CFA Institute

CFA Institute Research Challenge
hosted by
Mongolian Society of Financial Analysts
Team Vanguards – University of Finance and Economics

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UFE

KHAN BANK

DATE: 12/04/2024
CURRENT PRICE: 1,161 MNT

RECOMMENDATION: BUY | 26.75%
TARGET PRICE: 1,471.55 MNT

INVESTMENT SUMMARY

We initiate coverage on Khan Bank JSC (KHAN) with a **BUY** recommendation based on a 12-month price target of 1,472 MNT using both residual income and relative valuation methods. This target price represents a 26.75% upside from the last close price of 1,161 MNT on December 04, 2024.

Khan bank is the largest of the 5 systemically important banks in the Mongolian banking sector. KHAN has an extensive branch network across the country, it has solidified its position as the largest retail bank in the nation. Banking sector is the heart of its financial system. Banks provide essential financial services such as loans, deposits, and payment systems, which are crucial for the growth of businesses and the overall economy.

INVETSMENT THESIS HIGHLIGHT:

Thesis #1:Khan bank is the most experienced and largest bank in market position.

[1] Khan Bank is the only official monopoly commercial bank in Mongolia, controlling a significant portion of a market in terms of loans, deposits and total assets since 2017. As of 2023, it accounts for 30% of total banking sector assets, 35% of total loans, 30% of total customer accounts and 44% of total net profit (Exhibit 3). Moreover 2023's net income reached 558.8 billion MNT which outshined KHAN's prediction of IPO prospectus by 55%, also almost equal to other 4 heavyweights.

[2] Boasting over 545 locations, KHAN is the primary bank for around 82% of the Mongolian households, especially in rural areas. This extensive reach also positions Khan Bank as a key player in financial inclusion and economic development in Mongolia. This retail-centric strategy reinforce Khan Bank's position as the largest retail bank.

Thesis #2:Financial stability and strong performance

[1] KHAN has demonstrated consistent profitability over the years, with ROE, ROA, and NIM outperforming the sector average. In 2023, Khan Bank's net interest income reached MNT 1.1 trillion, marking a 23% increase from the previous year. As a result, the bank's NIM reached 7.03%, which is 1.72 percentage points higher than the TOP 5 banks' average of 5.31%. KHAN leads in net profit and maintains a dividend policy of distributing at least 40% of net profit as dividends, providing high returns for investors. Additionally, Khan Bank's ROE stood at 31%, 9 percentage points above the TOP 5 banks' average, while its ROA reached 3.46%, exceeding the average by 1.22 percentage points, positioning it as an industry leader across all key metrics.

[2] The share of GLAAs in Khan Bank's total assets has been steadily increasing, reaching 56% as of 2023. Despite the growth in GLAAs, the bank's NPL ratio has been declining, dropping by 1 percentage point from 2019 to 2023, reaching 5.3%, which is 0.7% lower than the sector average. Additionally, the bank's risk coverage ratio reached 128% in 2023, significantly exceeding the TOP 5 banks' average by 44 percentage points. This indicates that the bank has a robust loan loss provision, sufficient to cover its non-performing loans, demonstrating strong credit risk management and efficiency.

Thesis #3: ESG

Khan Bank's ESG was rated as **AAA** "Leader" based on MSCI ESG Rating, which is recognized as an industry leader in effectively managing Environmental, Social, and Governance (ESG) risks and opportunities, setting a benchmark for excellence in its sector. This top-tier rating reflects the bank's exceptional efforts in addressing environmental challenges through initiatives like green bonds, renewable energy financing, and eco-friendly projects, while promoting sustainability and mitigating environmental risks. On the social front, it demonstrates a strong commitment to customer protection, financial inclusion, employee welfare, and community engagement, fostering trust and long-term relationships. Additionally, the bank upholds exemplary governance practices, including transparency, board independence, and ethical business conduct, aligning with the highest standards of corporate accountability. By integrating ESG factors into its strategy, the bank not only strengthens its reputation and stakeholder trust but also ensures resilience, long-term profitability, and sustainable growth, solidifying its position as a reliable and forward-thinking financial leader.

Exhibit 1: KHAN Overview

KHAN Overview	
Market Cap (MNT)	2,220,061,878,000
Shares Outstanding	1,912,198,000
52-Week High (MNT)	1,207
52-Week Low (MNT)	1,008
P/B (TTM)	1.06
P/E (TTM)	3.78
Target price (MNT)	1,471.55
Closing price (MNT)	1,161
Upside	**26.75%**

Source: MSE, Team estimates

Exhibit 2: Share price performance

Source: MSE

Exhibit 3: KHAN's market share
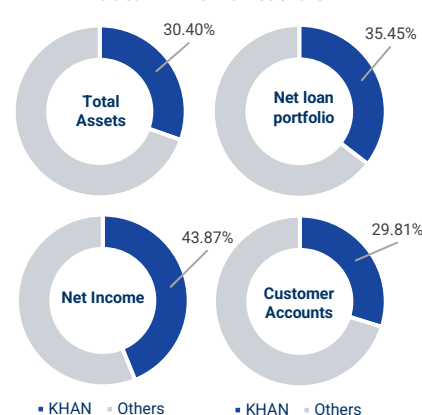
Source: Company Data, BoM

Exhibit 4: Net income of banks /Billion MNT/

Source: Company Data

INVESTMENT CASE IN SIX CHARTS

[1] KHAN'S MILESTONES

1991 — Agriculture Cooperative Bank

2000 — The bank with the most branches

2004 — Introduces its first VISA card

2007 — The first mobile and internet banking service

2009 — Total assets reach 1 trillion MNT

2013 — The first company to reach B2 credit rating by Moody's on par with Mongolia's government

2017 — The first bank to introduce QPay and fingerprint service

2019 — KHAN's 96% of total transaction were made online

2021 — KHAN made rebranding to Prosperity, Sustainability, Innovation and Trust

2023 — Largest IPO in Mongolia's history

Source: Company Data

[2] KHAN'S BRANCH NETWORK

Source: Company Data

KHAN stands as Mongolia's premier commercial bank, recognized for operating the largest and most widespread branch network nationwide.

[3] KHAN'S LIFE CYCLE

START-UP | GROWTH | MATURITY | DECLINE

Source: Company Data
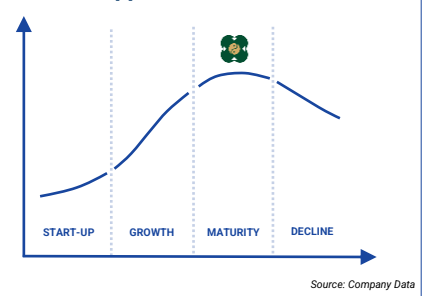
KHAN's maturity ensures stability, consistent income, and sustainable value, making it a reliable choice for long-term investors.

[4] KHAN's PROJECTED GROSS LOAN

GLAAs — NPL

Source: Company Data, Team estimates

KHAN's Gross Loans and Advances are projected to reach 18.91 trillion MNT by FY2029, with a stable Non-performing Loan ratio around 5.44%, showing strong growth and effective risk management.
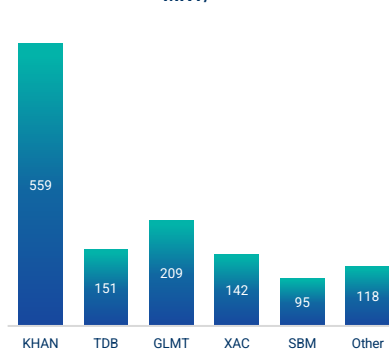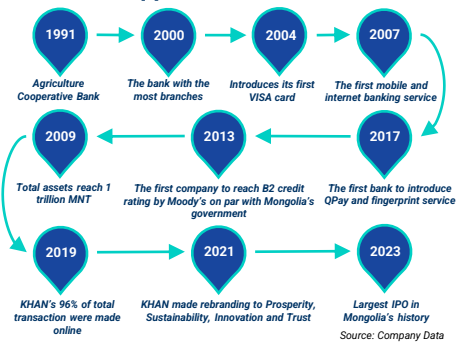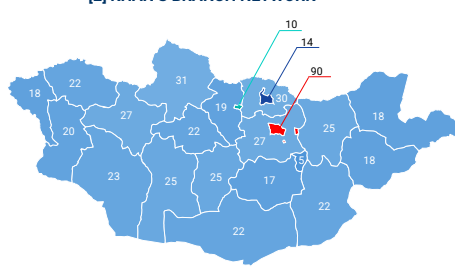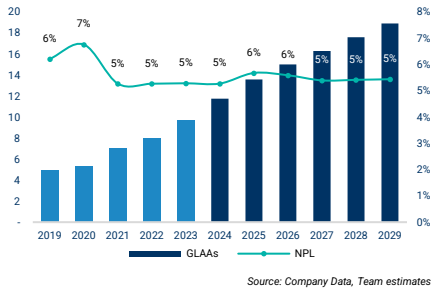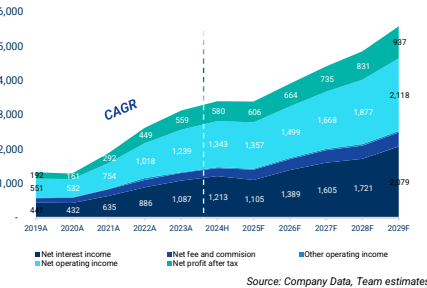
[5] KHAN's INCOME BREAKDOWN

Net interest income | Net fee and commission | Other operating income | Net operating income | Net profit after tax

Source: Company Data, Team estimates

KHAN's unwavering growth trajectory is reflected in its remarkable income increase, solidifying its position as Mongolia's leading financial powerhouse.

[6] KHAN's PROFITABILITY

Net Interest Margin — ROE — ROA

Source: Company Data, Team estimates
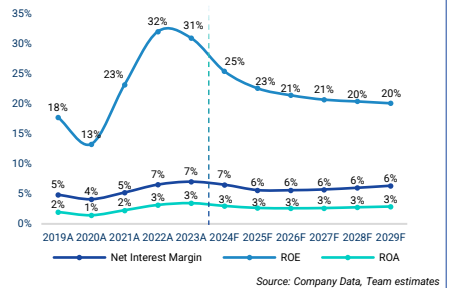
KHAN's exceptional profitability, driven by its operational efficiency, market dominance, and innovative strategies, underscores its strength as Mongolia's premier financial institution.

BUSINESS DESCRIPTION

KHAN was successfully privatized through an international tender in 2003, later becoming "Khan Bank LLC" in 2006. In its more than 30 years of establishment, KHAN continues to prosper in financial performance, known for its reliability, thus innovating and pioneering in digital banking. KHAN is a major player in retail banking, SME banking and corporate banking, providing service to 2.8 million customers.

BUSINESS MODEL

The bank generates its interest income in the following five business segments based on products and services: Retail Banking, SME banking, Corporate Banking, Treasury and others. At the same time, KHAN's other source of revenues is composed of interest income, fees and commissions.

Interest income:

Fundamentally, 85% of the KHAN's revenue is generated from interest-related activities, which highlights the company's strong loan repayment rates. The bank's loan portfolio is diversified, comprising of 11% mortgage, 16% corporate, 34% MSME, and 39% consumer loans, with majority of the interest income coming from retail loans at a staggering 55%, further consolidating its powerhouse in retail banking. Managing debt securities is crucial, as interest income generated from Treasury accounted for than a quarter of KHAN's interest income.

Non-interest income:

One of the other ways the bank generates its revenue is through non-interest income, which accounted for around 15% of KHAN's revenue mounting up to 281 billion MNT in 2023. The predominant non-interest incomes are card service fees, and charges for mobile and internet banking services, 134 billion MNT and 116 billion MNT respectively, both amounting to 89% of total non-interest income. Additionally, revenues from card service fees for corporate and SME banking have nearly doubled compared to last year, a total of 26.8 billion MNT combined in 2023 compared to 14.4 billion MNT in 2022.

BANK STRATEGY

Digital Banking

Khan Bank launched DigiPay on June 3, 2024, and within 3 months, the number of users catapulted to 191,000. In addition, KHAN opened a digital 'DiGi Go' branch in 2023 that broke the concept of traditional banking and fully meets the needs of new generation customers. Electronic POS or DiGi POS application has been successfully introduced into its services, where payments can be easily received anytime and anywhere using contactless card or remote reading technology through NFC. Moreover, KHAN accounted for 74% of all transactions made through internet banking in Mongolia in 2024.

Exhibit 5: Interest income breakdown by segment /Billion MNT/

Retail | SME | Corporate | Treasury | Others

Source: Company Data
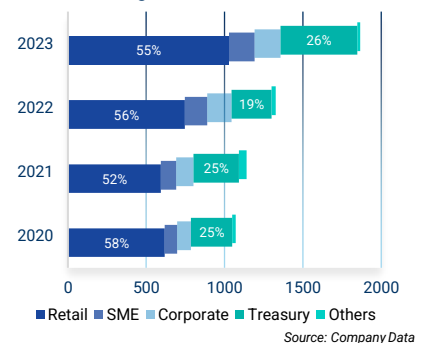
Exhibit 6: Loan portfolio breakdown

Mortgage | Corporate | MSME | Consumer

Source: Company Data
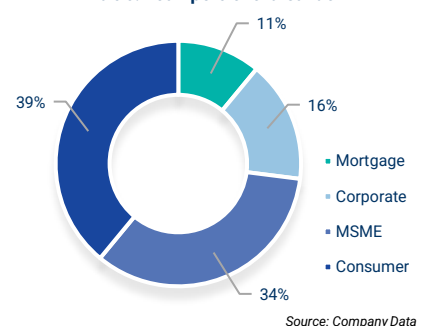
Exhibit 7: Non-interest vs interest income

Non-interest income | Interest income

Source: Company Data
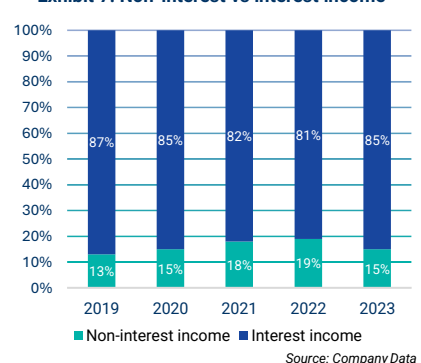
Retail Focused

Khan Bank primarily provides a wide range of financial services to individuals and micro enterprises. As of 2024, consumer loans accounted for 60% of the total retail portfolio, followed by micro business loans (23%) and mortgages (17%). In fact, the total retail loan portfolio as of 2024 saw a dramatic increase of 76% at 7,319 billion MNT compared to 4,156 billion MNT in 2021.

ESG Oriented

Khan Bank offers green business and consumer loans at discounted interest rates in collaboration with government bodies and international organizations. Business loans dominate the green portfolio at 98%, with SMEs accounting for 41% of the total. The bank has implemented measures to enhance energy, heat, and water efficiency while supporting community projects focused on rural development, education, and public health. Ultimately, KHAN Bank successfully organized the first Green and Social Bond issuance from Mongolia in the international market.

INDUSTRY OVERVIEW & COMPETITIVE POSITIONING

MACROECONOMIC OUTLOOK

GDP | Growth takes off

Mongolia's nominal GDP reached 70.4 trillion MNT in 2023, driven by 7.42% economic growth fueled by mining, transportation, construction, processing, and export surges. The economy benefited from expanded production capacity, a growing labor force, and rising public and private sector wages, which boosted household incomes and employment. Mining, a cornerstone of Mongolia's economy, accounted for 90% of total exports, with coal and copper concentrate comprising 76%. The launch of the Oyu Tolgoi underground mine significantly increased copper and gold output, while improved transportation logistics supported export growth. Declining coal production in China, despite its substantial metallurgical coal consumption, further boosted demand for Mongolian coal, driving exports to 70 million tons in 2023, a 118% increase from the previous year.

Household income and spending disparity | Loans Bridge the Gap

By 2024Q3, the nation's average household income climbed to 2.6 million MNT, driven by higher civil servant salaries and improved employment rates. Following this, borrowing surged, with loans backed by savings, pensions, and wages increasing significantly. On the other hand, citizens' outstanding loan balances rose by **40.8%** compared to the same period last year, leading to higher household spending, which averaged 2.7 million MNT. This gap between income and expenses suggests that households are relying on loans to cover their financial shortfalls.

Inflation | Rates Drop, Money Flows

As September 2024, inflation stands at 6.7%, which is within the target range of the BoM (6% ± 2). The decrease in inflation can be attributed to the stabilization of the tugrik exchange rate, the implementation of a tight monetary policy, and stable inflation rates in foreign trade partner countries. Due to the decline in inflation, BoM reduced the policy rate to 10%, set a 55% debt-to-income ratio cap, raised green loans to 10% of loan portfolio, and commercial banks' lending rates also decreased. Consequently, the money supply reached 41.8 trillion MNT, marking a 25.9% increase compared to the same period last year. This growth was mainly driven by an increase in tugrik deposits and current accounts, which grew by 5.7 trillion MNT (38.6%) and 3.8 trillion MNT (51.1%), respectively.

INDUSTRY OVERVIEW

Financial Sector | IPOs Fuel Capital Market Growth

In the first half of 2024, the total assets of Mongolia's financial sector reached 82 trillion MNT. The share of the banking sector's total assets account for 76.3%, including the capital market. The total assets of the capital market increased from 2.7 trillion MNT in 2019 to 11.7 trillion MNT in 2023, achieving a CAGR of 44%. A significant driver was the IPOs of six banks following legislative changes in the banking sector. Meanwhile, non-bank financial institutions grew at a CAGR of 28% after the COVID-19 pandemic, driven by the adoption of fintech, which has enabled a variety of online lending opportunities.

In 2023, Mongolia's market capitalization of the capital market accounted for only 17% of GDP, with limited capacity causing volatile bank share prices and challenges in meeting the law's requirements. With underdeveloped capital markets, most businesses and individuals rely heavily on banks for loans, mortgages, and other financial services, underscoring bank's role as a primary financial intermediary.

Banking Sector

There are 12 commercial banks operating in Mongolia. The total assets of the banking system account for 81.01% of the GDP, and the sector's indicators remain relatively stable.

Exhibit 8: KHAN's transaction share compared to other banks

Others, 16%
Others, 26%
Others, 57%
POS, 44%
Internet Bank, 74%
ATM, 84%

Source: Company Data
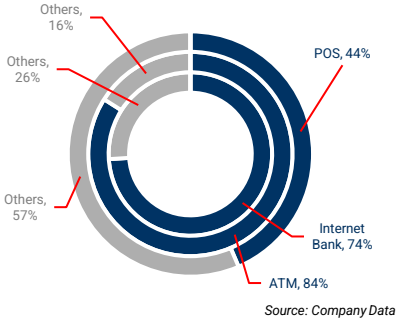
Exhibit 9: GDP composition

5.60 / -4.56 / 1.60 / 5.00 / 7.42

Mining — Other sector — Real GDP

Source: NSO
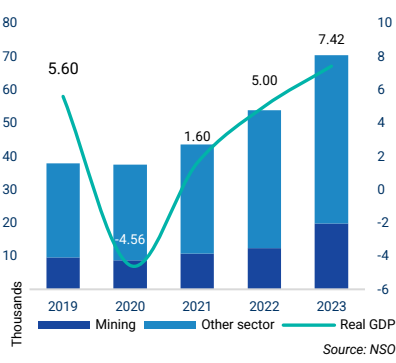
Exhibit 10: Average household income and spending

1,643 / 1,527 / 1,847 / 1,877 / 2,308 / 2,309 / 2,617 / 2,697

Average household income
Average household spending

Source: NSO
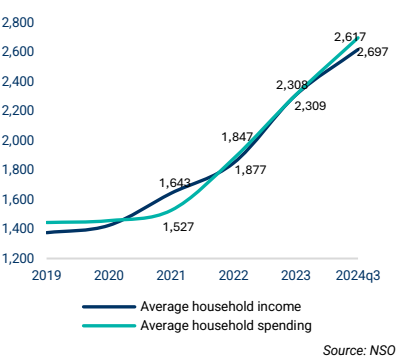
Exhibit 11: Financial industry proportion

88% / 86% / 81% / 80% / 76% / 76%

Banking sector ■ NFBI ■ Insurance ■ Credit union ■ Others

Source: BoM, FRC
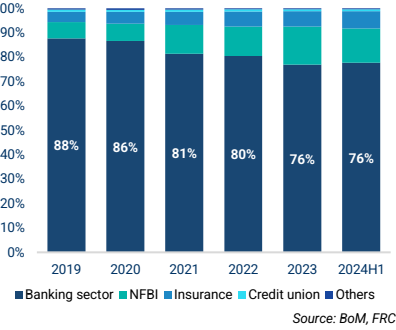
Exhibit 12: Banking sector's number of transactions

500 / 214 / 552 / 584 / 714 / 846 / 731 / 1,041

Digital banking — Card transactions

Source: BoM
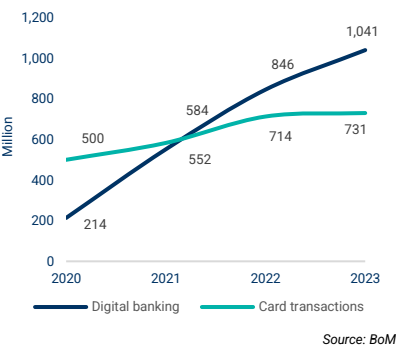
The BoM classifies the five large banks, which hold 90.47% of total assets, 92.55% of total loans, and 85.31% of deposits and savings, as systemically important. Additionally, the concentration level of Mongolia's banking sector, measured by the Herfindahl-Hirschman Index (HHI), is 0.2054, indicating a medium level of concentration in Mongolia's banking sector.

Innovative technology

Fintech advancements are reshaping Mongolia's banking sector, with chatbots, digital channels, and online banks on the rise. In 2022, M Bank became Mongolia's first neobank, while Golomt Bank introduced SocialPay in 2017, followed by Khan Bank launching DigiPay in 2024. Digital banking adoption has surged, with mobile transactions surpassing card transactions in 2022 and 2023, and more people applying for loans online. In 2024, Golomt Bank and Trade and Development Bank launched Apple Pay, enabling international use of the ₮-card via smartphones. Khan Bank introduced AliPay, allowing users to make cross-border money transfers to China directly from their mobile devices.

COMPETITIVE POSITIONING

KHAN Leads the Pack!

[1] As of 2023, Khan Bank remains the market leader across all key performance indicators in the banking sector. The bank accounts for 30.40% of the sector's total assets, 37.84% of gross loans, and 30.61% of deposits, including current and savings accounts. Additionally, Khan Bank holds 33.83% of the sector's total equity and generates 43.87% of the sector's total net income.

[2] While KHAN primarily focuses on the lucrative retail banking sector, TDB specializes in corporate banking, GLMT adopts a balanced approach across retail, SME and corporate, XAC predominantly serves the SME market, and SBM competes directly with KHAN in retail banking. SBM operates through 497 branches and majority locates in rural areas. KHAN made 1,027.34 billion MNT from retail segment which is 50.01% of total interest income of the retail segment. Meanwhile, XAC and SBM's interest income surged collectively from retail and SME segments reaching 268.29 billion MNT and 335.31 billion MNT, respectively.

[3] Despite the varying strategic focus of the top five banks, retail banking remains the primary source of profit across the sector. Khan Bank generated 631.61 billion MNT in pre-tax profit, representing 57.81% of the total pre-tax profit from the retail segment (Appendix...). Khan Bank's strategy of focusing on retail banking has solidified its dominant position in the market. In contrast, TDB and GLMT extend credit to higher-risk segments, whereas Khan Bank limits its exposure to riskier sectors, such as mining, to a maximum of 10% of its total loan portfolio.

FINANCIAL ANALYSIS

BALANCE SHEET DRIVERS

Loan portfolio

[1] KHAN's GLAAs increased from 4.94 trillion MNT to 9.67 trillion MNT 2019 between 2023. GLAAs accounted 48.46% of total assets and increased to 53.35%. Over this period, its market share of total banking sector loans rose significantly from 28.33% (2019) to 36.26% (2023). This growth was driven by the cause of post-COVID recovery. A key factor in this expansion has been KHAN's strategic focus on retail lending, with business loans contribution. Business loans currently account for 48.66% of total loan portfolio, underscoring KHAN's lending to SMEs. KHAN aims to increase this proportion to 52% in coming 2024-2026.

[2] As of 2023, KHAN's allowance for loan losses stands at 652.45 billion MNT, higher than the TOP5 average of 314.33 billion MNT. Despite having a larger allowance compared to its peers, KHAN demonstrates resilience in its loan portfolio management. The allowance for loans relative to GLAAs is 6.75%, indicating that the bank maintains a robust buffer while managing a sizable portfolio. Additionally, the proportion of provisions to GLAAs is 0.96%, further underscoring KHAN's prudent risk management practices. In comparison, peer banks such as XAC and SBM have not accounted any provisions for their loan portfolios, highlighting a key differentiator in KHAN's approach to safeguarding against potential credit risks. This proactive stance not only reflects KHAN's conservative risk management framework but also positions the bank more favorably in terms of financial stability and resilience compared to its competitors.

[3] Risk coverage ratio, measuring how well allowance for loan loss cover NPLs, the average Risk Coverage ratio of the top five banks rose steadily from 72.41% in 2019 to 83.61.% by 2023, while KHAN consistently exceeded 100% since 2019, rising from 101.43% in 2019 to 127.54% in 2023. In addition, Khan Bank has consistently maintained a lower NPL ratio than the sector, with the 2023 ratio at 5.29% compared to the sector average of 6.48%, showing its effective credit risk management.

Exhibit 13: Porter's 5 Forces

Source: Team estimates
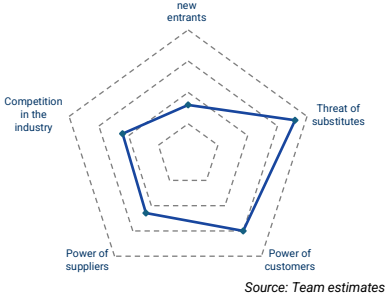
Exhibit 14: Banking sector's key performance by bank

Source: Companies' data
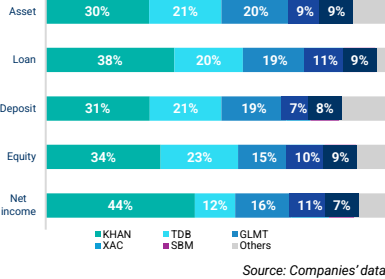
Exhibit 15: TOP 5 bank's interest income by segment

Source: Companies' data
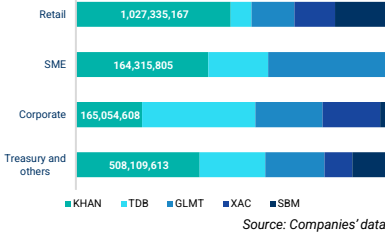
Exhibit 16: KHAN's Gross loan

Source: Company Data, Team estimates
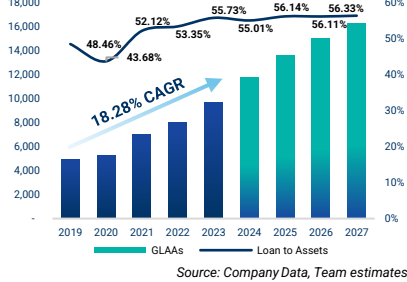
Exhibit 17: KHAN's Loan provision and allowance

Source: Company Data, Team estimates
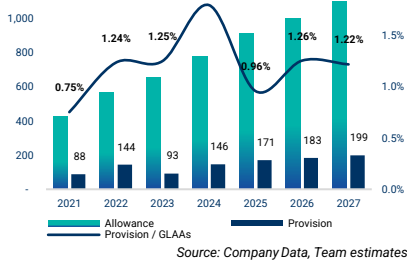
Exhibit 18: TOP 5 bank's risk coverage ratio

Source: Companies'Data, Team estimates
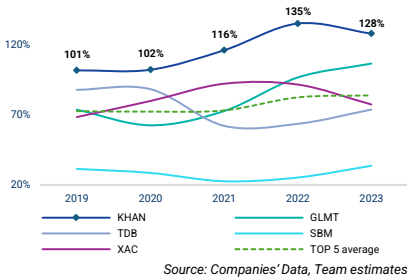
Liabilities

[1] In 2023, KHAN's total customer deposits amounted to 12.81 trillion MNT. Of this, low-cost deposits, primarily current accounts, accounted for 36.32% of the total. Deposits represented 83.93% of the bank's total liabilities. However, the bank's reliance on customer deposits is gradually decreasing due to its diversification of funding sources, including borrowing from foreign institutions. This shift has strengthened KHAN's financial stability and reduced dependency on traditional funding channels.

[2] KHAN's credit ratings have improved, with Moody's assigning a B2 rating and Fitch rating the bank at B+, reaching a previous high. These ratings reflect the bank's sound financial position and prudent risk management strategies. With diversified funding and a stable deposit base, KHAN is well-positioned for sustainable growth and financial stability in the coming years.

Capital Adequacy

KHAN Bank has consistently maintained a strong capital position, exceeding the regulatory minimum requirement of 12.00%. In 2023, its CAR was 18.63%, compared to the average of 18.67% among its top 5 peers, highlighting the bank's effective capital management. This solid financial position makes KHAN resilient to potential losses and economic downturns. The bank has also shown a steady increase in net profit margins year-over-year. With an NPL ratio of 5.29%, lower than the sector's 6.48%, KHAN is effectively managing its risks and ensuring capital adequacy. This prudent approach to capital adequacy makes it an attractive option for investors.

Liquidity Ratio

According to the Bank of Mongolia's prudential ratio criteria, the current ratio should be greater than 25%. The TOP 5 banks in Mongolia have been able to meet this requirement every year, and Khan Bank is the leader among the TOP 5 banks. Khan Bank is also the only bank that has performed better than the average of the TOP 5 banks every year for the past 5 years. This ratio is designed to ensure the bank's ability to meet its customers' initial demands and to maintain a balanced maturity and structure of the bank's assets and liabilities.

Income Breakdown and CIR

KHAN's interest income has consistently grown from 441.35 trillion MNT to 1,087.42 trillion MNT, between 2019 to 2023, reflecting its focus on core banking operations. Despite a 50% reduction in internal transfer fees in the second half of 2023, showing no sign of stop, it reached an astounding 281 billion MNT — nearly matching the combined 285 billion MNT of the other four systemically important banks.

Other income contributed an average of just 2.57% of total operating income during this time, underscoring its minimal impact. KHAN's cost-to-income ratio dropped from 50.12% in 2018 to 37.76% in 2023. Despite having the highest number of branches, employees among the TOP5, its ratio remains below the sector average of 43.28%–54.26%, highlighting their cost management has improved effectively.

Profitability and Dupont breakdown

Since 2019, KHAN's total deposits have grown at a CAGR of 14.85%, surpassing the 13.85% CAGR of total assets, reflecting strong customer confidence. This growth has increased the equity multiplier, boosting ROE. From 2018 to 2023, ROA rose from 2.10% to 3.46%, and ROE climbed from 19.07% to 30.98%, leading the sector. These gains were driven by a net profit CAGR of 26.65%. While NIM declined from 5.44% in 2018 to 4.11% in 2020 due to COVID-19, it improved from 2021 onwards. Key factors included stopping interest payments on current and non-term deposits and the Bank of Mongolia's policy rate hike to 13% in 2022, pushing NIM to 7.03% by 2023.

Exhibit 23: TOP 5 bank's DuPont analysis by end of the 2023
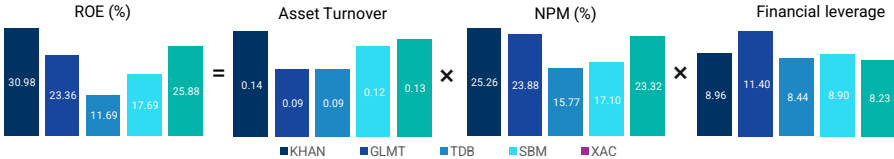
Source: Company's Data, Team estimates

CAMELS ratio analysis

In 2023, KHAN ranked first among TOP5 in terms of asset quality, profitability, liquidity, and sensitivity, while it ranked third in terms of management quality (Exhibit 24). The bank's large number of branches affected the bank's (operating expenses/ total assets) and (total assets per branch), leading to its ranking in third place. However, KHAN is leading among the TOP5 in terms of net profit per employee. KHAN has demonstrated strong financial performance over the years, with improving asset quality, profitability, and liquidity. While its capital adequacy has slightly declined, the bank has enhanced provisions for loan losses and reduced market risk exposure. Overall, the CAMELS indicators highlighting KHAN has domestic monopoly with minimal threat of competition.

Exhibit 19: KHAN's customer accounts and leverage
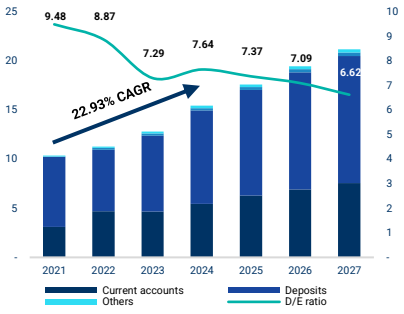
Source: Company Data, Team estimates

Exhibit 20: KHAN's capital adequacy ratio
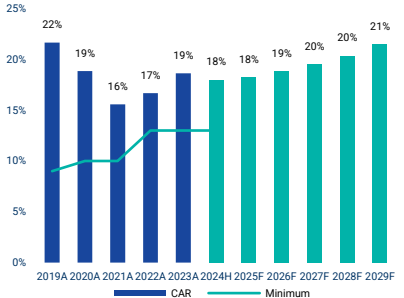
Source: Company Data, Team estimates

Exhibit 21: Liquidity ratio for TOP 5 banks
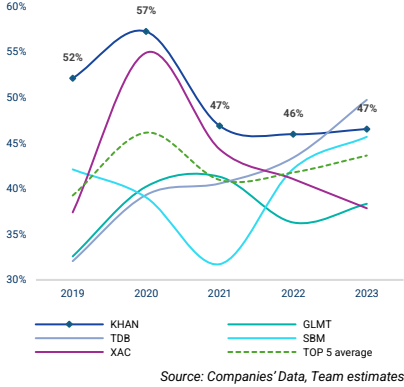
Source: Companies' Data, Team estimates

Exhibit 22: KHAN's CAMELS rating
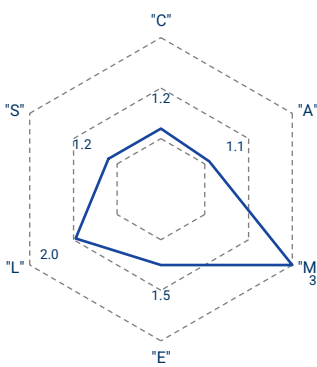
Source: Company data, Team estimates

Exhibit 24: TOP 5 Bank's CAMELS rating

	KHAN	GLMT	TDB	SBM	XAC
"C"	1.2	2.4	1.7	1.1	1.1
"A"	1.1	1.6	2.5	2.5	1.4
"M"	3.0	2.5	2.4	3.3	2.7
"E"	1.5	2.1	3.4	2.5	1.8
"L"	2.0	2.0	1.5	2.1	3.4
"S"	1.2	2.6	2.0	2.6	3.0
Weighted Average	1.65	2.14	2.18	2.25	2.14
Ranking	I	III	IV	V	II

Source: Companies' data, Team estimates

VALUATION

We issue a **BUY** recommendation on KHAN with a 52-week target price of 1,471.55 MNT, representing an upside potential of 26.75% from the closing price of 1,161 MNT per share as of December 4, 2024 (Appendix C-1). Our target price incorporates a weighted average of intrinsic and relative valuation methodologies, including the residual income model [60%] and relative valuation [40%]. Additionally, we used the dividend discount model, an income approach, to reinforce our BUY recommendation. However, for financial institutions, the traditional discounted cash flow model commonly used for manufacturing companies is not a suitable approach due to differences in capital structure.

Base Projection:

The bank's key balance sheet accounts are loans and advances to customers and customer accounts, while the key income statement accounts are interest income and interest expense. We began our forecasts with loans and advances to customers, which were estimated using a hybrid approach. During the forecast period, gross loan and advances (GLAAs) are expected to grow annually by an average of 11.84% using the top-down method and 12.08% using the bottom-up method. The loan-to-deposit ratio was used to determine customer accounts, which are projected to grow at a 9.74% CAGR over the forecast period. Other funding sources were then identified, and total liabilities were calculated, followed by asset account estimations.

Interest income was calculated using interest-earning assets, while interest expenses were based on interest-bearing liabilities. The forecast period will see a decrease in the average asset yield from 11.58% (2023) to 10.94%, while the average liability cost is expected to rise slightly from 7.91% (2023) to 7.98%. This allows for a comprehensive understanding of the bank's financial outlook and performance.

INCOME APPROACH

Residual Income Model:

The residual income model (RIM) values a company by summing its book value per share and the present value of expected residual incomes. The RIM is particularly suitable for valuing financial institutions as it directly links a firm's profitability to its equity base, accurately capturing economic value creation while avoiding the complexities of free cash flow and over-reliance on terminal value assumptions. We estimated Khan Bank's future residual income based on the forecasted statements, determining it as the difference between net income and the equity charge for each reporting period. The equity charge was calculated as the product of the beginning-of-period (BoP) equity and the forecasted cost of equity. Using a two-stage RIM, the valuation resulted in a target price of 1,598.61 MNT per share, representing an upside of 37.69 % from the last closing price (Appendix C-2). The discount rate applied was the cost of equity, set at 19.29% for the forecast period and 20.29% for the terminal horizon (Appendix C-4), with a terminal growth rate of 4.06% (Appendix C-5).

Dividend Discount Model:

The dividend discount model (DDM) is most suitable when a company's outlook heavily depends on small shareholders' expectations. In the case of Khan Bank, the publicly offered share is relatively small at 10%, and the company has a limited dividend history, having declared dividends only once since its IPO. Therefore, the DDM was used solely to validate our valuation. In this approach, we assumed that Khan Bank would maintain its dividend policy of distributing no less than 40% of annual net income to shareholders. Accordingly, we projected a consistent 40% dividend payout ratio for each year. To calculate the terminal value under the DDM, we used a terminal P/B multiple of 0.98x based on the equity at the end of 2029. The terminal P/B multiple was derived from the projected ROE at the end of 2029, a terminal growth rate of 4.06%, and a cost of equity of 21.86% for the terminal period. As a result, Khan Bank's per-share value was estimated at 1,577.61 MNT, representing an upside of 35.88% from the last closing price (Appendix C-3).

Cost of Equity:

The cost of equity was calculated using the Capital Asset Pricing Model (CAPM), with a risk-free rate of 9.73%, a beta of 0.68 for the forecast horizon and 0.75 for the terminal horizon, and an equity risk premium (ERP) of 14.11%. As a result, the forecast and terminal cost of equity were determined to be 19.29% and 20.29%, respectively.

Terminal Growth Rate:

The terminal growth rate was calculated by taking a weighted average of four key factors: long-term GDP growth of 4.49%, long-term average inflation of 7.90%, Mongolia's long-term population growth of 1.24%, and long-term growth of the Mongolian banking industry at 4.68%. As a result, Khan Bank's stable growth rate beyond 2029 was determined to be 4.06%.

Exhibit 25: Valuation summary

Valuation Summary		
Method	**Weight**	**Share price**
Residual Income Model	60%	1,598.61
Relative Valuation	40%	1,280.96
Dividend Discount Model	0%	1,577.61
Target price		**1,472.19**
Last close		1,161
Premium to last close		26.75%

Source: Team estimates

Exhibit 26: Valuation Football Field

52 week	1,008.00	1,207.00
RIM	1,062.70	1,895.62
DDM	1,032.52	1,885.05
P/E (F)	1,010.90	2,642.93
P/TBV	556.99	1,885.18
P/B	525.07	1,750.22
P/E	718.54	2,186.41

- - - Target price   - - - Current price

Source: Team estimates
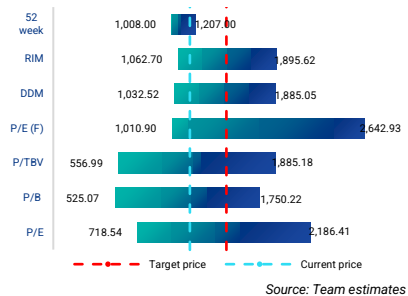
Exhibit 27: Cost of equity

Cost of Equity		
	Forecast	**Terminal**
Risk-free rate	9.73%	9.73%
Beta	0.68	0.75
Equity Risk Premium	14.11%	14.11%
Cost of Equity	**19.29%**	**20.29%**

Source: Damodaran, Team estimates

Exhibit 28: Terminal growth rate

Terminal Growth Rate		
	Weight	**Value**
Long term GDP growth	45%	4.49%
Long term average inflation rate	10%	7.90%
Mongolian long run population growth	25%	1.24%
Long term Mongolian banking industry growth	20%	4.68%
Weighted average		**4.06%**

Source: IMF, Statista

Exhibit 29: Residual income model

Residual Income Model	
Terminal Value of RIM	622,260
PV of Terminal Value	257,590
Sum of Discounted RI	329,383
BoP Equity	2,469,891
Equity Value	**3,056,864**
Number of shares outstanding	1,912,198,000
Implied share price	**1,598.61**
Last close	1,161.00
Premium to last close	37.69%

Source: Team estimates

Exhibit 30: Dividend discount model

Dividend Discount Model	
Terminal Value of DDM	5,344,397
PV of Terminal Value	2,212,363
Sum of Discounted Dividends	804,345
Equity Value	**3,016,708**
Number of shares outstanding	1,912,198,000
Implied share price	**1,577.61**
Current price	1,161.00
Premium to last close	35.88%

Source: Team estimates

MARKET APPROACH – RELATIVE VALUATION

We applied the market approach using the following ratios: Price-to-Earnings [50%], Price-to-Book [40%], and Price-to-Tangible Book Value [10%], utilizing both TTM and forward P/E [0%] ratios. As a result, the unit share price of Khan Bank is 1,280.96 MNT, representing 10.33% upside from the last closing price (Appendix C-6). For this approach, we initially selected 29 retail-focused and regional banks from countries with similar GDP growth to Mongolia. From these banks, we considered market capitalization, total assets, and net income, and ultimately chose 16 companies (Appendix C-7). Then, from the 16 companies, we excluded 7 companies that had negative values for the key ratios (P/E, P/B, and P/TBV), and conducted the relative valuation using the remaining 9 companies.

Normalized Trailing P/E

The P/E ratio is closely related to long-term stock returns and is one of the most widely used ratios by investors, as it provides the most recent and relevant information about the company. For Khan Bank, the EPS has grown relatively inconsistently from 87.04 MNT in 2020 to 307.20 MNT in 2023, so we use the average Return on Equity over the last 5 years to compute the normalized P/E. Khan Bank's stock is currently trading at a TTM P/E of 3.78x, which represents a 42.50% premium compared to the average of the selected companies, which stands at 5.39x. Based on this method, the share price is 1,382.90 MNT (Appendix C-6).

Forward P/E

The Forward P/E ratio uses the projected EPS for the next 12 months, in contrast to the Trailing P/E, which is based on historical EPS. It is used when past EPS may not accurately reflect future performance. For Khan Bank, the projected EPS for the next year is 316.90 MNT, based on the estimated income statement. As a result, Khan Bank's stock is trading at a forward P/E of 3.66x, which is 50.88% lower than the average of the selected companies, which is 5.53x. Based on this method, the share price is 1,751.74 MNT (Appendix C-6).

Trailing P/B

The P/B ratio is a relatively stable indicator with a high ability to explain stock returns and is a key metric for financial institutions. During market volatility, the P/B ratio compares the company's market value to its book value, making it effective in determining the true value of a company. Khan Bank's stock is currently trading at a trailing P/B of 1.06x, which represents a 1.34% discount compared to the average of the selected companies, which is 1.08x. Based on this method, the share price is 1,176.54 MNT (Appendix C-6).

Trailing P/TBV

The P/TBV ratio reflects the real value of a company by using tangible assets only, providing a more realistic and reliable valuation. This ratio is particularly suitable for companies with significant tangible assets, such as financial institutions that hold large amounts of loans, securities, and other material assets. Additionally, the P/TBV ratio more accurately reflects the impact of risky assets and helps investors assess the financial reliability of the company. Khan Bank's stock is currently trading at a trailing P/TBV of 1.08x, which represents a 2.41% premium compared to the average of the selected companies, which is 1.11x. Based on this method, the share price is 1,188.95 MNT (Appendix C-6).

Sensitivity Analysis

We conducted a sensitivity analysis on RIM valuation by changing key factors including terminal and forecast cost of equity, and terminal growth rate to see consequences on our valuation.

INVESTMENT RISKS

RISK DEFINITION	MITIGANT
MR1: Mongolia's economic growth may fall short of expectations (Impact: MEDIUM, Probability: LOW) Mongolia's heavy reliance on the mining sector, export comprising for 75% of GDP, makes it highly vulnerable to commodity price. Metallurgical coal price have declined four times since 2022. Starting in 2024, rising energy costs, increased imports and substantial foreign investment large-scale development projects could lead to current account deficit, hindering growth.	**Mitigant**: Despite the declining prices of metallurgical coal, a key export for Mongolia, the country's export volume continues to set new records annually. This is primarily driven by strong and growing demand in China, the sole major importer of Mongolian coal. Oyu Tolgoi's undermine operation began and copper and gold is extraction increasing and boosting the export in the following years. This presents a mitigating factor for Mongolia's reliance on the mining sector, as continued high export volumes can offset some of the negative impacts of falling prices.

Exhibit 31: Relative valuation output

Ticker	P/E (TTM)	P/E (F)	P/B	P/TBV
BAY.BK	5.89	6.26	0.48	0.52
BRD.RO	8.25	8.34	1.44	1.56
TSKB	3.90	3.62	1.20	1.07
ASBN	4.01	4.13	1.20	1.18
LHV1T	8.52	7.94	1.60	1.76
UJJIVA	5.97	5.49	1.17	1.17
ALBRK	2.96	3.25	0.84	0.87
SAB1L	6.20	7.53	0.95	1.03
SKBNK	2.80	3.19	0.80	0.83
Mean	5.39	5.53	1.08	1.11
Median	5.89	5.49	1.17	1.07
	1,382.90	1,751.74	1,176.54	1,188.95
	50%	0%	40%	10%

Implied share price	1,280.96
Last close	1,161
Premium to last close	10.33%

Source: Morningstar, Team estimates

Exhibit 32: Monte Carlo simulation

Current price Target price

83.36% BUY

Source: Team estimates
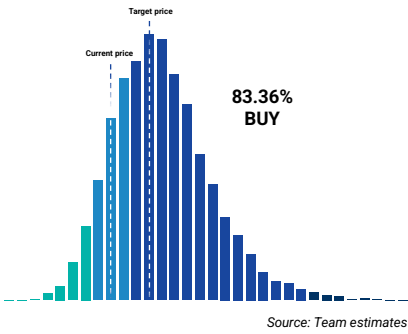
Exhibit 33: Sensitivity analysis

Forecast Cost of Equity	Terminal growth rate				
	2.06%	3.06%	4.06%	5.06%	6.06%
17.29%	1,821.14	1,837.75	1,856.40	1,877.51	1,901.58
18.29%	1,697.43	1,709.58	1,723.23	1,738.68	1,756.30
19.29%	1,581.53	1,589.58	1,598.61	1,608.84	1,620.50
20.29%	1,472.93	1,477.19	1,481.97	1,487.38	1,493.55
21.29%	1,371.15	1,371.92	1,372.78	1,373.75	1,374.85

Terminal Cost of Equity	Terminal growth rate				
	2.06%	3.06%	4.06%	5.06%	6.06%
18.29%	1,596.02	1,606.08	1,617.55	1,630.75	1,646.11
19.29%	1,588.36	1,597.32	1,607.46	1,619.02	1,632.33
20.29%	1,581.53	1,589.58	1,598.61	1,608.84	1,620.50
21.29%	1,575.41	1,582.68	1,590.79	1,599.91	1,610.22
22.29%	1,569.90	1,576.50	1,583.83	1,592.01	1,601.20

Source: Team estimates

Exhibit 34: Risk matrix

Source: Team estimates

RISK DEFINITION	MITIGANT

MARKET

MR2: BoM is Dovish Monetary Policy Stance (Impact: HIGH, Probability: MEDIUM)
BoM has been adjusting mandatory reserve requirement of banks in tugriks deposit in alignment with its policy rate. However, in Q3 2024 for the first time, the reserve requirement shifted in the opposite direction of the policy rate. outlook implemented three rapid 300 bps rate cuts in 2024, signaling that the central bank is prioritizing lower interest rates over expanding the money supply. Looking ahead to 2025, the BoM's expected to maintain a dovish monetary policy stance to support medium-term economic growth and boost business lending. The policy rate is projected to decrease to 9% in the second half of 2025 and is likely to be held at that level in the near term to ensure a conducive environment for economic recovery and credit growth.

Mitigant: In 2025, the salaries and pensions of civil servants are planned to be increased by around 6% in line with the inflation rate, which is likely to fuel inflation. The weakening of the country is budget, the decreasing base returns of the tugrik, and the narrowing gap between domestic and foreign interest rates are likely to lead to dollarization in the domestic market. This, along with capital outflows, will increase the pressure on the tugrik's exchange rate, further limiting the space for the Mongol Bank to continue rate cuts. These potential risks will pose significant challenges to the outlook of monetary policy. **Valuation impact:** our monte carlo simulation is key driver is NIM and it indicates in the worst case scenario 6.43% sell.

MR3: Intensifying Competition with Fintech (Impact: LOW, Probability: HIGH)
KHAN, as a traditional bank, faces increasing competition from Non-Bank Financial Institutions (NBFIs). As of Q2 2024, NBFIs' retail loan reached MNT 4.1 trillion, marking a 49.3% increase compared to the same period last year, and a 5.7-fold increase since the end of 2018. The rise of new and agile fintech companies is further intensifying the competition. NBFIs attract borrowers by offering low collateral requirements and fast approval processes, growing demand for quick access to loans. In 2024Q2 NBFIs represent 13.6% of the total loans and 9.3% of the total assets in the banking sector. (Exhibit…)

Mitigant: Khan Bank can mitigate its competition with NBFI by leveraging its strength and implementing strategies to differentiate itself. NBFI's often operate in areas like microfinance, consumer loans, and certain fintech solutions. Introducing loyalty or reward programs for consumers using Khan Bank's digital banking services could increase customer retention and differentiate Khan Bank's services from NBFIs.

MR4: The financial system may face risks due to interconnectedness (Impact: LOW, Probability: MEDIUM)
The average debt-to-income (DTI) ratio for individuals with multiple loans registered in the credit information database of banks and other financial institutions is 79.8%. The Bank of Mongolia is reducing the DTI for consumer loans to 60-55%. This could reduce demand for loans and lead to repayment pressure for those with high DTI loans from banks and other institutions. (Exhibit…..)

Mitigant: Khan Bank can mitigate risks by diversifying its loan portfolio, strengthening credit assessments, offering debt restructuring, and leveraging data analytics to monitor systemic risks. Additionally, collaborating with regulators and educating borrowers on financial management can ensure compliance and reduce over-indebtedness.

REPUTATIONAL

RR1: Shareholder Concentration (Impact: MEDIUM, Probability: MEDIUM)
HS Holdings owns 40.99%, HS International 8.78%, Tavan Bogd Holdings 22.78%, and D.Hulan 13.22% of KHAN's shares. HS Holdings and HS International share ownership, and Tavan Bogd Trade is D.Hulan's family company, indicating common interests. As a result, HS Holdings must sell 29.77% of its shares, and Tavan Bogd Holdings 16%. Reducing sector shareholding and improving governance are crucial for long-term stability, but the bank cannot meet legal requirements. Two major investors control 85.77% of the shares, concentrating too much power and potentially harming small shareholders' interests.

Mitigant: KHAN is required to comply by actively seek investments from foreign investors, which would not only broaden its ownership base but also enhance its credibility and market standing. Additionally, conducting an IPO on international stock exchanges provides an opportunity to access a larger pool of institutional and individual investors.

RR2: Backlash risk (Impact: MEDIUM, Probability: LOW)
There is a risk of spreading unverified and misleading information about banks through mass and social media , which could weaken customer trust, lead to customers withdrawing their deposits, and even refusing bank services, which could negatively impact the bank's normal operations and reputation.

Mitigant: To address backlash risk, Khan Bank should proactively monitor social and mass media for misinformation, quickly respond with accurate information, and engage in transparent communication to build trust. Strengthening public relations, promoting financial literacy, and enhancing crisis management strategies can further safeguard its reputation and customer confidence.

FIRM

FR1: Instable income (Impact: LOW , Probability: MEDIUM)
Khan Bank's fee and commission income accounted for 11.24% of total revenue in 2019 and 12.73% in 2023. As financial services become digital and new companies entering the financial sector offer free online services and become recognized in the market, Mongolia may follow international standards. Also, due to the bank's 50% reduction in interbank transfer fees, fee and commission income is expected to grow less than historically. Therefore, we estimate that fee and commission income will be volatile and will account for 9.8% of the bank's total revenue in 2029.

Mitigant: Khan Bank can focus on diversifying its revenue streams by developing new financial products and services. Additionally, investing in innovative digital solutions and expanding customer outreach can help maintain competitive positioning and reduce reliance on traditional fee-based income.

FR2: Concentration of credit sector (Impact: HIGH Profitability: LOW)
[1] The majority of Khan Bank's total loans are made up of loans to individuals. The repayment of loans to individuals is directly related to economic conditions, and there is a risk of loan quality deteriorating when economic difficulties arise, inflation increases, and unemployment rises. It takes more effort to repay small amounts and large numbers of loans to individuals, and it takes longer to repay substandard loans.
[2] The volume of loans provided by Khan Bank to the trade and services sector is 21.33 percent. If the bank provides large loans to individuals and business organizations with high interest rates, this may reduce the purchasing power of individuals when inflation increases, which may negatively affect loan repayment.

Mitigant: Effective mitigation strategies, such as diversification and provisioning, could instill investor confidence, limiting stock price volatility. The volume of loans provided by the bank to key sectors driving economic growth has steadily declined in recent years. Strengthening the collaboration between the banking and mining sectors has the potential to attract increased foreign investment, enhance the nation's economic competitiveness, and drive the development of businesses and services linked to the mining industry. These developments would ultimately boost the demand for bank loans and support sustained economic growth.

Exhibit 35: NIM Monte Carlo

WCS: 6.43% SELL

Source: Team estimates
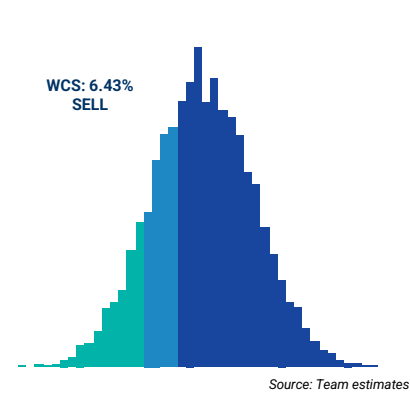
Exhibit 36: NBFIs total asset and loan

Total asset — Total loan

Source: Team estimates
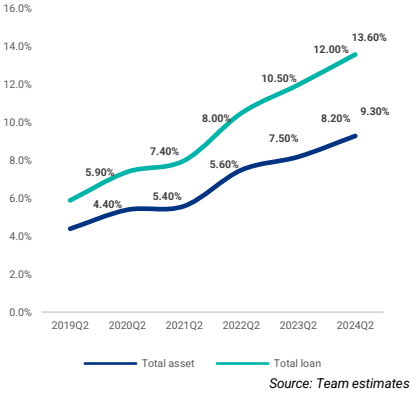
Exhibit 37: Loan interconnectedness

Bank loan		Loans from other institutions	
12.9	7.6	2.3	1.5

Dual loan

Source: Team estimates
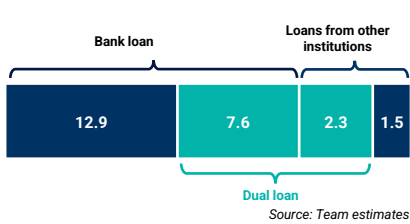
Exhibit 38: Fee and commission income to revenue

Source: Team estimates
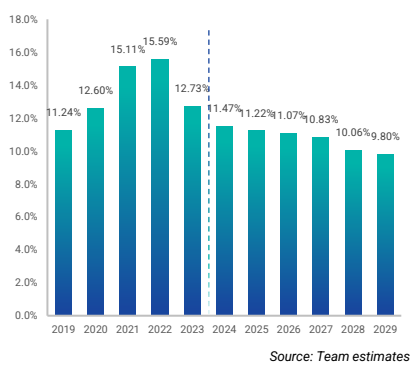
Exhibit 39: KHAN's loan by sector

Sectors	2022	2023
Individuals	39.61%	45.41%
Trade and commerce	20.97%	21.33%
Construction	8.21%	6.90%
Processing	5.52%	5.25%
Agriculture	5.10%	5.25%
Small private enterprises	9.26%	4.67%
Transportation	3.06%	2.63%
Real estate	2.14%	2.02%
Mining	**1.67%**	**1.51%**
Health and social organizations	0.64%	0.60%
Other	3.81%	4.44%

Source: Team estimates

ENVIRONMENTAL, SOCIAL AND GOVERNANCE

KHAN received an ESG assessment score of 8.606 out of 10, earning a AAA "Leader" rating (Exhibit 40).

Methodology: The MSCI ESG Ratings determined the score, with weights of Environment (12.9%, Appendix D-2), Social (54%, Appendix D-3), and Governance (33.1%, Appendix D-4). Key Issue weights were based on the MSCI "ESG Industry Materiality Map" (Exhibit 41). Environmental and Social scores combined Exposure and Management Scores (Exhibit 42), aggregated into Pillars via weighted averages. Governance used a deduction-based model (Exhibit 42). Eventually, the final ESG Score and Letter Rating were derived (Exhibit 42).

ENVIRONMENTAL

Financing Environmental Impact

By the end of 2023, ESG risk assessments were completed for 336 loan applications totaling 915.6 billion MNT. Of these, 316 applications (746 billion MNT) underwent standard ESG assessments, three underwent detailed ESG analyses, and 17 applications (54.8 billion MNT) were approved. Energy efficiency loans constitute the largest share of the green loan portfolio at 66.7% (Exhibit 43). The credit policy includes financing products, technologies, or services that enhance energy efficiency, requiring projects to achieve at least 20% energy or CO_2 savings. Examples focus on industrial and building sectors, which consume over 85% of Mongolia's energy. Furthermore, Khan Bank aligns with ICMA GBP standards, implementing a structured evaluation process, standard credit procedures, and external assessments for higher-risk loans. In 2023, Khan Bank raised $277.8 million in funding to contribute to sustainable development from 42 global investors and became the first bank in Mongolia to issue a Green Bond ($60 million), which received an "Excellent" rating from Sustainable Fitch. Under the Green Bond framework, new products include loans for green projects, energy-efficient housing, green autos, and environmental improvements.

SOCIAL

Human Capital Development

For the eighth consecutive year, the "Employee Satisfaction Survey" was conducted in collaboration with an external organization. The results revealed a leadership effectiveness score of 79.1% and a staff engagement score of 82.7%, indicating steady improvement. In 2022, the BoM approved the "Khan Bank Employee Share Purchase Program," which allocated 80,848,750 shares to 4,136 employees, following a resolution by the shareholders. Finally, Khan Bank received recognition for its commitment to the Ten Principles of the United Nations Global Compact, focusing on Human Rights, Labor, the Environment, and Anti-Corruption.

Consumer Financial Protection

In 2023, personal finance training on topics like the stock market, long-term savings, and retirement was customized by age, gender, profession, and education, aligning with client organizations' needs. Moreover, the "World Money Week-2023" campaign, organized by key financial institutions, reached 49,000 citizens and 12,440 youth via 540 branches nationwide. Meanwhile, of 1.19 billion financial transactions, customer complaints accounted for just 0.015%. Notably, 29% were resolved immediately, and 92% within the review period. However, product and service-related complaints rose by 17%, with electronic services seeing the largest increase at 81%.

Privacy & Data Security

Khan Bank is a leader in adopting international standards, including ISO 27001 for Information Security Management, ISO 27701 for Personal Information Management, and PCI DSS 3.2.1 compliance, making it the first in the country to adopt the latest version of these standards. To minimize human-caused security breaches, the bank strengthens its security practices, offers employee training, and operates a 24/7 Information Security Control Center for real-time threat prevention. Additionally, the Cybersecurity Department conducts annual audits to ensure compliance with ISO 27001:2022, with international certifications supporting the bank's commitment to continuous improvement.

Access to Finance

In March 2023, the bank launched working capital and investment credit packages to support female entrepreneurs. As a result, the business loan portfolio for women grew to 362.1 billion MNT by year-end, with $95 million in international funding backing the initiative. Additionally, Khan Bank also introduced its digital 'DiGi Go' branch, revolutionizing banking for a new generation of customers, while integrating the DiGi POS application to enable seamless, contactless payments. Furthermore, 49.39% of customers were served in rural areas, with Uvs province leading at 5.1%.

KHAN

| CCC | B | BB | BBB | A | AA | AAA |

Laggard — Average — Leader

Source: MSCI ESG RESEARCH LLC, Team estimates
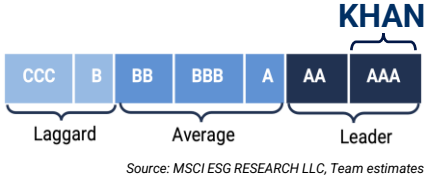
Exhibit 41 : ESG Scoreboard and Materiality Map

Key issues	Score	Weight
Financing environmental impact	**9.47**	12.9%
Human capital development	**8.57**	13.1%
Consumer financial protection	**7**	16.6%
Privacy & data security	**8.97**	12.1%
Access to finance	**9.54**	12.1%
Governance	**8.64**	33.1%
Overall Score		**8.606**

Source: MSCI ESG RESEARCH LLC, Team estimates

Exhibit 42: Hierarchy of ESG Scores

Source: MSCI ESG RESEARCH LLC

Exhibit 43: Green loan portfolio

- Energy efficiency
- Renewable Energy
- Green Housing
- Others

Source: KHAN SDG Report

GOVERNANCE

Board

The Chair of Khan Bank's Board of Directors is independent of management, in accordance with MSCI ESG Research criteria, and does not serve as CEO or Chair simultaneously. A majority of the board is also independent, with no executive directors serving. However, two board members are flagged as non-independent under the criteria above, as they are owners of Tavan Bogd Holdings LLC, which holds a 22.78% voting stake in Khan Bank. Additionally, their service on the boards of three other JSCs, including Khan Bank, raises concerns about their capacity to adequately fulfill their responsibilities. Also, a mere 22% of the Board is female, but no indications of board entrenchment is seen. The Audit Committee and the Nominations Committee are properly constituted, with no members dependent on management or affiliated with executive roles. Finally, Khan Bank is not under receivership, bankruptcy protection, or facing liquidation.

Pay

The potential dilution from the company's equity plan is less than 10%, which is considered favorable under the MSCI ESG Research criteria. Nevertheless, Khan Bank does not have a publicly disclosed formal clawback policy for the CEO and specific pay figures for top executives available.

Ownership & Control

Khan Bank's ownership structure is not widely dispersed, with principal shareholders and large block holders present. There is no evidence of cross-shareholdings for non-investment purposes with related or unrelated companies which is appropriate. Additionally, the company does not impose different voting rights for foreign or non-resident shareholders, nor does it have multiple equity classes with unequal voting rights, and voting rights are not capped at any percentage. In addition, the Board cannot change the company's laws without shareholder approval and the bank allows qualified shareholders to nominate directors for election at the AGM. Strict Majority Voting is used in director elections and shareholders can elect replacements if a director resigns. However, there is no publicly disclosed information regarding takeover defenses, such as poison pills or shareholder rights plans, which could protect the company's independence but might also shield management from accountability.

Accounting

The independent auditor confirmed that all financial statements materially complied with IFRS. Regarding auditor independence, the company paid more for audit services than for non-audit services during the fiscal year, and the external auditor has not served the company for more than 20 consecutive years which are commendable.

Business Ethics and Tax Transparency

Khan Bank has a strict policy against bribery and corruption, requiring all suppliers to implement anti-corruption measures and conducts annual audits to ensure compliance. The bank also enforces an Anti-Money Laundering (AML) policy that includes customer due diligence, transaction monitoring, and staff training. Additionally, its policy protects whistleblowers from retaliation. Khan Bank is also involved in a tax controversy; however, the tax gap remains below the 5% threshold set by MSCI ESG Research criteria.

ESG IMPACT ON VALUATION

Companies with higher ESG ratings are perceived as lower risk by investors, which leads to reduced systematic risk exposure. Taking into account MSCI's study on the "Impact of ESG on the Cost of Capital", companies with higher MSCI ESG Ratings generally have a lower cost of capital, benefiting from reduced costs in both equity and debt financing. This correlation remains significant even after accounting for factors like market, sector, and credit quality. In addition, the study found that how Transmission Channels could affect financial performance such as (Exhibit 47):

Cash-Flow Channel: Higher ESG ratings enhance competitiveness, leading to higher profitability and stable dividends.

Idiosyncratic Risk Channel: Better management of business risks results in more stable stock prices and reduced specific risks.

Systematic Risk Channel: Lower systematic risk exposure due to strong ESG scores reduces the cost and increases valuation.

Companies with strong environmental and social scores help lower capital expenses, while robust governance enhances borrowing capacity, further reducing costs. High ESG ratings can also draw ESG-focused investors, expand the investor base, and support higher share valuations. These advantages collectively boost the company's intrinsic value and market appeal. For KHAN, its AAA "Leader" rating is expected to contribute to a lower cost of equity.

Exhibit 44: Customer base by location

Percentage

Source: Company Data
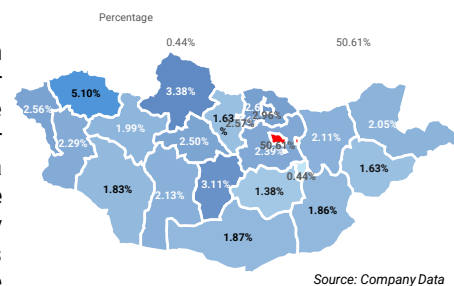
Exhibit 45: IPO Impact on Shareholder Structure

Shareholders	Pre-IPO	Post-IPO
HS Holdings JSC	**45.55%**	40.99%
Tavan Bogd Holdings LLC	**25.31%**	22.78%
Mrs D.Khulan	**14.69%**	13.22%
HS International (Asia) LTD	**9.75%**	8.78%
Khan Bank Employees	**4.70%**	4.23%
Public	**0.00%**	10%

Source: Company Data

Exhibit 46: Gender Ratio

MALE	
27%	of Total Employees
78%	of Board of Directors
64%	of Executive Management
32%	of Mid Level Managers

FEMALE	
73%	of Total Employees
22%	of Board of Directors
36%	of Executive Management
68%	of Mid Level Managers

Source: KHAN SDG Report

Exhibit 47: Transmission Channels for how ESG rating may affect financial performance

Corporate risk assessment

AAA
MSCI ESG RATING
CCC

Cash-flow channel
Better business management

Idio-syncratic channel
Better risk management

Systematic risk channel
Better stress resilience

Corporate fundamentals

Profitability and credit quality
- Higher and more stable profitability
- Higher credit quality

Security-specific risk
- Lower incident frequency

Systematic risk
- Lower cost of capital
- Earnings resilience

Market performance

Performance
- Stock or bond performance
- Dividend yield

Security-specific risk
- Lower residual volatility
- Lower kurtosis
- Lower drawdowns

Systematic risk
- Lower systematic volatility

Source: Team estimates

APPENDIX NETWORK

APPENDIX A: FINANCIALS

APPENDIX B: INDUSTRY AND COMPETITIVE POSITIONING

APPENDIX C: VALUATION

APPENDIX D: ENVIRONMENTAL, SOCIAL AND GOVERNANCE

APPENDIX A: FINANCIALS

APPENDIX A-1: INCOME STATEMENT

Million MNT	2021A	2022A	2023A	2024H	2025F	2026F	2027F	2028F	2029F
Interest income and other similar income	1,178,769	1,367,366	1,908,230	2,335,405	2,482,827	2,619,522	2,859,357	3,218,866	3,508,160
Interest expense and other similar expense	(544,192)	(481,084)	(820,809)	(1,117,179)	(1,242,957)	(1,233,658)	(1,309,658)	(1,465,414)	(1,509,259)
Net interest income	**634,577**	**886,281**	**1,087,421**	**1,218,226**	**1,239,871**	**1,385,864**	**1,549,700**	**1,753,451**	**1,998,901**
Fee and commission income	212,086	263,467	281,634	305,770	317,881	330,101	351,547	364,557	385,854
Fee and commission expense	(17,478)	(47,788)	(59,691)	(60,134)	(62,515)	(66,600)	(69,733)	(72,520)	(77,048)
Net fee and commission income	**194,609**	**215,679**	**221,944**	**245,637**	**255,366**	**263,501**	**281,814**	**292,037**	**308,806**
Net gains on financial transaction	19,388	55,252	19,098	21,379	28,485	29,049	31,793	35,065	36,865
Other operating income	(6,616)	4,318	3,063	3,602	3,807	4,087	4,418	4,977	5,440
Total operating income	**841,958**	**1,161,530**	**1,331,526**	**1,488,844**	**1,527,529**	**1,682,501**	**1,867,725**	**2,085,531**	**2,350,012**
Provision for loan losses	(87,819)	(143,514)	(92,761)	(146,012)	(170,815)	(183,072)	(199,279)	(208,783)	(231,961)
Net operating income	**754,138**	**1,018,016**	**1,238,765**	**1,342,832**	**1,356,714**	**1,499,429**	**1,668,446**	**1,876,747**	**2,118,050**
Operating expense	(367,579)	(412,043)	(502,738)	(581,001)	(562,248)	(626,224)	(703,378)	(784,254)	(887,532)
Other	-	(15,140)	6,731	5,889	5,871	5,920	6,804	7,551	8,041
Profit before tax	**386,559**	**590,833**	**742,758**	**767,720**	**800,337**	**879,124**	**971,872**	**1,100,045**	**1,238,560**
Income tax expense	(95,030)	(142,061)	(183,975)	(187,223)	(194,365)	(214,628)	(236,941)	(268,928)	(301,993)
Profit for the period	**291,529**	**448,772**	**558,783**	**580,498**	**605,972**	**664,496**	**734,931**	**831,117**	**936,567**

Source: Company's data, Team estimates

APPENDIX A-2: BALANCE SHEET

Million MNT	2021A	2022A	2023A	2024H	2025F	2026F	2027F	2028F	2029F
Assets									
Cash and cash equivalents	4,526,980	4,373,412	4,957,727	6,168,580	7,093,801	7,998,526	8,476,535	8,911,381	9,872,186
Mandatory reserves with Bank of Mongolia	809,082	969,105	1,090,955	1,326,457	1,449,311	1,609,900	1,782,732	1,915,349	2,044,706
Due from other banks	-	-	13,728	175,458	108,911	120,185	131,441	170,490	158,919
Investments	912,159	1,478,364	1,607,606	1,963,058	2,096,815	2,192,570	2,474,185	2,771,168	2,937,466
Derivative financials instruments	27,087	128,660	47,261	48,541	55,172	60,883	66,520	71,495	76,508
Loans and advances to customers	6,589,299	7,411,064	9,016,975	10,966,445	12,685,785	14,012,229	15,181,307	16,437,948	17,645,825
Investment in associates	302	284	284	284	284	284	284	284	284
Other assets	78,095	79,842	108,092	144,174	162,167	178,947	195,331	211,817	226,442
Intangible assets	54,765	46,286	43,529	47,791	47,353	45,865	45,839	46,490	46,176
Right-of-use assets	10,087	10,203	12,115	13,868	13,734	14,783	15,664	16,161	16,427
Properties and equipment	455,595	455,494	452,369	495,830	504,112	517,433	534,553	557,577	574,205
Total assets	**13,463,449**	**14,952,713**	**17,350,642**	**21,350,486**	**24,217,444**	**26,751,604**	**28,904,391**	**31,110,159**	**33,599,144**
Liabilities									
Due to other banks	35,854	191,080	228,123	253,958	289,047	319,494	347,398	249,256	184,684
Repurchase agreements	35,854	191,080	60,182	72,601	82,848	91,575	99,573	107,607	115,572
Customer accounts	10,211,451	10,930,788	12,378,272	14,932,662	17,040,165	18,835,110	20,480,113	22,132,643	23,770,838
Derivative financials instruments	320	4,897	5,699	6,730	4,775	5,269	5,757	6,188	6,622
Debt securities in issue	-	-	223,999	748,249	748,249	731,249	291,712	84,714	84,714
Other borrowed funds	1,191,917	1,776,933	2,121,722	2,580,995	2,864,980	3,129,809	3,520,823	3,786,568	4,047,358
Current income tax liabilities	2,168	3,958	27,367	28,490	17,085	18,866	23,911	28,835	32,380
Lease liabilities	11,086	11,231	13,036	15,023	14,925	15,995	16,980	17,523	17,798
Other liabilities	105,341	151,192	200,507	241,887	260,316	298,011	323,648	345,045	371,990
Total liabilities	**12,178,939**	**13,437,347**	**15,258,907**	**18,880,595**	**21,322,389**	**23,445,378**	**25,109,915**	**26,758,377**	**28,631,954**
Equity									
Share capital	172,098	172,098	191,220	191,220	191,220	191,220	191,220	191,220	191,220
Share premium	-	-	164,258	164,258	164,258	164,258	164,258	164,258	164,258
Retained earnings	1,018,134	1,268,757	1,649,039	2,006,023	2,379,796	2,801,903	3,271,036	3,808,180	4,412,300
Other reserves	94,279	74,511	87,219	108,390	159,782	148,845	167,963	188,124	199,413
Total equity	**1,284,510**	**1,515,366**	**2,091,735**	**2,469,891**	**2,895,055**	**3,306,226**	**3,794,476**	**4,351,781**	**4,967,190**
Total liabilities and equity	**13,463,449**	**14,952,713**	**17,350,642**	**21,350,486**	**24,217,444**	**26,751,604**	**28,904,391**	**31,110,159**	**33,599,144**

Source: Company's data, Team estimates

APPENDIX A-3: GROSS LOAN AND ADVANCES FORECAST

Million MNT	2021A	2022A	2023A	2024H	2025F	2026F	2027F	2028F	2029F
TOP-DOWN APPROACH [50%]:									
Real GDP growth	1.60%	5.00%	7.40%	5.50%	7.00%	6.00%	5.50%	5.50%	5.00%
Banking sector GLAAs growth (YoY)	21.86%	6.59%	23.87%	19.42%	23.18%	10.28%	7.32%	7.32%	6.65%
Banking sector GLAAs	20,197,434	21,527,521	26,666,256	31,844,775	39,224,889	43,256,831	46,421,994	49,818,756	53,132,673
KHAN market share	34.75%	37.06%	36.26%	36.26%	35.34%	35.34%	35.34%	35.34%	35.34%
Top-down - KHAN GLAAs	**7,017,636**	**7,977,768**	**9,669,424**	**11,547,202**	**13,861,273**	**15,286,079**	**16,404,583**	**17,604,929**	**18,775,999**
BOTTOM-UP APPROACH [50%]:									
KHAN GLAAs (YoY)	32.66%	13.68%	21.20%	23.51%	11.62%	10.55%	9.67%	9.09%	8.02%
Top-down - KHAN GLAAs	**7,017,636**	**7,977,768**	**9,669,424**	**11,943,166**	**13,330,877**	**14,736,717**	**16,161,636**	**17,631,504**	**19,045,718**
Forecast GLAAs	7,017,636	7,977,768	9,669,424	11,745,184	13,596,075	15,011,398	16,283,109	17,618,216	18,910,875

Source: Company's data, Team estimates

APPENDIX A-4: BALANCE SHEET ASSUMPTIONS

Items	Assumptions
Loans and advances to customers	Loans and advances to customers were forecasted using a hybrid approach. Under the top-down method, Mongolia's real GDP data from the IMF was used to determine the growth of GLAAs in the banking sector and for Khan Bank. This method estimated a CAGR of 10.21% for Khan Bank's total loan portfolio. The bottom-up method utilized Khan Bank's total loan portfolio growth over the past three years, resulting in a calculated CAGR of 9.78%.
Customer accounts	Customer accounts were forecasted based on the average loan-to-deposit ratio for the last three years.
Due to other banks and repo	These accounts were forecasted based on the historical average share of customer accounts as a proportion of funds collected from customers.
Derivative financial instruments	This account was forecasted based on the historical average share of customer accounts as a proportion of funds collected from customers.
Debt securities in issue	This account was forecasted based on the information provided by Khan Bank regarding its international and domestic bond programs
Other borrowed funds	Other borrowed funds were forecasted based on the average share of the GLAAs over the past 5 years and are expected to account for an average of 21.40% during the forecast period. For the bank, a portion of the GLAAs is financed through other borrowed funds.
Cash and cash equivalents	These accounts were forecasted based on the average share of total funds raised by the bank over the last 5 years. Total funds raised include current accounts, deposits, other borrowed funds, due to other banks and repurchase agreements. During the forecast period, cash and cash equivalents are expected to account for an average of 31.32% of total funds raised, while mandatory reserves with the Bank of Mongolia will account for 7.27%.
Mandatory reserves with BoM	
Other asset accounts	These accounts were forecasted based on the last 5 years average share of total funds raised.
Lease liabilities	This account was forecasted based on the average share of right-of-use assets over the last 5 years, as it depends on right-of-use assets.
Investment in associates	The bank holds investments in two companies and exerts significant influence through representation on their boards of directors. However, since there are no substantial changes in terms of accounting, it was assumed to remain constant during the forecast period.
Intangible assets and PPE	These accounts were forecasted based on the average growth over the last 5 years.
Current income tax liabilities	This account was forecasted based on the last 5 years average share of income tax expense.
Other liabilities	Other liabilities were estimated based on the 3-year average share of total funds raised, as the bank determines other funding sources based on the size of total funds raised which is the primary funding source.
Share capital and share premium	It is expected that these accounts will remain constant during the forecast period.
Retained earnings	This account increases by the profit for the period and decreases by the dividends. During the forecast period, the dividend payout ratio is expected to remain constant at 40%.
Other reserves	The majority of other reserves are related to investment losses, so this account was forecasted based on the 3-year average share of investments.

Source: Team estimates

APPENDIX A-5: INCOME STATEMENT ASSUMPTIONS

Items	Assumptions
Interest income and other similar income	This account was forecasted based on the share of interest-earning assets, including loans and advances to customers, cash and cash equivalents, mandatory reserves with the BoM, investments, and due from other banks. The average for each year was calculated and adjusted according to the expected policy interest rate.
Interest expense and other similar expense	This account was forecasted based on the share of interest-bearing liabilities, including deposits, due to other banks, debt securities in issue, other borrowed funds, derivative financial instruments, and lease liabilities. The average for each year was calculated and adjusted according to the expected policy interest rate.
Fee and commission income	The majority of this account is related to service fees and commission associated with current accounts, so it was forecasted based on the share of current accounts. While this account will grow as the business expands, the growth rate is expected to be slow. The CAGR of this account during the forecast period is 6.50%.
Fee and commission expense	This account is expected to grow at a slower rate compared to other accounts, with a projected CAGR of 5.24% during the forecast period.
Net gains on financial transaction	This account represents gains and losses from foreign exchange translation, trading in foreign currencies, and financial derivatives. During the forecast period, this account is expected to grow, with a projected CAGR of 14.06%.
Other operating income	Other operating income is linked to economic growth, and since the economy is expected to remain in growth over the coming years, it was forecasted based on the growth observed in 2022 and 2023, when the economy was growing. The CAGR for this account during the forecast period is expected to be 12.17%.
Credit loss allowance	This account is related to GLAAs and has accounted for 1.20% of the GLAAs over the last 5 years. During the forecast period, it is expected to remain consistently at 1.2% to 1.3%.
Operating expense	Operating expenses are linked to business expansion or contraction and are projected to be 42.05% of net operating income on average from 2024 to 2029. Additionally, the CAGR for this account during the forecast period is expected to be 12.04%.
Income tax expense	This account was forecasted based on the past 5 years' effective tax rate, with the company's effective tax rate projected to average 24.38% during the forecast period.

Source: Team estimates

APPENDIX A-6: KEY FINANCIAL RATIOS

	2021A	2022A	2023A	2024H	2025F	2026F	2027F	2028F	2029F
Profitability									
Net Interest Margin	5.23%	6.55%	7.03%	6.53%	5.63%	5.61%	5.74%	6.02%	6.36%
ROE	23.20%	32.06%	30.98%	25.45%	22.59%	21.43%	20.70%	20.40%	20.10%
ROA	2.28%	3.16%	3.46%	3.00%	2.66%	2.61%	2.64%	2.77%	2.89%
Cost-to-Income Ratio	43.66%	35.47%	37.76%	39.02%	36.81%	37.22%	37.66%	37.60%	37.77%
Asset Quality									
NPL / GLAAs	5.27%	5.27%	5.29%	5.28%	5.68%	5.59%	5.40%	5.42%	5.44%
Allowance for loan losses / GLAAs	6.10%	7.10%	6.75%	6.63%	6.70%	6.66%	6.77%	6.70%	6.69%
Provisions for loan losses / GLAAs	1.25%	1.80%	0.96%	1.24%	1.26%	1.22%	1.22%	1.19%	1.23%
Allowance for loan losses / NPL	115.72%	134.73%	127.54%	125.59%	117.81%	118.98%	125.33%	123.61%	122.87%
Capital Adequacy									
Tier 1 Ratio	15.58%	16.69%	18.63%	18.00%	18.26%	18.82%	19.51%	20.36%	21.49%
Capital Adequacy Ratio	15.58%	16.69%	18.63%	18.00%	18.26%	18.82%	19.51%	20.36%	21.49%
Equity / RWAs	16.81%	17.55%	19.44%	18.83%	19.33%	19.70%	20.41%	21.28%	22.39%
Interest Coverage	71.03%	122.81%	90.49%	68.72%	64.39%	71.26%	74.21%	75.07%	82.06%
Equity multiplier	10.48	9.87	8.29	8.64	8.37	8.09	7.62	7.15	6.76
Liabilities / Equity	9.48	8.87	7.29	7.64	7.37	7.09	6.62	6.15	5.76
Liquidity Ratio									
Current Ratio	0.88	1.04	1.05	1.00	1.01	1.01	1.02	1.03	1.04
Cash Ratio	0.54	0.54	0.55	0.53	0.53	0.55	0.55	0.54	0.56

Source: Company's data, Team estimates

APPENDIX A-7: KHAN'S CAMELS ANALYSIS

Khan Bank's Camels Anlysis	2019	2020	2021	2022	2023
Capital Adequacy					
Capital Adequacy ratio	21.64%	18.84%	15.58%	16.69%	18.63%
Equity / Total Funds	13.51%	11.43%	10.65%	11.42%	14.14%
Deposits / Equity	4.79	6.19	5.55	4.11	3.69
Asset Quality					
NPL / GLAAs	6.22%	6.77%	5.27%	5.27%	5.29%
GLAAs / Total Assets	48.46%	43.68%	52.12%	53.35%	55.73%
Allowance for loan losses / NPL	101.43%	101.86%	115.72%	134.73%	127.54%
Provisions for loan losses / GLAAs	0.75%	1.24%	1.25%	1.80%	0.96%
Net Financial Assets / Total Assets	7.01%	5.54%	5.17%	6.33%	8.92%
Management Capabilities					
Interest Expense / Total Expense	65.65%	62.21%	53.51%	44.36%	55.61%
Total income / Total asset	12.35%	10.46%	10.43%	11.30%	12.75%
Interest expenses / Total deposits	7.46%	6.10%	4.51%	3.63%	5.55%
Net Income / Number of branches (Million MNT)	348.29	294.73	532.96	823.44	1,025.29
Earnings					
Fee and commission income / Total income	11.24%	12.60%	15.11%	15.59%	12.73%
Net Income / Total income	15.22%	12.73%	20.77%	26.55%	25.26%
Operating income/ Total asset	2.26%	2.29%	1.65%	2.72%	3.66%
Liquidity position					
GLAAs / Tier 1 Capital	4.30	4.74	5.90	5.54	4.82
Investment Assets / Total Assets	9.55%	7.23%	6.99%	6.78%	9.89%
Liquidity Ratio	53.20%	52.10%	57.21%	46.87%	45.96%
Liquidity Assets / Total Assets	35.29%	40.33%	46.00%	39.63%	35.73%
Sensitivity to Market risk					
Foreign Currency Proportion in Liabilities	31.59%	30.97%	28.29%	20.67%	32.59%
GLAAs / Sector GLAAs	26.11%	27.61%	31.18%	34.26%	36.52%
Total Deposits / Sector Deposits	28.29%	30.43%	32.36%	35.45%	35.30%
Total Assets / Sector Assets	27.45%	28.54%	33.10%	32.89%	32.54%

Source: Company data, Team estimates

APPENDIX A-9: PIOTROSKI F-SCORE

The Piotroski F-score is a financial metric designed to assess the financial health and strength of a company. It scores firms on nine criteria, with a scale from 0 to 9, where 9 indicates the best fundamentals and 0 the worst. KHAN maintains a robust F-score, highlighting its financial stability and potential for future growth. Strong profitability metrics reinforce its appeal as a promising investment option.

	2019	2020	2021	2022	2023
Profitability					
Positive net income	1	1	1	1	1
Positive ROA	1	1	1	1	1
Positive OCF	1	1	1	1	1
OCF greater than NI	1	1	0	0	0
Leverage, Liquidity, and Source of Funds					
Decreased leverage	1	1	1	0	1
Higher liquidity	0	0	0	1	1
Higher common equity	1	1	1	1	1
Operating Efficiency					
Higher gross margin	0	0	1	1	1
Higher asset turnover	0	1	0	1	1
F score	**6**	**7**	**6**	**7**	**8**

Source: Company data, Team estimates

APPENDIX A-10: ALTMAN Z-SCORE

The Altman Z-score is a quantitative analysis model used to determine whether an organization is at risk of insolvency or bankruptcy within the next two years. For banks, the model uses four distinct ratios compared to other organizations, serving as a measure of financial stability. These ratios assess the company's financial leverage, profitability, liquidity, and solvency. A score exceeding **2.99** places the company in the "Safe Zone," indicating no risk of bankruptcy within the next two years. **Khan Bank** has consistently remained in the "Safe Zone" over the past five years.

	KHAN	2019	2020	2021	2022	2023
X1	Net working capital / Total assets	-0.0024	-0.0599	-0.0867	0.0257	0.0336
X2	Retained earnings / Total assets	0.1077	0.0880	0.0756	0.0849	0.0950
X3	EBIT / Total assets	0.0250	0.0174	0.0287	0.0395	0.0428
X4	Book value of equity / Total liabilities	0.0056	0.0046	0.0141	0.0128	0.0233
Z-score		**3.76**	**3.27**	**3.14**	**3.97**	**4.09**

Z > 2.99 – "Safe" Zone
1.81 < Z < 2.99 – "Gray" Zone
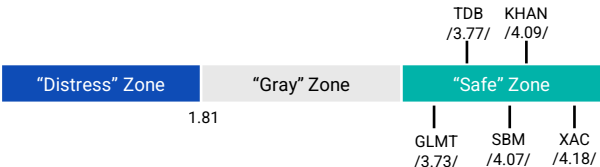Z < 1.81 – "Distress" Zone

APPENDIX A-8: "TOP 5" BANKS' CAMELS RATING

The CAMELS analysis of the "TOP 5" banks was based on their 2023 year-end reports. Key ratios (4-8 per subcomponent) were selected to assess performance, with scores ranging from 1 (best) to 5 (poorest). Subcomponent scores were calculated using interval scaling, with weights assigned based on the importance of each ratio. The weighted average score for each subcomponent was then determined by multiplying the individual ratio scores by their respective weights.

	Weight	KHAN	GLMT	TDB	SBM	XAC
Capital Adequacy						
Capital Adequacy Ratio	60%	1	2	2	1	1
Equity / Total Funds	10%	1	3	2	1	1
Liabilities / Equity	10%	2	3	1	1	2
Deposits / Equity	10%	2	3	1	1	1
Tangible Equity / Tangible Assets	10%	1	3	1	2	1
Weighted Average		**1.2**	**2.4**	**1.7**	**1.1**	**1.1**
Asset Quality						
NPL / GLAAs	25%	1	1	3	2	1
GLAAs / Total Assets	25%	1	2	2	2	1
Allowance for loan losses / NPL	40%	1	1	2	3	2
Net Financial Assets / Total Assets	10%	2	4	4	3	1
Weighted Average		**1.1**	**1.6**	**2.5**	**2.5**	**1.4**
Management Capabilities						
Interest Expense / Total Expense	20%	3	3	2	3	1
Total income / Total asset	20%	2	4	4	3	2
Operating expenses / Total Asset	15%	5	3	2	1	4
Interest expenses / Total deposits	15%	3	1	2	3	4
Profit per employee	10%	1	2	2	5	4
Net profit/ Number of branches	10%	3	1	3	5	2
Total asset/ Number of branches	10%	4	2	1	5	3
Weighted Average		**3.0**	**2.5**	**2.4**	**3.3**	**2.7**
Earnings						
Net Interest Income / Average Interest Earning Asset	40%	1	2	3	2	2
Fee and commission income / Total income	15%	3	3	2	1	1
Net Income / Total income	15%	1	2	5	4	2
Operating income / Total asset	10%	1	3	4	2	2
Net Income / Total Assets	10%	1	3	4	2	1
Operating expense / Total income	5%	3	2	1	5	2
Growth in Net Income	5%	3	1	5	5	2
Weighted Average		**1.5**	**2.1**	**3.4**	**2.5**	**1.8**
Liquidity						
Liquidity Assets / Total Assets	15%	1	3	2	4	5
Liquidity Assets / Total Deposits	15%	4	3	2	1	5
Investment Assets / Total Assets	15%	1	1	1	2	2
GLAAs / Tier 1 Capital	20%	2	2	1	1	2
Current Account and Savings Account / Total Deposits (CASA Ratio)	15%	3	1	2	4	5
Liquidity Ratio	20%	1	2	1	1	2
Weighted Average		**2.0**	**2.0**	**1.5**	**2.1**	**3.4**
Sensitivity to Market risk						
Total Assets / Sector Assets	20%	1	3	2	4	5
Loans and advances to customers / Sector Loans and advances to customers	20%	1	3	2	5	4
Total Deposits / Sector Deposits	20%	1	2	2	3	4
Provisions for loan losses / Loans and advances to customers	20%	3	5	4	1	2
Gap ratio	20%	2	5	4	3	1
Weighted Average		**1.2**	**2.6**	**2.0**	**2.6**	**3.0**

2023	Weight	KHAN	GLMT	TDB	SBM	XAC
Capital Adequacy	20%	1.2	2.4	1.7	1.1	1.1
Asset Quality	20%	1.1	1.6	2.5	2.5	1.4
Management Capabilities	15%	3.0	2.5	2.4	3.3	2.7
Earnings	15%	1.5	2.1	3.4	2.5	1.8
Liquidity position	20%	2.0	2.0	1.5	2.1	3.4
Sensitivity to Market risk	10%	1.2	2.6	2.0	2.6	3.0
Weighted Average Rating		**1.65**	**2.14**	**2.18**	**2.25**	**2.14**
Ranking		**1**	**3**	**4**	**5**	**2**

Source: Company's data, Team estimates

"TOP 5" Banks' Altman Z-score as of 2023:

TDB /3.77/   KHAN /4.09/

"Distress" Zone	"Gray" Zone	"Safe" Zone

1.81

GLMT /3.73/   SBM /4.07/   XAC /4.18/

Source: Company's data, Team estimates

APPENDIX B: INDUSTRY AND COMPETITIVE POSITIONING

APPENDIX B-1: INDUSTRY KEY PERFORMANCE

**TOP 5 bank's profit before tax by segment**

Source:Companies' data

Policy rate and Inflation

Unemployment rate

TOP 5 bank's ROE

Source: Companies' data

TOP 5 bank's NIM

TOP 5 bank's CIR

Source: Team estimates
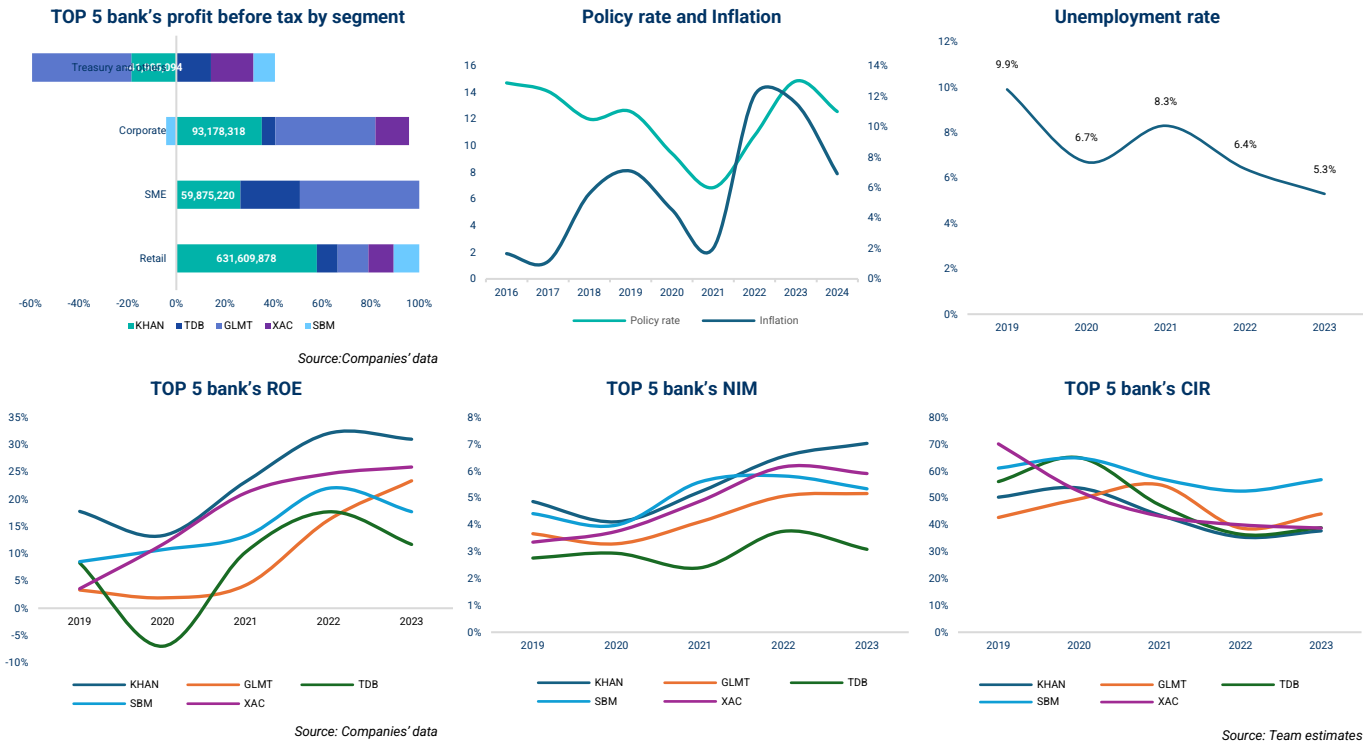
APPENDIX B-2: ECONOMIC PROJECTION

	2021	2022	2023	2024	2025	2026	2027	2028	2029
Nominal GDP (in USD million)	15,286	17,146	20,315	33,669	27,242	29,120	31,569	34,024	36,400
Real GDP growth	1.60%	5.00%	7.40%	5.50%	7.00%	6.00%	5.50%	5.50%	5.00%
Inflation, avg	7.40%	15.20%	10.30%	6.50%	9.00%	8.30%	7.60%	7.20%	6.70%
Foreign direct investment	13.50%	14.20%	10.70%	8.60%	9.30%	10.30%	9.90%	9.40%	9.10%
Export	-7.50%	13.90%	17.90%	1.60%	7.30%	6.50%	0.90%	2.80%	4.50%
Import	-8.50%	-20.30%	-16.20%	-16.40%	-8.60%	-8.20%	-5.40%	-6.10%	-6.60%
Copper price (US$ per ton)	9,317	8,829	8,491	9,298	9,450	9,550	9,584	9,584	9,584
Coal price (US$ per ton)	150	123	131	115	105	105	105	105	105

Source: Team estimates

## APPENDIX B-2: PORTER'S FIVE FORCES ANALYSIS
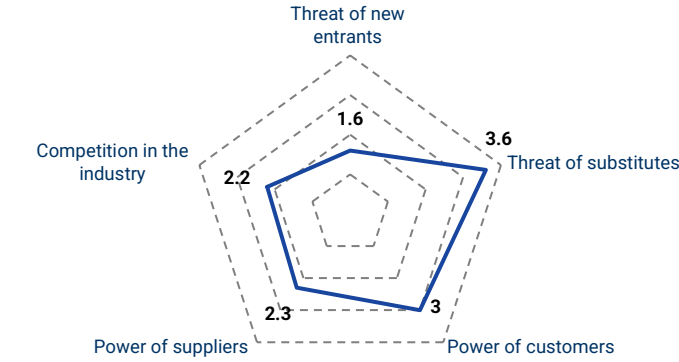
When analyzing Porter's Five Forces, we used quantitative metrics (market share, growth rates, NBFI share) and qualitative insights (trust, customer loyalty, product differentiation) to evaluate each force. It reflects a structured approach that highlights Khan Bank's competitive strengths and the external pressures shaping the banking industry.

- **Threat of New Entrants**: *LOW* due to strict regulations, high capital requirements, and strong customer loyalty for established banks like Khan Bank.
- **Threat of Substitutes**: *MODERATE*, with NBFIs and fintech's growing but unable to fully replace core banking services like loans and deposits.
- **Power of Customers**: *MODERATE*, as interest rates are regulated, and there is little product differentiation, but Khan Bank's strong reputation and extensive customer base provide an advantage.
- **Power of Suppliers:** *LOW*, with stable funding from depositors and investors due to Khan Bank's strong financial position and reputation.
- **Competitive rivalry:** *MODERATE*, as top banks dominate, with limited differentiation in products and services creating competitive pressure.

Threat of new entrants		Threat of substitutes		Power of customers		Power of suppliers		Competition in the industry	
Government regulation	1	The number of substitute products	4	Number of customers	4	Number of suppliers	2	Costs	2
Capital requirements	2	Switch between products	4	The buyer's access to information	2	Switching costs	3	Concentration	2
Customers loyalty	1	The competition's profits	4	Switching costs	3	Availability of suppliers for immediate purchase	2	Switching costs	2
Cost Advantages	2	The price of substitute products	3	Dependence of a buyer's purchase on supplier	3			Differentiation	2
Retaliation	2	The quality of substitute products	3	Number of buyers relative to suppliers	3			Rate of market growth	3
Average	**1.6**		**3.6**		**3.0**		**2.3**		**2.2**

Source: Team estimates

APPENDIX B-3: SWOT ANALYSIS

- ✓ **Mongolia's largest commercial bank:** Khan Bank accounts for approximately 30% of the total market assets and is the industry leader in financial performance and profitability.
- ✓ **Retail Bank:** Individuals represent 45% of loans and advances to customers. Khan Bank operates the largest network of branches, units, clearing centers, and ATMs in Mongolia.
- ✓ **E-banking:** Fintech-based products and services have been introduced to align with modern technological advancements.
- ✓ **Sustainability Bonds:** Green bonds and social bonds are issued to finance environmentally friendly and sustainable projects.
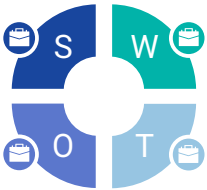
- ✓ **Ownership concentration:** Two major investors hold 85.77% of the shares, consolidating significant control and potentially disadvantaging smaller shareholders.
- ✓ **Debit card:** The annual fees for some debit cards at Khan Bank are higher than those of other banks. Khan Bank charges annual fees based on the card type, whereas many other banks do not impose such fees.
- ✓ **Cash withdrawal fees:** Cash withdrawal fees at Khan Bank ATMs are higher compared to other banks. Khan Bank charges 100, 150, or 200 MNT, depending on the withdrawal amount, while other banks typically charge a flat fee of 100 MNT regardless of the amount.

- ✓ **New products and services:** Technological advancements enable the creation and development of innovative products and services.
- ✓ **Market share:** DiGi Pay, introduced in 2024, allows fee-free transfers, attracting customers and increasing market share. The platform gained 191,000 users within its first three months.
- ✓ **Transparency:** Since becoming a public company, Khan Bank has improved its transparency, positively impacting its reputation and strengthening trust among investors and customers.

- ✓ **Economic situation:** As of November 2024, inflation has risen again, potentially impacting the entire economy, including interest and exchange rates.
- ✓ **Capital market:** The capital market has grown significantly in recent years, encouraging more people to invest in banking products and services.
- ✓ **Competition:** The market remains competitive for major banks. Additionally, new entrants like M Bank, with its fresh approach, are targeting younger customers, further intensifying competition.
- ✓ **Privacy:** The development of fintech-based products and services has heightened concerns about data privacy and security.
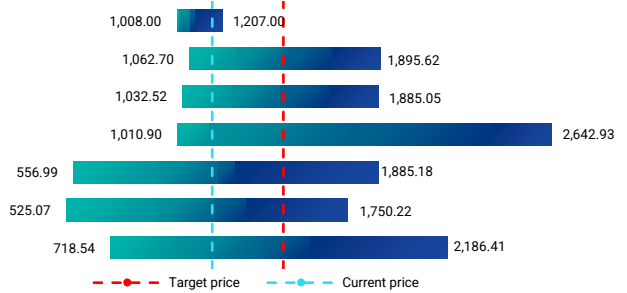
Source: Team estimates

APPENDIX C: VALUATION

APPENDIX C-1: VALUATION SUMMARY

Method	Weight	Share price
Residual Income Model	60%	1,598.61
Relative Valuation	40%	1,282.56
Dividend Discount Model	0%	1,577.61
Target price		**1,472.19**
Last close		1,161
Premium to last close		**26.80%**

VALUATION FOOTBALL FIELD

52 week	1,008.00	1,207.00
RIM	1,062.70	1,895.62
DDM	1,032.52	1,885.05
P/E (F)	1,010.90	2,642.93
P/TBV	556.99	1,885.18
P/B	525.07	1,750.22
P/E	718.54	2,186.41

- - ● - - Target price   - - ● - - Current price

Source: Team estimates

APPENDIX C-2: RESIDUAL INCOME MODEL

Million MNT	2024H	2025F	2026F	2027F	2028F	2029F
Net Income		605,972	664,496	734,931	831,117	936,567
Equity	2,469,891	2,895,055	3,306,226	3,794,476	4,351,781	4,967,190
Cost of Equity		19.29%	19.29%	19.29%	19.29%	19.29%
Equity Charge		476,472	558,491	637,811	732,001	839,512
Residual Income		129,500	106,005	97,120	99,116	97,055
Discount factor		0.84	0.70	0.59	0.49	0.41
PV of Residual Income		108,558	74,492	57,211	48,945	40,177

Million MNT	
Terminal Value in 2029	622,260
PV of Terminal Value	257,590
Sum of Discounted RI	329,383
BoP Equity	2,469,891
Equity Value	3,056,864
Number of shares outstanding	1,912,198,000
Implied share price	1,598.61
Last close	1,161.00
Premium to last close	**37.69%**

Source: Team estimates

APPENDIX C-3: DIVIDEND DISCOUNT MODEL

Million MNT	2024H	2025F	2026F	2027F	2028F	2029F
BoP Equity	2,091,735	2,469,891	2,895,055	3,306,226	3,794,476	4,351,781
Net Income	580,498	605,972	664,496	734,931	831,117	936,567
EoP Equity	2,469,891	2,895,055	3,306,226	3,794,476	4,351,781	4,967,190
Dividend Payout Policy	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%
Dividend		232,199	242,389	265,799	293,972	332,447
Discount factor		0.84	0.70	0.59	0.49	0.41
PV of Dividends		194,649	170,332	156,577	145,169	137,619

Million MNT	
Terminal P/B multiple	1.08
Terminal Value in 2029	5,344,397
PV of Terminal Value	2,212,363
Sum of Discounted Dividends	804,345
Equity Value	3,016,708
Number of shares outstanding	1,912,198,000
Implied share price	1,577.61
Last close	1,161.00
Premium to last close	**35.88%**

Source: Team estimates

APPENDIX C-4: COST OF EQUITY

We computed the Cost of Equity using the CAPM, with a risk-free rate of 9.73%, an ERP of 14.11%, and a beta of 0.68 for the forecast horizon and 0.75 for the terminal horizon. As a result, the forecast and terminal costs of equity are 19.29% and 20.29%, respectively.

Risk-free Rate: Currently, there are no long-term MNT bonds in Mongolia, so to determine the risk-free rate, we used the 10-year US Treasury Bond traded on the international market. To express the yield of the dollar-denominated bond in tugrik, we converted it using Fisher's equation.

Beta: Several methods were used to calculate the beta coefficient: (1) Regression of KHAN's stock price and the TOP 20 index monthly, (2) The beta of the banking industry is selected from Damodaran's beta table for Emerging Markets, (3) The re-levered beta, reflecting KHAN's capital structure, was calculated using Hamada's equation, (4) **Blume Beta** is an adjusted version of the KHAN's historical beta and it is calculated by multiplying the historical beta by 0.67 and adding 0.33.

Equity Risk Premium: For the equity risk premium, we took the Mongolian equity risk premium from Damodaran's ERP table by country.

APPENDIX C-5: TERMINAL GROWTH RATE

The terminal growth rate is a crucial indicator for calculating the terminal value in both the Dividend Discount Model and the Residual Income Model. It represents the company's expected future constant growth rate beyond the forecast period, starting from 2029. In calculating the terminal growth rate, four key factors were considered: long-term GDP growth, long-term average inflation, long-term population growth in Mongolia, and long-term growth in the Mongolian banking industry. As a result, Khan Bank's constant growth rate beyond 2029 is 4.06%.

Long-term GDP growth: In calculating the long-term GDP growth, the average GDP growth rates for Mongolia, China, and the United States from 2024 to 2029, as published by the International Monetary Fund, were used. The average GDP growth rates for these countries are 5.75%, 3.92%, and 4.49%, respectively. The economic impact of each was weighted accordingly, resulting in a weighted average long-term GDP growth rate of 4.49%.

Long-term average inflation rate: According to the International Monetary Fund, the long-term average inflation rate for Mongolia is expected to be 7.90%.

Mongolia's long-term population growth: According to the International Monetary Fund, Mongolia's long-term population growth is expected to be 1.24%.

Long-term growth of the Mongolian banking industry: According to the International Monetary Fund, the long-term growth of the Mongolian banking industry is expected to be 4.68%.

Risk-free rate	Value
US T. Bond (10-year)	4.25%
Inflation rate of Mongolia	8.10%
Inflation rate of US	2.70%
Adjusted risk-free rate	**9.73%**

Beta	Value	Forecast	Terminal
Regression with TOP 20	0.57	50%	0%
Damodaran Beta	0.78	50%	50%
Re-levered Beta	0.69	0%	0%
Blume Beta	0.71	0%	50%
Beta		**0.68**	**0.75**

Cost of Equity	Forecast	Terminal
Risk-free rate	9.73%	9.73%
Beta	0.68	0.75
Equity Risk Premium	14.11%	14.11%
Cost of Equity	**19.29%**	**20.29%**

Source: Damodaran, Team estimates

Long-term GDP growth	Weight	GDP growth	Source
Mongolia	50%	5.75%	IMF
China	30%	3.92%	IMF
United States	20%	2.22%	IMF
Long-term GDP growth		**4.49%**	

Terminal growth rate	Value	Value	Source
Long term GDP growth	45%	4.49%	Team estimates
Long term average inflation rate	10%	7.90%	IMF
Mongolian long run population growth	25%	1.24%	IMF
Long term Mongolian banking industry growth	20%	4.68%	Statista
Weighted average		**4.06%**	

Source: IMF, Statista, Team estimates

APPENDIX C-6: RELATIVE VALUATION

Comparable Bank	Ticker	P/E (TTM)	P/E (Forward)	P/B (TTM)	P/TBV (TTM)
Bank Of Ayudhya PCL	BAY.BK	5.89	6.26	0.48	0.52
BRD Groupe Societe Generale SA	BRD.RO	8.25	8.34	1.44	1.56
Turkiye Sinai Kalkinma Bankasi AS	TSKB	3.90	3.62	1.20	1.07
ForteBank AO	ASBN	4.01	4.13	1.20	1.18
LHV AS	LHV1T	8.52	7.94	1.60	1.76
Ujjivan Small Finance Bank Ltd	UJJIVA	5.97	5.49	1.17	1.17
Albaraka Turk Katilim Bankasi AS	ALBRK	2.96	3.25	0.84	0.87
Bank of Siauliai AB	SAB1L	6.20	7.53	0.95	1.03
Sekerbank TAS	SKBNK	2.80	3.19	0.80	0.83
Mean		5.39	5.53	1.08	1.11
75th percentile		6.20	7.53	1.20	1.18
Median		5.89	5.49	1.17	1.07
25th percentile		3.90	3.62	0.84	0.87
Share price per share		**1,382.90**	1,751.74	**1,176.54**	**1,188.95**
Weightings		50%	0%	40%	10%
Implied share price	**1,280.96**				
Last close	1,161				
Premium to last close	**10.33%**				

We selected 29 banks based on GDP growth similarity to Mongolia, narrowed it to 16, and excluded 7 with negative key ratios, leaving 9 for relative valuation.

29 Banks

16 Banks

9 Banks

Filter I
Relevant Market:
- Real GDP growth
- Nominal GDP per capital
Business Model
Filter II
Market Capitalization
Financial Metrics:
- Total Assets
- Total Equity
- Net Income
- ROE
- Beta
Filter III
- Negative Multiples

*Source: Morningstar, Team estimates*

APPENDIX C-7: PEER COMPANY SELECTION

Ticker	Country	Shares Outstanding (Million)	Market Cap (Million USD)	ROE	Total Assets (Million USD)	Net Income (Million USD)	Company Profile
BAY.BK	Thailand	7,356	5,054	9.28%	76,075	905	**Bank of Ayudhya PCL (Krungsri):** A universal bank in Thailand offering commercial and retail banking, wealth management, credit cards, insurance, asset management, and securities trading. Segments include Retail, Commercial, and Others.
BRD.RO	Romania	697	2,738	17.10%	17,717	90	**BRD - Groupe Société Générale S.A.:** A Romanian bank providing savings, loans, credit cards, insurance, investments, and more, with Retail and Non-Retail segments.
TSKB	Turkey	2,800	1,349	40.74%	6,918	266	**Turkiye Sinai Kalkinma Bankasi AS:** A Turkish investment and development bank majority-owned by Turkiye Is Bankasi, earning most of its revenue from loans and net interest income.
ASBN	Kazakhstan	92,923	1,126	32.00%	6,279	67	**ForteBank JSC:** A Kazakhstani bank offering commercial services through Corporate, SME, Retail, and Investment segments, providing deposits, loans, and exchange transactions.
LHV1T	Estonia	324	1,104	29.04%	7,724	151	**LHV Group AS:** An Estonian financial services provider offering banking, brokerage, and advisory services. Its main revenue comes from Corporate Banking, while Financial Intermediaries serve fintech firms in Estonia and the UK.
UJJIVA	India	1,935	822	26.64%	4,766	151	**Ujjivan Small Finance Bank Ltd:** An Indian bank focusing on mass-market customers with Treasury, Retail Banking, and Corporate/Wholesale Banking, offering micro banking loans, agricultural loans, and more.
ALBRK	Turkey	2,500	597	35.07%	8,919	152	**Albaraka Turk Katilim Bankasi AS:** A Turkish bank offering current and participation accounts, financing, electronic fund transfers, and more, with Retail, Commercial & Corporate, and Treasury segments.
SAB1L	Lithuania	662	581	15.31%	5,035	79	**Bank of Siauliai AB:** A Lithuanian bank focused on small and medium-sized business lending, deposits, loans, and trade finance, with income primarily from traditional banking operations.
SKBNK	Turkey	2,500	455	26.80%	3,470	114	**Sekerbank TAS:** A Turkish co-operative bank focused on agricultural banking and serving small to midsize enterprises, corporate, and retail clients, with a diversified loan portfolio, including microfinance.

Source: Morningstar, Team estimates

APPENDIX C-8: SCENARIO ANALYSIS
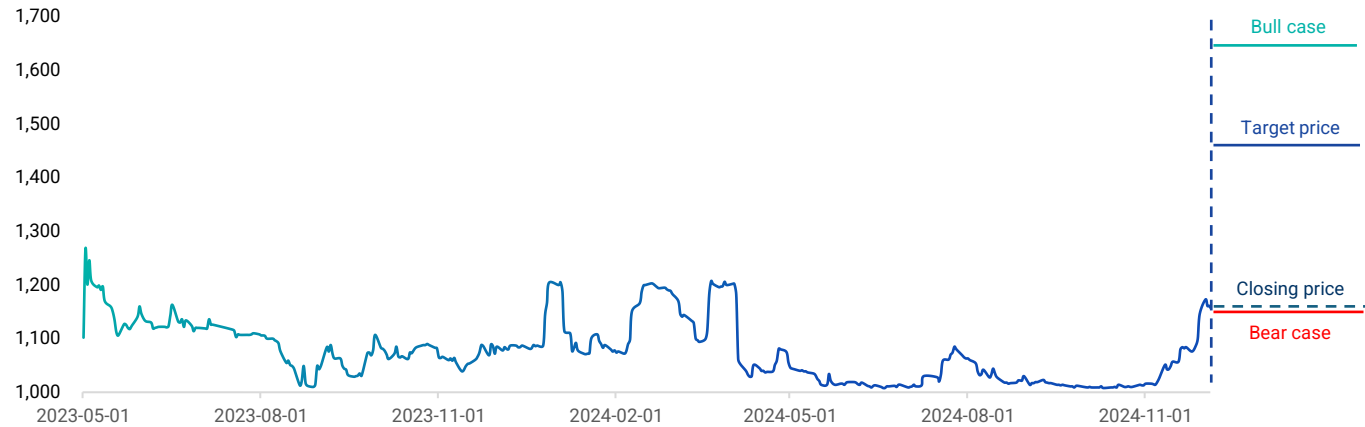
Bear case: In our conservative scenario, we assumed that economic conditions would remain below expectations and that inaccurate management by the bank would lead to a decrease in Khan's average NIM, ROE, and terminal growth by 1.2%, 2.71%, and 1%, respectively. This decline is attributed to slower net fee income growth caused by DigiPay and other services with low or no commission, as well as an increase in operational expenses relative to interest income growth due to their extensive branch footprint. As a result, this scenario forecasts a share price of 1,150.01 MNT, which is 21.9% lower than our target price.

Bull case: In our optimistic scenario, we predicted that the Mongolian economy would outperform expectations over the next five years, accelerating income growth and positively impacting NIM and ROE. Additionally, we anticipated an increase in the net fee income portion of interest income and a reduction in operational expenses due to the implementation of new digital branches. Under this scenario, Khan's stock is valued at 1,649.76 MNT, reflecting a 12.1% increase above our target price.

Source: MSE, Team estimates

APPENDIX C-9: MONTE CARLO SIMULATION
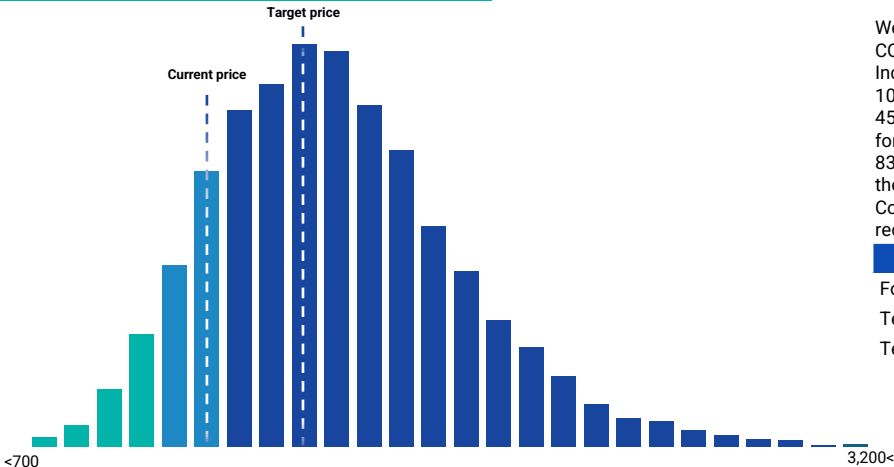
We simulated three key factors—Forecast COE, Terminal COE, and Terminal Growth Rate—in Khan's Residual Income Model (RIM) using a Monte Carlo simulation with 10,000 iterations. The simulation produced a price range of 456.37 to 3,530.27 MNT. By adjusting factors such as forecast and terminal cost of equity, we found that in 83.36% of cases, the share price was over 10% higher than the current price, supporting our BUY recommendation. Conversely, only 4% of the results suggested a SELL recommendation.

	Mean	S.D.
Forecast cost of equity	19.29%	2.00%
Terminal cost of equity	20.29%	2.00%
Terminal growth rate	4.06%	1.00%

Source: Team estimates

APPENDIX C-10: TECHNICAL ANALYSIS
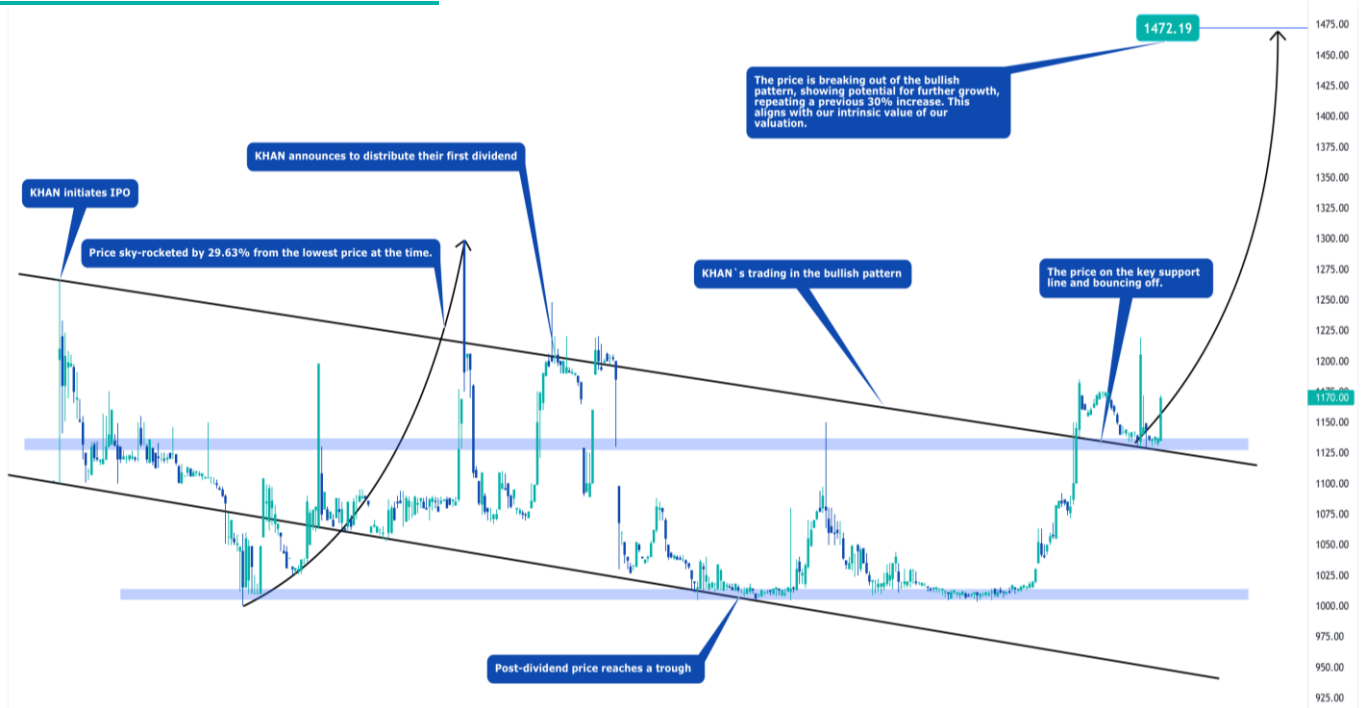
Source:Tradingview, Team estimates

APPENDIX D: ENVIRONMENTAL, SOCIAL AND GOVERNANCE

APPENDIX D-1: ENVIROMENTAL PILLAR SCORING

*Environmental Score is derived from the weighted average of underlying Key Issue Scores.

Key Metrics	Description	Company Policies	Scoring
FINANCING ENVIRONMENT IMPACT KEY ISSUE			
Financing Environment Impact Management Score			
ESG Risk Management (ESRM)	-Formal management systems to assess ESG risks in financing activities -Scope of management system to assess ESG risks in financing activities	ESG risk assessments were completed for 336 loan applications, totaling MNT 915.6 billion, by December 31, 2023. Of these, 316 applications (MNT 746 billion) received standard ESG reviews, three were subject to detailed ESG analysis, and 17 applications (MNT 54.8 billion) were approved.	9
Environmental Credit Policy Score for company (ECP)	-Credit policy related to sustainable financing activities	A new "Solar Power Project Supply Chain Risk Assessment Form" was introduced in the ESG risk assessment regulations. Energy efficiency loans make up the majority of the green loan portfolio at 66.7%, with the remaining 27.8% allocated to renewable energy, green buildings, and sustainable agriculture.	8
ESRM Integration Score for company (ERMI)	-Involvement of group credit risk in ESG due diligence -ESG due diligence triggers and risk-escalation process clearly defined	Khan Bank's framework, in line with ICMA GBP requirements, outlines a clear procedure for assessing and selecting qualified projects, including standard credit procedures and additional environmental and social risk screenings. The process involves legal, risk, and specialized experts providing technical opinions on green loan applications. Loans of at least USD 5 million or with terms over 36 months undergo third party due diligence, loans over MNT100 million undergo in-house ESG risk officers. Those with medium to high environmental or social risks may be externally evaluated.	9
ESRM Oversight Score for company (ERMO)	-Oversight of ESG risk management in financing activities -Evidence of board-level engagement on climate-related risk	In response to identified climate risks in 2023, the Deputy Chief Risk Officer developed an action plan to ensure sustainable growth, reduce climate risk, and conduct necessary assessments. The "Stress Test Policy and Procedures" guide scenario selection and criteria development to mitigate climate-related business risks. The Board of Directors has approved three limits within the Risk Acceptance Statement to control climate risk.	9
Environmental Finance Opportunities Score for company (EFO)	-Involvement in green financing and securities -Sustainability-related financial product development	Khan Bank became the first bank in Mongolia to issue a Green Bond on the global market, using guidelines from the ICMA, the Mongolian Green Taxonomy, and global investment standards. The bank developed its "Green Bond Financing Framework," which was rated "Excellent" by ESG agency Sustainable Fitch for its selection, funding, oversight, and reporting of green projects. In 2023, the bank introduced new loan products, including "green project business loans," "energy-efficient housing loans," "green auto loans," and "environmental improvement loans" for ger and summer cottage households, aligning with the framework's seven primary categories.	9
Management Score [MGMT = average (ERMS, ECP, ERMI, ERMO, EFO)]			**8.80**
Financing Environment Impact Exposure Score			
Business exposure score (BUS)	The Business Exposure Score is weighted by the proportion of a company's total assets in each business segment	$$BUS_{FEI,i} = \sum_{j=1}^{n_i} w_{Asset,i,j} BSE_{FEI,j}$$	8.04
Company-specific exposure score (COM)	The Company-Specific Exposure Score is determined by the weighted average of environmental risk associated with the industry exposures of a loan portfolio.	$$COM_{FEI,i} = (Z_{ERI,i} * 2) + 3$$	2.88
Exposure Score [EXP = BUS (1 + 0.1 (COM - 5))]			**6.33**
FINANCIAL ENVIRONMENT IMPACT KEY ISSUE SCORE [FEI = 7 - (max (EXP, 2) - MGMT)]			**9.47**

Source: MSCI ESG RESEARCH LLC, Team estimates

APPENDIX D-2: SOCIAL PILLAR SCORING

*Social Score is derived from the weighted average of underlying Key Issue Scores.

Key metric	Description	Company Policies	Scoring
HUMAN CAPITAL DEVELOPMENT KEY ISSUE			
Human Capital Development Management Score			
Strategy Score (STRAT)	-Extent of human resource-related grievance reporting or escalation procedures -Employee satisfaction survey frequency	For the eighth year, the "Employee Satisfaction Survey" was conducted with an external organization, showing steady improvements in leadership effectiveness (79.1%) and staff engagement (82.7%).	9
Programs & Initiatives Score (PROI)	-Employee equity programs -Variable performance-based component to pay -Workforce eligible for non-pay benefits. -Regular performance appraisals and feedback processes -Skills and knowledge development training	On January 28, 2022, the Bank of Mongolia approved the "Khan Bank Employee Share Purchase Program," granting 80,848,750 shares to 4,136 employees. Additionally, 719 executives joined the "Development Program," aimed at enhancing leadership skills and aligning with Khan Bank's strategy. Notably, the "Coaching" program, meeting international standards, is successfully underway, while the "SEED 2" initiative runs "Coaching" and "Mentoring" programs through the "Pilot" training center for skilled workers.	9
Performance Score (PERF)	-Assesses the company's performance on human capital development metrics	UN Global Compact was pleased to share that Khan Bank reaffirms its support of the Ten Principles of the United Nations Global Compact in the areas of Human Rights, Labor, Environment, and Anti-Corruption.	9
Management Score [MGMT = average (STRAT, PROI, PERF)]			**9**
Human Capital Development Exposure Score			
Business exposure score (BUS)	The Business Exposure Score is weighted by the proportion of a company's total assets in each business segment	$$BUS_{HCD,i} = \sum_{j=1}^{n_i} w_{Asset,i,j} BSE_{HCD,j}$$	6.43
Company-specific exposure score (COM)	The Company-Specific Exposure Score is an addition to the Business Exposure Score, with an additive impact of 0 to 2 points.	It is assessed as 1 if layoffs in the last three years affect more than 10% of the workforce or more than 1,000 employees per company; otherwise, it is assessed as 0. It is also assessed as 1 if major Mergers and Acquisitions activity in the last three years affects more than 10% of the workforce or more than 1,000 employees per company; otherwise, it is assessed as 0.	1
Exposure Score [EXP = BUS + COM]			**7.43**
HUMAN CAPITAL DEVELOPMENT KEY ISSUE SCORE [HCD = 7 - (max (EXP, 2) - MGMT)]			**8.57**

Source:MSCI ESG RESEARCH LLC, Team estimates

CONSUMER FINANCIAL PROTECTION KEY ISSUE

Key metric	Description	Company Policies	Scoring
Consumer Financial Protection Management Score			
Practices Score (PRA)	- The extent of programs to improve financial literacy, either through formal partnerships with financial education organizations, targeted initiatives for specific demographics or general outreach programs.	Training on personal finance, stock markets, and retirement savings was tailored to participants' age, gender, profession, and education, based on client organizations' needs. Secondary school students were taught about financial cycles, saving, and money management. In 2023, the Bank of Mongolia, Mongolian Banking Association, Savings Insurance Corporation, German Sparkasse Bank, and commercial banks partnered for the "World Money Week-2023" campaign. Through over 540 branches, they reached 49,000 citizens and 12,440 children and youth, promoting positive financial behaviors for environmental and social sustainability.	9
Performance Score (PERF)	- Complaint Growth	In 2023, 94% of the 1.19 billion financial transactions were online, 5% via ATMs, and 1% through branches. Customer service complaints, received through six channels 24/7, made up 0.015% of transactions, with 29% resolved immediately and 92% during the review period. Complaints about product and service failures increased by 17%, with electronic products and services seeing an 81% rise.	5
Management Score [MGMT = average (PRA, PERF)]			**7**
Consumer Financial Protection Exposure Score			
Exposure Score	The Consumer Financial Protection Exposure Score evaluates the company's exposure to risks on this Key Issue.	It is assigned by default. All companies get a default exposure score of 7 on a 0-10 scale.	7
Exposure Score [EXP=7]			**7**
CONSUMER FINANCIAL PROTECTION KEY ISSUE SCORE [CFP = 7 - (max (EXP, 2) - MGMT)]			**7**

PRIVACY DATA & SECURITY KEY ISSUE

Key metric	Description	Company Policies	Scoring
Privacy Data & Security Management Score			
Strategy Score (STRAT)	-Type of information security management system certification -Scope of employee training on privacy and data security -Responsibility for privacy and data security -Measures to address data breaches -Frequency of audits of information security system -Collection, usage and retention of customer information -Scope of data protection policy	Khan Bank is a leader in implementing international standards, including ISO 27001 for Information Security Management and ISO 27701 for Personal Information Management. It is also the first bank in the region to comply with PCI DSS 3.2.1. The bank enhances information security by offering employee training and maintaining a 24/7 Information Security Control Center to monitor, respond to, and prevent threats. The Cybersecurity Department conducts annual audits and certifications to ensure compliance with ISO 27001:2022. Khan Bank follows strict measures to protect sensitive customer data, ensuring compliance with Mongolian laws, internal policies, and ISO 27701:2019 standards. Personal information is collected, stored, and deleted in accordance with the bank's Archiving and Confidentiality Procedures. When working with external providers, the bank ensures strict adherence to Information Security Standards.	9
Controversies	A controversy deduction ranging from 0 to 5 points is subtracted from the overall Management Score, based on the severity and type of controversies facing the company on this Key Issue.	During the reporting period, a total of 922 fraudulent transactions were made worth 840.2 million MNT, of which 720 transactions worth 685.2 million MNT were internet access fraudulent transactions.	2
Management Score [MGMT = STRAT]			**7**
Privacy Data & Security Exposure Score			
Business exposure score (BUS)	The Business Exposure Score is weighted by the proportion of a company's total revenues in each business segment	$$BUS_{PDS,i} = \sum_{j=1}^{n_i} w_{Revenue,i,j} BSE_{PDS,j}$$	4.60
Company-specific exposure score (COM)	The Company-Specific Exposure Score is an addition to the Business Exposure Score, with an additive impact of 0 to 2 points.	If a company is involved in the collection of personal data, the score is calculated using the following formula: COM=1	1
Geographic exposure score (GEO)	The Geographic Exposure Score is weighted by the proportion of a company's total revenue in each geographic segment.	$$GEO_{PDS,i} = \sum_{r=1}^{n\_i} w_{Revenue,i,r} GSE_{PDS,r}$$	5.93
Exposure Score [EXP = (BUS * COM) (1 + 0.1 (GEO − 5))]			**5.03**
PRIVACY DATA & SECURITY KEY ISSUE SCORE [HCD = 7 - (max (EXP, 2) - MGMT)]			**8.97**

ACCESS TO FINANCE ISSUE

Key metric	Description	Company Policies	Scoring
Access to Finance Management Score			
Products and Strategy score (PROS)	-Extent of involvement in microfinance/microinsurance.	Khan Bank offers a wide range of loans for individuals and micro businesses. By 2023, consumer loans totaled 4,207 billion MNT, making up 44.34% of the bank's total loan portfolio. To support female entrepreneurs, the bank launched new working capital and investment loan packages in March 2023. As part of its gender finance efforts, Khan Bank secured $95 million in funding from international organizations, with business loans to female entrepreneurs reaching 362.1 billion MNT by the end of 2023, showing strong utilization of these resources.	9
Distribution and Outreach score (DISO)	-Innovation in mobile/online distribution channels for financial services. -Innovation in other alternative branchless distribution channels for financial services.	Khan Bank introduced its digital "DiGi Go" branch, offering a fully digital, self-service platform for customers to access banking services without visiting a physical branch. The bank also integrated the DiGi POS application, enabling seamless, contactless payments, allowing customers to make quick and secure transactions with their smartphones or contactless cards.	9
Performance score (PERF)	-Loans to small and medium-size enterprises (SMEs) -Business to underserved communities (including rural development).	Micro-enterprises and SMEs make up 77% of Mongolia's registered businesses and 72% of its workforce, making SME lending crucial for finance access, job creation, and economic growth. As of the first half of 2024, Khan Bank has provided 3,869 billion MNT in loans to SMEs, accounting for 34.28% of its total loan portfolio. SME loans have increased by 8.05%, surpassing corporate loans by 26.8% over the past three years. Notably, 49.39% of the bank's clients are from rural areas, with Uvs province leading at 5.1%.	10
Management Score [MGMT = STRAT]			**9.33**
Acess to Finance Exposure Score			
Business exposure score (BUS)	The Business Exposure Score is weighted by the proportion of a company's total revenues in each business segment	$$BUS_{AFI,i} = \sum_{j=1}^{n_i} w_{Revenue,i,j} BSE_{PDS,j}$$	9.19
Geographic exposure score (GEO)	The Geographic Exposure Score is weighted by the proportion of a company's total revenue in each geographic segment.	$$GEO_{AFI,i} = \sum_{r=1}^{n\_i} w_{Revenue,i,r} GSE_{AFI,r}$$	6.93
Exposure Score [EXP = (BUS * COM) (1 + 0.1 (GEO − 5))]			**10.93**
PRIVACY DATA & SECURITY KEY ISSUE SCORE [HCD = 7 - (max (EXP, 2) - MGMT)]			**9.54**

APPENDIX D-3: GOVERNANCE PILLAR SCORING

*Each of the Governance Key Issue Scores are independently calculated based on a deduction-based approach in which points are deducted from a perfect 10 score and scoring deductions are applied based on the assessment of the Key Metrics.

Key metric	Company policies	Scoring
GOVERNANCE		
Board Key Issue		*10*
Board leadership	The Chair of the Board of Directors doesn't serve as CEO/chair and is classified as independent of management based on MSCI ESG Research criteria.	(0.00)
Board Independence	Most directors are independent of management and other interests as defined by MSI ESG Research, and none of them are executive directors. However, there have been publicly disclosed related-party-transactions in both most recently reported financial years. Moreover, 2 of the board members are "Flagged Directors" meaning not independent of other interests under the criteria mentioned above because they are owner an entity (Tavan Bogd Holdings LLC) that has at least 10% (22.78%) of the voting rights of KHAN. Also, they serve on the board of 3 JSCs including Khan Bank. Serving on multiple boards could hinder their ability to dedicate sufficient time and attention to their responsibilities.	(1.57)
Board Skills and Diversity	Less than 30% of the BoD of KHAN are CEO at another publicly traded corporation and they do not posy any problem with board entrenchment as defined by MSCI Research's tenure and age criteria. Nevertheless, a mere 22% of the BoD are female and not all members qualify for risk management expertise under the MSCI ESG Research standards.	(0.30)
Audit Oversight	Out of all the 3 members serving on the Audit Committee, none of them are dependent of management and no company executives are present on the Committee. In fact, no members of the Committee serve on the boards of three or more companies which is recommended as the criteria suggests. However, 1 member lacks both general expertise in accounting and financial management and substantial industry knowledge.	(0.20)
Pay Oversight	All members serving on the Pay Committee are independent of management are not affiliated with any form of executive role. Despite that, both chair and majority of the pay committee are CEOs at other companies. This could undermine the independence of the pay committee's decisions regarding executive compensation.	(0.60)
Nomination Process Oversight	Khan Bank has a proper nomination committee and none of the members of the committee are dependent of management or affiliated with any form of executive role defined by MSCI ESG Research standards.	(0.00)
Strategic Oversight	Khan bank is not under any of the following circumstances: currently in receivership, under bankruptcy protection, or facing liquidation.	(0.00)
Board Score		**7.33**
Pay Key Issue		*10*
Pay Performance Alignment	There are no publicly disclosed evidence of a shareholding policy or guideline for the CEO and formal clawback policy.	(0.40)
Pay Figures	There are no publicly disclosed evidence of specific pay totals for top executives at the company.	(1.20)
Severance and Change of Control	There are no publicly disclosed evidence whether the CEO's potential cash severance pay exceed five times their annual pay or the unvested equity awards are still eligible for vesting when the CEO's employment is terminated.	(0.00)
Equity Plan Dilution	The potential dilution in the company's traded shares is less than 10%.	(0.00)
Non-executive Director Pay	There are no publicly disclosed evidence of whether the company has failed to adopt specific stock ownership guidelines for non-executive directors.	(0.10)
Pay Score		**8.30**
Ownership & Control Key Issue		*10*
Ownership structure	The company is not so widely held that there re no principal shareholders or large-bloc holders. Also, there are no clear evidence that the company is involved in a series of cross-shareholdings with or related or unrelated companies for non-investment purposes.	(0.00)
One Share, One Vote	There are no clear evidence that suggests the company having different voting rights for foreign or non-resident shareholders and having more than one class of equity such as loyalty and golden shares, which they carry unequal voting rights. In addition, KHAN doesn't have a certain percentage where voting rights are capped which is flagged under the criteria.	(0.00)
Control Mechanisms	There are no publicly disclosed information about takeover defense such as a poison pill, shareholder rights plan, or equivalent provision. While takeover defenses can protect the company's independence, they may also shield the management from being held accountable.	(0.00)
Shareholder Rights	The company's board do not have the right to change its law without shareholder approval. The thresholds to request an EGM and to include a shareholder proposal at the AGM exceed 10% and 1% of voting rights, respectively, compared to the company's 5% rule. Also, no public information about regular say-on-pay votes and confidential voting were disclosed.	(0.50)
Director Elections	The company allows qualified shareholders to nominate directors for election at the AGM and if a director leaves, the shareholders can elect replacements. Also, KHAN implements Strict Majority Voting when electing board members. But there is no clear evidence that shareholders have the right to remove individual directors without cause.	(0.10)
Takeover Provisions	There are no public disclosure about constituency provision, business combination provision, fair price provision in place.	(0.10)
Ownership & Control Score		**9.30**
Accounting Key Issue		*10*
Accounting Events	A regulatory body opens an investigation into delayed financial reporting caused by inconsistent accounting practices. The company cooperates, leading to minor fines and public disclosure. According to the independent auditor of the company, they stated that all statements were in place with IFRS in material wise.	(0.30)
Auditor Independence	The company clearly paid more for audit services than non-audit services in the fiscal year. And the external audit did not serve the company more than 20 consecutive years.	(0.00)
Accounting Score		**9.70**
Business Ethics Key Issue		*10*
Policies and Practices	The company has policy against bribery and corruption and requires all suppliers to adopt anti-corruption policies and conducts annual audits to verify compliance. The bank has AML policy that includes implementation strategies, such as customer due diligence procedures, transaction monitoring, and staff training. Additionally, KHAN's policy provides whistleblowers with protection from retaliation. Nevertheless, the company states that it conducts "ethics training" and ethics audit, but does not provide details about the scope, frequency, participants, or findings.	(2.00)
Risk and Controversies	The company has minor and non-structural corporate behavior controversies.	(0.00)
Business Ethics Score		**8.00**
Tax Transparency Key Issue		*10*
Controversies	Although the company is involved in tax controversy, the tax gap is less than the threshold of 5% under the MSCI ESG Research criteria.	(0.80)
Tax Transparency Score		**9.20**
GOVERNANCE SCORE		**8.64**

Source:MSCI ESG RESEARCH LLC, Team estimates