which is similar to but not completely the same as the idea of the first stage of IFRS 9 expected credit loss.

After the impairment method of financial assets is converted to positive 1 ～ 9, Yi bank shall conduct impairment test on all financial assets within the specified scope, withdraw the expected credit loss for 12 months at the time of initial recognition, and add a new category of credit commitment and financial guarantee. Since bank X has not yet completed the establishment of the expected loss model system, it is impossible to quantitatively evaluate and calculate its impact and changes. At the specific implementation and application level, it is difficult to establish the expected loss model and obtain various parameters. How to divide the current loan assets into three stages of the expected loss model, how to define the significant increase of credit risk in combination with the bank's own risk preference, and how to measure the expected loss in the future are all difficult problems in front of bank X. The author suggests that since there is no reason for default in normal loans, normal loans can be divided into stage 1: asset category with low credit risk; There are adverse factors affecting the borrower's solvency of the concerned loans, so the concerned loans can be divided into stage 2: asset categories with significantly increased credit risk; Subprime loans, suspicious loans and loss loans show that there is evidence that the borrower has obvious problems in repayment ability and cannot recover the principal and interest in full. Therefore, the total amount of non-performing loans can be divided into stage III: the credit risk increases to the asset category with objective impairment evidence.

For the credit assets in stage I, bank x can still learn from the risk assessment method of the New Basel Capital Accord as the basis for the estimation of the first stage of the expected loss model, and evaluate them according to the formula of expected loss rate (EL) = default loss rate (LGD) * probability of default (PD) * exposure to default (EAD) according to different groups of credit asset risk characteristics, Calculate the estimated expected credit loss in the next 12 months. For the credit assets in stage 2 and stage 3, the calculation logic of stage 1 is used to extend the default loss rate, default probability and default risk exposure to the whole life cycle, and make adjustments according to the economic environment and business scenarios, so as to obtain the estimated value of expected credit loss in the whole cycle.

In addition to the recognition and accrual of impairment, assessment 1 ^ 9 also makes more adequate requirements for the disclosure of impairment information. At present, the impairment information disclosed by Yi bank in the financial report is limited to the amount of impairment losses of various assets, the amount changes caused by reversal, write off, transfer out and recovery of written off bad debts and exchange differences during the year, and its comparative data with the previous year, which is far from the disclosure requirements of IFRS9. Yi bank should add the following contents: first, The measurement methods, assumptions and information of expected loss, including how to determine the significant increase of credit risk, the definition of default, and the input values, assumptions and estimation techniques for the provision for impairment; Second, the qualitative and quantitative information related to the expected loss, including the adjustment of changes in the amount of these losses from the opening balance to the closing balance and the reasons for these changes. The bank shall separately list the changes of each type of financial instrument in

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the corresponding period in the form of tables in the notes; Third, for information related to credit risk exposure, bank x shall disclose information related to credit risk exposure of financial assets, loan commitments and financial guarantees according to the category of financial assets.

For X banks, the implementation challenge of the "1 ～ 9" impairment model first lies in the technical problems of the system, model and database. The new impairment model is complex and requires the successful connection between the financial system and the credit risk management system, which inevitably puts forward higher requirements for information technology. Secondly, the conversion process requires a large amount of historical data and customer credit risk data, as well as data integration and migration of different types and cross departments. In particular, the establishment of a model to obtain credit loss data in the next 12 months and the whole life cycle has a large amount of work, and the judgment and model parameters involved are complex, which is a great challenge for bank X and. Finally, the correct implementation of the new impairment system also requires sufficient training, and establish applicable operation manuals and practical processes according to business conditions.

3.4. General Hedge Accounting

At present, the risk management practice of bank x involves a variety of derivative financial instruments, but hedge accounting has not been adopted for accounting. It is only engaged in hedging business for the purpose of risk management, including currency swap hedging financing business, treasury bond futures, standard bond forward, interest rate swap, long-term interest rate, etc. Below, a fair value hedging and a cash flow hedging business will be selected to analyze their application under the general hedge accounting framework of IFRS 9 from the aspects of business description, formal designation and written documents, hedge accounting applicability analysis and hedge accounting treatment.

3.4.1. Using Treasury Bond Futures to Hedge Short Selling of Integrated Bonds

(1) Business description

After the bank integrates the bonds, it will sell them short, and the subsequent price of buying back the bonds will affect the bank's profits and losses. If the bond price is expected to rise, the repurchase price is higher than the short selling price, which will cause losses. Therefore, the risk is hedged through the buying and opening of treasury bond futures. The hedging mechanism of the business is shown in the table below:

(2) Formal designation and written documents

The formal designation of hedging relationship and the establishment of formal written documents are the provisions of IFRS 9. The formal designation and written documents include: risk management objectives and strategies; Hedging instruments; Hedged items; The nature of the hedged risk; Evaluation of hedging effectiveness. In this business, the hedged risk is the risk of change in bond price, the hedging instrument is treasury bond futures contract, the hedged item is bond price, and the hedging type is fair value hedging. Before measurement, the "hedging instrument" and "hedged item" shall be established as the accounting subjects of hedging accounting, the book value of bonds shall be transferred to the "hedged item", and the book value of treasury bond futures shall be transferred to the "hedging instrument".

(3) Applicability of hedge accounting

Firstly, the change direction of bond spot market price and futures market price is the same. Through the operation with opposite trading directions in the two markets, the expected change in the value of the hedged item can partially or completely offset the change in the value of the hedged item, which meets the first condition of hedge accounting: there is an economic relationship between the hedging instrument and the hedged item. Secondly, there is almost no possibility of counterparty default in the mature treasury bond futures market. Therefore, the

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credit risk is low and will not dominate the value changes of hedging instruments and hedged items. It meets the second condition for the application of hedging accounting: the impact of credit risk cannot dominate the value changes generated by the economic relationship. Finally, by ensuring that the number of hedging instruments determined when signing the Treasury bond futures contract is consistent with the number of bonds integrated, the business meets the third condition for hedge accounting: the hedging ratio is consistent with the risk management strategy.

(4) Hedge accounting treatment

The accounting treatment of hedged items (integrated into bond short selling) and hedging instruments (Treasury bond futures) is shown in the table below:

If hedging accounting is not adopted, the changes in fair value of hedging instruments are collected through the title of "profit and loss on changes in fair value of bond derivatives - Treasury bond futures", and the changes in fair value of hedged items are collected through the title of "profit and loss on changes in fair value of trading financial instruments". The former belongs to investment profit and loss, and the latter belongs to operating profit and loss, which will lead to fluctuations in the income statement. Hedging accounting enables the fair value changes of hedging instruments and hedged items to be collected through the "hedging profit and loss" account, which can more intuitively reflect the impact of the offset result of changes in fair value of hedging business on profit and loss.

3.5. Hedging Using Forward Interest Rate

3.5.1. Business Description

As a creditor of floating rate bonds, if the floating rate is expected to decline in the future, bank x will face a loss of interest income. Using forward interest rate contracts to support the holding of floating rate bonds can lock the interest rate charged in the future in advance, so as to achieve the effect of stop loss.

3.5.2. Formal Designation and Written Documents

Formal designation and written documents include: risk management objectives and strategies; Hedging instruments; Hedged items; The nature of the hedged risk; Evaluation of hedging effectiveness. In this business, the hedged risk is the change risk of floating interest on bonds, the hedging instrument is forward interest rate contract, the hedged item is floating interest rate earning bonds, and the hedging type is cash flow hedging.

3.5.3. Applicability of Hedge Accounting

If the forward interest rate is used to match the floating interest rate bonds, if the floating interest rate decreases, the value of the bonds held evaluated according to the cash flow method will also decrease, and the fair value of the forward interest rate contract will increase, and the two will change in the opposite direction, so as to meet the first condition applicable to hedge accounting: there is an economic relationship between the hedging instrument and the hedged item. Secondly, there is almost no possibility of counterparty default in the mature forward interest rate market. Therefore, the credit risk is low and will not dominate the value changes of hedging instruments and hedged items. It meets the second condition for applying hedge accounting: the impact of credit risk cannot dominate the value changes generated by the economic relationship. Finally, by ensuring that the notional principal and period of both parties are consistent when signing the forward interest rate contract, the business meets the third condition applicable to hedge accounting: the hedge ratio is consistent with the risk management strategy. Therefore, the business meets the conditions for applying hedge accounting.

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3.5.4. Hedge Accounting Treatment

The accounting treatment of hedged items (bonds held) and hedging instruments (forward interest rate contracts) is shown in the table below:

Through hedging accounting, the changes in the fair value of forward interest rate contracts are hedged through other comprehensive income accounts. When the decline in the interest rate of bonds held on the settlement date affects the profits and losses, the hedging reserves are transferred to the current profits and losses, so as to partially or completely offset the losses caused by the decline in interest rates.

The main significance of IFRS9 general hedge accounting to bank x is to eliminate or mitigate the impact of interest rate and exchange rate risk on enterprise cash flow or fair value of assets through risk hedging, and reduce the volatility of different types of profits and losses. Since hedge accounting is not mandatory, bank x did not adopt hedge accounting after measuring cost-effectiveness. If the profit and loss fluctuation between different items can be explained to the superior through a written report and is not expected to affect the evaluation of total profits and operating performance, bank x can decide whether to adopt IFRS 9 general hedge accounting on the basis of cost-effectiveness and importance, and it is expected that the revision of this part will not have a significant impact. If banks adopt hedge accounting, the main challenge lies in the correct identification of fair value hedging and cash flow hedging and the technical design of hedge accounting system.

4. Conclusion

As H As a listed bank, bank x takes international financial reporting standards as the basis for financial reporting, so it is necessary and urgent to convert from IAS39 to IFRS 9. IFRS9 changed the financial asset structure of bank X and significantly increased the range of financial assets measured at fair value. However, due to the relatively low proportion of available for sale equity instruments, it had little impact on the profit and loss of changes in fair value and other comprehensive income. The challenges at the application level came from the judgment of classification logic, the estimation of fair value and the reconstruction of accounting subject system. Since it is still uncertain how to establish the expected credit loss model, the specific impact of the expected loss model on bank x cannot be evaluated quantitatively. At the application level, it may be an effective idea to correspond the five-level classification of loans with the three stages of the new model and learn from the risk assessment method of the New Basel Capital Accord. In addition, *The bank also needs to fully disclose the impairment information in accordance with the requirements of № 1 card 9 to meet the regulatory requirements. The difficulty and challenge of implementation lies in the need to establish a quantitative credit risk management system that can meet the data requirements of the standards. In terms of hedging, since IFRS 9 is not mandatory for the application of hedging, the revision of this part will not have a significant impact on * banks. If hedge accounting is adopted, the implementation difficulty lies in the identification of hedging and the establishment of accounting system.

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