# YANGON UNIVERSITY OF ECONOMICS

# DEPARTMENT OF COMMERCE

# MASTER OF BANKING AND FINANCE PROGREMME

# BUSINESS VALUATION OF FIRST PRIVATE BANK IN YANGON STOCK EXCHANGE

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# BUSINESS VALUATION OF FIRST PRIVATE BANK IN YANGON STOCK EXCHANGE

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# ABSTRACT

The main objective is to derive the Intrinsic Value of First Private Bank which is listed on Yangon Stock Market using discounted cash flow method with a financial model, and compare to the current market price. Finding the intrinsic value of First Private Bank limited using discounted cash flow Method. We built a financial model to project five years financial projections using the assumptions mainly based on management's plan and strategy which are publicly available on YSX website, management interviews and discussions posted as disclosures and announcements and using historical trends. We also derived at proper discount rates by using CAPM method based on most recent risk factors. The results we got has shown that Intrinsic Value of FPB shares is extremely higher than Current share price. That meant the Current Share Value is undervalued. To mitigate the impact of potential risks, calculate the sensitivity and scenario analysis. For sensitivity analysis of FPB share, considered the impact of WACC and Terminal Growth rate changes. Based on the changes, the intrinsic value is extremely higher than current share price. For scenario analysis, the three cases scenario, Good case, Base case and Bad case, intrinsic value of all cases is significantly higher than current share price. First Private Bank should consider to do revaluation of its building and property since most of them were recorded at cost price decades ago. The bank also should work closely with Yangon Stock Exchange to promote the stock to drive up volume and stimulate the market by drawing investor's attention to how much undervalued is the First Private Bank's shares are. The last suggestion for FPB bank is to hire some of the local talents and expatriates to fill the need for human resources and strategic moves for its transformation to a visionary and leading bank.

# ACKNOWLEDGEMENTS

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| | |
|---|---|
| YSX | Yangon Stock Exchange |
| FPB | First Private Bank |
| CAPM | Capital Asset Pricing Model |
| SWOT | Strength, Weakness, Opportunity, Threat |
| DCF | Discounted Cash Flow |
| PV | Present Value |
| EV | Enterprise Value |
| NAV | Net Asset Value |
| FY | Fiscal Year |
| YTD | Year to Date |
| LTM | Last Twelve Month |
| MMK | Myanmar Kyat |
| FX | Foreign Exchange |
| EBITDA | Earnings Before Interest, Tax, Depreciation & Amortization |
| EBIT | Earnings Before Interest & Tax |
| EBT | Earning Before Tax |
| LDR | Loan to Deposit Ratio |
| PPE | Property, Plants & Equipment |
| CAPEX | Capital Expenditure |
| WACC | Weighted Average Cost of Capital |
| GDP | Gross Domestic Power |
| CFO | Cash Flow from Operation |
| FCFF | Free Cash Flow to Firm |
| PE | Price to Earning |

# CHAPTER 1

# INTRODUCTION

Business valuation is a process and a set of procedures used to estimate the economic value of an owner's interest in a business. Here various valuation techniques are used by financial market participants to determine the price they are willing to pay or receive to effect a sale of the business. There are three main types of business valuation: Income Based Valuation (DCF method), Market Based Valuation and Asset Based Valuation.

A crucial element of a market economy is a stock market. Traditional investments for people in Myanmar include real estate, foreign currency, precious metals, and increasingly bank savings accounts. A large segment of the public now has the opportunity to contribute to the nation's economic expansion by investing money in the corporate sector thanks to the establishment of the stock market.

In the past, Myanmar capital market is underdeveloped, leaving businesses in Myanmar limited options to get the capital required to finance their operations and expansion. Opening of the Yangon Stock Exchange on December 9, 2015 marked a significant turning point in the growth of the capital market in Myanmar. Founding of Yangon Stock Exchange (YSX) is a landmark achievement in Myanmar Capital Market, bridging between the investors and fund raisers. YSX is a joint-venture between Myanmar Economic Bank, Daiwa Institute of Research Ltd. and Japan Exchange Group Inc. Currently, there are 7 listed companies under YSX . Securities and Exchange Commission Myanmar (SECM) is a governing body that regulates the Myanmar securities market with The securities law and rules in place. This research will study on First Private Bank Ltd. (FPB) which was fourth listed company on YSX at 20th January 2017. First Private Bank (FPB) is a historic bank that registered as a company in September 1991 and was the first to be licensed as a commercial bank in Myanmar in May 1992.

FPB currently has 36 branches in operation with another branch in Mindat, Chin State, scheduled to open soon, increasing the total number of branches to 37. In Myanmar, the loan-to-deposit ratio is a low 70% or so. However, FPB's loan-to-deposit ratio has risen for the most part year by year (around 80% per year). This is a positive development from the perspective of the efficient use of funds. According to YSX as of 25 Nov 2022, the FPB has a

market capitalization of MMK 48,205 million and total numbers of shares is 2,472,053. At that time, per value per share price is 10000 MMK. Among the listed companies, the quick ratio of FPB is second highest with 61.38% which can provide a good snapshot of company's health. As the share price of FPB is over MMK 15,000 which is the highest compared with other stocks, it is important for traders whether this stock or company has long-term potential based on the profitability of its future projects and endeavors.

## 1.1    Rationale of the study

There are 7 listed companies in Myanmar; First Myanmar Investment, Myanmar (FMI), Thilawa SEZ Holdings Public Co.,Ltd (MTSH), Myanmar Citizen Bank (MCB), First Private Bank (FPB), TMH  Telecom Public Co.,Ltd (TMH), Ever Flow River Group Public Co.,Ltd (EFR) and Amata Holding Public Co.,Ltd (AMATA).

During the periods of FY2021 and FY2022, the net book value per share of First Private Bank has increased by MMK 2,433.8 and MMK 1187.4 respectively, despite a decrease in total assets primarily driven by decreasing loans assets and deposits from customers due to current political and economic downturn. Net book value also increased slightly during YTD2023 (as at 30.0.2022) by MMK 207.2 million. The main reason of the increasing net book value is contributed by the exchange gain from foreign currency holding and ability to maintain healthy margin due to previous conservative approach to managing the bank assets and credit policy. During FY2022, the net interest income slightly increased is hinting the beginning of recovery period.

Net book value of First Private Limited as at 30.9.2022 amounted to MMK 28,178.5. Now, if we compared it share price of same date which is MMK 20,000, the stock is undervalued by MMK 8,178.53. In addition, as at 17.1.2023, after share split, the share price stands at MMK 1,900 and net book value is MMK 2,817.9, indicating that the FPB is still undervalued. The Table (1.1) showed below.

Table (1.1) Comparison of Net book value per share and share price of FPB

| Comparison of Net book value per share and share price of FPB | | | | |
|---|---|---|---|---|
| Method | As at 30.9.2020 (MMK) | As at 30.9.2021 (MMK) | As at 31.3.2022 (MMK) | As at 30.9.2022 (MMK) |
| Net book value | 24,350.1 | 26,783.9 | 27,971.3 | 28,178.5 |
| Share price | 22,500.0 | 22,000.0 | 18,500.0 | 20,000.0 |

**Sou**rce: Yangon Stock Exchange, audited financial statements, Survey data, 2023

However, due to low participation of public investors and low coverage of stock analysis on the stock, the market prices of some stock might not reflect their actual value/ intrinsic value of the companies. That is why identifying the intrinsic value of the listed companies is important. Publicly traded companies place great importance on their stock share price, which broadly reflects the corporation's overall financial health. As a general rule, the higher a stock price is, the rosier a company's prospects become.

Therefore, if we are unable to utilize these valuation methods properly to value the stocks, the current market prices will not reflect the actual value of the company, also known as the intrinsic value of the company. It will also discourage the investor from investing in the stock market and prevent the new companies to get listed on the stock exchange, which will in turn decreased the competition in the market. Last but not least, the right valuation method must also be chosen to value the company.

In order to determine whether the stock value of First Private Bank is over or undervalued, it will analyze the stock valuation and use discounted cash flow to calculate the company's intrinsic value. Determine the sensitivity and conduct a scenario analysis to reduce the impact of potential risks.

## 1.2    Objectives of the study

- To derive the intrinsic value of First Private Bank
- To compare the intrinsic value of share price with current share price to decide over-valued or under-valued
- Sensitivity analysis and Scenario analysis

**1.3 Scope and Method of the study**

  This study only emphasizes on the financial performance and valuation of the First Private Bank in YSX by using quantitative research design. Descriptive and analytical approach used, based on the financial data. For Secondary data: Audited financial report, annual report of FPB and application of previous researches. For Primary data: the interview with the representative from the bank as necessary. The method used Capital Asset Pricing Model (CAPM), Discounted cashflow (Projection period- 5 years), Asset-based valuation method. The study covers the financial data from 2019-2020 to 2021-2022. (3 years historical data).

**1.4  Organization of the study**

  This study is structured with 5 chapters. Chapter one is the introduction, that includes rationale of the study, objectives of the study, scope, methods and limitation of the study. Chapter two states theoretical background for discounted cash flow valuation and asset-based valuation. Chapter three includes the profile of First Private Bank limited, summary of management interview and SWOT analysis of the bank. Chapter four includes the calculation of asset-based valuation, discounted cash flow calculation with the financial model and why the other valuation methods are not appropriate to value First Private Bank. The last chapter concludes the whole study, including findings and discussion, suggestions and recommendations and needs for further study.

# CHAOTER II

# THEORETICAL BACKGROUND

This chapter stated the concept of business valuation method, advantages and disadvantages. Three kinds of business valuation methodologies and finding of previous study.

## 2.1    Concept of Business Valuation

Company valuation, also known as business valuation, is the process of assessing the total economic value of a business and its assets. During this process, all aspects of a business are evaluated to determine the current worth of an organization or department. Knowing an accurate value for business will impact not only current financial well-being, but also future exit strategies. Business valuation professionals can also identify operational inefficiencies and create stronger cash flow, all of which mean more value for your organization.

The valuation of a company is an essential factor not only in terms of determining if the share is over-valuated or it is not, but also a company's value is crucial to take different decisions based on operational strategies or even to develop a new business model will affect the value creation of the shareholder. It is also important to take in consideration the current value of a company in merge and acquisition situations and to operate in the stock exchange. It is also important to know the debt situation of the company and its asset distribution to understand how the company creates value and how it keeps it inside the company. The value of a company may differ from buyers to sellers. For instance, in a merge or acquisition situation not only the value of a company is different between buyers and sellers, but also it is also different between several buyers since the value of a company also depends of the different and individual synergies it offers to the buyer. The process of acquiring a company includes the establishment on the buy side of a maximum price that is willing to pay for a company, and from the sell side, the minimum price that is willing to accept for the same company. Finally, buyer and seller agree on a given price that satisfies both.

Advantage of business valuation provides the business owner with multiple facts and figures regarding the actual worth or value of the company in terms of market competition, asset values, and income values. This information is something that all business owners should have available.

Disadvantages of business was difficult to identify transactions or companies that are comparable. There is usually a lack of a sufficient number of comparable companies or transactions. It is less flexible compared to other methods

## 2.2 Company Valuation Method

There are three main types of business valuation: Income Based Valuation (DCF method), Market Based Valuation and Asset Based Valuation.

The Income Based Valuation measures the future economic benefits that the company can generate for a business owner (or investor). As part of their analysis, valuation professionals assess factors that determine expected income including data such as revenues, expenses and tax liabilities.

The Market Based Valuation is used to determine the appraisal value of a business, intangible asset, business ownership interest, or security by considering the market prices of comparable assets or businesses that have been sold recently or those that are still available.

The Asset Based Valuation is focuses on the value of a company's assets or the fair market value of its total assets after deducting liabilities.

### 2.2.1 Income Based Valuation Method (Discounted Cash Flow Method)

The Discounted Cash Flows Method (hence referred to as DCF) seeks to estimate the value of the company's future cash flows without regard to how those cash flows will be dispersed in accordance with the company's wealth distribution strategy. These future cash flows will be valued after being discounted using a set interest rate that is based on and related to the degree of risk involved in those cash flows. Each type of cash flow and organization will ultimately have a distinct supplied interest rate.

Viola and Adserá (1997) list the following as the principal benefits of this approach:

- Based on cash flows and not in accounting terms.
- Information provided by the balance sheet and the Income Statement.
- It provides with a higher accuracy the current situation and circumstances that may affect the value of a company.
- Time Value of Money is taken in consideration.
- Detailed and complete analysis of the risk of a company

The value of the company is obtained discounting the future cash flows of the company, as follows.

$$PV = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \frac{CF_3}{(1+r)^3} \cdots \frac{CF_n}{(1+r)^n}$$

Where: PV corresponds to the discounted value of future cash flows of the company, CF corresponds to the future cash flow of the period i, r is the interest rate used to discount the future cash flows and attending to the risk associated with those cash flows. It is important to take in consideration that even though the number of future cash flows could be infinite, their value is decreased with every additional period because of the discount interest rate applied. There is also another factor to take in consideration when evaluating a company. It is the residual value, which could be defined as the estimated present value of the after-tax future cash flow expected to be earned after the forecast period. That expected value needs to be discounted at a determined interest rate in order to calculate which is its present value.

In order to reach the value of the company by using the DFC method, several steps need to be followed:

1. Determination of the generated cash flows by the company.

2. Calculate the growth rate to be applied.

3. Calculate the discount rate to be applied to the future cash flows.

4. Determine the residual value and sum it into the last cash flow of the projection.

a.      **Capital Asset Pricing Model CAPM**

Building on Harry Markowitz's earlier research on diversification and modern portfolio theory, Jack Treynor (1961, 1962), William F. Sharpe (1964), John Lintner (1965), and Jan Mossin (1966) each independently established the CAPM. For this contribution to the field of financial economics, Sharpe, Markowitz, and Merton Miller shared the 1990 Nobel Memorial Prize in Economics for this contribution to the field of financial economics.

The Capital Asset Pricing Model (CAPM) is a model that describes the relationship between the expected return and risk of investing in a security. It shows that the expected return on a security is equal to the risk-free return plus a risk premium, which is based on the beta of that security.

It is a key point to understand that when we talk about the discount rate to be applied, this number needs to be calculated. In order to calculate the discount rate, first we will calculate the cost of capital or cost of equity of the company according to CAPM model which stands for the following formula:

For this study, because of Myanmar Capital Market is emerging market, unsystematic risk (beta) does not give enough information about the fundamentals of a company and is of limited value when making stock selections. So, our CAPM formula, including country risk premium, inflation differential and company specific risk.

$$Ke = Rf + \beta ( Rm - Rf ) + CRP + \alpha$$

Where,     Rf = Risk free rate

$\beta$ = Beta

(Rm – Rf ) = Equity risk premium

CRP = Country risk premium (including inflation differential)

$\alpha$ = Company specific risk

Where r is the discount rate, Rf is the return given by the risk-free asset, (Rm –Rf) is the risk premium given by the market and calculated by the difference between the return offered by the market and the one from the risk-free asset. After we have calculated the cost of Equity of the company, we will proceed to calculate the discount rate or WACC (Weighted Average Cost of Capital). In order to do so, we apply the following formula

The capital asset pricing model (CAPM) is a tool used in finance to choose which assets to include in a well-diversified portfolio by calculating the asset's theoretically suitable necessary rate of return.

The model considers the asset's sensitivity to non-diversifiable risk (also known as systematic risk or market risk), which is frequently represented by the quantity beta in the financial sector, as well as the anticipated returns of the market and a hypothetical risk-free asset. Alternatively, CAPM assumes asset returns whose probability distributions are fully

represented by the first two moments (for example, a quadratic utility function), in which case just the first and second moments matter and risk is assessed by variance.

$$\text{WACC} = (1 - t) * \frac{(kd * D)}{E + D} + \frac{(ke * E)}{E + D}$$

Where t is the tax rate applied to the company, kd is the cost of debt of the company, ke is the cost of equity previously calculated, E is the Equity of the company and D is the total amount of debt of the company.

### 2.2.2 Market Based Valuation Method

The market approach as a valuation method is used to find the value of a business by comparing it to other similar businesses that have sold recently. The two commonly used market approach methods are the Public Company comparable and Precedent Transactions.

The market approach means a unique valuation method that allows one to determine the actual value of any asset based on other similar asset types having similar features. The market approach valuation method can calculate the actual price of any tangible or intangible asset like securities and real estate. For this purpose, one studies the recent sales transaction that has taken place for a similar asset to that of the asset under consideration, like mergers and acquisitions.

One important aspect of the market data approach is the usage of prices of assets rather than the size of assets adjusted for quantities. One can also use the past selling price of the company's share to calculate the exact value of the company fairly. The total market approach is quite useful in specific business value determination. It also aids an analyst in setting an appropriate offer or asking price for a business to make a business purchase.

The method is also important to determine the amount of taxes a firm must pay to the tax authorities. Moreover, the approach of valuation facilitates conflict resolution during legal suits. Finally, in case of the buyout of a business, the partners can set their share of the sales revenue sales using this method.

The Precedent Transaction is based on the assumption that transaction value is readily available for all companies. An analyst can then use these companies to set prices for a subject company. The process involves knowing the complex transaction involved during

mergers and acquisitions. Analysts can have the data for such transactions from public or private deals. Moreover, only transactions related to similar and comparable companies can get considered for this.

### 2.2.3  Asset-Based Valuation Method

Asset Based Valuation Approach The business is estimated as being worth the value of its net assets. The difficulty in an asset valuation method is establishing the asset values to use. Values ought to be realistic. An individual asset may vary considerably depending on whether it is valued on a going concern or a break-up basis. Possibilities include: a) Historic basis (book value) – unlikely to give a realistic value as it is dependent upon the business's depreciation and amortization policy, b) Replacement basis – if the assets are to be used on an on-going basis, and c) Realizable basis – if the assets are to be sold, or the business as a whole broken up. This won't be relevant if a minority shareholder is selling his stake, as the assets will continue in the business's use. 8 In this valuation method, the following formula can be used for valuing for share price.

$$\text{Book Value per Share} = \frac{Shareholder's\ Equity - Preferred\ Equity}{Average\ Number\ of\ Common\ Shares}$$

Three situations allow for the use of the net assets basis of valuation.

(1)      To assess the "security" contained in a share's value. An earnings basis may be used to value a share. The price could be greater or less than the share's net asset value. If the earnings basis is higher, the investor might not anticipate receiving the entire value of his shares upon realization of the underlying assets if the company went into liquidation. As a result, the asset backing for shares offers a measurement of the potential loss if the business is unable to generate the anticipated profits or pay dividends. An excellent justification for buying a business can be valuable tangible assets, particularly freehold real estate that is likely to appreciate in value over time.

(2)    As a benchmark for comparison in a merger plan.

(3)    Shareholders will be hesitant to sell for less than the NAV as a "floor value" for a corporation that is up for sale. Even the asset value might not be realized if the sale is required for cash flow reasons or to realign with business strategy.

## 2.3    Previous Study

In the Tesla Valuation Thesis, the main reasons and motivations for enabling a valuation process are disclosed, as well as it is the definition and specification of the different valuation methods, commonly used for similar companies and sectors, such as the Discounted Cash Flow, the Multiples and the Price to Earnings Ratio methods. It is important to take in consideration that the value of the company may change depending on the method used to evaluate the company. The same way, the different tools needed in order to understand either the economic situation, the sector insights and performance, or the company economic and financial information, will be provided during the development of this thesis. The determination of the value is a critical factor for the company so it is the main driver in terms of investment allocation. The aim of this project is to develop the valuation methodology needed to determine the value of the company Tesla Motors. The valuation methodology will be based on the utilization of multiples from the sector and similar companies and the discounted cashflow, all to determine the final value of the share of the company and make the decision of either buy, hold or sell.

In the Cimpor  Equity Valuation thesis has as its main purpose the valuation of Cimpor, the biggest Portuguese cement producer and one of the largest in the World. In order to achieve the final value of such company, a detailed research work had to be done regarding all the possible valuation methods that could be used, which involved a rigorous study over the entire Equity Valuation theory. By reviewing all the available valuation methods and afterwards studying the company structure and organization, the methodology was chosen and followed according to the parameters established by the explained theory. This process led to a final value for the company that was not only discussed by itself, but also compared with the value achieved by a valuation elaborated by the Equity Research. According to the methodology followed, the assumptions made and the comparison with the results from the referred investment bank, the final conclusions were expressed.

CHAPTER III

PROFILE OF FIRST PRIVATE BANL LTD

This chapter concludes the description and background of First Private Bank, short term, medium term and long-term plan of First Private Bank and introduction of Yangon Stock Exchange in Myanmar Capital Market.

## 3.1    Description and Background of First Private Bank Limited

First Private Bank (FPB) is a historic bank that registered as a company in September 1991 and was the first to be licensed as a commercial bank in Myanmar in May 1992. Earnings have been mostly strong since its founding, and the bank has paid dividends to shareholders each year. FPB provides Domestic Financial Services; Deposit (Saving, Current and Fixed) and loan service. In addition, international banking services are available such as export and import services, international remittance and international money transfer service, payment order, money exchange service and foreign exchange transaction (Western Union Service). FPB signed an agreement with Western Union Money transfer services on 12th January, 2013. CBM approved outbound money transfer on 6th January, 2016.

In January 2017, the bank was listed on the Yangon Stock Exchange. FPB's mission is to (1) provide loans and financial advice to private-sector companies, (2) contribute to the development of the economy and society, (3) focus on the low income bracket and contribute to the reduction of poverty, and (4) make it possible for all people to have access to financing. In its banking activities, FPB gives due consideration to transparency and trustworthiness, and it does all it can to protect the interest of stakeholders. These are timely efforts in view of the growing awareness of the social responsibilities of companies. As a result, FPB is trusted as a clean bank in Myanmar and abroad. As of March 2016, FPB accounted for about 1% of the total assets of Myanmar's 21 commercial banks, and it ranked 15th in asset size. Thus, FPB is not a large bank in terms of its assets. Myanmar's banking sector is characterized by (1) the overwhelming presence of first-place Kanbawza Bank with about 42% of total bank assets and (2) banks ranked ninth and lower differing little in asset size. For this reason, depending on the outcome of future activities, there is good reason for believing that FPB will come to be included in the top 10 banks.

First Private Bank is a historic private-sector bank that was the first to be granted a banking license in Myanmar. Its mission is to enable all people to have access to financing and to contribute to the reduction of poverty through loans to private-sector companies and through financial advice. Earnings have been mostly strong since its founding, and the bank has paid dividends to shareholders each year. In its corporate activities, the bank gives due consideration to transparency and trustworthiness, and it is recognized as a clean bank domestically and abroad. Its loan-to-deposit ratio is higher than average, making it reasonable to say that funds are being used efficiently. With regard to loans, the bad loa ratio is close to zero due to strict credit assessments. In its efforts to improve business efficiency and job performance, the bank is installing computer systems while accounting for the risk of cyber attacks, hiring experienced foreign staff, and working to improve skills through employee education. These efforts can be expected to contribute to further earnings growth.

FPB currently has 36 branches in operation with another branch in Mindat, Chin State, scheduled to open soon, increasing the total number of branches to 37. In Myanmar, the loan-to-deposit ratio is a low 70% or so. However, FPB's loan-to-deposit ratio has risen in most periods (around 80% in each year). This is a positive development from the perspective of the efficient use of funds.

In the past, First Private Bank mainly focused on profitability rather than growth strategy. The bank only opened 36 branches so far although the bank has been in operating for 30 years. The staffs were underpaid due to cost reduction and priority of profitability and the fixtures and fittings need replacement as well.

According to YSX as of 13 February 2023, the FPB has a market capitalization of MMK 46,969 million and total numbers of shares is 2,472,053. Among the listed companies, the quick ratio of FPB is second highest with 61.38% which can provide a good snapshot of company's health. The bank went under 1/10 share split on 30 December 2022 to make the shares more liquid. As the share price of FPB is MMK 1,900 now, FPB bank has the most liquidity compared to other shares.

At 30.1.2023, FPB announced that it will issue 20% bonus shares effective on 20.2.2023. The last day to trade is 10.2.2023, ex-dividend day is 13.2.2023 and record day is 15.2.2023. The effect will decrease the share price of FPB bank slightly. The move seems to be motivated by intention to hold the cash reserves for planned expansion of the bank, which is discussed in the next section 3.2.

### 3.2    Business Plan of First Private Bank

The new management is focusing on increasing the shareholder value, based on stakeholder concept, rather than profitability. The new business model is now changed to profitable growth. They are focusing on the bank survivability with short term, medium term and long terms strategic plan.

In the short-term plan, non-performing loans has no adverse effects on the bank due to conservative approach to loan approval from Dr Sein Maung, then Chairman. There are no considerable adverse effects on the bank while other banks were experiencing crisis. Due to flexibility, cooperating with the customer and loan restructuring, the interest received were increased and NPL were reduced. New loans are also being approved at the same time. Core banking platform, electronics banking is launched in December 2022. Mobile banking will be launched soon. Digital wallet and mobile banking will be built into the same mobile application.

In medium term 5 years plan, the focus is profitable growth. The bank is now willing to take more risk to expand and targeted to reach 80-100 branches in 5 years period. The management also increased salary of the workforce by 50%. Previous strategy was focused on function, but now the branch managers have more authority in running the branches. They are also giving more training programs for staffs. The management stated they aim to become one of the leading banks in Myanmar one day. The new logo of the bank included 6 pillars which mainly represent the stakeholders. Home loan is being introduced to customers as this is the new product of the bank. The bank also accepts apartment, condo, for collateral now. Hired Purchase products were also resumed.

There is no immediate plan to introduce new products but will only be focusing on improving the current loan products since there is low chance to acquire new customers with new products in the medium term. The bank intends to be flexible for each customer needs. They also have plans to go for international banking, e.g. – currency swap and forward.

In the long term, there are discussions to diversify the bank's assets and portfolio in anticipation of future financial crisis. De-dollarization will be used to reduce the exposure to US dollar risk. Following the same trend as India and China and the rest of the world, holding of YUAN, Rupiah will be increased by the bank. The management will be focusing on the trustworthiness of customers in the long run. Capital gains are priorities for the company going forward but not the dividend distributing, in order to focus more on growth.

The management stated that the bank's shares are undervalued which are lower than the book value of the bank even though there were no loss-making period in history. They aim to work closely with YSX to stimulate the market to drive up the volume trading.

## 3.3    Introduction to Yangon Stock Exchange and Myanmar Capital Market

In order to build a stock exchange, Myanma Economic Bank and Daiwa Institute of Research Ltd. (DIR) formed the Myanmar Securities Exchange Centre Co., Ltd. (MSEC) in 1996. In May 2012, the Ministry of Finance and Revenue (MOFR), the Central Bank of Myanmar (CBM), Daiwa Institute of Research Ltd. (DIR), and Japan Exchange Group, Inc. (JPX) signed a Memorandum of Understanding (MOU) to develop human resources and offer technical assistance for the development of financial and capital market in Myanmar. The Securities and Exchange Law was passed in 2013, and in August 2014, the MOF established The Securities and Exchange Commission of Myanmar (SECM). The Myanmar Investment Committee (MIC) granted Yangon Stock Exchange Joint-Venture Company Limited (YSX) approval for foreign investment.

Seven firms are listed on the YSX: FMI, MTSH, MCB, FPB, TMH, EFR, and AMATA. Additionally, there are six securities firms: MSEC, KBZSC, CBSC, AYA Trust, KTzRH, and UABSC. Pre-Listing Board (PLB), a new market of YSX, was created to offer unlisted public firms alternatives for fund-raising and to serve as a bridge to YSX listing. With the consent of the Ministry of Planning, Finance and Industry, the President's Office of the Republic of the Union of Myanmar, and the Myanmar Securities Exchange Commission, it was launched on September 28, 2020. (SECM). It also went by the name Registration Board and established a market for trading registered shares of unlisted public corporations. Companies listed on the Pre Listing Board (PLB) will be eligible to list on the YSX [Main Board] in 2019.

## Chapter IV

## VALUATION OF FIRST PRIVATE BANK LTD

The main argument of the thesis is presented in this chapter, where can calculate First Private Bank Limited's potential stock value or intrinsic value using the discounted cash flow approach and compare it to the bank's current share price to determine if it is undervalued or overvalued. it will also investigate the stock value using several valuation techniques and debate whether technique is best for determining the stock price of First Private Bank Limited.

In this study, 3-statement financial model is build to perform DCF valuation method to derive intrinsic value, using the assumptions which are mostly based on the historical trends. In this study, we considered all possibility of impact, so scenario and sensitivity analysis for valuation to run a financial forecasting model to determine the impact of investment and to make better decisions, or to plan our business strategy, by challenging our assumptions about the future. Exploring a range of alternative scenarios allows to identify potential risks and plan how you will counteract or mitigate their impact.

Scenario and sensitivity analysis allows investors to look at the key drivers of a company and the impact of any potential changes, both positive and negative. Changes can be wide-ranging: broad issues such as macro, economic and political or more company specific and related to the underlying business. In this study, we built three types of Probability-based scenario; Optimistic (Good), Standard (Base) and Worst (Bad) case, it contained different deposit growth rate, capital expenditure and loan to deposit ratio. For sensitivity analysis, depended changing of terminal growth and weighted average cost of capital. Our Intrinsic Value of Share Price drive on **Standard (Base) Case Scenario.**

For the purpose of this valuation study, audited financial statements for the period ended at 30 September 2020 (FY2020), 30 September 2021 (FY2021), 31 March 2022 (FY2022) and audited financial statement 30 September 2022 (YTD2023) and stock market data for the period between 2020 to 2023 were used. For presentation and analysis purpose, we combined FY2022 (6 months period) and YTD2023 (6 months period), and call it LTM2022 in order to be comparable for previous periods which ended on 30 September and on 12 months basis.

Finding the Intrinsic Value of FPB Share Price, based on below Conceptual Framework.

**Figure (4.1) Conceptual Framework of FPB Valuation**

*DCF Method*

| Management input |
| Key assumptions |
| Cost of debt |
| Cost of equity |
| Terminal growth rate |
| Company's financial data |
| Inflation |
| Risk factor |

→ Intrinsic value of the company

Key assumption
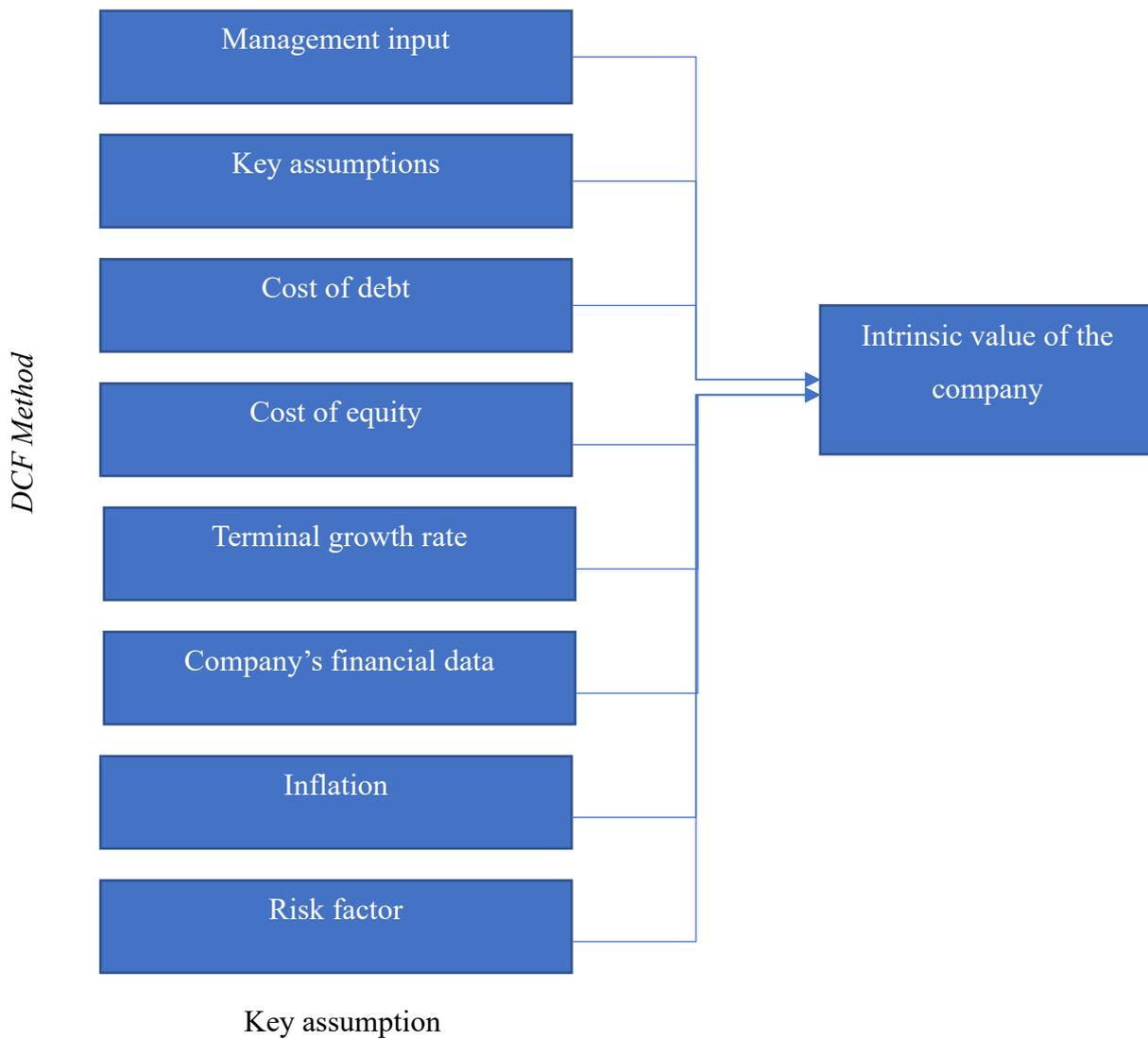
## 4.1 Financial Overview of FPB

First Private Bank has been standing for over 30 years and due to its traditional and conservative approach by previous chairman, the bank growth was slow although it has accumulated MMK 48 billion in cash. Due to its large holding of cash and cash equivalents, the bank has no external funding.

First Private Bank has seen recovery period during LTM2022, as evident with revenue growth of 8.1% after a period of 29.2% declined in FY2021 which was primarily due to economic instability and currency crisis of Myanmar kyats.

Cost of funds was improved from 6.4% in FY2020 to stable 4.5% and 4.4% during FY2021 and LTM2022 respectively, possibility due to decreasing long term fixed deposit accounts. Net interest margin also improved to 7.9% during LTM2022 as a result.

The significant jump in EBIT and EBT margin during FY2021 was caused by FX Revaluation exchange gain MMK 3478.4 million which was one off item. Normalizing the former item, Net profit margin of First Private Bank is relatively stable over the period.

Loan to deposit ratio has slightly declined during FY2021 and LTM2022, but was mitigated in large by the company's conservative approach to credit management and flexible arrangement with non-performing loans. The company maintained healthy relationship with all bank customers and suffered no loan loss throughout the COVID19 pandemic and country's political situation. On the deposit side, the bank has seen a decrease in deposit from customer as with all the other banks in Myanmar but the rate of decreased has slowed down in LTM2022.

Net book value has continued to increase over the analyzed period supported by stable revenue stream.

**Table (4.1) Financials overview of First Private Bank**

| MMK million | FY2020 | FY2021 | LTM 2022 |
|---|---|---|---|
| Interest income | 19,484.0 | 13,793.6 | 14,906.8 |
| Growth % | | -29.2% | 8.1% |
| Interest expense | (11,576.7) | (7,501.5) | (6,309.6) |
| Cost of fund % | -6.4% | -4.5% | -4.4% |
| Net interest income | 7,907.3 | 6,292.1 | 8,597.2 |
| Net interest margin % | 5.6% | 4.9% | 7.9% |
| EBIT | 8,336.3 | 10,460.2 | 9,056.2 |
| % to interest income | 42.8% | 75.8% | 60.8% |
| EBT | 5,084.6 | 5,812.0 | 3,767.4 |
| % to interest income | 26.1% | 42.1% | 25.3% |
| Net profit | 4,067.6 | 5,177.7 | 2,725.1 |
| % to interest income | 20.9% | 37.5% | 18.3% |
| Loan | 141,077.8 | 116,733.1 | 101,647.4 |
| LDR ratio | 78.1% | 76.6% | 76.6% |
| Deposit | 180,610.5 | 152,479.7 | 132,708.0 |
| Growth % | | -15.6% | -13.0% |
| Net book value | 60,194.7 | 66,210.8 | 69,658.6 |
| Net book value per share | 2435.0 | 2678.4 | 2817.8 |

## 4.2 Key assumptions and Rationales for financial Projection

Our presumptions are mostly based on the financial statements' historical 3-year patterns, management interviews, and conversations, all of which are publicly accessible, reliable, and official sources online. Our own assumptions have been used as little as possible, and when it is used, a conservative approach will be used. The assumptions listed below are base case assumptions because scenario analysis based on good case, base case, and terrible case scenarios will be covered in the next sections. The projected time frame, revenue, cost, operational expenditures, corporate income tax, loans and receivables, prepaid and other receivables, investments, property, plants, and equipment, as well as deposits from customers and other balance assumptions, are the main presumptions.

### 4.2.1 Estimated Three Financial Statement Model

An integrated financial model with a three-statement structure links the cash flow statement, balance sheet, and income statement. In this sections, management inputs, key assumptions and company financial data from the conceptual framework steps are explained with rationales behind them. The rest will be covered in discount rate calculation which follows the 3 statements model section.

The pervious financial and key metrics trends are used as a base in financial model. These assumptions are used to project 5 years projections of revenue, cost, operating expenses, and balance sheet items.

The calculations from input calculation tables are used to project profit and loss statement, balance sheet statement and cash flow statements.

The revenue has three parts, interest income from loans, interest income from government securities and fees and commission income. But the main assumption of the bank's projected growth is deposit growth and loan to deposit rations, which drives the interest income from loans and government securities and fees and commissions.

The cost of fund is solely from interest expenses on deposits, since the bank has no debt.

The operating expenditures include staff cost, SG&A, depreciation, rent and utilities. The key assumptions and rationales of the revenue assumptions are explained as follows.

### a. Key assumptions and Rationales

The assumptions are primarily based on the 3-year historical trends of the financial statements, management discussions and interviews which are available online, credible and official sources. The use of own assumptions is minimized and when used, it is based on conservative approach. The assumptions set out in the followings are base case scenario assumptions, since there is scenario analysis based on good case, base case and bad case in the later sections.

### b. Time frame of the forecast

It is considered appropriate to have the time frame of the forecast be 5 years, starting from FY2023 to FY2027, on the basis that 3 years would be too short, and anything longer than 5 years would result in less confident and inaccurate financial model.

**c.    Revenue Assumptions**

Revenues forecast is divided into 3 sources; interest from loan assets which include term loans, home loans and hire purchases etc. and interest from government securities which treasury bond, treasury bill and deposit auction, and lastly fees and commission income from transactions. Interest from loan assets is calculated based on average historical interest income margin on the loan and receivables which is at 10.9%. Interest from government securities is calculated based on average historical interest income margin on government securities which is at 4.8%. Net fees and commission income from the transaction is assumed to be 1.2% which was based on average historical trend.

**d.    Cost Assumptions**

Interest expense is calculated based on average historical interest expense margin on the deposit from customers which is at 4.8%.

**e.    Operating Expenses Assumptions**

Staff cost is also assumed to be at 15.8% of the interest income in line with the average historical trend.

Similarly, general, and administrative expenses is assumed at 9.1% of the interest income which is also in accordance with the average historical trend of the previous periods.

Depreciation for existing PPE were calculated based on the straight-line basis and followed the same useful life assumptions. Depreciation for new CAPEX use 10 years useful life as depreciation assumption, which is simplified by averaging the useful lives of computer equipment, fixture and fitting, and renovation needed for new branches expansion.

Rent, utilities and water bill charges for branches are assumed at 0.7% of the interest income. While it may seem, these expenses would not grow with interest income, the growth % of the historical period were not stable, therefore cannot arrive at meaningful growth rate assumption. The rent expenses is expected to increase by the landlords if the bank has grown in size and reputation.

**f.    Corporate Income Tax Assumptions**

Corporate income tax is in accordance with 22% tax rate as set out by Republic of the Union of Myanmar.

By using these assumptions, statement of financial performance for 5 years  is projected as follows in table (4.2)

**Table (4.2) Statement of Financial Performance**

| Statement of financial performance | | | | | |
|---|---|---|---|---|---|
| **MMK million** | **FY2023** | **FY2024** | **FY2025** | **FY2026** | **FY2027** |
| Interest income | 15,778.4 | 17,356.2 | 19,091.9 | 21,001.0 | 23,101.2 |
| Interest expense | (7,061.1) | (7,767.2) | (8,544.0) | (9,398.4) | (10,338.2) |
| Net interest income | 8,717.3 | 9,589.0 | 10,547.9 | 11,602.7 | 12,763.0 |
| Net fee and commission income | 191.8 | 211.0 | 232.1 | 255.3 | 280.8 |
| Exchange gain | 353.5 | 388.9 | 427.7 | 470.5 | 517.6 |
| Non-intrest income | 545.3 | 599.8 | 659.8 | 725.8 | 798.4 |
| **Operating income** | **9,262.6** | **10,188.8** | **11,207.7** | **12,328.5** | **13,561.4** |
| Other income (sale of assets) | - | - | - | - | - |
| Personnel expense staffs | (2,485.9) | (2,734.5) | (3,008.0) | (3,308.8) | (3,639.7) |
| General & administrative expenses | (1,549.6) | (1,724.0) | (1,922.6) | (2,138.1) | (2,372.1) |
| Depreciation | (698.1) | (830.6) | (1,023.2) | (1,215.9) | (1,408.6) |
| Operating expenses | (4,733.7) | (5,289.1) | (5,953.7) | (6,662.7) | (7,420.4) |
| **Net profit (before tax)** | **4,528.9** | **4,899.8** | **5,254.0** | **5,665.8** | **6,140.9** |
| Income tax | (414.4) | (498.2) | (539.0) | (577.9) | (623.2) |
| **Net profit (after tax)** | **4115** | **4402** | **4,715** | **5088** | **5518** |

As the next step, balance sheet assumptions are explained with rationales as follows.

**g.      Loans and Receivables Assumptions**

Loans and receivables assumption is one of the three sensitized assumptions in scenario analysis. Loans and receivables are assumed on historical average of loan to deposit ratio which is 75% for the base case scenario. For scenario analysis, 80% for the good case and 70% for the bad case scenarios. This is assumption is also supported by management narrative that they would focus on providing more of existing products, rather than offering new products and to improve the loan to deposit ratio.

**h.      Prepaid and Other Receivables Assumptions**

Prepaid and other receivables are assumed at 57.1% of the interest income based on historical average.

**i.      Investments Assumptions**

Government bonds are primary components of investments and are assumed at 30% of loans and receivables.

**j.** **Property, Plants, and Equipment Assumptions**

CAPEX for is one of the three sensitized assumptions in scenario analysis. CAPEX per branch is assumed at MMK 200 million for Standard case. For scenario analysis, MMK 71 million per branch for Optimistic case which is based on fixed assets register of FPB bank and MMK 300 million for Worst case.

According to management, they aimed to reach 80-100 branches within 5 years period from current 30 branches. By going conservatively, we assumed to reach 72 branches by the end of 5 years at FY2027 with 5 branches in FY2023, 7 in FY2024, 10 in FY2025, 10 in FY2026 and 10 in FY2027.

**.** **Deposits from Customer Assumptions**

Deposit from customer is used as a primary growth assumption for this model and also used in scenario analysis. It is assumed to grow at 10% for the base case. For scenario analysis, 15% growth rate is used for good case and 5% is used for bad case. The assumption is based on management interview that stated that the management is willing to take more risk and focus to achieve profitable growth, while also being supported by aggressive branch expansion.

**l.** **Other Balance Sheet Assumptions**

Advance tax – 50% of income tax (based on historical average trend)

Other liabilities – 9% growth rate (based on historical average trend)

Provision for income tax – 50% of income tax (based on historical average trend)

Statutory reserves – 25% of net profit (based on regulatory requirement)

Provision for bad debt – 4% (based on historical trend)

By using the above assumptions of each balance sheet items, we project the balance sheet for the next 5 years as follows, similar to statement of profit and loss., in table (4.3)

**Table (4.3) Statement of Financial Position**

| Statement of financial position | | | | | |
|---|---|---|---|---|---|
| **MMK million** | **FY2023** | **FY2024** | **FY2025** | **FY2026** | **FY2027** |
| **Assets** | | | | | |
| Cash and cash equivalent | 47897 | 50853 | 53640 | 56891 | 60651 |
| Loans and receivables | 109,484 | 120,433 | 132,476 | 145,723 | 160,296 |
| Prepaid and other receivables | 12345 | 13579 | 14937 | 16431 | 18074 |
| Investments | 43,995 | 48,374 | 53,192 | 58,491 | 64,320 |
| Property and equipment | 11,981 | 12,550 | 13,527 | 14,311 | 14,903 |
| Advanced Tax | 207 | 249 | 269 | 289 | 312 |
| **Total assets** | **225,891** | **246,039** | **268,042** | **292,136** | **318,555** |
| **Equity** | | | | | |
| Paid up capital | 24,721 | 24,721 | 24,721 | 24,721 | 24,721 |
| Share premium | 11,846 | 11,846 | 11,846 | 11,846 | 11,846 |
| Statutory reserve | 18685 | 19786 | 20964 | 22236 | 23616 |
| 2% reserve (provision) | 4,379 | 4,817 | 5,299 | 5,829 | 6,412 |
| Other reserve | 3,590 | 3,590 | 3,590 | 3,590 | 3,590 |
| Retained earning | 9047 | 12348 | 15884 | 19700 | 23838 |
| **Total equity** | **72,668** | **77,108** | **82,305** | **87,922** | **94,023** |
| **Liabilities** | | | | | |
| Deposits from customers | 145,979 | 160,577 | 176,634 | 194,298 | 213,728 |
| Other liabilities | 7,438 | 8,106 | 8,834 | 9,628 | 10,494 |
| Payment order | | | | | |
| Provision for income tax | 207 | 249 | 269 | 289 | 312 |
| Total liabilities | 153,624 | 168,932 | 185,738 | 204,215 | 224,533 |
| **Total liabilities and equity** | **225,891** | **246,039** | **268,042** | **292,136** | **318,555** |

We can construct the cash flow statement in Excel and finish our three-statement model once the balance sheet is finished (except for cash). In essence, this component is finished by simply linking to the items that have already been calculated in the model above and we don't need separate assumption for the cash flow statement. Each of the three major areas, including cash from operations, cash from investment, and cash from financing, must be prepared, as in follows, in table (4.4)

**Table (4.4) Statement of Cash Flow**

| Cash flow statement | | | | | |
|---|---|---|---|---|---|
| MMK million | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
| **Operation cash flow** | | | | | |
| Net profit | 4115 | 4402 | 4715 | 5088 | 5518 |
| + Depreciation | 698 | 831 | 1,023 | 1,216 | 1,409 |
| Working capital adjustment | | | | | |
| (Increase)/ decrease in loan and receivables | (7837) | (10948) | (12043) | (13248) | (14572) |
| (Increase)/ decrease in prepaid and other receivables | (682) | (1234) | (1358) | (1494) | (1643) |
| (Increase)/ decrease in advance tax | 527 | (42) | (20) | (19) | (23) |
| (Decrease)/ increase in deposit | 13,271 | 14,598 | 16,058 | 17,663 | 19,430 |
| (Decrease)/ increase in other liabilities | 613 | 668 | 728 | 794 | 865 |
| (Decrease)/ increase in payment order | | - | - | - | - |
| (Decrease)/ increase in provision for income tax | (1162) | 42 | 20 | 19 | 23 |
| **Net cash flow from operations** | **9,543** | **8,316** | **9,123** | **10,020** | **11,006** |
| **Investing cash flow** | | | | | |
| Investment in government securities | (7,794) | (4,379) | (4,817) | (5,299) | (5,829) |
| Capex | (1,000) | (1,400) | (2,000) | (2,000) | (2,000) |
| **Net cash flow from investing** | **(8,794)** | **(5,779)** | **(6,817)** | **(7,299)** | **(7,829)** |
| **Financing cash flow** | | | | | |
| Adjustment - 2% reserve | (136) | 438 | 482 | 530 | 583 |
| **Net cash flow from financing** | **(136)** | **438** | **482** | **530** | **583** |
| **Changes in cash position** | **613** | **2,974** | **2,788** | **3,251** | **3,760** |

From this cash flow statement, changes in cash position can be used to calculate the cash position in the balance sheet.

### 4.2.2 WACC Calculation Using CAPM Theory

**a.    Capital Structure.**

First Private Bank has no external funding and gathered a large pool of cash. For this reason, we assumed 100% equity funding for WACC and discounted cash flow calculations.

**b.    Risk Free Rate of Return (Rf)**

Risk free rate of return of this valuation study uses 10 years US treasury bond which has yield of 3.5% as of 13 January 2023.

**c.     Beta**

We use beta of 0.4 which is derived from industry average unlevered beta for the regional banks from Aswath Damodaran's publication as of 5 January 2023. We consider this beta to be appropriate for the banking industry in Myanmar since we would be adding significant risk premium to reflect the current market risk and country risk in following assumptions for cost of equity.

**d.     Equity Risk Premium**

Equity risk premium for Myanmar is derived from Aswath Damodaran's equity risk premium for Myanmar less Default spread which is 11%, as of 1 January 2023.

**e.     Country Risk Premium**

12.2% default spread for Myanmar by Aswath Damodaran as of 1 January 2023, is used as country risk premium for Myanmar, which we think it mostly reflects the current political and economic risk of Myanmar.

**f.     Inflation Differential**

It is assumed that inflation differential should be difference between averages of inflation forecasts the periods from 2023 to 2026 of United States and Myanmar, which is 6.8%.

**g.     Company Specific Risk**

Company specific risk is applied at 1.5% as the industry practice and standard in Myanmar, according to valuation experts.

**h.     Cost of Equity and WACC**

Since First Private Bank has no debt, WACC is same as cost of equity which is 27.9%, derived from the assumptions.

**i.     Capital Asset Pricing Model (CAPM) Calculation**.

By incorporating the above assumptions for the WACC, we use CAPM to arrive at weighted average cost of capital of 27.9%. WACC for Myanmar companies ranged from 18% to 22% in before 2020, but given the current situation of political landscape in Myanmar and economic uncertainties, an investor would require more than 25% discount rate to be compensated for the risk he is taking to invest in a Myanmar company. Since we have taken into account of most recent country risk premium of Myanmar, including inflation

differential between US and Myanmar, and the equity risk premium, that reflect the actual risk of doing business in Myanmar The lending rate for secured loans, 10%, as set out by Central bank of Myanmar would be our cost of debt (kd), if we have debt funding in our financial model.

To calculate CAPM, we use the following formula.

$Ke = Rf + \beta\,(Rm - Rf) + CRP + \alpha$

Where,          $Rf$ = Risk free rate

$\beta$ = Beta

$(Rm - Rf)$ = Equity risk premium

$CRP$ = Country risk premium (including inflation differential)

$\alpha$ = Company specific risk

**Table (4.5) WACC calculation using CAPM Theory**

$$WACC = (1 - t) * \frac{(kd * D)}{E + D} + \frac{(ke * E)}{E + D}$$

| Cost of debt | |
|---|---:|
| Cost of debt (kd) | |
| Average tax rate | |
| After tax cost of debt | |
| Cost of equity | |
| Risk free rate of return (Rf) | 3.5% |
| Beta (B) | 35.8% |
| Equity risk premium (Rm-Rf) | 11.0% |
| Country risk premium (CRP) | 12.2% |
| Inflation differential | 6.8% |
| Company specific risk (α) | 1.5% |
| Cost of equity | 27.9% |
| Capital structure | |
| Debt | 0.0% |
| Equity | 100.0% |
| Total assets | 100.0% |
| WACC | 27.9% |

## 4.3. Intrinsic Value Valuation and Enterprise Value Using CAPM Theory

By building the financial model with abovementioned assumptions for profit and loss items and balance sheet items and using the calculated WACC and terminal growth rate, we derived the enterprise value of MMK 32.398billion.

To calculate enterprise value, we need free cash flow to firm which was derived from subtracting capital expenditure from cash flow from operating activities. Then we calculate the present value of all free cash flow to firm from 5-year periods.

Terminal value formula is last year period's cash flow accounted for terminal growth divided by weighted average cost of capital minus terminal growth rate.

Please refer to cash flow statement on how cash flow from operating activities was derived in cash flow statement.

### a. Faree Cash to Firm (FCFF)

FCFF represents the amount of cash flow from operations available for distribution after accounting for depreciation expenses, taxes, working capital, and investments. FCFF is a measurement of a company's profitability after all expenses and reinvestments.

FCFE = CFO – CAPEX + Net borrowing

Where CFO= Cash Flow from Operation

CAPEX= Capital Investment

### b. Terminal Growth

The terminal growth rate usually should range between historical inflation rate and the average GDP growth rate. For our case, we applied 6% which is derived from the average of 3 years inflation forecasts and 3 years GDP forecast for 2024, 2025 and 2026.

### c. Net Present Value

Net present value (NPV) is the difference between the present value of cash inflows and the present value of cash outflows over a period of time. NPV is the result of calculations that find the current value of a future stream of payments, using the proper discount rate.

$$\text{NPV} = CF_0 + \frac{CF_1}{(1+r)^n}$$

Where $CF_0$ = Cash flow at time zero (initial cash outlay)

$CF_1$ = Cash flow at time one, one year after time zero

r = the opportunity cost of capital or discount rate

NPV = the present value of the net cash inflows less the project's initial cash outlay

## Table (4.6) Enterprise Value Using DCF Method

| | | | | | |
|---|---|---|---|---|---|
| WACC | 27.9% | % | 7.80% | Inflation forecast for 2024, 2025, 2026 | |
| Terminal growth rate | 5.6% | % | 3.40% | GDP forecast for 2024, 2025, 2026. | |

| | 2023 | 2024 | 2025 | 2026 | 2027 | Terminal year |
|---|---|---|---|---|---|---|
| CFO | 9,542.8 | 8,315.5 | 9,123.1 | 10,019.7 | 11,005.9 | |
| - Capex | (1,000) | (1,400) | (2,000) | (2,000) | (2,000) | |
| FCFF | 8,542.8 | 6,915.5 | 7,123.1 | 8,019.7 | 9,005.9 | 42,645.1 |
| WACC | 27.9% | | | | | |
| Terminal Growth Rate | 5.6% | | | | | |
| PV Factor | 0.7819 | 0.6113 | 0.4779 | 0.3737 | 0.2922 | 0.2922 |
| N P V | 6679.25 | 4227.46 | 3404.47 | 2996.86 | 2631.24 | 12459.54 |
| Enterprise value as at 15.2.2023 | 32,398.8 | | | | | |

## Table (4.7) Intrinsic Value of Share Price

| Intrinsic Value of Share Price | |
|---|---|
| | MMK |
| Enterprise value | 32,398,809,955 |
| Net debt adjustment | |
| Add: cash | 47,266,000,000 |
| Equity value | 79,664,809,955 |
| Number of shares # | 24,720,530 |
| Share price | 3,222.6 |

## 4.4    Comparison of Intrinsic Value and Current Market Value

According to Yangon Stok Exchange market data, the current market price of First Private Bank share price is 1900 MMK/sh. Base on CAPM theory and DCF model of our intrinsic value of share price is 3223.It indicated that the FPB current market share price is extremely under-valued.

**Tabe (4.8) Comparison of Intrinsic Value and Current Market Value**

| Comparison of Intrinsic Value and Current Market Value | | | |
|---|---|---|---|
| MMK/share price | | | |
| Date | 13-2-2023 | Remark | |
| Intrinsic Value | 3223 | Over-valued | |
| Current Market Value | 1900 | Under-valued | |

Source: https//ysx.mm.com/main-board/listing/company/IC00004

## 4.5    Sensitivity Analysis and Scenario Analysis

Sensitivity analysis is a technique used to determine how different values of an independent variable will affect a particular dependent variable under certain conditions. It is often used in financial analysis to evaluate the impact of changes in key variables on a financial model or projection.

In our sensitivity analysis, we are going to look at the enterprise value range based on different discount rate and terminal growth rate. The relationship between the discount rate and the value of future cash flows can be described as follows:

As the discount rate increases, the present value of future cash flows decreases. This means that if the discount rate goes up, the future cash flows will be worth less in today's dollars.As the discount rate decreases, the present value of future cash flows increases. This means that if the discount rate goes down, the future cash flows will be worth more in today's dollars.

The discount rate is a key factor in determining the value of an investment. A higher discount rate will result in a lower present value of future cash flows, which means that the investment is worth less. Conversely, a lower discount rate will result in a higher present value of future cash flows, making the investment more valuable.

The sensitivity has low and high cases. In our case, our current assumptions of 28% discount factor and 5.6% terminal growth rate is set as low case, since higher discount rate will result in the lower valuation. So, our high case should have lower discount rate of 24% and 4% terminal growth rate, which can yield higher valuation. This low and high cases are considered upper and lower range in a scenario. Sinc we have 3 cases scenarios, we will have low and high cases (lower and upper ranges) for each scenario. Current low and high cases valuation is based on base case scenario.

As we mentioned above in assumptions and rationales, there are three scenarios, good case, base case and bad case as follows in table (4.8).

**Table (4.9) Assumptions for scenario analysis**

|  | Good case | Base case | Bad case |
|---|---|---|---|
| Deposit growth % | 15% | 10% | 5% |
| CAPEX per branch | 71M | 200M | 300M |
| Loan to deposit ratio | 80% | 75% | 70% |

**Table (4.10) Sensitivities analysis of enterprise value for base case scenario**

| MMK mn | Discount factor | | |
|---|---|---|---|
|  |  | 24% | 26% | 28% |
| Terminal growth | 4.0% | 37,561.4 | 34,120.1 | 31,388.6 |
|  | 5.0% | 38,563.9 | 34,893.5 | 32,003.4 |
|  | 5.6% | 39,217.6 | 35,393.9 | 32,398.8 |

The above table (4.10) shows sensitivities analysis of enterprise value using sensitized assumptions of discount factor and terminal growth. Then we adjust for net debt to arrive equity value. Since we do not have debt, we added cash to enterprise value to get equity value in table (4.10)

**Table (4.11) Equity value and share price with sensitized assumptions for base case**

| MMK million | Low | High |
|---|---|---|
| WACC / Terminal growth rate | 28% / 6% | 24% / 4% |
| Enterprise value | 32,398.8 | 37,561.4 |
| Net debt adjustment | | |
| Add: cash | 47,266.0 | 47,266.0 |
| Equity value | 79,664.8 | 84,827.4 |
| Number of shares # | 24,720,530 | 24,720,530 |
| Share price | 3,222.6 | 3,431.5 |

Even when it is used the conservative approach, First Private Bank equity value with low case sensitivity is MMK 79.7 billion and intrinsic value per share as of 13 February is MMK 3,223 which is significantly higher than current share price of MMK 1,900.

Note that the equity value is not significantly higher than net book value of MMK 2,817.8 which was due to our extreme conservative approach our valuation. Therefore, it was performed 3 cases scenario analysis with sensitivities range

**Table (4.12) Scenario analysis of share price with sensitivity ranges**

| Scenario analysis of share price with sensitivity ranges | | | |
|---|---|---|---|
| MMk/sh price | Min | Diff | Max |
| Good case | 3,536 | 303 | 3,839 |
| Base case | 3,223 | 208 | 3,431 |
| Bad case | 2,889 | 116 | 3,005 |

As seen above in table (4.11) even if it is using the Bad case scenario, the share price would be from MMK 3,005 to MMK 2,889 which is higher than current share price 1900 MMK. If we are using Good case scenario, the share price can be as high as to MMK 3,839 per share and for this study Base case scenario, the share price can be as high as to MMK 3,431 MMK per share. Which is significantly higher than current share price of MMK 1,900. The intrinsic value range for the good case in scenario analysis is from MMK 3,839 to MMK 3,536, base case is from MMK 3,431 to MMK 3,223 and Bad case is from MMK 3,005 to MMK 2,889.

# CHAPTER V

# CONCLUSION

This chapter concludes the findings on the valuation study of First Private Bank limited using the discounted cash flow method with a financial model and asset-based valuation method. It also includes the suggestions for the bank and needs for further study for use of assumptions.

## 5.1    Findings and Discussions

The main objective of this thesis; finding the intrinsic value of First Private Bank limited using discounted cash flow method, to compare the intrinsic value of share price with current share price to decide over-valued or under-valued and performed sensitivities and scenario analysis.

A three-statement financial model is built to project 5 years financial projections using the discounted cash flow method, and assumptions mainly based on management's plan and strategy which are publicly available on YSX website, management interviews and discussions posted as disclosures and announcements and using historical trends. Appropriate discount rates are derived by using CAPM method based on most recent risk factors such as equity risk premium, country risk premium, inflation deferential, beta and alpha (company specific risk) that actually reflect the current risk of doing business in Myanmar posed by current economic downturn and country's reputational risk of current political situation, by consulting with industry specialists and taking advice from valuation experts to get industry best practices. The assumptions are assumed with conservative approach in mind to remove the analysts' influence as much as possible on the valuation results.

The finding has shown that FPB shares are extremely undervalued. The base case scenario suggests that share price would worth around MMK 3,223 to MMK 3,431 compared to current share price MMK 1,900.

In the scenario and sensitivity analysis, the highest value is MMK 3,839 per share of FPB bank and lowest value is MMK 2,889. The good case scenario has low sensitivity value of MMK 3,536 and high sensitivity value of MMK 3,839. The bad case scenario has low sensitivity of MMK 2,889 and high sensitivity of MMK 3,005. Which is significantly higher than current share price of MMK 1,900.

When it is used own assumptions to build the mode by using on the discounted cash flow method to arrive at our own valuation range, the methods to come up with assumption can be subjective to the person who is doing the valuation. The assumptions can be based on complex calculations and rationales, based on different sources, based on management assumptions and different methods. In this valuation study, we took simple and conservative approach to the model assumptions, based on historical trend and certain management assumptions. Ther is still a need for further study in using more sophisticated assumptions such as more detailed break downs of revenue and cost assumptions as well as CAPEX assumptions to capture more precise valuation. There is also lack of information transparency meaning the model can be more accurate if the assumptions are provided by the management of FPB. Even that will still need further study due to the fact the assumptions are subjective.

There are challenges as to value a company stock in a market where there are very few participants to be compared and even more so if the market itself is not information efficient. In such situation, it cannot be decided that the value of a company using the common valuation methods such as comparable companies' approach and dividend growth model, if the company does not distribute dividends not at all or at least regularly. Whereas the discounted cash flow method takes into account of the future earning potential and growth potential of First Private Bank and derived the real intrinsic value of the bank. That is why it conclude that the most appropriate and meaning way to value a stock price or a company's value in Myanmar is discounted cash flow method.

## 5.2    Suggestions and Recommendations

First Private Bank should consider to do revaluation of its building and property since most of them were recorded at cost price decades ago. The management also stated that value of its head office can worth more than MMK 5 billion, even though it was recorded at MMK 60 millions which was the cost price at the time of purchase. The bank also should work closely with Yangon Stock Exchange to promote the stock to drive up volume and stimulate the market by drawing investor's attention to how much undervalued is the First Private Bank's shares are.

A strong marketing campaign by collaborating with some of the top digital marketing agencies in Myanmar coupled with the aggressive expansion plan would boost the image of First Private Bank limited and drive its deposit collection capabilities, which in turn allows the banks to grow its loan assets.

The bank also should look to introduce more loan products for both retail and corporate banking divisions to cater the needs for all customers, as well as attractive deposit accounts to gather more deposits. Since the maximum loan to deposit ratio is 80% set by CBM and current LDR ration of FPBs is 75.9%, we can say FPB bank is managing pretty well on its loan asset front. So as not to let LDR ratio cap bottlenecks the FPB bank's lending capabilities, they should manage to grow the deposits pool as well.

The bank's management should also explore the opportunities to grow in merger and acquisition market to take advantage of its large cash holding. They can look for strategic partnership with some of the players through merger to grow exponentially or they can acquire some of the smaller players to gain the customer base and geographical coverage.

The last suggestion for FPB bank is to hire some of the local talents and expatriates to fill the need for human resources and strategic moves for its transformation to a visionary and leading bank.

## 5.3 Need for further study

When calculating the share price, dividend growth model and relative valuation (comparable company approach or multiple valuation) are more commonly used stock valuation methods. The reader should explore valuation methods other than DCF approach to assess the intrinsic value of the FPB bank.

The dividend discount model (DDM) is a technique used in finance and investment to determine how much a company's shares is worth by discounting all its future dividend payments to their present value. In other words, the net present value of the expected dividends is utilized to value equities using DDM.

The relative valuation method is a technique used in finance to estimate the value of an asset by comparing it to similar assets or a benchmark. This method is often used in the stock market to determine the fair market value of a stock by comparing it to other stocks in the same industry or to the broader market index.

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# FINANCIAL MODEL

| | | Remarks |
|---|---|---|
| Assumption | | This valuation consist of our assumptions and inputs which we have derived after discussing the management interview from C.E.O of First private Bank. |
| Rate | It consist of all the rate that will be used in financial statement | The rates we have used are derived from historical datas of past financial statement, considered from our country situtions and discussing with experts of local banking sector and own judgement. |
| Financing | According to FPB's capital structure, there has no debt, only equity. | Some financing cash flow adjusted from provision. |
| Income Statement | | We used Assumption sheet and Rate Sheet to calculate our financial Statement. |
| Balance Sheet | | We used Assumption sheet and Rate Sheet to calculate our financial Statement. |
| Cash Flow | | We used Assumption sheet and Rate Sheet to calculate our financial Statement. |
| Capex & Depreciation | we assume useful life of new bank is 10 years. | We assume 72 new banks have been open within projection 5 years. |
| WACC | It consist of cost of equity and debt. | We used CAPM theory, including country risk , inflation differential and company specific risk. |
| Scenario Analysis | Good case,Base case & Bad case | Consider changes of all Factors influrance . |
| Sensitivity Analysis | Range of Share Price | Only consider change of WACC & Growth rate |

| Key assumptions | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MMK million | | | FY2020 | FY2021 | 1H2022 | 2H2022 | LTM 2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
| Income tax | | 22.0% % | | | | | | | | | | |
| Current number of branches | | 36 # | | | | | | | | | | |
| Sensitised assumptions | 2 | Base case | | | | | | | | | | |
| Deposit growth % | 1 | 15.0% Good case | | | | | | | | | | |
| | 2 | 10.0% Base case | | | | | | | | | | |
| | 3 | 5.0% Bad case | | | | | | | | | | |
| CAPEX per branch | 1 | 71.0 Good case | | | | | | | | | | |
| | 2 | 200.0 Base case | | | | | | | | | | |
| | 3 | 300.0 Bad case | | | | | | | | | | |
| Loan to deposit ratio | 1 | 80.0% Good case | | | | | | | | | | |
| | 2 | 75.0% Base case | | | | | | | | | | |
| | 3 | 70.0% Bad case | | | | | | | | | | |

## P&L assumptions

| MMK million | | FY2020 | FY2021 | 1H2022 | 2H2022 | LTM 2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Interest income | | 19,484.0 | 13,793.6 | 8,557.8 | 6,349.0 | 14,906.8 | 15,778.4 | 17,356.2 | 19,091.9 | 21,001.0 | 23,101.2 |
| | | | | | | | 5.8% | 10.0% | 10.0% | 10.0% | 10.0% |
| Interest from loan assets | | 17482.1 | 11007.4 | 7,101.6 | | 7,101.6 | 11,945.5 | 13,140.0 | 14,454.0 | 15,899.4 | 17,489.4 |
| Margin % | 10.9% % | 12.4% | 9.4% | 8.6% | | 7.0% | 10.9% | 10.9% | 10.9% | 10.9% | 10.9% |
| Interest from government securities | | 2,001.9 | 2,786.1 | 1,456.2 | | 1,456.2 | 3,832.9 | 4,216.2 | 4,637.9 | 5,101.6 | 5,611.8 |
| Margin % | 8.8% % | 9.8% | 9.7% | 4.0% | | 4.0% | 8.8% | 8.8% | 8.8% | 8.8% | 8.8% |
| Interest expense | | (11,576.7) | (7,501.5) | (3,197.0) | (3,112.6) | (6,309.6) | (7,061.1) | (7,767.2) | (8,544.0) | (9,398.4) | (10,338.2) |
| Margin % | -4.8% % | -5.4% | -4.9% | -2.2% | | -4.8% | -4.8% | -4.8% | -4.8% | -4.8% | -4.8% |
| Net interest income | | 7,907.3 | 6,292.1 | 5,360.8 | 3,236.4 | 8,597.2 | 8,717.3 | 9,589.0 | 10,547.9 | 11,602.7 | 12,763.0 |
| Net interest margin % | | 4.9% | 4.1% | 3.7% | | 6.2% | 5.7% | 5.7% | 5.7% | 5.7% | 5.7% |
| Net fee and commission income | | 415.3 | 139.5 | (32.6) | 107.8 | 75.2 | 191.81 | 211.0 | 232.1 | 255.3 | 280.8 |
| % to interest income | 1.2% % | 2.1% | 1.0% | -0.4% | | 0.6% | 1.2% | 1.2% | 1.2% | 1.2% | 1.2% |
| Exchange gain | | 22.0 | 550.2 | 360.5 | 30.0 | 390.5 | 353.5 | 388.9 | 427.7 | 470.5 | 517.6 |
| % to interest income | 2.2% % | 0.1% | 4.0% | 4.2% | | 2.6% | 2.2% | 2.2% | 2.2% | 2.2% | 2.2% |
| Exchange loss | | (8.3) | | | | | | | | | |
| FX Revaluation exchange gain/ (loss) | | - | 3,478.4 | (6.6) | - | (6.6) | - | - | - | - | - |
| Non-interest income | | 429.0 | 4,168.1 | 321.3 | 137.8 | 459.1 | 545.3 | 599.8 | 659.8 | 725.8 | 798.4 |
| Operating income | | 8,336.3 | 10,460.2 | 5,682.1 | 3,374.1 | 9,056.2 | 9,262.6 | 10,188.8 | 11,207.7 | 12,328.5 | 13,561.4 |
| Other income (sale of assets) | | 0.1 | | 22.4 | 33.7 | 56.1 | | | | | |
| Presonnel expense staffs | | (2,100.3) | (2,259.6) | (1,483.7) | (1,513.3) | (2,997.0) | (2,485.9) | (2,734.5) | (3,008.0) | (3,308.8) | (3,639.7) |
| % to interest income | -15.8% % | -10.8% | -16.4% | -17.3% | | -20.1% | -15.8% | -15.8% | -15.8% | -15.8% | -15.8% |
| General & administrative expenses | | (421.8) | (1,683.6) | (1,185.7) | (719.5) | (1,905.2) | (1,428.0) | (1,570.8) | (1,727.9) | (1,900.7) | (2,090.7) |
| % to interest income | -9.1% % | -2.2% | -12.2% | -13.9% | | -12.8% | -9.1% | -9.1% | -9.1% | -9.1% | -9.1% |
| Depreciation | | (613.4) | (605.7) | (168.3) | | (336.6) | (598.1) | (590.6) | (583.2) | (575.9) | (568.6) |
| % to PPE | -1.3% % reduction | | -1.3% | | | | | | | | |
| Depreciation for new CAPEX | | | | | | | (100.0) | (240.0) | (440.0) | (640.0) | (840.0) |
| Rent, utilities and water bill charges | | (116.3) | (99.3) | (53.1) | | (106.2) | (106.7) | (117.4) | (129.1) | (142.1) | (156.3) |
| % to interest income | -0.7% % | -0.6% | -0.7% | -0.6% | | -0.7% | -0.7% | -0.7% | -0.7% | -0.7% | -0.7% |
| Rent, utilities and water bill charges for new branches | | | | | | | (14.9) | (35.8) | (65.6) | (95.3) | (125.1) |
| Expense per branch | (2.98) MMK mn | (3.2) | (2.8) | (1.5) | | (3.0) | | | | | |
| Number of new bronches per year | # | | | | | | 5.0 | 7.0 | 10.0 | 10.0 | 10.0 |
| Operating expenses | | (3,251.7) | (4,648.2) | (2,868.4) | (2,199.1) | (5,288.9) | (4,733.7) | (5,289.1) | (5,953.7) | (6,662.7) | (7,420.4) |
| Net profit (before tax) | | 5,084.6 | 5,812.0 | 2,813.7 | 1,175.1 | 3,767.4 | 4,528.9 | 4,899.8 | 5,254.0 | 5,665.8 | 6,140.9 |
| Income tax | | (1,017.0) | (634.3) | (735.2) | (307.0) | (1,042.2) | (414.4) | (498.2) | (539.0) | (577.9) | (623.2) |
| Net profit (after tax) | | 4,068 | 5,178 | 2,079 | 868 | 2,725 | 4,115 | 4,402 | 4,715 | 5,088 | 5,518 |

Appendix-

| Balance sheet assumption | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MMK million | | FY2020 | FY2021 | 1H2022 | 2H2022 | LTM 2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
| **Assets** | | | | | | | | | | | |
| Cash and cash equivalent | | 66,742 | 54,393 | 55,339 | 47,266 | 47,266 | 47,879 | 50,853 | 53,640 | 56,891 | 60650.97787 |
| Loans and receivables | | 141,078 | 116,733 | 106,981 | 101,647 | 101,647 | 109,484.1 | 120,432.5 | 132,475.8 | 145,723.4 | 160,295.7 |
| *% growth* | | | *-17.3%* | *-8.4%* | *0.0%* | | *7.7%* | *10.0%* | *10.0%* | *10.0%* | *10.0%* |
| *Loan to deposit ratio* | Base Case 75.0% % | *78.1%* | *76.6%* | *73.0%* | *76.6%* | *76.6%* | *75.0%* | *75.0%* | *75.0%* | *75.0%* | *75.0%* |
| | | | | | | 0 | | | | | |
| Prepaid and other receivables | | 7,404 | 7,607 | 12,773 | 11,663 | 11,663 | 12,345 | 13,579 | 14,937 | 16,431 | 18,074 |
| *% growth* | | | *2.7%* | *67.9%* | *0.0%* | | *5.8%* | *10.0%* | *10.0%* | *10.0%* | *10.0%* |
| *% to interest income* | 78.2% % | *38.0%* | *55.1%* | *149.3%* | *78.2%* | *78.2%* | *78.2%* | *78.2%* | *78.2%* | *78.2%* | *78.2%* |
| | | | | | | *0.0%* | | | | | |
| Inventories | Assumed nil | 42 | 42 | 43 | - | - | - | - | - | - | - |
| | | | | | | | | | | | |
| Investments | | 20,701 | 36,201 | 36,201 | 36,201 | 36,201 | 43,995 | 48,374 | 53,192 | 58,491 | 64,320 |
| | | | | - | - | | | | | | |
| Deposits for MPU and Credit Bureau | | 201 | 201 | 201 | 201 | 201 | 201 | 201 | 201 | 201 | 201 |
| Government bonds | 30.0% % | 20,500 | 36,000 | 36,000 | 36,000 | 36,000 | 43,794 | 48,173 | 52,990 | 58,289 | 64,118 |
| *% to loans and receivables* | | *14.5%* | *30.8%* | *33.7%* | *35.4%* | *35.4%* | *40.0%* | *40.0%* | *40.0%* | *40.0%* | *40.0%* |
| | | | | | | *0%* | | | | | |
| Property and equipment | | 10,610 | 11,102 | 11,210 | 11,679 | 11,679 | 11,981 | 12,550 | 13,527 | 14,311 | 14,903 |
| CAPEX per new branch | 200.0 MMK mn | | | | - | | | | | | |
| CAPEX for new branches | | | | | - | | 1,000 | 1,400 | 2,000 | 2,000 | 2,000 |
| Useful life of new CAPEX | 10.0 yr | | | | - | | | | | | |
| Depreciation from new CPEX | | | | | - | | (100) | (140) | (200) | (200) | (200) |
| Accumuladed depreciation for new CAPEX | | | | | - | | (100) | (240) | (440) | (640) | (840) |
| Advanced Tax | | 794 | 1,415 | 734 | 734 | 734 | 207 | 249 | 269 | 289 | 312 |
| *% to income tax* | -50.0% % | *-78.0%* | *-223.1%* | *-99.9%* | *-70.5%* | *-70.5%* | *-50.0%* | *-50.0%* | *-50.0%* | *-50.0%* | *-50.0%* |
| | | | | | | | | | | | |
| **Total assets** | | **247,371** | **227,493** | **223,282** | **209,191** | **209,191** | **225,891** | **246,039** | **268,042** | **292,136** | **318,555** |
| **Equity** | | | | | | | | | | | |
| Paid up capital | | 24,721 | 24,721 | 24,721 | 24,721 | 24,721 | 24,721 | 24,721 | 24,721 | 24,721 | 24,721 |
| Share premium | | 11,846 | 11,846 | 11,846 | 11,846 | 11,846 | 11,846 | 11,846 | 11,846 | 11,846 | 11,846 |
| Statutory reserve | 25.0% of NP | 16,710 | 17,137 | 17,657 | 17,657 | 17,657 | 18,685 | 19,786 | 20,964 | 22,236 | 23,616 |
| Provisoion for bad debt | 4.0% L to Rec: | 2821.6 | 3,660 | 4515.7 | 4515.72 | 4515.72 | 4,379 | 4,817.3 | 5,299.0 | 5,828.9 | 6,411.8 |
| Contingency reserve | | 103 | 103 | 103 | | | | | | | |
| Other reserve | | 8 | 3,487 | 3,487 | 3,590 | 3,590 | 3,590 | 3,590 | 3,590 | 3,590 | 3,590 |
| Retained earning | | 3,984 | 5,258 | 6,818 | 5,961 | 5,961 | 9,047 | 12,348 | 15,884 | 19,700 | 23,838 |
| **Total equity** | | **60,195** | **66,211** | **69,147** | **68,289** | **68,289** | **72,267** | **77,107** | **82,304** | **87,921** | **94,022** |
| **Liabilities** | | | | | | | | | | | |
| Deposits from customers | | 180610.5 | 152,479.70 | 146486.5 | 132708.02 | 132708.02 | 145,979 | 160,577 | 176,634 | 194,298 | 213,728 |
| *% growth* | 10.0% | | *(0.16)* | *-3.9%* | *0.0%* | | *10.0%* | *10.0%* | *10.0%* | *10.0%* | *10.0%* |
| | | | | | | 0 | | | | | |
| Other liabilities | | 5,495 | 7,145.30 | 6,176 | 6,824 | 6,824 | 7,438 | 8,106 | 8,834 | 9,628 | 10,494 |
| *% growth* | 9.0% | | *30%* | *-14%* | *10.5%* | *10.5%* | *9.0%* | *9.0%* | *9.0%* | *9.0%* | *9.0%* |
| | | | | | | | | | | | |
| Payment order | Assumed nil | 54 | 5.80 | 104 | - | - | - | - | - | - | - |
| Provision for income tax | | 1,017 | 1,650.60 | 1,370 | 1,370 | 1,370 | 207 | 249 | 269 | 289 | 312 |
| *% to income tax* | -50.0% | *-100.0%* | *(2.60)* | *-166.3%* | *-131.4%* | *-131.4%* | *-50.0%* | *-50.0%* | *-50.0%* | *-50.0%* | *-50.0%* |
| | | | | | | | | | | | |
| **Total liabilities** | | **187,176** | **161,281.40** | **154,136** | **140,902** | **140,902** | **153,624** | **168,932** | **185,738** | **204,215** | **224,533** |
| **Total liabilities and equity** | | **247,371** | **227,492.20** | **223,283** | **209,191** | **209,191** | **225,891** | **246,039** | **268,042** | **292,137** | **318,555** |

Appendix-4

| Statement of financial performance | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| MMK million | FY2020 | FY2021 | 1H2022 | 2H2022 | LTM 2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
| Interest income | 19,484.0 | 13,793.6 | 8,557.8 | 6,349.0 | 14,906.8 | 15,778.4 | 17,356.2 | 19,091.9 | 21,001.0 | 23,101.2 |
| Interest expense | (11,576.7) | (7,501.5) | (3,197.0) | (3,112.6) | (6,309.6) | (7,061.1) | (7,767.2) | (8,544.0) | (9,398.4) | (10,338.2) |
| Net interest income | 7,907.3 | 6,292.1 | 5,360.8 | 3,236.4 | 8,597.2 | 8,717.3 | 9,589.0 | 10,547.9 | 11,602.7 | 12,763.0 |
| Net fee and commission income | 415.3 | 139.5 | (32.6) | 107.8 | 75.2 | 191.8 | 211.0 | 232.1 | 255.3 | 280.8 |
| Exchange gain | 22.0 | 550.2 | 360.5 | 30.0 | 390.5 | 353.5 | 388.9 | 427.7 | 470.5 | 517.6 |
| Exchange loss | (8.3) | - | - | - | - | - | - | - | - | - |
| FX Revaluation exchange gain/ (loss) | - | 3,478.4 | (6.6) | - | (6.6) | - | - | - | - | - |
| Non-interest income | 429.0 | 4,168.1 | 321.3 | 137.8 | 459.1 | 545.3 | 599.8 | 659.8 | 725.8 | 798.4 |
| Operating income | 8,336.3 | 10,460.2 | 5,682.1 | 3,374.1 | 9,056.2 | 9,262.6 | 10,188.8 | 11,207.7 | 12,328.5 | 13,561.4 |
| Other income (sale of assets) | 0.1 | - | 22.4 | 33.7 | 56.1 | - | - | - | - | - |
| Presonnel expense staffs | (2,100.3) | (2,259.6) | (1,483.7) | (1,513.3) | (2,997.0) | (2,485.9) | (2,734.5) | (3,008.0) | (3,308.8) | (3,639.7) |
| General & administrative expenses | (538.1) | (1,782.9) | (1,238.8) | (719.5) | (2,011.4) | (1,549.6) | (1,724.0) | (1,922.6) | (2,138.1) | (2,372.1) |
| Depreciation | (613.4) | (605.7) | (168.3) | - | (336.6) | (698.1) | (830.6) | (1,023.2) | (1,215.9) | (1,408.6) |
| Operating expenses | (3,251.7) | (4,648.2) | (2,868.4) | (2,199.1) | (5,288.9) | (4,733.7) | (5,289.1) | (5,953.7) | (6,662.7) | (7,420.4) |
| Net profit (before tax) | 5,084.6 | 5,812.0 | 2,813.7 | 1,175.1 | 3,767.4 | 4,528.9 | 4,899.8 | 5,254.0 | 5,665.8 | 6,140.9 |
| Income tax | (1,017.0) | (634.3) | (735.2) | (307.0) | (1,042.2) | (414.4) | (498.2) | (539.0) | (577.9) | (623.2) |
| Net profit (after tax) | 4,068 | 5,178 | 2,079 | 868 | 2,725 | 4,115 | 4,402 | 4,715 | 5,088 | 5,518 |

| Statement of financial position | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| MMK million | FY2020 | FY2021 | 1H2022 | 2H2022 | LTM 2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
| **Assets** | | | | | | | | | | |
| Cash and cash equivalent | 66742 | 54,393 | 55,339 | 47,266 | 47,266 | 47,879 | 50,853 | 53,640 | 56,891 | 60,651 |
| Loans and receivables | 141077.8 | 116,733 | 106,981 | 101,647 | 101,647 | 109,484 | 120,433 | 132,476 | 145,723 | 160,296 |
| Prepaid and other receivables | 7,404 | 7,607 | 12,773 | 11,663 | 11,663 | 12,345 | 13,579 | 14,937 | 16,431 | 18,074 |
| Inventories | 42 | 42 | 43 | - | - | - | - | - | - | - |
| Investments | 20,701 | 36,201 | 36,201 | 36,201 | 36,201 | 43,995 | 48,374 | 53,192 | 58,491 | 64,320 |
| Property and equipment | 10,610 | 11,102 | 11,210 | 11,679 | 11,679 | 11,981 | 12,550 | 13,527 | 14,311 | 14,903 |
| Advanced Tax | 794 | 1,415 | 734 | 734 | 734 | 207 | 249 | 269 | 289 | 312 |
| **Total assets** | **247,371** | **227,493** | **223,282** | **209,191** | **209,191** | **225,891** | **246,039** | **268,042** | **292,136** | **318,555** |
| **Equity** | | | | | | | | | | |
| Paid up capital | 24,721 | 24,721 | 24,721 | 24,721 | 24,721 | 24,721 | 24,721 | 24,721 | 24,721 | 24,721 |
| Share premium | 11,846 | 11,846 | 11,846 | 11,846 | 11,846 | 11,846 | 11,846 | 11,846 | 11,846 | 11,846 |
| Statutory reserve | 16,710 | 17,137 | 17,657 | 17,657 | 17,657 | 18,685 | 19,786 | 20,964 | 22,236 | 23,616 |
| 2% reserve (provision) | 2,822 | 3,660 | 4,516 | 4,516 | 4,516 | 4,379 | 4,817 | 5,299 | 5,829 | 6,412 |
| Contingency reserve | 103 | 103 | 103 | - | - | - | - | - | - | - |
| Other reserve | 8 | 3,487 | 3,487 | 3,590 | 3,590 | 3,590 | 3,590 | 3,590 | 3,590 | 3,590 |
| Retained earning | 3,984 | 5,258 | 6,818 | 5,961 | 5,961 | 9,047 | 12,348 | 15,884 | 19,700 | 23,838 |
| **Total equity** | **60,195** | **66,211** | **69,147** | **68,289** | **68,289** | **72,268** | **77,108** | **82,305** | **87,922** | **94,023** |
| **Liabilities** | | | | | | | | | | |
| Deposits from customers | 180,611 | 152,480 | 146,487 | 132,708 | 132,708 | 145,979 | 160,577 | 176,634 | 194,298 | 213,728 |
| Other liabilities | 5,495 | 7,145 | 6,176 | 6,824 | 6,824 | 7,438 | 8,106 | 8,834 | 9,628 | 10,494 |
| Payment order | 54 | 6 | 104 | - | - | - | - | - | - | - |
| Provision for income tax | 1,017 | 1,651 | 1,370 | 1,370 | 1,370 | 207 | 249 | 269 | 289 | 312 |
| **Total liabilities** | **187,176** | **161,281** | **154,136** | **140,902** | **140,902** | **153,624** | **168,932** | **185,738** | **204,215** | **224,533** |
| **Total liabilities and equity** | **247,371** | **227,492** | **223,283** | **209,191** | **209,191** | **225,891** | **246,039** | **268,042** | **292,136** | **318,555** |

## Cash flow statement

| MMK million | FY2020 | FY2021 | 1H2022 | 2H2022 | LTM 2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Operation cash flow** | | | | | | | | | | |
| Net profit | | | | | | 4,115 | 4,402 | 4,715 | 5,088 | 5,518 |
| + Depreciation | | | | | | 698 | 831 | 1,023 | 1,216 | 1,409 |
| Working capital adjustment | | | | | | | | | | |
| (Increase)/ decrease in loan and receivables | | | | | | (7,837) | (10,948) | (12,043) | (13,248) | (14,572) |
| (Increase)/ decrease in prepaid and other receivables | | | | | | (682) | (1,234) | (1,358) | (1,494) | (1,643) |
| (Increase)/ decrease in advance tax | | | | | | 527 | (42) | (20) | (19) | (23) |
| (Decrease)/ increase in deposit | | | | | | 13,271 | 14,598 | 16,058 | 17,663 | 19,430 |
| (Decrease)/ increase in other liabilities | | | | | | 613 | 668 | 728 | 794 | 865 |
| (Decrease)/ increase in payment order | | | | | | - | - | - | - | - |
| (Decrease)/ increase in provision for income tax | | | | | | (1,162) | 42 | 20 | 19 | 23 |
| **Net cash flow from operations** | - | - | - | - | - | 9,543 | 8,316 | 9,123 | 10,020 | 11,006 |
| **Investing cash flow** | | | | | | | | | | |
| Investment in government securities | | | | | | (7,794) | (4,379) | (4,817) | (5,299) | (5,829) |
| Capex | | | | | | (1,000) | (1,400) | (2,000) | (2,000) | (2,000) |
| **Net cash flow from investing** | - | - | - | - | - | (8,794) | (5,779) | (6,817) | (7,299) | (7,829) |
| **Financing cash flow** | | | | | | | | | | |
| Adjustment - 2% reserve | | | | | | (136) | 438 | 482 | 530 | 583 |
| **Net cash flow from financing** | - | - | - | - | - | (136) | 438 | 482 | 530 | 583 |
| **Changes in cash position** | - | - | - | - | - | 613 | 2,974 | 2,788 | 3,251 | 3,760 |

## WACC

| Cost of debt | | |
|---|---|---|
| Cost of debt (Kd) | | MM Lending rate |
| Average tax rate | | MM CIT |
| After tax cost of debt | | |
| Cost of equity (CAPM) | | |
| Risk free rate of return (Rf) | 3.5% | US T Bond 10 yr as at 1.13.2023 |
| Beta (B) | 35.8% | Damodaran indsutry average unlevered beta |
| Equity risk premium | 11.0% | Damodaran equity risk premium less Default Spread |
| Country risk premium | 12.2% | Default Spread |
| Inflation differential | 6.8% | Difference of US and MM Average inflation forecast 2023 to 2026, IMI |
| Company specific risk | 1.5% | Industry practice |
| Cost of equity | 27.9% | |
| Capital structure | | |
| Debt | 0.0% | |
| Equity | 100.0% | |
| Total assets | 100.0% | |
| WACC | 27.9% | |

## Enterprise Value Using DCF Method and Intrinsic Value of Share Price

| WACC | 27.9% % |
| Terminal growth rate | 5.6% % |

7.80% Inflation forecast for 2024, 2025, 2026
3.40% GDP forecast for 2024, 2025, 2026

| | 2023 | 2024 | 2025 | 2026 | 2027 | Terminal year |
|---|---|---|---|---|---|---|
| CFO | 9,542.8 | 8,315.5 | 9,123.1 | 10,019.7 | 11,005.9 | |
| - Capex | (1,000.0) | (1,400.0) | (2,000.0) | (2,000.0) | (2,000.0) | |
| FCFF | 8,542.8 | 6,915.5 | 7,123.1 | 8,019.7 | 9,005.9 | 42,645.1 |
| WACC | 27.9% | | | | | |
| Terminal Growth Rate | 5.6% | | | | | |
| PV Factor | 0.7819 | 0.6113 | 0.4779 | 0.3737 | 0.2922 | 0.2922 |
| N P V | 6679.25 | 4227.46 | 3404.47 | 2996.86 | 2631.24 | 12459.54 |
| Enterprise value as at 15.2.2023 | 32,398.8 | | | | | |
| Net debt adjustment | | | | | | |
| Add: cash | 47266 | | | | | |
| Number of shares | 24720530 | | | | | |
| Intrinsic Value of share price | 3222.6 MMK | | | | | |

| Share Price Of Sensitized Assumption For All Case | | | |
|---|---|---|---|
| | Min | Diff | Max |
| Good case | 3,536 | 303 | 3,839 |
| Base case | 3,223 | 208 | 3,431 |
| Bad case | 2,889 | 116 | 3,005 |

## US- TREASURY BOND

| Date | 1 Mo | 2 Mo | 3 Mo | 4 Mo | 6 Mo | 1 Yr | 2 Yr | 3 Yr | 5 Yr | 7 Yr | 10 Yr | 20 Yr | 30 Yr |
|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| 13/01/2023 | 4.58 | 4.59 | 4.67 | 4.73 | 4.77 | 4.69 | 4.22 | 3.88 | 3.6 | 3.55 | 3.49 | 3.79 | 3.61 |
| 12/01/2023 | 4.57 | 4.59 | 4.66 | 4.74 | 4.76 | 4.66 | 4.12 | 3.79 | 3.53 | 3.48 | 3.43 | 3.73 | 3.56 |
| 11/01/2023 | 4.42 | 4.62 | 4.72 | 4.82 | 4.84 | 4.73 | 4.2 | 3.9 | 3.66 | 3.61 | 3.54 | 3.84 | 3.67 |
| 10/01/2023 | 4.41 | 4.62 | 4.73 | 4.77 | 4.85 | 4.74 | 4.24 | 3.94 | 3.72 | 3.67 | 3.61 | 3.91 | 3.74 |
| 09/01/2023 | 4.37 | 4.58 | 4.7 | 4.74 | 4.83 | 4.69 | 4.19 | 3.93 | 3.66 | 3.6 | 3.53 | 3.83 | 3.66 |
| 06/01/2023 | 4.32 | 4.55 | 4.67 | 4.74 | 4.79 | 4.71 | 4.24 | 3.96 | 3.69 | 3.63 | 3.55 | 3.84 | 3.67 |
| 05/01/2023 | 4.3 | 4.55 | 4.66 | 4.75 | 4.81 | 4.78 | 4.45 | 4.18 | 3.9 | 3.82 | 3.71 | 3.96 | 3.78 |
| 04/01/2023 | 4.2 | 4.42 | 4.55 | 4.69 | 4.77 | 4.71 | 4.36 | 4.11 | 3.85 | 3.79 | 3.69 | 3.97 | 3.81 |
| 03/01/2023 | 4.17 | 4.42 | 4.53 | 4.7 | 4.77 | 4.72 | 4.4 | 4.18 | 3.94 | 3.89 | 3.79 | 4.06 | 3.88 |

## Inflation rate, average consumer prices (Annual percent change)

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Myanmar | 6.4 | 5.7 | 7.3 | 9.1 | 4.6 | 5.9 | 8.6 | 5.7 | 3.6 | 16.2 | 13.3 | 7.8 | 7.8 | 7.8 | 9.175 |
| United States | 1.5 | 1.6 | 0.1 | 1.3 | 2.1 | 2.4 | 1.8 | 1.2 | 4.7 | 8.1 | 3.5 | 2.2 | 2 | 2 | 2.425 |
| | | | | | | | | | | | | | | | 6.8% |

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| Industry Average BETA | | | | | |
|---|---|---|---|---|---|
| Date updated: | 05-Jan-23 | | | | |
| Created by: | Aswath Damodaran, adamodar@stern.nyu.edu | | | | |
| What is this data? | Total Beta (beta for completely undiversified investor) | | | Global | |
| Home Page: | http://www.damodaran.com | | | | |
| Data website: | https://pages.stern.nyu.edu/~adamodar/New_Home_Page/data.html | | | | |
| Companies in each industry: | https://pages.stern.nyu.edu/~adamodar/pc/datasets/indname.xls | | | | |
| Variable definitions: | https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/variable.htm | | | | |

| Industry Name | Number of firms | Average Unlevered Beta | Average Levered Beta | Average correlation with the market | Total Unlevered Beta |
|---|---|---|---|---|---|
| Advertising | 362 | 1.17 | 1.29 | 21.57% | 5.44 |
| Aerospace/Defense | 278 | 1.06 | 1.16 | 24.15% | 4.38 |
| Air Transport | 155 | 0.76 | 1.24 | 25.08% | 3.04 |
| Apparel | 1146 | 0.84 | 0.90 | 17.72% | 4.75 |
| Auto & Truck | 154 | 1.03 | 1.35 | 26.26% | 3.94 |
| Auto Parts | 746 | 1.29 | 1.41 | 25.32% | 5.09 |
| Bank (Money Center) | 596 | 0.44 | 0.88 | 22.89% | 1.91 |
| Banks (Regional) | 800 | 0.358 | 0.56 | 24.80% | 1.44 |
| Beverage (Alcoholic) | 220 | 0.81 | 0.87 | 20.95% | 3.87 |
| Beverage (Soft) | 100 | 0.79 | 0.86 | 18.88% | 4.21 |
| Broadcasting | 135 | 0.74 | 1.06 | 23.17% | 3.21 |
| Brokerage & Investment Banking | 592 | 0.45 | 0.99 | 20.37% | 2.21 |
| Building Materials | 454 | 1.00 | 1.11 | 24.56% | 4.06 |
| Business & Consumer Services | 961 | 1.00 | 1.09 | 22.52% | 4.43 |
| Cable TV | 54 | 0.61 | 1.02 | 24.95% | 2.43 |

**Country and Equity Risk Premiums**

| Date of update: | 5-Jan-23 |
|---|---|

Enter the current risk premium for a mature equity market

Do you want to adjust the country default spread for the additional volatility of the equity market to get to a country premium?

If yes, enter the multiplier to use on the default spread (See worksheet for volatility numbers for selected emerging markets)

| | 5.94% |
|---|---|
| | Yes |
| | 1.41 |

### Frontier Markets (no sovereign ratings)

| Country | PRS Composite Risk Score | ERP | CRP | Default Spread |
|---|---|---|---|---|
| Algeria | 69.25 | 11.13% | 5.19% | 3.68% |
| Brunei | 79.5 | 7.40% | 1.46% | 1.04% |
| Gambia | 65 | 15.43% | 9.49% | 6.73% |
| Guinea | 57.25 | 21.48% | 15.54% | 11.02% |
| Guinea-Bissau | 64 | 17.16% | 11.22% | 7.95% |
| Guyana | 75.75 | 8.70% | 2.76% | 1.96% |
| Haiti | 54.25 | 26.65% | #REF! | 14.68% |
| Iran | 66.5 | 13.71% | 7.77% | 5.51% |
| Korea, D.P.R. | 51 | 26.65% | 20.71% | 14.68% |
| Liberia | 58 | 21.48% | 15.54% | 11.02% |
| Libya | 70.75 | 11.13% | 5.19% | 3.68% |
| Madagascar | 62.5 | 17.16% | 11.22% | 7.95% |
| Malawi | 51 | 26.65% | 20.71% | 14.68% |
| Myanmar | 55.75 | 23.20% | 17.26% | 12.24% |
| Sierra Leone | 53.5 | 26.65% | 20.71% | 14.68% |
| Somalia | 52 | 26.65% | 20.71% | 14.68% |
| Sudan | 43 | 30.63% | 24.69% | 17.50% |
| Syria | 43.75 | 30.63% | 24.69% | 17.50% |
| Yemen, Republic | 48.25 | 30.63% | 24.69% | 17.50% |
| Zimbabwe | 61.5 | 18.88% | 12.94% | 9.17% |