Market Risk Management Department is responsible for managing the Bank’s interest rate risk, price risks and liquidity risk as a function of second line of defense according to the Bank’s risk governance framework. The role is to assist the head of Market Risk Management Department in overseeing the front business units’ risk management, and ensuring the Bank’s risk exposure within risk appetite framework, and helping protect the Bank with safe and sound risk management.

* **Liquidity Risk Management Oversight and Monitoring**

1. Enhance and improve liquidity risk management policies and procedures. Improve bank’s asset liability and funding management.

This requires the employee to take a role in annual review of policies and procedures owned by Market Risk Management Department. The annual review includes past year limit performance analysis, compliance analysis, complement analysis and add-value analysis. The beneficiary should have clear understanding and sensitiveness towards changes from regulator’s action and Head Office’s authorization, investigate historical data in previous years for recommendation to this year, and straighten out the logic of the policies or procedures.

The beneficiary needs to have strong financial mathematical and accounting background to fully understand the department structure and operation. Mr. Zhou completed his Master’s Degree in Financial Analysis, which helps him to comprehend the overview of risk management and theoretical application. He has deep research at the market risk transmutation; he has taken courses such as finance, microeconomics and macroeconomics which help him to perform the duty.

1. Implement the requirement of the Bank’s risk governance framework, including Heightened Standard and Enhanced Prudential Standard.

Assist in regulators’ projects towards the Bank.

This duty requires effective communication with outside regulators such as Fed or OCC with regard to any particular aspects of the Bank’s market risk management, such as internal/external cash flow, runoff rate and stress testing. This duty is performed under the direct and close supervision of the department head and VP.

The beneficiary needs to have strong business knowledge and analytical skills to fully understand the issue or subject. It also requires the beneficiary to have good communication skills to put across the main points and interact well with outside officers. Besides the above qualifications that Mr. Zhou possesses, he also has the knowledge in compliance and risk management which has a great pertinence to the risk business.

1. Build strong governance in market and liquidity risk management and assesse new product’s risk impact.

Build up or refine new product/model through customer behavior analysis and modelling.

This requires the beneficiary to have a variety of skills including but not limited to measuring, analyzing and controlling market, credit, liquidity and model risks of new products or new models. The beneficiary should utilize Excel VBA to design, test and analyze risk models, adopt open platform such as Bloomberg to test, validate and revise new products, and help the department assess the risks of the new model or product.

The beneficiary needs to have strong mathematical modeling background to fully understand the methodologies of all risk indicators for better risk assessment. Mr. Zhou completed his Master’s Degree in Financial Analysis, which helps him to comprehend the models and make forecast based on the results. Furthermore he has strong ability to research and advice for the new product building, and he has taken Mathematical and Statistical Computing course which helps him to be proficient in using modeling instruments.

* **Liquidity Risk Appetite and Limits**

1. Analyze, review and recalibrate liquidity risk metrics and limits, ensuring alignment with the risk appetite and tolerance defined in the Risk Governance Framework and suitability for the size and complexity of the Bank.

This requires the beneficiary to receive data reports from business lines , keep day-to-day monitoring in indicators such as Value at Risk (VaR), Stress Testing, duration, etc., analyze limit usage of risk indicators and their trends, then escalates any limit breach according to the policies and procedures.

The beneficiary needs to have strong mathematical modeling background to fully understand the methodologies of all risk indicators for better risk assessment. Mr. Zhou completed his Master’s Degree in Financial Analysis, which helps him to comprehend the models and make forecast based on the results. And during his education, he has taken Mathematical and Statistical Computing course which helps him to be proficient in using Excel VBA.

1. Perform ongoing analysis to capture the Bank’s potential liquidity needs, exposures, and specific information related to operational deposit, funding concentration, contractual maturity mismatch, contingency funding usage and available liquid assets etc.

This requires the beneficiary to fully understand the FLUs’ reports on quarterly basis, evaluate their risk appetite and awareness, and develop a thorough report based on reviews. When developing quarterly reports, the beneficiary should challenge the risk taking from FLU’s business and compared to its former quarter report; and beneficiary should give a marking to its whole performance on a yearly basis.

The beneficiary needs to have strong business knowledge and analytical skills to fully understand the issues or subjects from Front Line Units (FLUs). It also requires the beneficiary to refine the core influences from FLU’s business and have good communication skills to put across the main points and interact well with colleagues in FLUs. Besides the above qualifications that Mr. Zhou possesses, he also has the knowledge in risk management which has a great pertinence to the department cooperation.

* **Liquidity Risk Reporting**

1. Analyze, review and challenge Liquidity Stress Testing scenarios and assumptions.

This includes identifying, measuring and monitoring data from source system with regard to risk controls of the Bank’s existing liquidity based through the stress test and buffer results. The position has to process large amount of historical data and bring forth suggestions according to his statistics knowledge and understanding of the risk indicators.

Mr. Liu holds a Master’s in Financial Analysis from Columbia University and Bachelor’s in ACCA (Accounting) from Xi’an Jiaotong University. The Beneficiary needs to have the knowledge of processing the data by using statistics such as confidence level, standard deviation, etc. in order to better understand the meaning behind each figure. Besides processing data, the beneficiary needs to know the meanings behind the liquidity movements and changes, and analyze how it will affect the Bank’s operational liquidity in future. The beneficiary have taken course such as Mathematical Statistics, Probability Theory to assist his perform the duties and helps to deeply understand the liquidity analysis.

1. Analyze FR2052a reporting data attributes and validate FR2052a LCR production process.

Corporate with colleagues in business lines and arrange monthly meeting

This duty involves collecting data materials from participating departments, processing presentation slides, setting up remote video and conference call meetings, and preparing meeting minutes.

The beneficiary needs to have IT or programming knowledge to process the data and present the results, and have knowledge in Financial Mathematical and Econometrics to integrate materials from multiple departments. Mr. Zhou completed his Master’s Degree in Financial Analysis, which helps him to comprehend risk data reporting aggregations. In addition, he has taken courses such as finance, microeconomics and macroeconomics which help him to perform the duty.

1. Analyze and monitor Cash flow Projection.

This includes identifying, measuring and monitoring data from several departments with regard to existing cash flow position and forecast future cash flows. The position has to process large amount of data from different sources and aggregate them according to his accounting knowledge and understanding of cash flow.

The beneficiary needs to understand complex cash flow input, distribution and aggregation, as well as its methodologies and processes. The beneficiary needs to escalate if there is anomalism in the cash flow projection. Besides the courses mentioned above, Mr. Zhou have also taken courses such as Financial Mathematics, Corporate Accounting which helps him to perform this duty effectively.

* **Liquidity Risk Analysis (Percentage of time spent: 30%)**

1. Build Market Risk Management analytical capabilities in data analysis and establish comprehensive SQL templates to collect data from DataMart.
2. Ensure the First Line Units fully capture all known liquidity risk exposures and perform ongoing analysis on bank’s liquidity positions.

This requires the beneficiary to have a variety of skills including but not limited to measuring, analyzing and managing portfolios in the Bank such as Foreign Currency Portfolio, Interest Rate Swap Portfolio and Bond Portfolio, and making deep dive into the Bank’s trading book or banking book. The beneficiary should utilize Excel VBA and PivotTable to design, test and analyze portfolio construction and risks contribution, and help the department assess the risks of portfolio.

The beneficiary needs to have strong financial background to fully understand the methodologies of all portfolios and derivatives for better risk assessment. Mr. Zhou completed his Master’s Degree in Financial Analysis, which helps him to comprehend the diversified derivatives products and portfolios. Furthermore he has strong ability to research and recommend the portfolio allocation, and he has taken Mathematical and Statistical Computing course which helps him to be proficient in analyzing the portfolio instruments.

1. Pro-actively analyze the potential impact of regulatory or market change that may alter the CUSO liquidity risk profile.

In reaction to sudden and volatile market changes or credit events, this position is to gather related information to the specific situation or event, analyze changes in risk levels and gauge the risk trend to help the department management ensure the risks are well contained. This includes following the multiple outside information sources to explore the impact of market movement or sudden shock towards the Bank, and utilizing methodologies to design and execute the valuations and risk measures of the portfolios owned by the Bank and other exposures.

The beneficiary needs to have strong quantitative backgrounds to fully understand the methodologies of all risk indicators and the meanings behind the financial market movements as well as its impact on the Bank’s financial market business. This also requires strong analytical skills. As mentioned above, Mr. Zhou has knowledge in Mathematical Statistics, Probability Theory, Econometrics, Financial Mathematics and Deterministic Mathematical Models that strongly helps him to understand and recognize the changes in risk figures and market trend in order to make the correct reactions and refer targeted reports.