Module Title: Banking Technology

Module Code: 7FNCE031W

MSc Fintech and Business Analytics (Core), Semester 1, 2023/2024

"LIQUIDITY RISK AND RESILIENCE''

(THE BANK OF NEW YORK MELLON (INTERNATIONAL) LIMITED)

Words count: 2028 (Excluding Cover page, Table of Content, References, Appendix)

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1. EXECUTIVE SUMMARY

The Bank of New York Mellon (International) Limited's resilience plans and liquidity risk management are examined in detail in this research .The results demonstrate the bank's dedication to careful control of liquidity risk, as seen by its wide range of well-quality liquid assets and strict oversight procedures.

"Liquidity Risk and Resilience" concludes by highlighting The Bank of New York Mellon (International) Limited's competitive advantage in navigating the complex financial landscape as well as its readiness for liquidity difficulties. This research focus on analysing and providing practical insights to financial institutions looking to enhance resilience and their liquidity risk management procedures.

2. INTRODUCTION

The academic paper "Liquidity Risk and Resilience" offers a thorough examination of The Bank of New York Mellon (International) Limited, with a particular emphasis on the organization's resilience and liquidity risk management plans.

This report aims to provide useful insights in financial industry by examining the practices and policies implemented by The Bank of New York Mellon (International) Limited. It does this by shedding light on efficient methods for managing liquidity risk in a volatile and dynamic financial environment.

This report's scope includes a comprehensive analysis of the bank's resilience measures, regulatory compliance, and Liquidity position with management of liquidity risk. Its goal is to analyse the bank's procedures, culture of proactive governance, and methods for handling liquidity issues.

3. LIQUIDITY RISK ANALYSIS

Liquidity risk refers to person, company, or financial institution won't be able to raise enough money or turn assets into cash fast enough to cover their short-term financial commitments is known as liquidity risk. It may arise from an organisation having significant long-term assets but not enough cash on hand to pay off urgent obligations or meet operating expenses due to a mismatch in the timing of cash flows.

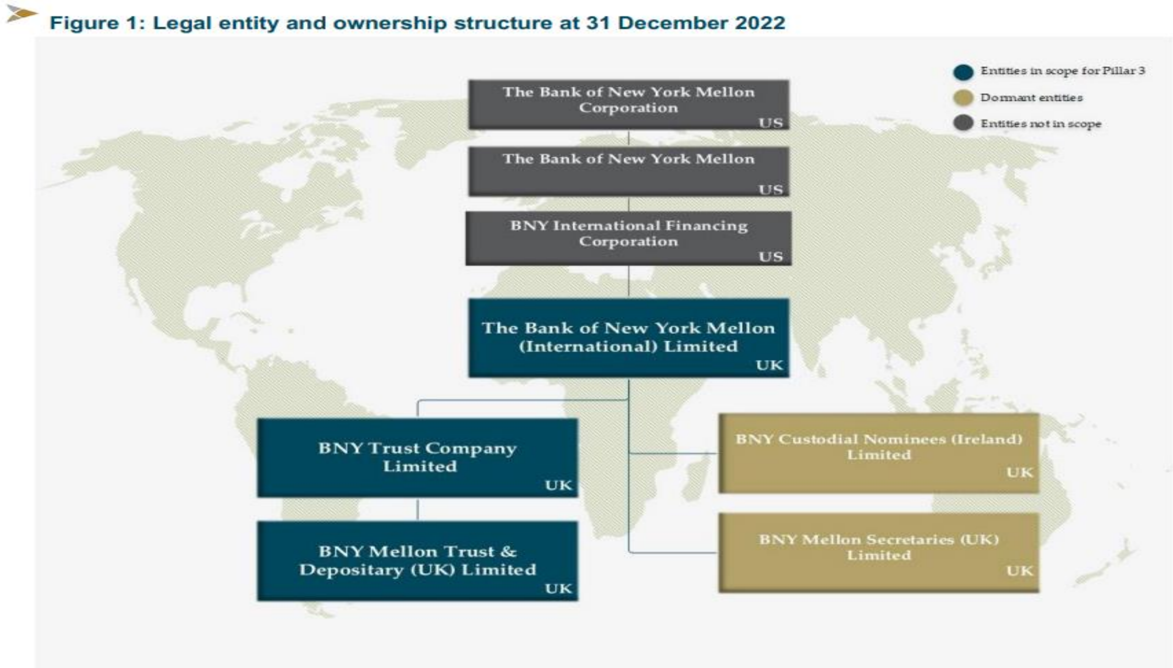
3.1 BACKGROUND OF BNY MELLON INTERNATIONAL LTD (BNYMIL)

Registered office address	160 Queen Victoria Street, London, England, EC4V 4LA
Company No.	3236121
Company type	Private limited Company
Incorporated on	09-Aug-96
Nature of Business	Financial Intermediation
Website	Website: http://www.bnymellon.com
Headquarters	New York, NY

The Company is a private limited company that was established in the UK and has a PRA-issued banking licence. It is the custodian bank who is responsible for safeguarding client's Asset and Investment .It is having major income of Fee. The company's Balance sheet is Liability driven as this is custodian bank. Asset and liability consist of third party client deposits. The bank's primary functions are managing and servicing investments of high net worth individuals' .The Company had £393 billion in assets under custody as of December 31, 2022.

BNY Mellon Group, Global Investments Company established in 1784 and oldest bank of USA with first company listed on NYSE. They helps its clients to manage and service their financial assets. It provides this service in 35 countries and more than 100 markets, AS of, 30th September, 2023 BNY Mellon had $45.7 trillion in asset under custody and $1.8 trillion in under asset management.

- **<u>Legal entity and ownership structure of BNY Mellon International Ltd:</u>**



(Pillar 3 disclouserBNY mellon Dec 2022, 2022)

A number of things may lead to liquidity risk. The LCR increases banks' resilience and lowers the risk of liquidity crises by assisting in ensuring that they have enough liquid reserves to meet expected net cash withdrawals for 30 days.

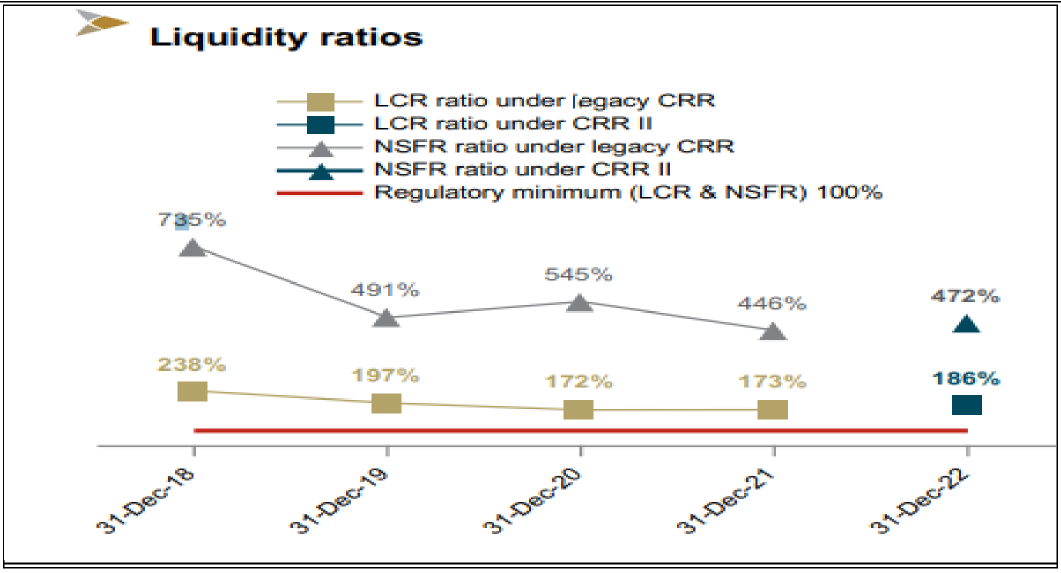
Liquidity Coverage Ratio = Stock of total high liquidity Asset /Total net cash outflow

(It is calculated by considering 30 days stress period), Ideally LCR needs to be at least 100%.

BNYMIL LCR & NSFR over period of 5 Years as per Pillar III Disclosure

Year	LCR (%)	NSFR
2018	238	735
2019	197	491
2020	172	545
2021	173	446
2022	186	472

LCR of BNY Mellon International Ltd (Dec 2018 to Dec 2022)



(Pillar 3 disclouserBNY mellon Dec 2022, 2022)

The Figure depicts BNY Mellon's LCR over the last five years. BNY Mellon's LCR as of December 31, 2022, was 186%, considerably above the statutory minimum of 100%. This shows that Bank has the ability to satisfy its short-term financing needs and has a good liquidity position.

3.2 RISK FACTORS AND INDICATORS

(a)Interest Rate Effect: While looking at company's financials it has been observed that operating income has increased due to net interest income increased because of rising interest rate environment during 2022. So, if in future interest rate keep on rising then Bank is going to benefit from that as they are able to attract more deposits and LCR remain strong with the interest rate hike.

(b)Foreign Exchange Risk Effect: There is a decrease of 5% of cash deposit with the central bank as compared to previous year this can be due to foreign exchange risk as the rates fluctuates. To minimize this risk they are taking proactive approach to maintain foreign currency cash balance. So LCR does not get affected by any of forex Risk in future. (Strategic report 2022 BNYMIL, 2023)

(c)Asset Management Fees Effect: Asset service and management fees goes down with increase in Noninterest expenses (software equipment, professional and legal fees) by 2 % yoy. Cost of using service of Pershing LLC rose by 2.4%.If it continuous further bank needs to keep enough Cash Cyclical Buffer.

(d)Deposit Outflows: Observation of latest three year financial reports and Q3 results states that average deposits decreased sharply on a quarterly basis but stabilized in September. Main reason behind it can be Interest rate fluctuations and global economic condition.

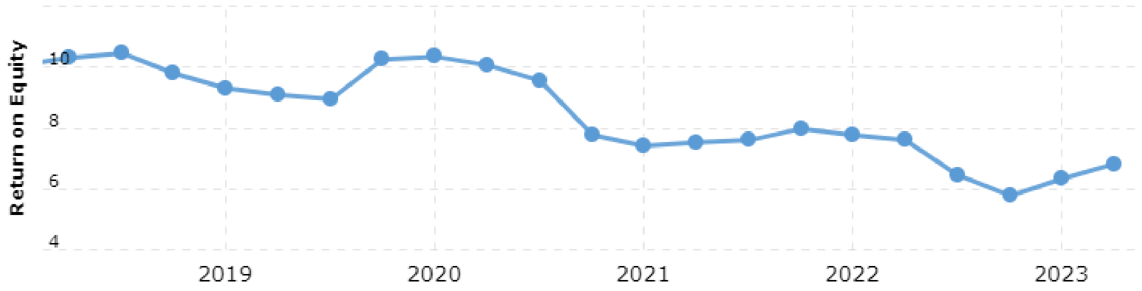
(e)CET Ratio & LCR: CET 1(Common Equity Ratio) ratio has to be 70% as per requirement and BNYMIL is maintaining it with 73.35 %.and it is showing declining trend as in 2021 it was 90.80%(might be meant for special purpose for specific time period) and in 2022 it is 73.35% so they might in mode of expanding new platform and using that capital under new projects.

(f)Leverage Ratio & LCR: Declining trend of Leverage ratio suggests that bank is taking more risk in its operations, Leverage ratio will indirectly impact LCR, And Leverage is low because CET is following declining pattern as compared to previous year.

(g)Global impact: There is reduction in fees income of assets under custody due to effect of Russia-Ukraine war (as stated by company) hence overall net asset went down by 2% as compared to 2021. (Strategic report 2022 BNYMIL, 2023) And if not taken corrective measures then LCR may affect adversely.

(h)Return on Equity impact (ROE) & LCR: BNYMIL continues to maintain a healthy LCR and downward trend in ROE suggests decreased profitability, which may prompt investors to take exit, like Warren buffet has sold off $1.4 billion shares of BNY Mellon Group before 6 month. (Yahoo Finance, 2023) .

ROE (Return on Equity -5 years period)



(macrotrends, 2023)

3.3 IMPACT OF WHITE LABELLING SERVICE ON LCR

LCR is well maintained by BNYMIL as per regulatory compliance but while comparing its 5 years trend it is showing decreasing trend yoy that means company might have some other plans to implement where they are planning to use their liquid assets.

BNY Mellon (NYSE: BK) announced on October 23, 2023, the launch of a new service called White Labelling on its Liquidity Direct platform. This service is intended to meet the requirements of financial institutions looking to provide their clients with an effective liquidity management solution. Morgan Stanley Investment Management will be the first to benefit from BNY Mellon's White Labelling solution. (BNY Mellon and Morgan stanley investment group, 2023)

(a).Increased Liquidity Risk(Use of Liquid Asset)

While offering white labelling services for liquidity it means that they are going to face mass withdrawal of funds for short term time period and to meet that requirement they need to maintain enough liquidity. While looking at the trend of LCR of last 5 years it has been observed that it following decline trend yoy this might be the reason that they are deploying more liquidity to strengthen the white labelling service platform.

(b).Fee Income Generation

Usually, BNY Mellon charges fees to the customers or financial institutions that use its white labelling services. These fees may open up a new revenue stream for the bank, increasing its total earnings.

. The amount of money made from these fees is contingent upon a number of variables, including the service's pricing policy and customer volume.it can help bank to enhance its financial feasibility and revenue performance.it can have implication of allocation of asset ,bank can use this portion to set aside as a buffer to meet liquidity contingency. They need to keep trade-off between both statutory requirement and client demands.

(c).Regulatory Compliance challenges

Since the December 2022 FSR, central banks have tightened monetary policy, and as a result, market investors' expectations for policy rates in advanced nations have climbed.

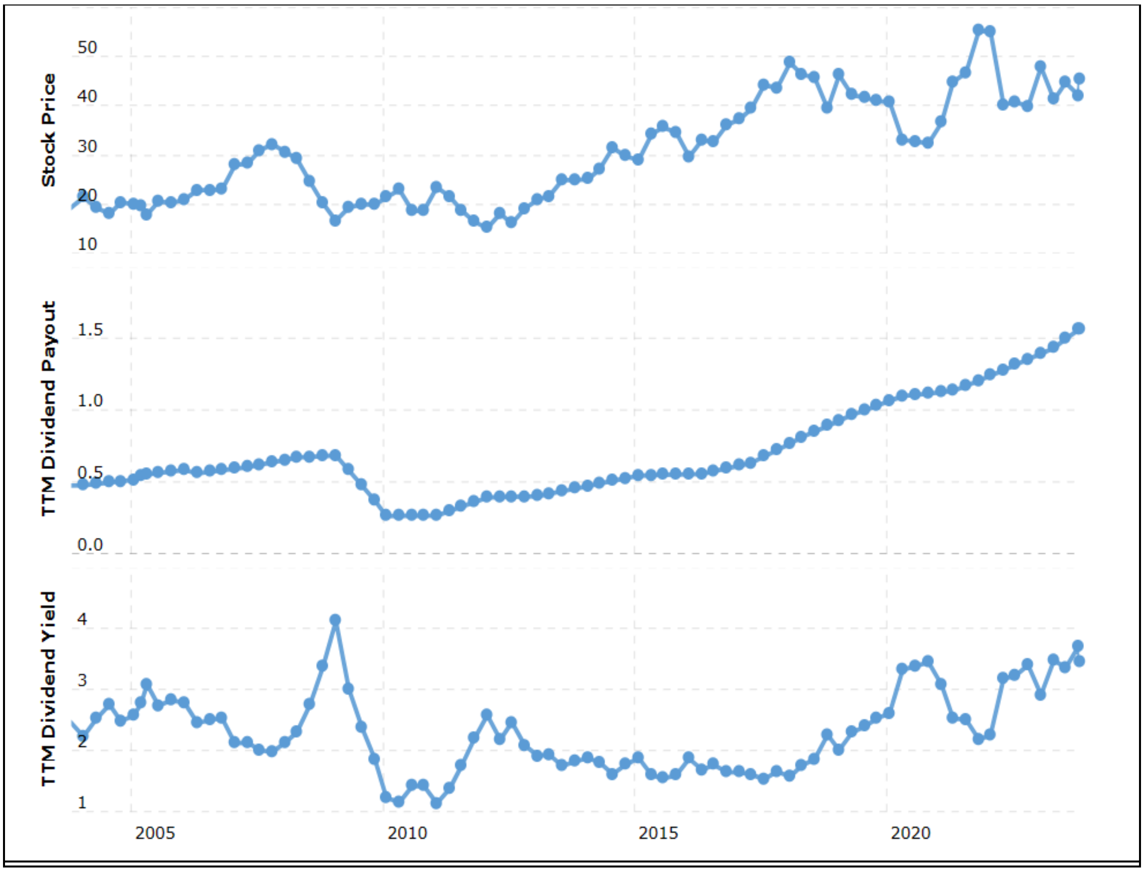
3.4 INVESTMENT RECOMMENDATION

Based on a recent statement made by Robin Vince, President and CEO of BNY Mellon while releasing Q3 Result, the business has demonstrated strong financial performance, returning 20% of tangible common stock on $4.4 billion in revenue—a 2% YoY increase. (News Release Q3 result, Oct 17,2023)

They showed resilience in an environment of difficulty by achieving strong profitability and capital returns through their vigilant asset and liability management.

The company's growing dividend yield yoy rising share prices, and goal of reaching share price $47.50 by 2024 all contribute to its rising appeal as an investment choice.

Stock price and dividend Yield curve (2003-2023)



(yahoo finance, 2003-2023)

3.5 RESILIENCE STRATEGIES

- Overall, small and medium-sized UK banks have excellent liquidity situations and are well capitalized; their average LCR is 251%, and their CET1 capital ratio increased to 18.5% in 2023. (Bank of england -monetary policy report, 2023)
- As a part of management of Liquidity Risk Company holds liquid assets and debt securities issued by sovereigns which can be sold readily if need arise, in addition to that company maintains agreed lines of credit with other banks and bank holds free assets eligible for use as collateral with central banks so they can use this as well if any crunch arises. (Strategic report 2022 BNYMIL, 2023)
- The bank has to increase its low-cost deposit base, diversify its financing sources, and keep a close eye on liquidity risk while establishing risk thresholds for various contingencies.
- The bank's resilience to unfavourable circumstances should be evaluated through extensive stress testing and scenario analysis. In order to maximize yield without losing liquidity and safety.

4. CONCLUSION

4.1 KEY FINDINGS

- To sum up, The Bank of New York Mellon (International) Limited's research on "Liquidity Risk and Resilience" shows a dynamic complex environment. The bank's decision to enter into whitelabeling services to offer liquidity solutions to other financial organisations shows a commitment to improving its capital position, even if the bank is facing issues with dropping net interest revenue and a deteriorating Liquidity Coverage Ratio (LCR) as compared to previous years but maintained Statutory requirement .
- Higher operational expenditures are a result of this capital deployment and technological investments, which is temporarily lowering profitability and earnings per share (EPS).
- The bank is actively diversifying its business model and giving priority to liquidity and capital strength in order to improve its resilience. This approach will impact short-term profitability but position the bank for long-term stability and strategic growth in the ever-changing financial landscape. This is the primary takeaway that has been acquired from this.

4.2 LIMITATIONS

- Research uses historical data to forecast future events and calls for a critical analysis of model risk.
- Liquidity needs to be checked with the help of LCR and LCR itself sometimes lead to result in to slower economic growth and lower profitability. And even LCR doesn't gives financial cushion to banks for survival until gvt and central bank steps up.
- There is constraint of time period and data availability could impact the analysis.
- Furthermore, possible problems with data integrity are highlighted by differences found in the LCR computations between the real LCR (e.g., 184.87) and the numbers disclosed in Pillar 3 disclosures (e.g., 185.66).
- These differences may add a degree of ambiguity to the study and reduce the accuracy of our conclusions. Therefore, while evaluating the study's findings, these limitations should be carefully taken into account. (I have tried to bring this discrepancy in their notice but awaiting response yet)

5. REFERENCES& BIBLIOGRAPHY

5.1 REFERENCES

Bank of england -monetary policy report, 2023. *monetary policy report -BOE.* [Online]
Available at: https://www.bankofengland.co.uk/monetary-policy-report/2023/november-2023
[Accessed 7th november 2023].

bloomberg, 2023. *overweight fixed income bloomberg.* USA: bloomberg.

BNY Mellon and Morgan stanley investment group, 2023. *whitelableing service launch,* USA: BNY mellon.

BNY Mellon official site share price center, 2023. *share price center.* [Online]
Available at: https://www.bnymellon.com/us/en/investor-relations/share-price-center.html
[Accessed 5th november 2023].

BNY Mellon, 2014. *BNY Mellon uk site.* [Online]
Available at: https://find-and-update.company-information.service.gov.uk/company/03236121
[Accessed 04 11 2023].

BNYMIL wikipedia, 2014. *BNY Mellon Wikipedia.* [Online]
Available at: https://en.wikipedia.org/wiki/BNY_Mellon
[Accessed 04 11 2023].

company info BNYIML, 2023. *THE BANK OF NEW YORK MELLON (INTERNATIONAL) LIMITED Advance company search.* [Online]
Available at: https://find-and-update.company-information.service.gov.uk/company/03236121
[Accessed 04 11 2023].

Investopedia, 2023. *investopedia.* [Online]
Available at: https://www.investopedia.com/terms/l/liquidity-coverage-ratio.asp
[Accessed 7th november 2023].

J.P.Morgan Quantitative and Derivatives Strategy for Performance Drivers, 2023. North America Equity Research(18 oct 2023). *J.P. Morgan Quantitative and Derivatives Strategy for Performance Drivers; company data, Bloomberg Finance L.P. and J.P. Morgan estimates for all other tables,* Volume 1, p. 11.

macrotrends, 2023. *macrotrends.* [Online]
Available at: https://www.macrotrends.net/stocks/charts/BK/bank-of-new-york-mellon/roe
[Accessed 7th november 2023].

News Release Q3 result, Oct 17,2023. *News Release Q3 result NY mellon* , New York : BNY mellon Group.

Official page Linkdin, 2023. *Linkdindata,* UK: s.n.

Pillar 3 disclosure, 2022. *the-bank-of-new-york-mellon-international-limited-2022-pillar-3-disclosure,* USA: BNY mellon Group.

Pillar 3 disclouserBNY mellon Dec 2022, 2022. *Pillar 3 Risk disclouserBNY mellon Dec 2022,* UK: BNYMIL.

Strategic report 2022 BNYMIL, 2023. *Strategic report 2022 BNYMIL page 7,* USA: BNYMIL.

Stress testing Report Bank of England, 2022-23. *Bank of england stress testing report.* [Online]
Available at: https://www.bankofengland.co.uk/stress-testing/2023/bank-of-england-stress-testing-acs-results-2022-23
[Accessed 4th november 2023].

Yahoo fiannce , 2023. *EPS data Yahoo finance,* UK: Yahoo fiannce.

yahoo finance, 2003-2023. *Yahoo finance dividend yield curve.* [Online]
Available at: https://www.macrotrends.net/stocks/charts/BK/bank-of-new-york-mellon/dividend-yield-history#:~:text=The%20current%20TTM%20dividend%20payout%20for%20Bank%20Of,Mellon%20as%20of%20October%2023%2C%202023%20is%20%3Cstrong%3E4.03%25%3C%2Fstrong%3E.
[Accessed 4th november 2023].

Yahoo Finance, 2023. *BK -Stock news,* UK: s.n.

5.2 BIBLIOGRAPHY

Bank of england -monetary policy report, 2023. *monetary policy report -BOE.* [Online]
Available at: https://www.bankofengland.co.uk/monetary-policy-report/2023/november-2023
[Accessed 7th november 2023].

bloomberg, 2023. *overweight fixed income bloomberg.* USA: bloomberg.

BNY Mellon and Morgan stanley investment group, 2023. *whitelableing service launch,* USA: BNY mellon.

BNY Mellon official site share price center, 2023. *share price center.* [Online]
Available at: https://www.bnymellon.com/us/en/investor-relations/share-price-center.html
[Accessed 5th november 2023].

BNY Mellon, 2014. *BNY Mellon uk site.* [Online]
Available at: https://find-and-update.company-information.service.gov.uk/company/03236121
[Accessed 04 11 2023].

BNYMIL wikipedia, 2014. *BNY Mellon Wikipedia.* [Online]
Available at: https://en.wikipedia.org/wiki/BNY_Mellon
[Accessed 04 11 2023].

company info BNYIML, 2023. *THE BANK OF NEW YORK MELLON (INTERNATIONAL) LIMITED Advance company search.* [Online]
Available at: https://find-and-update.company-information.service.gov.uk/company/03236121
[Accessed 04 11 2023].

Investopedia, 2023. *investopedia.* [Online]
Available at: https://www.investopedia.com/terms/l/liquidity-coverage-ratio.asp
[Accessed 7th november 2023].

J.P.Morgan Quantitative and Derivatives Strategy for Performance Drivers, 2023. North America Equity Research(18 oct 2023). *J.P. Morgan Quantitative and Derivatives Strategy for Performance Drivers; company data, Bloomberg Finance L.P. and J.P. Morgan estimates for all other tables,* Volume 1, p. 11.

macrotrends, 2023. *macrotrends.* [Online]
Available at: https://www.macrotrends.net/stocks/charts/BK/bank-of-new-york-mellon/roe
[Accessed 7th november 2023].

News Release Q3 result, Oct 17,2023. *News Release Q3 result NY mellon* , New York : BNY mellon Group.

Official page Linkdin, 2023. *Linkdindata,* UK: s.n.

Pillar 3 disclosure, 2022. *the-bank-of-new-york-mellon-international-limited-2022-pillar-3-disclosure,* USA: BNY mellon Group.

Pillar 3 disclouserBNY mellon Dec 2022, 2022. *Pillar 3 Risk disclouserBNY mellon Dec 2022,* UK: BNYMIL.

Strategic report 2022 BNYMIL, 2023. *Strategic report 2022 BNYMIL page 7,* USA: BNYMIL.

Stress testing Report Bank of England, 2022-23. *Bank of england stress testing report.* [Online]

Available at: https://www.bankofengland.co.uk/stress-testing/2023/bank-of-england-stress-testing-acs-results-2022-23
[Accessed 4th november 2023].

Yahoo fiannce , 2023. *EPS data Yahoo finance,* UK: Yahoo fiannce.

yahoo finance, 2003-2023. *Yahoo finance dividend yield curve.* [Online]
Available at: https://www.macrotrends.net/stocks/charts/BK/bank-of-new-york-mellon/dividend-yield-history#:~:text=The%20current%20TTM%20dividend%20payout%20for%20Bank%20Of,Mellon%20as%20of%20October%2023%2C%202023%20is%20%3Cstrong%3E4.03%25%3C%2Fstrong%3E.
[Accessed 4th november 2023].

Yahoo Finance, 2023. *BK -Stock news,* UK: s.n.

6. APPENDIX

1. Pillar 3 Discloser

The Bank of New York Mellon (International) Limited

Table 1:UK KM1 - Key metrics template

	(£m)	31-Dec-22	31-Dec-21
	Available own funds (amounts)		
1	Common Equity Tier 1 (CET1) capital	733	761
2	Tier 1 capital	733	761
3	Total capital	733	761
	Risk-weighted exposure amounts		
4	Total risk-weighted exposure amount	999	838
	Capital ratios (as a percentage of risk-weighted exposure amount)		
5	Common Equity Tier 1 ratio (%)	73.35 %	90.81 %
6	Tier 1 ratio (%)	73.35 %	90.81 %
7	Total capital ratio (%)	73.35 %	90.81 %
	Additional own funds requirements based on SREP (as a percentage of risk-weighted exposure amount) [1]		
UK 7a	Additional CET1 SREP requirements (%) [2]	5.00 %	
UK 7d	Total SREP own funds requirements (%)	16.88 %	
	Combined buffer requirement (as a percentage of risk-weighted exposure amount) [1]		
8	Capital conservation buffer (%)	2.50 %	2.50 %
9	Institution specific countercyclical capital buffer (%)	0.92 %	— %
11	Combined buffer requirement (%)	3.42 %	
UK 11a	Overall capital requirements (%) [3]	20.30 %	
12	CET1 available after meeting the total SREP own funds requirements (%)	56.47 %	75.77 %
	Leverage ratio [1]		
13	Total exposure measure excluding claims on central banks	7,602	
14	Leverage ratio excluding claims on central banks (%)	9.64 %	
	Liquidity Coverage Ratio [4]		
15	Total high-quality liquid assets (HQLA) (Weighted value -average)	8,876	
UK 16a	Cash outflows - Total weighted value	7,712	
UK 16b	Cash inflows - Total weighted value	2,911	
16	Total net cash outflows (adjusted value)	4,801	
17	Liquidity coverage ratio (%)	185.66 %	
	Net Stable Funding Ratio [4]		
18	Total available stable funding	3,210	
19	Total required stable funding	680	
20	NSFR ratio (%)	472.37 %	

Notes:

Capital and leverage are stated after the inclusion of audited profits for the year.

Selected non-applicable rows have not been presented. The ratios reflect the regulatory reporting which may result in immaterial rounding differences.

[1] Certain metrics related to additional own funds requirements, buffers, and leverage, are new disclosure requirements. Comparatives are not reported.

[2] The total P2A requirement is 8.88%, of which 5% is attributable to CET1.

[3] Refer to the summary on page 7 for the composition of the overall capital requirement.

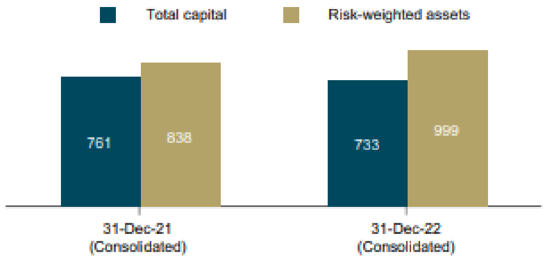
[4] Comparatives are not provided for LCR and NSFR following a change in the instructions from those reportable at 31 December 2021. As of the disclosure date the ratios are presented on an average basis in accordance with Article 447(f)(g) CRR II.

(Pillar 3 disclouserBNY mellon Dec 2022, 2022)

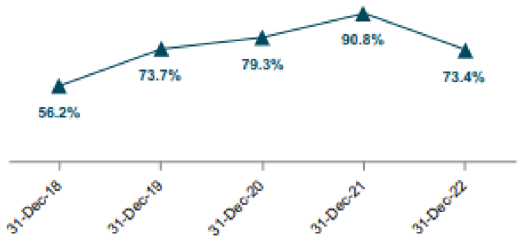
2. Ratios

The following key metrics reflect the Company's key metrics on a consolidated basis:

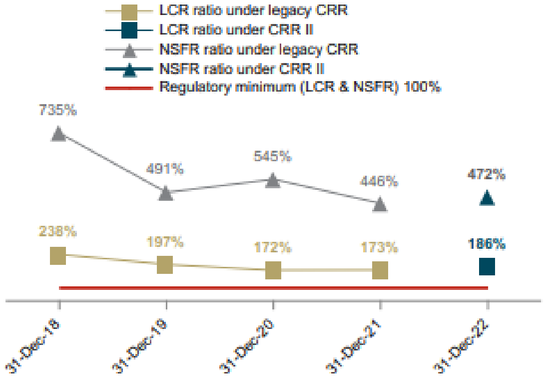
Regulatory capital and Risk-weighted assets (£m)



Total capital ratio

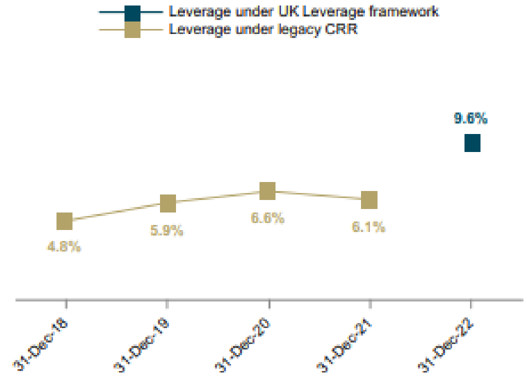


Liquidity ratios



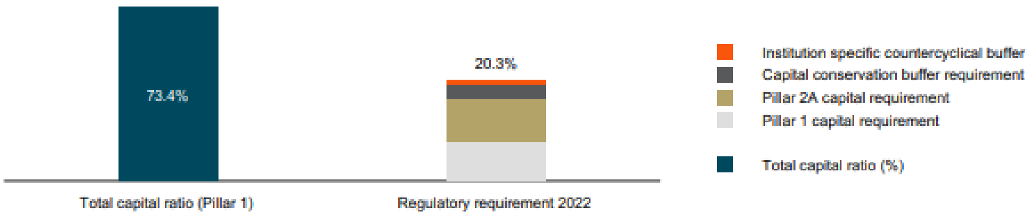
Note: As of the disclosure date the liquidity ratios are presented on an average basis in accordance with Article 447(f)(g) CRR II. Prior periods were disclosed as point in time metrics.

Leverage ratio



Note: As of the disclosure date the leverage ratio is presented exclusive of central bank claims in accordance with the UK Leverage framework. For context, prior periods included central bank claims under the legacy CRR framework.

2022 consolidated total capital ratio versus regulatory capital requirements



3. Key Metrics (JPMorgan Report)

Key Metrics (FYE Dec)				
$ in millions	**FY22A**	**FY23E**	**FY24E**	**FY25E**
Financial Estimates				
Net interest income	3,504	4,234	4,099	4,338
Non interest income	12,874	13,276	13,510	13,788
Operating expenses	(11,980)	(12,294)	(12,536)	(12,833)
Adj. PPOP	4,831	5,218	5,077	5,297
Provision for loan losses	(39)	(42)	(53)	(55)
Adj. PBT	4,781	5,174	5,020	5,239
Adj. net income	3,661	3,883	3,722	3,895
Adj. EPS	4.50	4.93	5.00	5.45
BBG EPS	4.10	4.81	5.08	5.57
DPS	1.42	1.58	1.74	1.86
Loans	65,887	65,564	67,186	68,859
Deposits	278,970	284,788	290,512	296,322
Total assets	405,783	424,793	433,292	441,988
Margins and Growth				
NIM	1.0%	1.2%	1.1%	1.1%
Ratios				
Loan/ Deposit ratio	23.6%	23.0%	23.1%	23.2%
NPL / Loans	0.2%	0.2%	0.3%	0.3%
Coverage	164.5%	140.5%	137.0%	104.2%
CET 1	11.4%	11.6%	12.4%	12.8%
Non-int. income/ Income	78.6%	75.8%	76.7%	76.1%
Cost/Income	73.1%	70.2%	71.2%	70.8%
LLP/Loans	(0.1%)	(0.1%)	(0.1%)	(0.1%)
ROA	0.9%	0.9%	0.9%	0.9%
ROE	8.7%	9.5%	9.0%	9.0%
Valuation				
Dividend yield	3.3%	3.6%	4.0%	4.3%
Adj. P/E	9.7	8.8	8.7	8.0
P/ BV	0.9	0.8	0.7	0.7

(J.P.Morgan Quantitative and Derivatives Strategy for Performance Drivers, 2023)

4. Consolidated Financial Highlights (unaudited-Q3 report-Sep,2023)

Consolidated Financial Highlights (unaudited) (continued)

Regulatory capital and other ratios	Sept. 30, 2023	June 30, 2023	Dec. 31, 2022
Average liquidity coverage ratio ("LCR")	121 %	120 %	118 %
Average net stable funding ratio ("NSFR")	136 %	136 %	N/A *(e)*
Regulatory capital ratios: *(f)*			
Advanced Approaches:			
Common Equity Tier 1 ("CET1") ratio	11.4 %	11.1 %	11.2 %
Tier 1 capital ratio	14.4	14.0	14.1
Total capital ratio	15.2	14.8	14.9
Standardized Approach:			
CET1 ratio	11.9 %	11.8 %	11.3 %
Tier 1 capital ratio	15.1	15.0	14.4
Total capital ratio	16.1	16.0	15.3
Tier 1 leverage ratio	6.1 %	5.7 %	5.8 %
Supplementary leverage ratio ("SLR")	7.2	7.0	6.8
BNY Mellon shareholders' equity to total assets ratio	10.1 %	9.5 %	10.0 %
BNY Mellon common shareholders' equity to total assets ratio	8.9	8.4	8.8

(a) Return on tangible common equity and tangible book value per common share, Non-GAAP measures, exclude goodwill and intangible assets, net of deferred tax liabilities. See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 43 for the reconciliation of Non-GAAP measures.

(b) See "Net interest revenue" on page 9 for a reconciliation of this Non-GAAP measure.

(c) Consists of AUC/A primarily from the Asset Servicing line of business and, to a lesser extent, the Clearance and Collateral Management, Issuer Services, Pershing and Wealth Management lines of business. Includes the AUC/A of CIBC Mellon Global Securities Services Company ("CIBC Mellon"), a joint venture with the Canadian Imperial Bank of Commerce, of $1.5 trillion at Sept. 30, 2023, $1.6 trillion at June 30, 2023 and $1.4 trillion at Sept. 30, 2022.

(d) Excludes assets managed outside of the Investment and Wealth Management business segment.

(e) The reporting requirement for the average NSFR became effective in the second quarter of 2023. For additional information on our NSFR, see "Liquidity and dividends" beginning on page 31.

(f) For our CET1, Tier 1 capital and Total capital ratios, our effective capital ratios under U.S. capital rules are the lower of the ratios as calculated under the Standardized and Advanced Approaches. For additional information on our capital ratios, see "Capital" beginning on page 36.

N/A – Not applicable.

(Pillar 3 disclouserBNY mellon Dec 2022, 2022)

5. **Key performance indicators**

Financial key performance indicators

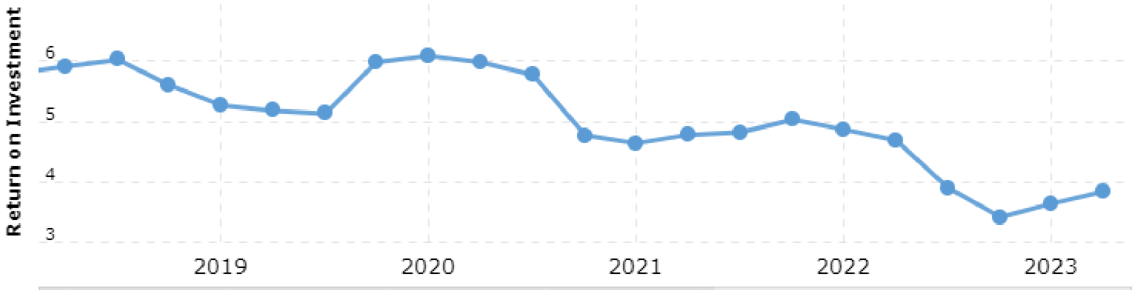
The Company's key financial and other performance indicators during the year were as follows:

	2022 £000	2021 £000	Change £000	Change %
Total operating income	218,542	181,983	36,559	20%
Total operating expenses	171,514	155,452	16,062	10%
Total operating profit before taxation	47,028	26,531	20,497	77%
Profit before taxation	69,183	55,028	14,155	26%
Net assets	863,356	878,180	(14,824)	(2)%

Total operating income increased by £36.6 million mainly due to a £41.4 million increase in net interest income reflecting the favourable impact of the rising interest rate environment during 2022. This was partly offset by a £ 7.0 million reduction in fee income, driven by a reduction in the level of Assets Under Management/Assets Under Custody ("AUM/AUC") during the year. Other income was up £3.0 million year-on-year, reflecting higher money market fees, allocated foreign exchange revenue and higher affiliate recharges. Foreign exchange translation losses increased by £0.8 million.

Total operating expenses increased by £16.1 million, mainly driven by higher technology charges and other internal service charges and was adversely impacted by the weakening of GBP during 2022, as a significant proportion of charges are denominated in USD.

6. ROI (Return on Investment -5 Years period)



(macrotrends, 2023)

7. **Share Price Chart Analysis (2020 -2023):**

11/05/2020 - 11/03/2023

INTRADAY TRADES	PERFORMANCE					
COMPANY	YIELD (%)	1 WK (%)	1 MO (%)	6 MO (%)	1 YR (%)	M CAP (BN)
The Bank of New York Mellon Corporation ($)	27.11	8.70	7.35	8.93	6.50	35.24

(BNY Mellon official site share price center, 2023)