MASTER IN FINANCE

McDonald's Corporation

Quick-Service Restaurants (QSR)

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Company Report

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McDonald's - I'm lovin' it!

Profitable growth through refranchising & expansion

- Our recommendation is to **HOLD** McDonald's Corporation based on a **target price of $304.35** by 31.12.2024. This target represents an **upside of 4.4%** from the current closing price of $291.42 as of 13.12.2023.

- Market trends such as a **growing population, a rising middle class in emerging markets and digitalisation** provide a solid foundation for further sustainable growth.

- McDonald's is expected to **continue to drive its re-franchising process** and significantly **increase its store count**, setting the stage for accelerated sales growth and improved profitability.

- The company is preparing for the future through its **"Accelerating the Arches" growth strategy** which is centered on digitalisation, close collaboration with delivery services, business process transformation and focusing on the core products.

- MCD's strong brand value and ability to adapt to changing consumer preferences will continue to drive MCD's momentum in the highly competitive QSR sector. Despite MCD's solid expected growth and margin improvement, the potential returns are already priced in by most investors, leading to a **HOLD recommendation**.

Recommendation:	**HOLD**
Price Target FY24:	**304.35 $**
Price (as of 13.12.23)	**291.42 $**

Bloomberg: MCD:US

52-week range ($)	245.73 – 299.35
Market Cap ($m)	220,743
Outstanding Shares (m)	725.3

Source: Annual Report, Bloomberg, Own Estimates

Source: Bloomberg

(Values in $ millions)	2021E	2022E	2023F
Revenues	23,223	23,183	25,092
Gross Profit	12.580	13.207	14,147
Net Profit	7,545	6,177	7,593
Gross Profit Margin	54.2%	57.0%	56.4%
EBITDA Margin	45.1%	47.0%	46.4%
Net Income Margin	32.5%	26.6%	30.3%
Operating ROIC	28.8%	29.4%	31.6%
Store Count (in tsd.)	40,031	40,275	41,764
% Franchised Restaurants	93.2%	94.8%	95.0%

Source: Annual Report, Own estimations

Company description

McDonald's Corporation (MCD), the world's most famous quick-service restaurant, manages a vast network of 40,275 restaurants, both franchised and company-operated, spanning more than 100 nations worldwide. MCD is recognised for its burgers, such as the Big Mac, fries and chicken meals, and for adapting to different cultures. More than 50% of its revenue is generated outside the US.

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Company Overview

Company Description

McDonald's Corporation (McDonald's or MCD), headquartered in Chicago, USA, is the world's largest quick-service restaurant (QSR) chain and one of the world's most recognisable and iconic brands, serving more than 65 million customers every day through 40,275 restaurants in more than 100 countries. The company was founded in 1940 by Richard and Maurice McDonald in San Bernardino, California. Ray Kroc, a franchise agent, joined the company in 1954, bought it and turned it into a global fast-food empire. McDonald's is one of the world's largest private employers, with more than 150,000 corporate employees and 2.2 million franchisees.

McDonald's offers a consistent and affordable menu with local adaptations to suit regional preferences. The menu includes a diverse range of offerings including hamburgers, fries, salads, branded sandwiches such as the Big Mac, breakfast options such as the Egg McMuffin and coffee options through the McCafé brand. In addition, the company frequently introduces limited-time promotions to further diversify its menu.

Exhibit 1: Revenue Split ($m)

Segments

McDonald's derives its revenue from both through company-operated restaurants (COR) (5.2% of total restaurants) and as a franchisor (94.8%)[1]. Each franchisee pays McDonald's rent (64.1% of franchise sales), royalties (35.5%) and initial fees (0.4%) when opening a new restaurant. These fees vary based on the ownership structure, including conventional franchise (55% of all restaurants), developmental license (20%), or foreign-affiliated (20%)[2]. With rents accounting for 39.0% of total sales, McDonald's is often referred to as a real estate company as well as a fast-food chain. In 2022, McDonald's reported sales of $23.2 billion (bn.), with 60.8% coming from franchise operations and 37.7% from company-owned stores. As the franchise segment has a much higher gross profit margin (50.7%) than company-owned stores (5.9%), McDonald's continually increases the number of franchise restaurants, which initially results in lower sales but improves profitability through higher margins.

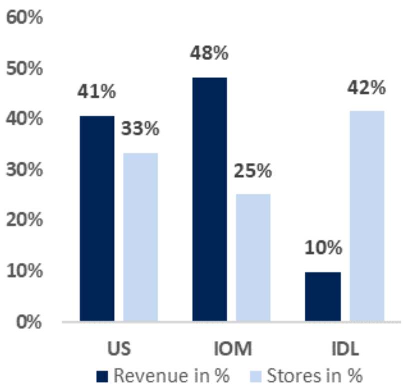

Exhibit 2: Revenue and Store count in % 2022

In addition, McDonald's operates in the following business segments: the US, International Operated Markets (IOM) and International Developmental Licensed

[1] Unless otherwise indicated, all information presented in this document is sourced from McDonald's Annual Reports
[2] Source: Shareholder Engagement Slides 2022

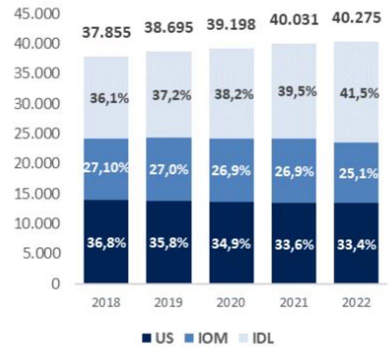

Exhibit 3: Store Count

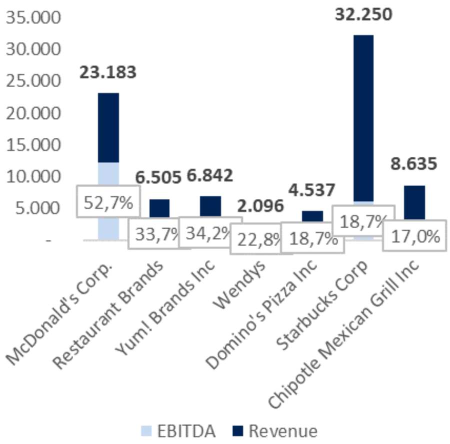

Exhibit 4: Revenue and EBITDA-Margin 2022

"Accelerating the Arches": Marketing, Focus on the Core & 4 D's

Markets & Corporate (IDL). The largest market is the US, with 33.4% of total restaurants, 40.6% of total sales and a franchise rate of 94.8%.

The IOM market encompasses 20 markets, including Australia, Canada, France, Germany and the UK, and accounts for 25.1% of total restaurants, 48.2% of total sales and a franchise rate of 89.1%. The IDL segment covers over 75 markets, including Brazil, China and Japan, with 41.5% of all stores, the highest franchise rate at 98.1%, but only 9.8% of total sales.

Competitive Advantages

The company's ability to achieve higher sales and profit margins than its competitors, as shown in exhibit 4, is evidence of its excellent market position. Its remarkable and sustained success is based on several key competitive advantages. First, its globally recognised and iconic brand, valued at USD 196.5 bn. in 2022 (most valuable fast food brand)[3], gives it a dominant global market presence, largely due to its highly successful and widely recognised marketing campaigns such as "I'm Lovin' it" in 2003, its globally recognised corporate logo, the Golden Arches, and its global reach. The company's size provides significant cost advantages through economies of scale and real estate, resulting in stable revenues that allow the company to manage its global operations. In addition, its highly efficient supply chain ensures smooth sourcing and delivery of ingredients, which reduces operating costs. Finally, and perhaps most importantly, the company's exceptional ability to innovate and adapt the menu to local and changing consumer preferences, while maintaining quality around the world, contributes to its continued success and customer loyalty. In addition, the ability to remain relevant and ahead of the market since its inception.

Growth Strategy

Since 2019, Chris Kempczinski has been the CEO of McDonald's driving the company's growth strategy, "Accelerating the Arches," which continues to serve as the foundation for revenue growth, enhanced customer engagement, and increased profitability. Anchored in the company's core identity, known as **MCD**, this growth strategy leverages historical strengths and identifies new opportunities. As part of this strategy, the company is committed to:

Maximise its marketing: Investing in new, culturally relevant approaches, such as the Famous McDonald's app, to effectively communicate the brand's story, food products and corporate purpose.

[3] Source: Statista, 2023

Focus on the essentials: Focus on the top 10 products, which account for approximately 70% of food sales and remain key growth drivers due to their popularity and profitability. In addition, expand the chicken offering, as this category is growing faster than beef.

Double Down on the 4 D's (Digital, Delivery, Drive Thru, Restaurant Development): These are the key areas where McDonald's is focusing its efforts to improve the customer experience and grow its business. These pillars include initiatives such as the development of a comprehensive digital experience engine, the expansion of delivery, the optimisation and expansion of drive-through locations and the overall expansion of restaurant locations.

Concentration	Investors	% O/S
All	32	70,8%
Top 10	767	27,9%
Top 20	4	34,6%
Top 50	5.247	45,2%
Top 100	3.256	53,2%

Exhibit 5: Holding Concentration among top investors

Ownerhsip structure

McDonald's Corporation (NYSE:MCD) went public in 1965 and is listed on the New York Stock Exchange (NYSE). Today, one share trades at $291.42 (14.12.23), giving it a market capitalisation of $211.4 bn. As a result of its substantial market capitalisation and consistent performance, McDonald's is an integral part of several major stock market indices, including the Dow Jones Industrial Average, the S&P 500 and the Russell 1000.

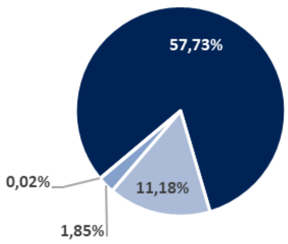

Exhibit 6: Geographical Distribution of McDonald's Institutional Investors

The majority of McDonald's shares are held by institutional investors, who account for 70.8% of ownership[4]. Of these institutional investors, 66.7% are primarily traditional investment managers and investment banks. The top three investors are The Vanguard Group (9.4%), BlackRock Inc (4.8%) and State Street Global Advisors, Inc (4.6%). Insiders hold a modest 0.2% of the shares. Geographically, institutional investors are mainly located in the United States (55.6%), UK (4,2%), Canada (2.1%) and Norway (1.3%).

Company Index	Annualized Volatility
McDonald's	16,5%
Starbucks Corp	22,8%
Domino's Pizza Inc	28,2%
Yum! Brands Inc	23,0%
Restaurant Brands International	27,1%
Chipotle Mexican Grill Inc	32,8%
Wendys Co	25,3%

Exhibit 7: Annualized Volatility Peers

This significant institutional ownership contributes to lower share turnover, resulting in reduced share price volatility and a long-term focus. Exhibit 7 shows that McDonald's has the lowest annualised volatility among its peers, based on a decade of monthly data. This trend underscores the robust and resilient nature of McDonald's business model, which has consistently withstood various economic challenges and uncertainties.

Leadership Team

As of 31 December 2022, the McDonald's management team consists of 14 Board members, 4 of whom are women. The average age is 54.8 years and the average length of service is 14 years, although it should be noted that 4 members joined in 2022 and a further 7 members have been with the company

[4] Source: Refinitiv, Retrieved 23.11.2023

McDonald's Leadership Team: Diversity, Stability, and Long-Term Expertise

for over 20 years. The average tenure of the entire Board can be used as an indicator of the stability and experience of the management team. McDonald's is led by CEO Chris Kempczinski, who took over the role on 01 November 2019. Kempczinski joined McDonald's in 2015 and has more than 25 years of professional experience at relevant companies such as Procter & Gamble, PepsiCo, Kraft Foods and strategy consultancy Boston Consulting Group.[5]

Overall, McDonald's Leadership Team is strategically aligned to guide the company towards enduring prosperity and sustainable success. The composition of the Board reflects a judicious blend of expertise and diversity, crucial for steering the company in an ever-evolving business landscape.

Stock Performance

Comparing MCD's historical share price performance to various key indices, we see that McDonald's has slightly outperformed the market. Over this period, MCD generated an annualised return of 15,2%, outperforming the MSCI World, S&P 500 and Dow Jones, which returned 6.4%, 12,4% and 13,5% respectively.

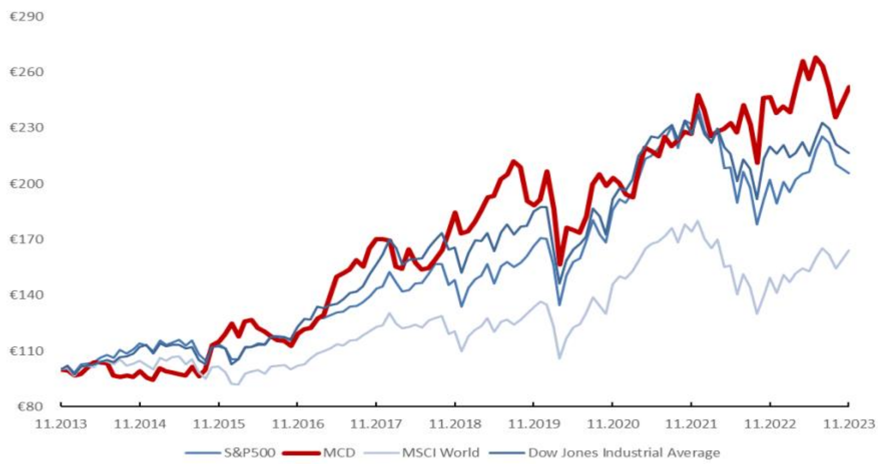

Exhibit 8: MCD stock performance against selected Indices

The fact that its annualised volatility is not significantly higher than that of the indices suggests that it has delivered consistent returns with relatively moderate risk.

McDonald's is known as a "dividend aristocrat" for its consistent returns to shareholders. The company's impressive track record includes 46 consecutive years of paying dividends on its common stock, with annual increases. In FY22, the payout ratio was 67.5%. However, McDonald's commitment to shareholder returns extends beyond dividends and includes a substantial share repurchase program, which has resulted in a -4.7% reduction in shares outstanding between

[5] Source: McDonald's Corp. Corporate Website, Annual Report

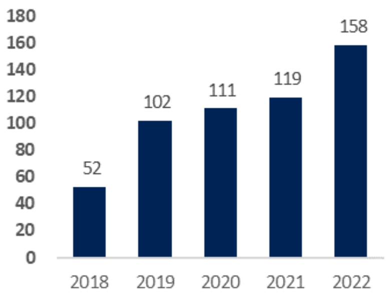

Exhibit 9: Cumulative Share Buybacks ($m.)

2018 and 2022. The most recent share repurchase program was approved by the Board of Directors in December 2019, authorizing the repurchase of up to $15 bn. of the company's outstanding shares with no predetermined expiration date. This program was temporarily suspended in 2020 due to the COVID-19 pandemic, but resumed in September 2021.[6] Shares were reduced primarily through the use of excess cash, an increase in refranchising (the conversion of company-owned restaurants to franchises), and the issuance of long-term debt, which increased by 15.5% from 2018 to 2022, taking advantage of prevailing low interest rates.

In millions, execpt per share data	2018	2019	2020	2021	2022
Number of shares repurchased	32,2	25	4,3	3,4	15,8
Shares outstanding at year end	767	746	745	745	731
Dividends declared per share	4,19	4,73	5,04	5,25	5,66
Treasury stock purchase (in Shareholders equity)	5.247	4.980	874	846	3.896
Dividends paid	3.256	3.582	3.753	3.919	4.168
Total return to shareholders	**8.503**	**8.562**	**4.627**	**4.765**	**8.064**
Payout Ratio	54,96%	59,45%	79,33%	51,94%	67,47%

Exhibit 10: Total Shareholder return

It's worth noting that McDonald's is not alone in this practice; industry competitors such as Restaurant Brands International have also initiated significant share repurchase programmes. Share buybacks are an effective way to increase profitability on an earnings per share basis. However, the use of debt to fund buybacks is a critical decision, as it takes advantage of low interest rates while carrying inherent risks, such as the potential for financial distress.

Industry Overview

Macroeconomic Analysis

McDonald's Corporation operates in a global macroeconomic landscape characterized by several key factors, each bearing significant implications for its business operations and strategic decisions.

Covid-19

The ongoing impact of the Covid-19 pandemic continues to be a macroeconomic factor in 2023. While vaccination campaigns and improved treatments have reduced the severity of the crisis, new variants and waves can still disrupt economic activity. Measures such as lockdowns, travel restrictions, and changes in consumer behavior can affect various sectors of the economy, including hospitality, travel, and entertainment. The pandemic's influence on supply chains, labor markets, and inflation remains relevant, as companies adapt to these ongoing challenges.

[6] Source: Reuters, 2021

Inflation

High inflation rates present a significant macroeconomic challenge in 2023. This inflationary pressure impacts businesses' cost structures, consumer spending patterns, and the broader investment landscape. High Inflation reduces consumer purchasing power and therefore companies in sectors reliant on consumer demand should anticipate changing consumer behavior. The pricing power of companies might be an important factor for passing on cost increases to the customers.

Monetary policies

Central banks globally have responded to these inflationary pressures by adopting tighter monetary policies over the past two years. These policy shifts carry extensive implications for businesses and investors. Entities like McDonald's must consider the impact on capital structure and financing strategies in this evolving monetary context. Companies that possess substantial cash reserves and maintain low debt-to-equity ratios might find themselves better positioned to attract investor interest under these conditions. Concurrently, the relative appeal of equities versus fixed-income investments is a vital consideration in this shifting economic climate.

Geopolitical tensions

The ongoing conflict in Ukraine and Israel has broad geopolitical and economic consequences. Investors and businesses need to be vigilant regarding supply chain disruptions, commodity price fluctuations, and potential sanctions. The conflict has the potential to disrupt global supply chains, particularly for industries reliant on Eastern European markets or resources. Companies should diversify suppliers and assess geopolitical risks. Especially Ukraine and Russia are significant players in the global grain market. The conflict can disrupt agricultural exports, affecting wheat, corn, and other agricultural commodity prices. This may have a cascading effect on food production costs, impacting the food and beverage sector, as well as livestock industries.

Market Trends

In the rapidly evolving landscape of the quick service restaurant industry, McDonald's Corporation must adeptly navigate several key trends to maintain its market leadership. These trends, influenced by technological advancements, changing consumer preferences, and environmental concerns, are reshaping the operational and strategic frameworks of the industry.

Digital Evolution in the Quick Service Industry

In the digital age, quick service restaurants have increasingly adopted mobile apps and online ordering platforms to provide a more efficient and convenient experience for customers. Customers can now use these platforms to place orders, make payments and select either delivery or pick-up options. Covid-19 has further accelerated the process of digital adaptation by requiring contactless transactions, improving the overall customer experience. In addition, third-party delivery services such as UberEats, Door Dash, Bolt Food or Lieferando have expanded the customer base for the quick service restaurant industry, making it easier for customers to access their favourite meals from the comfort of their homes. This development is not just about broadening the customer base, it is also about meeting rising customer expectations. For McDonald's, investments in digital platforms, mobile ordering and contactless payments are not just trends, but necessities. The company's continued focus on integrating technology into its service model - from AI-driven drive-thrus to app-based ordering systems - is essential to staying competitive and meeting evolving customer expectations.

Shift to healthier menus in Quick Service Restaurants

The growing demand for healthier menu choices is challenging the quick service restaurant industry to adapt to this new environment. As consumers become more health conscious, quick service restaurants must expand and adapt their menus to accommodate this trend. In addition to healthier alternatives, plant-based options are becoming increasingly relevant for those seeking nutritional and ethical choices. In addition, regulations in many countries require quick service restaurants to be transparent about their nutritional content, making it easier for customers to make informed choices. This trend towards healthier and ethical options represents an industry-wide commitment to meet a wide range of dietary preferences and evolving consumer expectations. Falling behind this trend could result in a rapid decline in sales. McDonald's ability to integrate these options while maintaining its core offerings is critical to attracting a broader customer base and retaining health-conscious consumers.

Rise of ghost kitchens leads to increased profitability

The growing popularity of ghost kitchens presents an opportunity for McDonald's to explore more efficient models for delivery and takeout services. These kitchens, which focus solely on preparing food for delivery and takeout, offer benefits such as lower operational costs and flexible location choices. For McDonald's, adopting this model could lead to higher profit margins and greater operational efficiency in catering to delivery-focused consumers.

Sustainability is becoming a key consumer expectation

Sustainability is one of the most prominent factors, shaping the Quick service restaurant industry in the future as consumer preferences evolve, and society places a growing emphasis on environmental and social responsibility. Sustainability is not merely a trend, it has become a consumer expectation. Consumers are increasingly conscious of the ethical and environmental footprint of the companies they support. A favourable perception can translate into increased customer loyalty and positive word-of-mouth, fostering long-term brand loyalty. Companies that proactively embrace sustainability measures are also better positioned to adapt to changing regulations and avoid potential legal and reputational risks.

Competitive Landscape

McDonald's is facing intense competition in the Quick service industry from a range of competitors. Although it must be mentioned that the competitors vary across each region that McDonald's is present, the main competitors can be identified as Royal Brands International (Burger King), YUM! Brands, Domino's Pizza, Wendy's, Starbucks and Chipotle which can be categorized into direct and indirect competitors. Direct competitors are operating in the direct business line of the QSR industry, while indirect competitors are operating in different business lines of the QSR industry.

Given McDonald's considerable scale, it is difficult to identify direct competitors with an identical business scope. Therefore, the competitors selected for comparison were chosen based on their similarity to McDonald's in terms of profit margins, geographic coverage and business model. This approach ensures a relevant and meaningful competitive analysis as these companies reflect key aspects of McDonald's operational and financial dynamics and provide a contextually accurate picture of the competitive environment in which McDonald's operates.

- Direct Competitors

Restaurant Brands International is a Canadian multinational fast food holding company, established in 2014 through merger between Burger King and Tim Hortons which focuses on the sale of coffee and donuts. The company further expanded its offering by the acquisition of Popeyes Louisiana Kitchen an American fried chicken restaurant chain. RBI has a substantial global footprint that spans nearly 30,000 restaurants across more than 100 countries and about $39 bn. in systemwide sales. The company predominantly operates through a franchise system, with less than 1% of the restaurants being company-operated. RBI, through the brand Burger King, with its global presence and similar customer offering can be defined as McDonald's closest competitor.[7]

The Wendy's Company which was founded in 1969 is one of the major players in the hamburger and sandwich restaurant business. Wendy's has a considerable restaurant portfolio with 7,095 locations worldwide, of which 6,680 are being franchised. The company mainly operates in the U.S with over 5,995 restaurants. With over $2 bn. in revenue, Wendy's achieved being one of the most well-known

[7] Source: Restaurant Brands International, 2023

restaurant chains without any major acquisitions. Through its enduring brand identity, diversified menu offerings, and substantial market presence, Wendy's is a key competitor in the fast-food industry.[8]

Yum! Brands Inc. is a prominent global quick-service restaurant company with a comprehensive portfolio of restaurant brands including KFC, Pizza Hut, and Taco Bell. The company was founded in 1997 as Tricon Global Restaurants and established as its own legal entity through the spin off from PepsiCo. As of 2022, Yum! Brands operates 55,361 restaurants in 156 different countries, with approximately 18,000 located in the U.S., generating $6,842 bn. in revenue. The company operates in various food categories within the Quick Service restaurant industry including chicken, pizza, Mexican-style food, and burgers, reflecting a diverse menu offering across its brand portfolio. Yum! Brands manages its brands primarily through a franchising model with only 2% of the restaurants currently being company-operated. [9]

- Indirect competitors

Starbucks Corporation is the world's largest coffee house chain, with nearly 36,000 stores in 80 countries and a retail coffee business that generates $32 bn. in sales. Starbucks' primarily focuses on high-quality coffee and other beverages, although it is expanding its menu to include a variety of food items, snacks and pastries. Starbucks enjoys a competitive advantage through strong brand recognition and customer loyalty. Although Starbucks is primarily a coffeehouse, its size, number of stores and expanding menu positions it as a competitor to McDonald's in the breakfast and coffee segment. [10]

Domino's Pizza Inc., is a leading pizza delivery company, operating a mix of company-owned and franchise stores. The company operates globally with 6,686 total stores in the U.S., of which only about 5% are company-operated, and 13,194 stores in international markets. Domino's offers a diverse menu consisting of various pizza products with different crusts and sizes, pasta-based dishes, chicken wings and oven-baked sandwiches. Founded in 1960, Domino's has grown into one of the world's leading pizza delivery companies through strategic international acquisitions and joint venture expansion.[11]

Chipotle Mexican Grill, which was founded in 1993, is known for its menu of customizable burritos, bowls, tacos, and salads. The company operates more than 3,129 restaurants in the US and 53 restaurants in international markets. A

[8] Source: The Wendy's Company, 2023
[9] Source: YUM Brands Inc., 2023
[10] Source: Starbucks Corporation, 2023
[11] Source: Domino's Pizza Inc, 2023

unique feature of Chipotle within the quick service restaurant industry is that it does not use a franchise model, resulting in reported revenues of $8.6 bn., while maintaining a below average gross profit margin of 28.8% compared to franchising competitors. However, Chipotle's operating performance has been robust, with a steady increase in the number of restaurants and revenue.[12]

Although there is intense competition within the QSR industry, it must be noted that the threat of new entrants is low. This can be attributed to well-established players with recognized brands and substantial brand loyalty, which acts as a barrier for new players. It may take time for new entrants to establish a similar level of recognition and trust with customers. Large companies also profit from economies of scale as they have a comprehensive supply chain and distribution network, allowing them to offer products at competitive prices that are difficult for new entrants to match. Moreover, their extensive operations lead to cost efficiencies in purchasing, production, and marketing. The last entry barrier would be the capital requirements, new entrants would need an extensive amount of capital to invest in infrastructure, operations and marketing besides the real estate aspect of the industry.

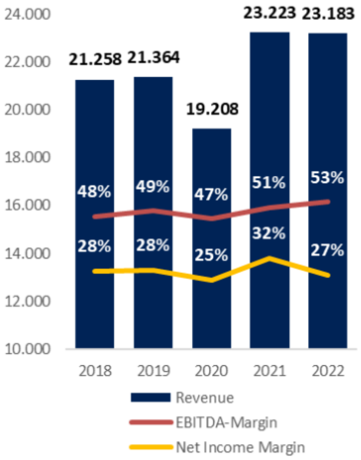

Exhibit 11: Revenue (m$) and Margin Development

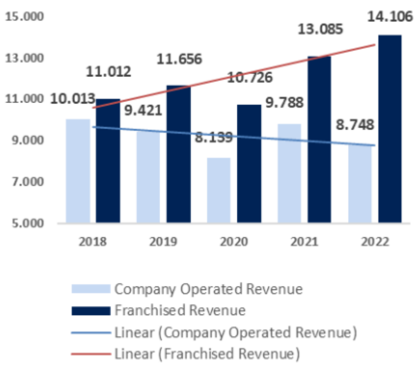

Exhibit 12: Development company-operated and franchised revenue

Financial analysis

To determine McDonald's financial health, an in-depth review of the company's financial records, liquidity measures and capital structure over the past five years is undertaken.

From 2018 to 2022, McDonald's revenue was observed to grow at a compound annual growth rate (CAGR) of 1.7%, a rate significantly lower than its industry peers. This low growth rate was largely due to a decline in company-operated sales (COR) with a CAGR of -2.7%, while franchise-operated sales (FOR) recorded an upward trend with an increase of +5.1%. An analysis of revenue trends shows declines of 6.3% and 10.1% in 2018 and 2020, respectively. The 2018 decline was largely related to a decline of 20.9% in COR due to strategic restructuring. In contrast, the decline in 2020 was attributed to the impact of the Corona pandemic and related temporary closures in IOM markets. However, a rebound in growth of around 20.9% was observed in 2021. A slight decline of 0.2% was observed in 2022, mainly due to the geopolitical situation with permanent restaurant closures in Russia and temporary closures in Ukraine. Looking at the historical growth rates of MCD by geographical segment, the US market showed the highest CAGR of 4.2%, closely followed by the IDL segment

12 Source: Chipotle Mexican Grill, 2023

with a CAGR of 4.1%. In contrast, the IOM segment experienced a contraction with a negative CAGR of -0.6%, mainly due to challenges in the Russian market.

An analysis of McDonald's financial performance highlights a marked improvement in the EBITDA margin, which rose from 47.6% to 52.7% during the analysed period. This increase is primarily due to the company's focused refranchising initiatives. In 2018, franchise sales accounted for 51.8% of total revenue, while by 2022, franchise revenue increased significantly to 60.8%. Simultaneously, the franchising segment recorded an impressive margin of 83.3% in 2022, in contrast to the company-operated restaurants (COR) margin of 15.64%. This is also evident as COR expenses account for 31.8% of total sales in 2022, while franchisee-related expenses are only at 10.1%. The franchise segment's significantly higher profitability and lower capital requirements underlines its strategic attractiveness.

in million	2018	2019	2020	2021	2022
CCE	866	899	3.449	4.709	2.584
% Growth		3,8%	283,9%	36,5%	-45,1%

Exhibit 13: Cash and Cash Equivalents

An assessment of selected balance sheet items shows relative stability over the years. However, between 2018 and 2019, assets and liabilities experienced a significant increase of approximately $14.7 bn. This increase was attributed to the implementation of the new accounting standard ASC 842, which requires the recognition of most leases on the balance sheet. Additionally, there was a notable 284% increase in cash and cash equivalents (C&CE) in 2020 owing to reduced capital expenditure and fewer share buybacks, coupled with the sale of McDonald's Japan stock. However, in 2022, there was a decline of -45.1% in C&CE due to the resumption of share buybacks.

	2018	2019	2020	2021	2022
Current ratio	1,36	0,98	1,01	1,78	1,43
Quick ratio	1,35	0,97	1,00	1,76	1,41
Cash ratio	0,29	0,25	0,56	1,17	0,68

Exhibit 14: Liquidity Ratios

Standard liquidity ratios were used to analyse McDonald's liquidity. The results show a consistently strong liquidity position throughout the period. McDonald's demonstrates its ability to meet current obligations and maintain sound short-term solvency. Both the current and quick ratios are above 1, indicating the company's ability to meet current obligations without resorting to inventory liquidation. There was a slight fluctuation in the cash ratio, which increased to 0.68 due to an increase in cash and cash equivalents. This trend suggests that McDonald's has a solid basis for financing short-term liabilities, and is ahead of its competitors in terms of liquidity.

	2018	2019	2020	2021	2022
Interest coverage	8,80	7,98	5,92	8,33	8,57
Debt Ratio	94,7%	71,9%	71,1%	66,2%	71,2%
Debt/EBITDA	3,07	3,23	4,18	3,03	2,94

Exhibit 15: Solvency & Capital Structure

In terms of solvency and capital structure, the debt-to-equity (D/E) ratio was considered unsuitable due to significant share buyback activity, resulting in negative equity. Consequently, the interest coverage ratio, Debt/EBITDA and leverage ratio were used for the assessment. The analysis showed that McDonald's was able to easily meet its interest obligations, with the interest coverage ratio remaining consistently above 8, with the exception of the Corona pandemic in 2020. The Debt/EBITDA ratio improved from 3.07 to 2.98 between

2018 and 2022, indicating effective debt management and EBITDA growth outpacing new debt. The debt ratio also shows a reduction from 94.7% in 2019 to 71.2% in 2022.This trend is supported by an Altman Z-score of 4.8 in 2022, indicating a low risk of bankruptcy and confirming McDonald's financial stability.

	MCD	RBI	Yum!	Wendys
Debt ratio	71,2%	58,4%	202,7%	62,6%
Interest Coverage Ratio	8,6	3,9	3,8	2,7
Debt/EBITDA	2,9	6,1	5,1	7,4
ROIC	23,4%	9,0%	60,5%	7,3%
Return on Assets	11,9%	6,4%	22,4%	3,4%

Exhibit 16: Peer Comparison

Compared to its peers, McDonald's debt ratio is slightly elevated at 71,2% excluding YUM Brands and Domino's Pizza. However, McDonald's interest coverage and Debt/EBITDA ratios are significantly better, as shown in exhibit 16.

	2018	2019	2020	2021	2022
ROIC	26,1%	27,1%	20,4%	28,1%	23,4%
Return on Assets	18,0%	15,2%	9,5%	14,2%	11,9%
Asset Turnover	0,64	0,53	0,38	0,44	0,44

Exhibit 17: Return Ratios

An analysis of McDonald's financial performance shows a decline in return on assets from 18.0% in 2018 to 11.9% in 2022, and a decline in asset turnover from 0.64 in 2018 to 0.44 in 2022, suggesting potential for operational efficiency improvements. Nevertheless, McDonald's maintains a relatively high return on invested capital (ROIC) of around 23.4% in 2022, indicating efficient capital utilisation and value creation for investors. While McDonald's profitability outperforms its peers, there is room for improvement in asset utilisation efficiency compared to Yum! Brands Inc.

The financial analysis of McDonald's from the previous five years exhibits a firm with solid liquidity, effective debt management and strong profit margins, which position it favourably relative to its peers. Although it faces difficulties in sales growth and asset utilisation efficiency, McDonald's demonstrates financial stability and potential for further strategic development.

Forecast

To build a comprehensive and reliable revenue forecast for McDonald's Corp. we use a bottom-up approach identifying the company's key revenue drivers. Within the three different main markets, U.S., IOM and IDL, the key drivers can be divided into total number of stores, franchise development and average unit volume (AUV). For each market we distinguished between the projection period which runs from FY23 to FY33 and the steady state which will project all future growth. The bottom-up approach we followed included forecasting four different metrics which are the worldwide locations, revenue split between markets and differentiating between franchised, and company-operated and at last the Average unit volume which resembles the sales of each store.

Revenue

McDonald's revenue has been on a steady rise, registering a CAGR of 1.7% between 2018 and 2022, reaching $23.2 bn. in 2022. Despite a challenging FY2020, which saw a 10% drop in sales due to global COVID-19 restrictions, there's optimism surrounding McDonald's prospects. Global restaurant expansion is expected to drive McDonald's to a projected revenue growth rate of 5.1% over the forecast period, driven by the following metrics: Store Growth, Franchising and AUV.

- Store growth

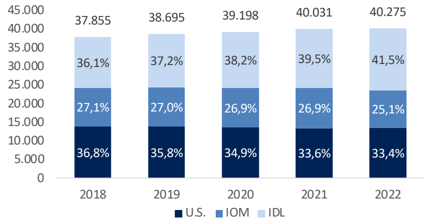

Exhibit 18: Development of the global store growth

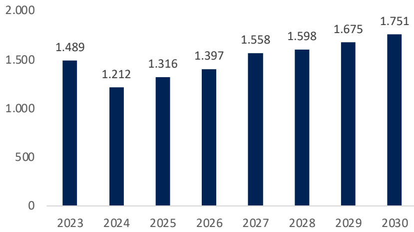

Exhibit 19: Forecast of the store net openings

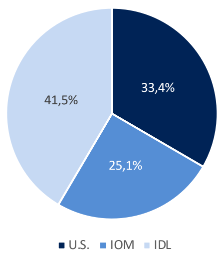

Exhibit 20: Global store split 2022

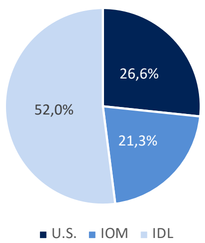

Exhibit 21: Global store split 2033

With McDonald's being founded in the U.S., it represents the flagship of its operation with 33.4% of the store count, even though the International operated markets and international developmental license market displayed excessive growth in terms of revenue and store opening the last years. McDonald`s maintained a strong organic growth through the opening of new stores, developing existing ones and moving to more prominent locations. The company is starting to reaccelerate its store growth agenda in 2023 with 1,900 planned new locations worldwide[13] which translates to about 1,500 new net locations, compared to the average of 570 new net locations over the last five years. One of the main growth pillars for McDonald's in the recent years was the IDL market with 1,100 new net additions planned for 2023. We expect the net openings to remain strong even after 2023. Since we see a lot of potential in the IDL markets with uprising countries like India we predicted the store growth to outperform its peer markets. With an average net openings of 1,100 per year in the projection period and a CAGR of 4.9% from 2023-2033. The U.S. market and IOM market are predicted to grow at a significantly slower CAGR of 0.8% and 1.4%, due to the fact of them already being saturated, with an average net store opening of 155 and 120 for the IOM and U.S. segment respectively. This aligns with the strategy of McDonald's to concentrate investment into markets with strong returns and opportunities for long-term growth. McDonald's already pursued the strategy of organic growth in 2021 and 2020 through extensive investment in new restaurant openings with 1,500 and 1,400 new restaurant openings respectively. However, the company was slowed down in terms of net restaurant openings due to closures related to the COVID-19 pandemic and the shutdown of the Russian market in response to the attack on Ukraine during 2021.

We assumed that the net restaurant openings will decrease and align with the expected GDP growth rate weighted by revenue by 2031. We assume that by 2033, the number of stores will increase to 55,381 split up as showcased in Exhibit 21.

- Franchising

McDonald's Corporation is strategically advancing its growth through a predominantly franchise-focused expansion model. This approach, which aligns

[13] Source: Annual report 2022

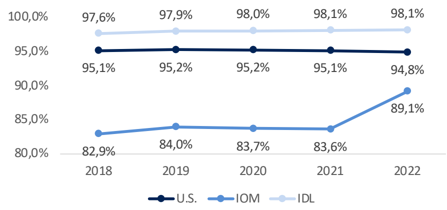

Exhibit 22: Franchise Development in different markets

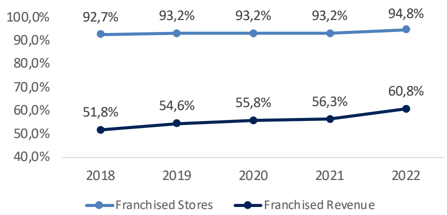

Exhibit 23: Franchised Stores vs. Franchised Revenue

with industry norms, is anticipated to catalyse accelerated growth and enhance margin profiles. The proportion of franchised stores in McDonald's portfolio has been on an upward trajectory, increasing from 92.7% in 2018 to 95.0% in 2022. Projections indicate a further rise to 96.2% in 2033. This shift towards a higher franchise share not only promises better margins, but also reflects the refranchising strategies of major industry competitors, such as Burger King, which increased its franchise share from 88.2% to 99.8% between 2009 and 2022. This trend reflects McDonald's adherence to an industry-standard approach, optimizing operational efficiency and profitability through its franchising model. This pivot to franchising leverages the intimate market knowledge and entrepreneurial zeal of local franchise operators by aligning incentives to maximize operational efficiency and highly targeted, region-specific marketing initiatives. McDonald's has significant leverage through its property ownership, which includes 55% of the real estate and 80% of the physical restaurant structures. This not only ensures a steady stream of rental income, but also gives McDonald's strategic flexibility to optimize restaurant locations to adapt to changing market dynamics. It is critical to remember that while this strategic shift puts McDonald's in a favorable position for scalable expansion and margin improvement, it also requires an increase in capital expenditure. The capital deployed will support the development of new franchise locations, upgrades to existing locations and improvements to franchisee support systems. In refining our forecasts for McDonald's US business, we maintain our expectation that the franchise ratio will remain at the five-year historical norm of 95% throughout the forecast horizon and reach a stable equilibrium. This continuity is underpinned by a consistent track record that shows no historical deviations that would indicate an imminent change. When we shift the focus to the International Operated Markets and International Developmental Licensed segments, we see a clear shift towards increased franchising activities. The franchising share in IOM has increased from 82.9% in 2018 to 89.1% in 2022, underpinning our conviction of a continued upward trend. As a result, we have forecast a slight increase to 90.2% by the end of 2031, although we expect the level to be maintained thereafter. A similar trend can be seen in the IDL segment, which has pursued a more aggressive franchising strategy in the past, rising from 97.6% in 2018 to 98.2% in 2022. Expecting this momentum to continue, our model includes an escalation to a franchising rate of 99.1% by 2031.

- Average Unit Volume

Weights	Inflation	Market CAGR	GDP	Consumer Spending
U.S.	0,482	0,181	0,600	0,337
IOM	0	0	0,273	1,545
IDL	0,017	0	0	1,429

Exhibit 24: Weight distribution of forecasting metrics

Even though the U.S. market does not impress with outstanding growth it is the most resilient one of all the operating markets. We assumed that McDonald's is able to maintain a strong market position. The average unit volume which

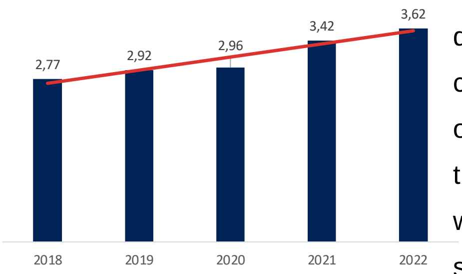

Exhibit 25: AUV development in the U.S. market (m$)

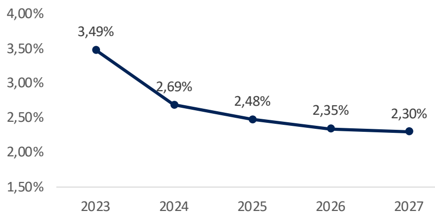

Exhibit 26: Revenue weighted Inflation forecast

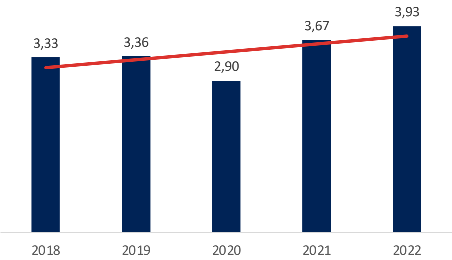

Exhibit 27: AUV development in the IOM market (m$)

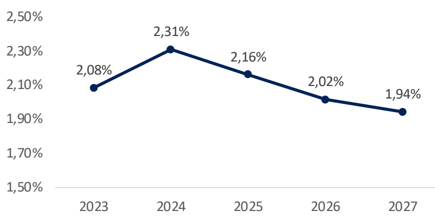

Exhibit 28: Revenue weighted GDP forecast

represents the average sales of every single location in the U.S. is at $3.6 million dollar in 2022 and is forecasted with a combination of different factors. With current macro-economic conditions, Inflation is an important factor in the US, and our assumptions suggests that McDonald's is able to pass on cost increases in the supply chain to the consumer due to its robust market position. In addition, we have used GDP growth, a measure of consumption, investment, government spending and net exports, as an indicator of the economic environment. Even though consumption is a component of GDP, our regression analysis confirms that consumer spending is also an important factor in mapping AUV increases. Incorporating these factors, leaves us with a rather conservative approach at looking at the AUV development. We assume a CAGR of 4% during the projection period from 2023 to 2031 which comes well short of the CAGR from 2018 to 2022 of 5.5%. This conservative estimate acknowledges the possibility of an economic deceleration and anticipates a more moderate trajectory of growth within the U.S. sector leading to an AUV of 5.7 in the US in 2033.

A look at the current figures for the International Operated Markets segment provides crucial insights and emphasizes its central role in the financial structure of McDonald's Corporation. With an AUV of USD 3.9 million, the IOM is the central earnings pillar in the company's portfolio, a status that we expect to continue. Our forecasts are based on a synthesis of variables, including historical trends and a GDP growth rate weighted by the number of restaurants in each country. Unlike the U.S. market, a regression analysis underlines that Inflation is not related to the AUV growth of foreign markets. This effect arises from the conversion process of international revenues from local currencies into U.S. dollars for the purpose of consolidated financial reporting. It's pivotal to understand that local inflation impacts the purchasing power within the respective domestic markets and not the U.S. dollar valuation directly. During the conversion process, it is the prevailing exchange rates that influence the reported U.S. dollar revenue figures, not the rates of local inflation. With that in mind, the weights of the different factors as GDP, inflation and consumer spending differ from the ones assumed for the U.S. market. Considering these factors, the IOM segment is expected to maintain its position as a leading revenue generator compared to other markets. We expect the IOM segment to grow at a compound annual growth rate (CAGR) of 6.2% during the forecast period, beating the 3.3% CAGR from 2018 to 2022. We expect AUV to grow to $7.5 million by the end of 2033, highlighting the IOM segment's significant contribution to McDonald's revenue stream.

The International Developmental licence market presents a fascinating analytical challenge for AUV forecasting. With an AUV of $1.8 million, it lags behind

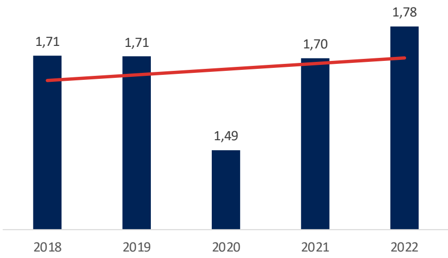

Exhibit 29: AUV development in the IDL market

McDonald's other market segments. The complexity of forecasting within the IDL segment, which spans 78 countries, is significantly higher compared to more uniform markets such as the United States or the IOM, which primarily comprises European countries. The complex web of the IDL segment, which includes both high-growth emerging markets and stable industrialised countries, defies a one-size-fits-all approach to economic forecasting. Given the inherent diversity of this segment, we expect the IDL to show the strongest growth compared to McDonald's other market segments. This forecast is underpinned by a revenue weighted GDP growth forecast and consumer spending that capitalises on the accelerated growth potential of developing countries within the segment. Our forecasts therefore assume a CAGR of 6.3% for the IDL market over the projection period. By the end of this period, we expect an AUV of $3.4m, supported by the segment's favourable position in fast-growing economies. The revenue weighted approach to GDP growth significantly strengthens the expected growth rate for the IDL segment compared to the other segments and underlines our optimistic forecast for sales development. Nevertheless, it indicates that the IDL segment has the lowest purchasing power compared to the other segments.

Multiplying the Average Unit Volume (AUV) by the projected number of stores, it is estimated that McDonald's will generate revenues of $50.4 bn. by 2033. Analysis of the compound annual growth rate (CAGR) for the period between 2023 and 2033 reveals that the IDL segment is expected to experience the highest growth, with a CAGR of 10.6%. This is followed by the U.S. segment at 5.8% and the IOM segment at 7.6%. Notably, the contribution of the IDL segment to total sales is projected to increase significantly, from 9.8% in 2022 to 13.7% by 2033. In contrast, the IOM's share of total sales is anticipated to increase from 48.2% to 49.4%, while the U.S. market's contribution is expected to decline from 40.6% to 35.6%. These projections underscore a shift in the geographical revenue distribution of McDonald's, with a growing emphasis on the IDL segment.

Margins and Operational Performance

We have closely monitored the development of McDonald's gross profit margin, in particular the increase from 51.0% in 2018 to 57.0% in 2022. This improvement in profitability is due to tight control of operating costs and expenses against the increase in revenue. A detailed look at the company's cost structure shows a recognisable decrease in expenses for company-operated restaurants, such as food and paper costs and payroll, while expenses for franchise restaurant occupancy show a steady increase. This is in line with the observed shift in McDonald's operating strategy towards franchise-centricity over the period. McDonald's continued commitment to expanding its franchise restaurant base is a strategic lever that we expect to drive future margin expansion. The model offers significant scalability benefits as much of the operating costs are transferred to the franchisees, while McDonald's benefits from relatively stable franchise revenue streams. In 2022, the franchise model accounted for 95% of McDonald's restaurant operations. Based on past trends, we expect this figure to increase to 96.2 % by 2031. This strategic focus on franchising is expected to exert upward pressure on gross margins, primarily due to the relatively lower variable costs and high margins on licence income associated with franchised stores. Consequently, we forecast the gross profit margin to increase to from 57% in 2022 to 60% by 2031. Consequently, we can also observe an increase in EBITDA margin from 47% in 2022 to 48.6% in 2031. Those margin expansions result from an operating Expense CAGR of 6.3% compared to the Revenue CAGR of 7.2% for the projection period.

Control of operating cost and Franchise development are driving margins

This forecast emphasises the potential of McDonald's franchising model as a catalyst for margin expansion. The company's ability to execute this strategy effectively, coupled with a disciplined approach to managing operating costs, makes a compelling case for McDonald's continued financial performance improvement. We therefore remain confident that McDonald's can strengthen its profitability.

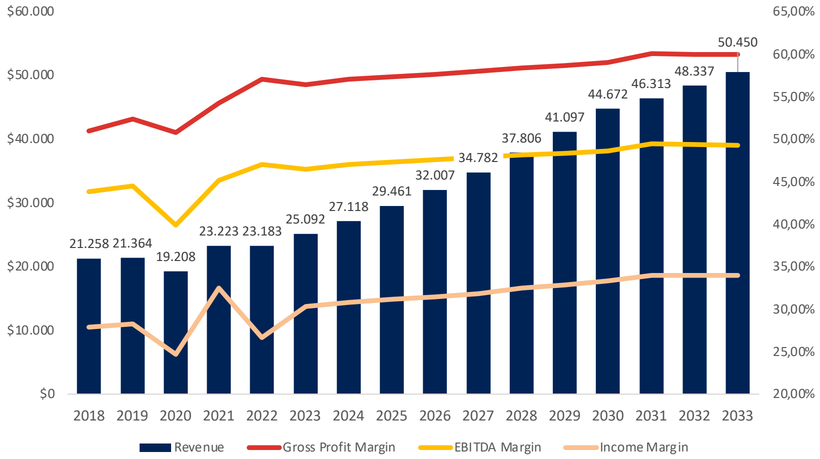

Exhibit 30: Global revenue and Margin forecast

Capex

We recognise the capital-intensive nature of the business model, which is underlined by the extensive property portfolio. The ownership of approximately 55% of the land and 80% of the buildings on which the restaurants are located has upside and downside.

Increased CAPEX in PP&E minimizes revenue volatility

The ownership provides McDonald's with a stable income stream through leasing, which is insulated from fluctuations in systemwide sales and provides a hedge against market volatility. Such an asset-based revenue model is a cornerstone of financial stability and serves as a predictable revenue stream independent of operational fluctuations in the QSR industry. On the other hand, this strategy requires a significant capital allocation to fixed assets, PP&E reached a book value of 24 bn. US dollars in 2022 - a figure equivalent to the company's annual revenues in the same year. This significant investment in fixed assets demonstrates McDonald's commitment to long-term operational stability and market presence.

McDonald's: Expanding Assets and Sales through Strategic CAPEX

Furthermore, when considering the aggregation of PP&E with leased right-of-use assets, the consolidated valuation is $36 bn. in 2022, a figure that not only emphasises the scale of McDonald's investment in its physical footprint, but also highlights the sheer magnitude of its capital investment. We assumed this aggregated position of PP&E and lease right of use assets to further grow to $55 bn. in 2033 with McDonald's expanding its operation globally, implying a yearly average investment in CAPEX of about 9,9% of revenue or $2.6 bn. While it implies a significant amount of capital tied up in non-liquid assets, it also reflects a strategic positioning that can give McDonald's considerable leverage in negotiating lease terms and securing prime locations, both of which are critical to maintaining competitive dominance. To further follow McDonald's strategy of global growth and advancement through restaurant development, McDonald's will continue to invest in PP&E to further expand its real estate portfolio. Therefore, continuous investments in intangible assets are directly correlated to the increase in systemwide sales as well as revenue. We decided on the rationale that the relationship between CAPEX and sales will be maintained in the future.

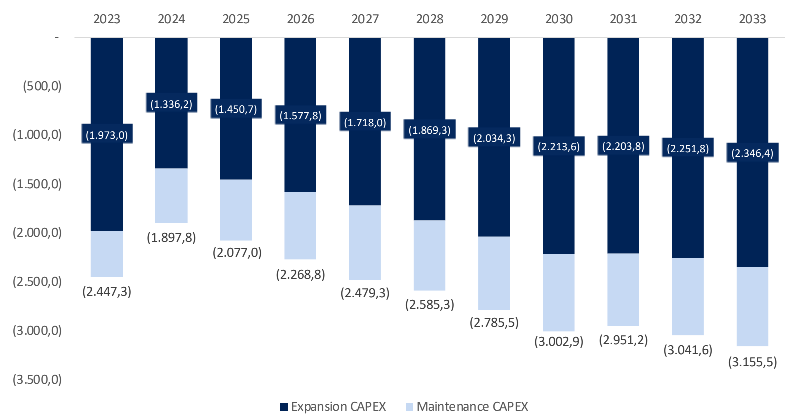

Exhibit 31: CAPEX forecast

Net Working Capital

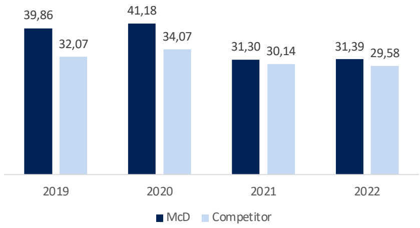

Exhibit 32: Average collection period (DSO) McDonalds vs. Competitors

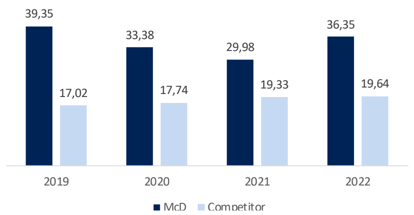

Exhibit 33: Average payable period (DPO) McDonalds vs. Competitors

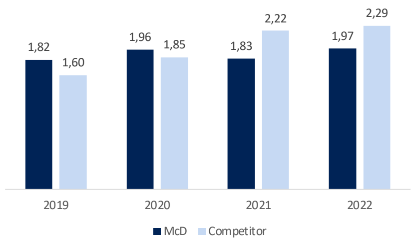

Exhibit 34: Average inventory period (DIO) McDonalds vs. Competitors

Net working capital is a generally a measure of liquidity and performance. Except from operating cash, which we determined by looking at the lowest operating cash to sales ratio from competitors in a 5-year timeframe. All other items in the NWC will be presented in number of days and be compared to direct competitors, since indirect competitors may be operating in a slightly different segment of the Quick service restaurant industry and therefore dilute the results.

Comparing the Cash conversion cycle (CCC) with McDonald's direct competitors, shows that there is no one size fits all approach. While Competitors like YUM! Brands and Wendy's have a positive CCC, Restaurant brands international (RBI) has a highly negative CCC. Compared to those peers, McDonald's achieved a negative CCC in 2021 and was able to maintain it for 2022. This reflects that McDonald's collects the receivables faster than paying suppliers which is benefiting the CCC.

If we take a look at the average days cash is tied up in receivables, we see that McDonald's has managed to catch up to direct competitors, from 2019 to 2022 McDonald's achieved to consistently reduce DSO and therefore the receivables position in the balance sheet. On the other hand, McDonald's is able to outperform its peers in the average payable period (DPO) in which McDonald's has managed to use its market position to negotiate favourable payable conditions. This showcases that McDonald's is able to keep cash longer in the company which can be seen as a short term zero interest loan. Looking closer into the different parts of the CCC we assumed that McDonald's will be able to further decrease the average collection period (DSO) to 30.7 days in 2033. While McDonald's has a strong market position, we do not believe that it will help to alter the trend seen in a highly competitive market the last few years regarding DPO, therefore McDonald's will be forced to slightly decrease DPO to about 34 days through the projection period. Therefore, we forecasted the CCC to remain negative at around -2 throughout the projection period, implying that McDonalds's is able to turn investments in inventories and other short-term resources quickly into Cash flow.

Valuation

WACC

The future cash flows of McDonald's were discounted to derive a fair value for the company using the weighted average cost of capital (WACC). This metric is influenced by the company's capital structure, cost of equity as well as its cost of debt. Given the implications of these variables on the valuation, each was approached with precision, as detailed below.

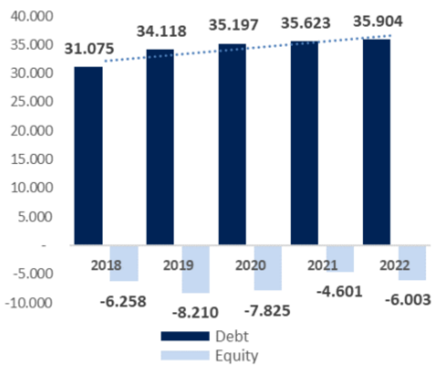

Exhibit 35: Development Equity and Debt ($m)

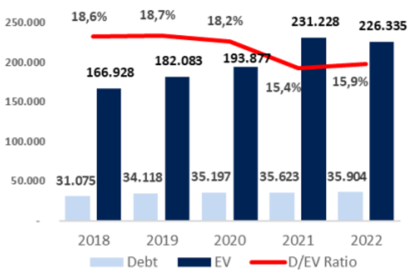

Exhibit 36: Historical D/EV

WACC Inputs	
Risk-free rate	4,31%
MRP	5,00%
Levered Beta	0,66
Cost of Equity	7,61%
Cost of Debt	5,36%
Tax Rate	22,08%
Debt to EV ratio	14,00%
Equity to EV ratio	86,00%
Target Debt to Equity	16,28%
WACC	**7,13%**

Exhibit 37: WACC Inputs

▪ Capital Structure

In the context of aligning McDonald's capital structure with its long-term strategic objectives, a critical analysis of its financial position was conducted. From 2018 to 2022, a significant increase of 15.5% in the company's debt was observed. At the same time, McDonald's engaged in strategic share buybacks, resulting in a negative book equity position. In the absence of explicit disclosure from management regarding the target capital structure, the analysis concentrated on evaluating the business's present and past debt-to-equity ratio (D/EV). The data for 2022 indicates a ratio of 15.9% which is notably less than the industry median of 25.0% and also lower than MCD's historical ratios from 2018 to 2022. As we anticipate that McDonald's will not increase its mounting debt to the same extent as before due to a higher interest rate environment, we have set a target D/EV ratio of 14.0%, which seems very reasonable after gaining insights from a comprehensive sensitivity analysis and review of capital structure benchmarks.

▪ Cost of Equity

The Capital Asset Pricing Model (CAPM) was employed to derive the cost of equity. The selected risk-free interest rate was identified as a 10-year U.S. Treasury bill, reflecting a rate of 4.31%. This selection was influenced by McDonald's strong U.S. operations and the general acceptance of U.S. Treasury bonds as a reliable risk-free rate, with the maturity of the chosen bond aligning with the forecast horizon. For the market risk premium, a figure of a 5.0% US market risk premium was sourced from Professor Damodaran's research. This choice was made to ensure alignment with standard practices in investment banking, which frequently rely on his estimates.

Two methodologies were employed for Beta (β) determination. First, beta was measured using the covariance between McDonald's return and the MSCI World, with the MSCI being used as a proxy for the market. MSCI World was chosen over the S&P 500 because McDonald's operates in more than 100 countries and has relevant sales outside the U.S. Beta was calculated using data sets spanning

Multiples	Betas
Levered Beta Multiple 3 Years	0,60
Levered Beta Multiple 5 Years	0,72
Regression:	
3 years weekly	0,62
5 years weekly	0,77
10 years weekly	0,71
3 years monthly	0,60
5 years monthly	0,64
10 years monthly	0,63

Exhibit 38: Calculated Levered Betas

3, 5 and 10 years, analysed using both monthly and weekly data. This extensive analysis was selected to reduce biases associated with shorter timeframes and certain days of the week, resulting in a more reliable representation of the movement of McDonald's stock over time.

The second approach involved comparing McDonald's beta to the average unlevered beta of its peers. Using projected 5-year and 3-year betas and relevant financial figures, the peer group's average unlevered beta was discerned and then relevered using McDonald's target capital structure and marginal tax rate. By averaging the results from both the initial method and the second comparative approach, the combined leveraged beta for McDonald's was determined to be 0.66. This resulted in an imputed cost of equity of 7.61%.

- Cost of Debt

To ascertain McDonald's long-term cost of debt, the market values of the five most recent bond issuances in the U.S. between 2022 and 2023 were analysed. By weighting these against the outstanding sum of each bond, an overarching weighted YTM was derived. The subsequent cost of debt was calculated by factoring in a default rate of 67.10%, which was sourced from Bloomberg, and a default probability of 0.03%, which was sourced from Refinitiv. This led to an expected cost of debt of 5.36%, and a cost of debt after tax of 4.17%.

Using the projected costs of equity and debt with a five-year average effective tax rate of 22.08%, the WACC was determined to be 7.13%.

ROIC and Long-Term Growth Rate

In evaluating McDonald's capital efficiency, the focus is on the Return on Invested Capital (ROIC). Over five years, McDonald's ROIC rose from 26.6% to 29.4%, despite a dip in 2020 due to the COVID-19 pandemic. Consistently surpassing its WACC, McDonald's demonstrates effective operational performance and strategic capital allocation. Comparative analysis with competitors like Restaurant Brands International (RBI) and Wendy's shows McDonald's strong position, although it trails behind YUM! Brands' ROIC of 60.5% as exhibt 4 shows in 2022. The improvement of ROIC is driven by McDonald's refranchising strategy and the resulting improvement in margins, while CAPEX remaine stable. With ongoing refranchising and investment in areas like digitalization, McDonald's ROIC is projected to reach 44.7% by 2033.

	2018	2019	2020	2021	2022
ROIC	26,1%	27,1%	20,4%	28,1%	23,4%

Exhibit 39: Peer ROIC Comparison

A cautious but informed methodology was used to assess McDonald's terminal value growth rate. This considered the company's strong market presence, expansion opportunities in emerging markets and possible saturation in developed areas. Three rates were evaluated: an effective revenue-weighted inflation rate of 2.3%, which reflects McDonald's pricing power in line with inflation; a sustainable growth rate of 5.6%, calculated by multiplying operating ROIC by the retention rate, which reflects the company's efficiency in reinvesting retained earnings; and the long-term world GDP growth rate of 2.4% projected for 2031-2034. This approach ensures a balanced and realistic view of McDonald's growth potential, taking into account both internal financial strategies and external economic indicators.

Discounted-Cashflow-Model

McDonald's Corporation (MCD) was valued using the discounted cash flow (DCF) method, reflecting its widespread acceptance as a robust valuation technique. The projection period was split into two distinct forecast periods: the first from 2023 to 2030 followed by the second from 2031 to 2033, in order to better facilitate the transition towards a stable steady state. The enterprise value of MCD as of 31 December 2024 was then adjusted by deducting net debt, resulting in an equity value of $261.9 bn. This translates into a per share valuation of $308.4, based on the current number of shares outstanding. An Adjusted Present Value (APV) approach was utilized to confirm the DCF valuation. The APV method resulted in a marginal variance with a share price estimate of $309.0. The difference in share prices calculated from the DCF and APV methods is only 0.2%. This highlights the need to take into account the varying evaluations of the tax shield that are inherent to each approach.

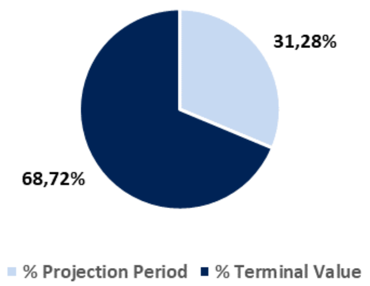

Exhibit 40: Allocation of Enterprise Value to projection period and terminal value

Sensitivity Analysis

In order to assess the robustness of the valuation of McDonald's, a comprehensive sensitivity analysis was performed to analyse the impact of key assumptions on the valuation. The analysis focused primarily on the WACC and the long-term growth rate, as these play an important role in the DCF valuation.

Sensitivity Analysis WACC

		Cost of Debt				
		4,56%	4,96%	5,36%	5,76%	5,76%
Cost of Equity	6,81%	6,35%	6,40%	6,44%	6,48%	6,48%
	7,21%	6,70%	6,74%	6,78%	6,83%	6,83%
	7,61%	7,04%	7,09%	7,13%	7,17%	7,17%
	8,01%	7,39%	7,43%	7,47%	7,52%	7,52%
	8,41%	7,96%	7,99%	7,99%	8,01%	8,01%

Exhibit 41: Sensitivity Analysis WACC

The analysis began by examining the impact of a 0.4% increase or decrease in both the cost of debt and the cost of equity, using a detailed matrix to show their interaction and impact on valuation. The results showed a 24.0% change in WACC due to extreme shifts in the cost of equity, while similar movements in the cost of debt resulted in a variance of only 1.8%. This difference is attributed to McDonald's target debt-to-equity ratio of 16.3%, which amplifies the impact of the cost of equity.

Sensitivity Analysis Enterprise Value

		WACC				
		6,13%	6,63%	7,13%	7,63%	8,13%
Terminal Growth Rate	1,40%	281.626	252.751	229.004	209.145	192.302
	1,90%	305.847	271.529	243.865	221.108	202.071
	2,40%	336.563	294.747	261.868	235.359	213.545
	2,90%	376.793	324.191	284.129	252.623	227.214
	3,40%	431.766	362.755	312.359	273.970	243.773

Exhibit 42: Sensitivity Analysis Enterprise Value

Next, the WACC was varied between 6.13% and 8.13% to account for possible fluctuations in the market's risk assessment, resulting in an enterprise value between 213.6 bn. and 336.6 bn., while the long-term growth rate was adjusted between 1.4% and 3.4%, resulting in an EV between 229.0 bn. and 312.4 bn.

This shows that while the valuation is sensitive to changes in both the WACC and the long-term growth rate, it is more sensitive to adjustments in the right WACC. This result underlines the importance of an accurate estimation of the cost of capital in the valuation of MCD.

Risk-free rate	3,31%	3,81%	4,31%	4,81%	5,31%
Cost of Equity	6,61%	7,11%	**7,61%**	8,11%	8,61%
WACC	6,27%	6,70%	**7,13%**	7,56%	7,99%

Exhibit 43: Sensitivity Analysis risk-free rate

Exhibit 43 analyses how rising interest rates impact equity cost and WACC, especially with recent central bank rate hikes. It shows that small changes in the risk-free rate, like a 0.5% increase, significantly affect the cost of capital. This underscores the importance of interest rate fluctuations in financial modelling and corporate valuation.

Finally, the sensitivity analysis was extended to include changes in the terminal growth rate in order to measure the resulting changes in the share price. As exhibit 44 shows, the company's valuation is highly sensitive to changes in growth rates.

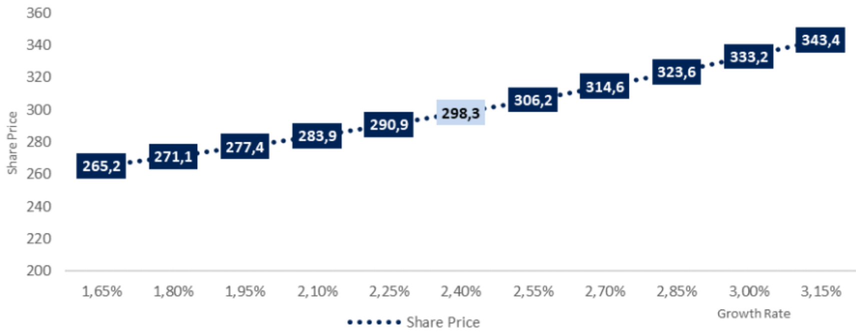

Exhibit 44: Sensitivity Analysis relative to growth rate

The sensitivity analysis conducted confirms MCD's position for stable growth. However, anticipated fluctuations in discount rates and growth prospects may cause considerable changes in valuation and impact investment decisions. Continuously monitoring market conditions is advised to arrive at an accurate assessment of MCD's fundamental value.

Comparables

In this section, the trading comparables methodology was used to value McDonald's. Firstly, competitors were identified based on their business model, geographical coverage, enterprise value, sales growth and profitability. The peers that were selected, as previously mentioned, included Yum! Brands, Wendy's, Starbucks, Domino's Pizza, Chipotle Mexican Grill, and Restaurant Brands International to provide a comparative valuation of MCD.

	EV/Sales	EV/EBITDA	EV/EBIT	P/E
YUM.N	6,7	19,4	21,0	23,9
WEN.OQ	3,5	14,3	19,6	19,0
SBUX.OQ	3,2	16,7	21,1	28,8
DPZ.N	3,8	19,2	21,1	26,1
CMG.N	3,9	20,5	24,6	49,0
QSR	4,9	14,6	15,9	21,3
Median	**3,9**	**17,9**	**21,1**	**25,0**
MCD	9,0	16,8	19,7	23,0

Exhibit 45: Peer Multiples Comparison

As exhibit 45 shows, MCD is slightly below the peer median for all ratios except EV/Sales. For EV/Sales, MCD has a significantly higher value of 9.0 compared to the peer median of 3.9. This discrepancy suggests that the market has a higher perception of McDonald's sales than its peers, possibly due to its stronger brand recognition and global presence. However, the EV/EBITDA, EV/EBIT, and P/E ratios suggest a relative undervaluation in terms of earnings potential and profitability. This juxtaposition may suggest that while McDonald's is recognised for its size and sales volume, there are concerns or lower expectations about its future growth and earnings efficiency compared to its peers.

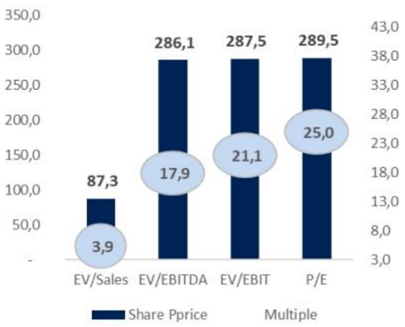

Exhibit 46: Multiples overview

Looking at exhibit 46, all metrics except the EV/Sales ratio suggest a median share price range of $286.1 to $289.5, indicating that MCD's valuation is largely in line with its current share price of $291.42 (13.12.23) and a 52-week range of $245.7 to $299.4. Considering this discrepancy between CCA's suggested prices and the actual market price, it appears that McDonald's is now appropriately valued or even slightly overvalued. This adjustment in valuation might prompt a revaluation among investors, especially those with a keen eye on risk assessment and market trends. It could lead to a cautious approach towards investing in McDonald's, with a focus on monitoring the company's strategic initiatives and market responses to ensure continued alignment with its valuation. Such an outlook could temper expectations for rapid growth but reinforce confidence in the company's resilience and long-term market position.

Nevertheless, it is important to recognise the inherent complexities of directly comparing McDonald's to its selected peers as all peers differ in size, business model and geographical reach. Given its status as a market leader with a significant competitive moat and the highest market capitalisation in its peer group, McDonald's unique position makes direct comparisons challenging. This highlights the nature of relative valuation through trading comparables, which, while insightful, need to be contextualised within broader market and operational dynamics.

Scenario Analysis

To further factor in potential risks and upside for the McDonald's stock, we conducted a scenario analysis, addressing different sales growth scenarios for the different business lines as well as different scenarios for expense ratios. Comparing the base case, the worst case and best-case scenario shows, how important supply chain, a steady market share, and other risk factors are to McDonald's share price development.

- Worst case – 15% probability

The introduction of Wegovy, an anti-obesity medication, is poised to catalyze a significant shift in consumer eating habits.[14] This shift towards healthier lifestyles

[14] Handelsblatt, 2023

could lead to a systemic decrease in the demand for fast food, a sector where McDonald's reigns supreme. As health consciousness gains momentum, spurred by the success of medications like Wegovy, we could witness a paradigm shift in consumer preferences. This trend, coupled with the possibility of stringent regulatory measures targeting the fast-food industry, could present a complex scenario for McDonald's. The company may need to navigate through these changes by re-evaluating its menu offerings and marketing strategies to align with a more health-focused consumer base. In the current economic climate marked by rising inflation, McDonald's also faces the critical challenge of balancing cost management with customer value propositions. The ability to pass on increased operational costs to consumers is hindered by the company's established market presence in highly competitive and diverse global markets. Areas with lower purchasing power or heightened price sensitivity could particularly impede McDonald's ability to offset these rising costs. Furthermore, the erosion of consumer spending power due to inflation could lead to reduced frequency in dining out, opting instead for more affordable alternatives. These factors, in combination, could exacerbate the impact on market share and profitability. To properly reflect those risks, we assumed a decrease in revenue of about 18,32% across all regions compared to the base case. To weigh in inflationary pressure, we also assumed an increase in cost of sales in percentage of revenue of 1%. This leads us to a valuation of $238.5 which turns out to be a decline of 23% from our base case. We assume the worst-case scenario to have a probability of 15%.

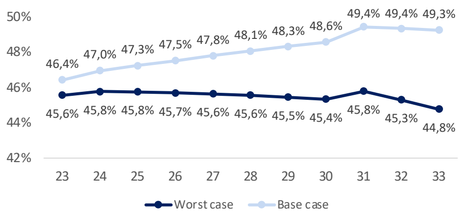

Exhibit 47: EBITDA Margin development base case vs worst case

- Best Case – 10% probability

In an optimistic economic landscape, McDonald's thrives remarkably, benefiting from a global upsurge in economic activity. This environment leads to increased consumer spending power, translating into higher frequency of restaurant visits and larger transaction sizes. McDonald's capitalizes on this uptick by introducing innovative menu items that resonate strongly with consumers. These offerings, potentially including healthier options and advanced food technologies like plant-based proteins, not only draw in new customers but also deepen the loyalty of existing ones. Operationally, McDonald's excels, achieving notable efficiencies across its supply chain and in-store operations. These improvements help in cost reduction without compromising on quality, enhancing overall profitability. These operational advancements, combined with initiatives to save energy and optimize labor, contribute substantially to the company's bottom line. In this best-case scenario, all these factors synergistically contribute to an extraordinary growth trajectory for McDonald's, reflected in a revenue growth 6,1% higher than the base case while also decreasing cost of sales in percentage of revenue by 1%

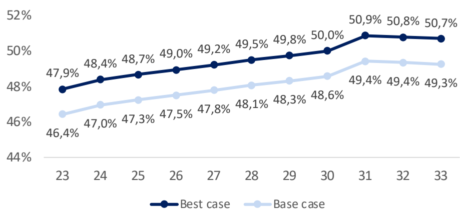

Exhibit 48: EBITDA Margin development base case vs best case

which leads to expanded margins. Our best-case scenario estimates a valuation of $357.2, an increase of 16% compared to our base case. We assume the best-case scenario to have a probability of 10%.

Key Risks

After conducting a thorough valuation and analysis of McDonald's, it is imperative to examine the potential risks the company may encounter, in order to provide a comprehensive and coherent analysis. This section outlines the primary risks, evaluating their probability and economic impact to provide a well-rounded perspective for an accurate assessment of the company's future prospects.

Strategic Execution Risk

Central to McDonald's profitability is the execution of its strategic plan, 'Accelerating the Arches'. This plan, with a medium probability of risk but high economic impact, relies on McDonald's ability to adapt to changing consumer preferences, particularly in digital, environmental, and social responsibility areas. The company's initiatives, like the 2020 introduction of the 'McPlant' burger, signify its response to evolving market demands. However, failure to effectively navigate these trends could result in significant financial setbacks.

Competitive Landscape

Operating in the highly competitive Informal Eating Out (IEO) sector, McDonald's faces a variety of competitors, from quick-service restaurants to local food providers. This scenario, posing a high probability of risk with medium economic impact, requires McDonald's to continuously innovate and adapt to maintain its market position amidst shifting consumer preferences, intense price competition as well as periods of market consolidation.

Geopolitical and operational Risks

McDonald's global presence across over 100 countries introduces complex geopolitical and operational risks. These risks, with a low probability but high economic impact, stem from diverse cultural, regulatory, and economic environments. Issues like the Israel conflict[15] and the 2023 strikes in Italy[16] highlight the challenges in maintaining brand integrity and operational efficiency amidst political unrest and labour disputes.

Legal and Regulatory Risks

McDonald's faces significant risks related to international laws and regulations in areas such as food safety and marketing practices. With a high probability and economic impact, these risks demand ongoing compliance efforts, exemplified by legal disputes over promotional practices.

Debt & Currency Risks

McDonald's global footprint subjects it to a variety of economic risks, notably currency fluctuations and inflation. With 38% of its debt held in foreign currencies and 57.9% of its 2022 sales occurring outside the U.S., the company faces

[15] Source: CNN, 2023
[16] Source: Business Insider, 2023

Risk Category	Probability	Economic Impact
Strategic Execution	Medium	High
Competitive Landscape	High	Medium
Geopolitical Factors	Low	High
Labor and Supply Chain	Medium	Medium
Regulatory Compliance	High	High
Debt & Currency Risk	High	High
Financial Leverage	Medium	High

Exhibit 49: Risk Assessment - Probability and Economic Impact Analysis

considerable exposure to changes in exchange rates. This exposure is compounded by McDonald's substantial long-term debt with about $6.9 bn. due within the next two years. Such a debt structure makes McDonald's particularly sensitive to interest rate variations, which could adversely affect its debt servicing capacity, credit ratings, and overall financial health.

In conclusion, McDonald's navigates a complex landscape of risks requiring strategic foresight and robust risk management. Exhibit 49 provides a summarized risk assessment, emphasizing the importance of understanding these risks for a comprehensive evaluation of McDonald's prospects in the dynamic global fast-food industry.

- ESG

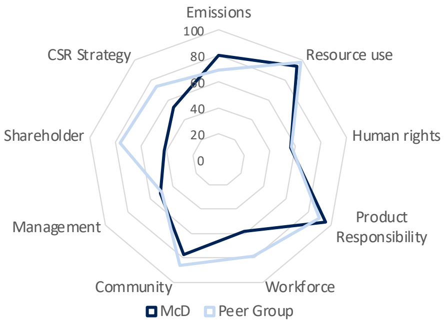

Exhibit 50: ESG KPI Performance

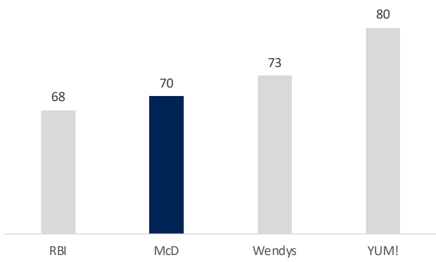

Exhibit 51: ESG Score

In the fast-paced world of the QSR industry, sustainability is no longer just a buzzword, but a cornerstone of corporate strategy and competitive differentiation. For MCD, integrating sustainability into its strategic vision is not only a response to escalating regulatory challenges, but also a strategic imperative to ensure the long-term profitability and resilience of the brand. Looking at Exhibit 50 we can see that in the environmental area of sustainability, MCD has a strong profile compared to its peer group. MCD excels in emissions management, suggesting a robust approach to environmental responsibility. However, this strength is offset by areas where MCD does not perform as well. The company's resource utilization indicates lower efficiency than its peers, a discrepancy that could translate into higher operating costs and a negative environmental footprint, improving in this matter could therefore have direct upwards impact on margin performance. Another notable divergence is observed in workforce management, where MCD trails its peers. This is a crucial aspect as it has a direct impact on employee satisfaction, productivity and brand reputation. Investing in the workforce is investing in the foundation of the business, and any negligence in this area can lead to high turnover rates and diminished brand value. Community engagement is another area where MCD scores lower, which could have negative implications on local support and potentially complicate expansion plans or crisis management. Building a robust community around the brand is essential for sustained business operations, especially for companies with a conspicuous global presence. In terms of a holistic ESG score, MCD performs just below average compared to its Peers and must be monitored in terms of the mentioned risks.[17]

Recommendation

[17] Source: LSEG, 2023

Recommendation - HOLD

Based on the comprehensive valuation analysis presented in this equity research report, our recommendation is to **HOLD** McDonald's stock based on an analysis of its financial performance, market position, and future outlook. Our analysis projects a share price of $304.35 for MCD by 31 December 2024. To value MCD's shares, we utilize a weighted average approach, with 80% allocated to cash flow-based valuations (DCF and APV), and 20% to multiple valuations. The rationale for implementing these precise weightings is rooted in the proposition that valuations based on cash flow, because of their direct emphasis on the company's operational efficiency and ability to generate earnings, are considered to be more reflective of McDonald's intrinsic value. Meanwhile, multiples provide a market-based perspective, justifying a lesser but still significant weightage.

Our Target Share Price for MCD is $304.35 – 4.4% above the current share price

The EV/Sales multiple has been excluded from these calculations due to its marked divergence from other valuation metrics, and as a significant outlier. As of 13th December 2023, MCD's closing stock price was $291.42, marking a 4.4% deviation below our determined price target. This notable discrepancy suggests a potential for stock appreciation, guiding our recommendation to hold MCD shares. The proximity of our price target to the current market price indicates a market perception of McDonald's that aligns closely with our analysis.

Our valuation methodology and projections take into account McDonald's robust brand equity, unique market standing, extensive global footprint, and an increasing share of franchised operations anticipated to boost margins. Furthermore, the projected rise in sales and expansion of store networks are integral to our assessment. Our confidence in McDonald's lies in its proven ability to adapt to evolving macroeconomic conditions. The company's agility in responding to global market trends, strategic emphasis on digital integration, and ongoing expansion in both established and developing markets are factors we believe will continue to drive its growth path.

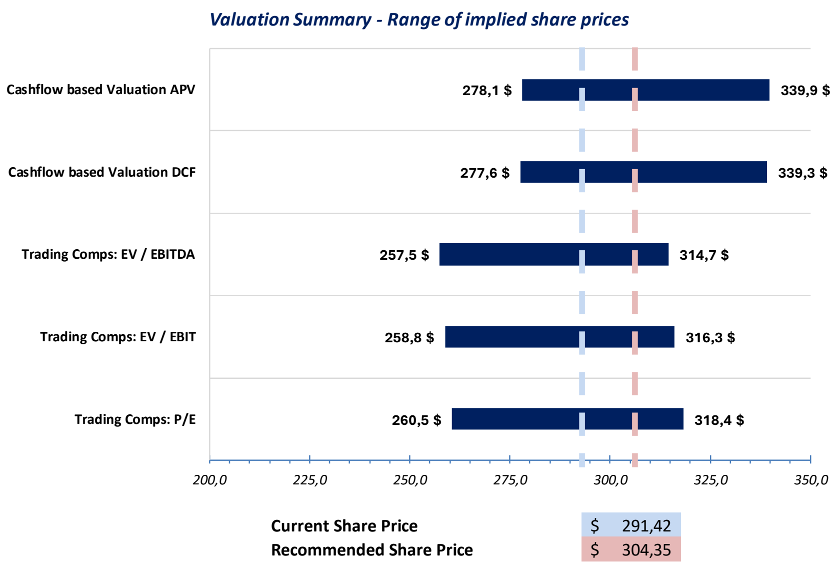

Exhibit 52: Football Chart – Valuation Summary

Appendix

Financial Statements

Income Statement for McDonalds Corp.

			Historical Period						Projection Period						Steady State	
Year ended December 31 ($, in millions)	FY2018A	FY2019A	FY2020A	FY2021A	FY2022A	FY2023E	FY2024F	FY2025F	FY2026F	FY2027F	FY2028F	FY2029F	FY2030F	FY2031F	FY2032F	FY2033F
Forecast Income Statement																
Operating Activities																
Revenues	21.257,9	21.364,4	19.207,8	23.222,9	23.182,6	25.091,8	27.118,3	29.460,6	32.007,0	34.781,7	37.806,4	41.096,9	44.672,3	46.312,9	48.337,2	50.450,3
Sales by Company-operated restaurants	10.012,7	9.420,8	8.139,2	9.787,4	8.748,4	9.464,8	10.007,0	10.743,5	11.528,8	12.356,0	13.244,4	14.189,7	15.193,4	15.095,0	15.731,5	16.395,5
Revenues from franchised restaurants	11.012,5	11.655,7	10.726,1	13.085,4	14.105,8	15.290,1	16.747,1	18.321,5	20.048,4	21.958,6	24.054,3	26.355,3	28.879,0	30.596,1	31.956,6	33.377,3
Other Revenues	232,7	287,9	342,5	350,1	328,4	336,9	364,1	395,6	429,8	467,1	507,7	551,9	599,9	621,9	649,1	677,5
Operating cost and expenses	(10.425,3)	(10.185,0)	(9.455,7)	(10.642,7)	(9.975,4)	(10.944,7)	(11.665,4)	(12.578,7)	(13.563,3)	(14.618,8)	(15.763,1)	(16.996,5)	(18.324,5)	(18.528,2)	(19.350,4)	(20.210,4)
Company-operated restaurant expenses	(8.265,9)	(7.760,6)	(6.981,2)	(8.047,3)	(7.380,9)	(7.899,2)	(8.351,7)	(8.966,4)	(9.621,8)	(10.312,2)	(11.053,6)	(11.842,5)	(12.680,3)	(12.598,1)	(13.129,3)	(13.683,5)
Food & Paper	(3.153,8)	(2.980,3)	(2.564,2)	(3.096,8)	(2.737,3)	(2.982,7)	(3.153,6)	(3.385,6)	(3.633,1)	(3.893,8)	(4.173,8)	(4.471,7)	(4.788,0)	(4.756,9)	(4.957,5)	(5.166,8)
Payroll & employee benefits	(2.937,9)	(2.704,4)	(2.416,4)	(2.677,2)	(2.617,4)	(2.745,0)	(2.902,2)	(3.115,8)	(3.343,6)	(3.583,5)	(3.841,1)	(4.115,3)	(4.406,4)	(4.377,8)	(4.562,4)	(4.755,0)
Occupancy & other operating expenses	(2.174,2)	(2.075,9)	(2.000,6)	(2.273,3)	(2.026,2)	(2.171,5)	(2.295,9)	(2.464,9)	(2.645,1)	(2.834,9)	(3.038,7)	(3.255,6)	(3.485,9)	(3.463,3)	(3.609,3)	(3.761,7)
Other restaurant expenses	(186,1)	(223,8)	(267,0)	(260,4)	(244,8)	(275,5)	(297,8)	(323,5)	(351,5)	(381,9)	(415,1)	(451,3)	(490,5)	(508,5)	(530,8)	(554,0)
Franchised restaurants-occupancy expenses	(1.973,3)	(2.200,6)	(2.207,5)	(2.335,0)	(2.349,7)	(2.770,0)	(3.015,9)	(3.288,8)	(3.590,0)	(3.924,7)	(4.294,4)	(4.702,8)	(5.153,7)	(5.421,6)	(5.690,3)	(5.973,0)
Gross Profit	10.832,6	11.179,4	9.752,1	12.580,2	13.207,2	14.147,1	15.452,9	16.882,0	18.443,8	20.162,8	22.043,3	24.100,3	26.347,8	27.784,7	28.986,9	30.239,8
Selling, general & administrative expenses	(1.985,4)	(1.966,9)	(2.245,0)	(2.377,8)	(2.492,2)	(2.763,5)	(3.008,8)	(3.281,1)	(3.581,5)	(3.915,5)	(4.284,3)	(4.691,7)	(5.141,6)	(5.408,9)	(5.676,9)	(5.959,0)
Other operating (income) expense, net	455,6	281,3	140,7	273,0	173,0	269,0	293,3	320,2	349,6	381,9	417,3	456,1	498,5	524,7	547,9	572,1
Gains on sales of restaurant businesses	304,1	127,5	23,3	96,0	59,8	87,2	94,2	102,3	111,2	120,8	131,3	142,8	155,2	160,9	167,9	175,2
Equity in earnings of unconsolidated affiliates	151,5	153,8	117,4	177,0	113,2	181,8	199,1	217,8	238,4	261,1	286,0	313,4	343,4	363,8	380,0	396,9
EBITDA	9.302,8	9.493,8	7.647,8	10.475,4	10.888,0	11.652,6	12.737,4	13.921,1	15.211,8	16.629,2	18.176,3	19.864,7	21.704,7	22.900,5	23.857,8	24.853,0
Depreciation and amortization	(214,8)	(262,5)	(300,6)	(329,7)	(370,4)	(439,5)	(489,1)	(542,4)	(599,8)	(661,9)	(607,6)	(633,3)	(661,1)	(688,6)	(717,4)	(747,1)
Operating Income before Taxes (EBIT)	9.088,0	9.231,3	7.347,2	10.145,7	10.517,6	11.213,0	12.248,3	13.378,7	14.612,0	15.967,3	17.568,7	19.231,5	21.043,6	22.211,9	23.140,5	24.105,9
Notional Taxes	(1.908,5)	(1.938,6)	(1.542,9)	(2.130,6)	(2.208,7)	(2.354,7)	(2.572,1)	(2.809,5)	(3.068,5)	(3.353,1)	(3.689,4)	(4.038,6)	(4.419,2)	(4.664,5)	(4.859,5)	(5.062,2)
Tax Adjustments	(291,2)	(355,6)	(144,4)	371,4	(6,3)	(121,5)	(132,8)	(145,0)	(158,4)	(173,1)	(190,4)	(208,5)	(228,1)	(240,8)	(250,8)	(261,3)
NOPLAT	6.888,4	6.937,1	5.659,9	8.386,5	8.302,6	8.736,7	9.543,4	10.424,2	11.385,1	12.441,1	13.688,8	14.984,4	16.396,3	17.306,7	18.030,1	18.782,3
Non-Operating Activities																
Other operating (income) expense, net	(33,7)	(87,2)	(290,7)	(75,0)	(1.146,8)	(150,2)	(162,3)	(176,4)	(191,6)	(208,2)	(226,3)	(246,0)	(267,4)	(277,2)	(289,4)	(302,0)
pre-tax charges related to the sale of the Company's business in Russia	-	-	-	-	(1.281,0)	-	-	-	-	-	-	-	-	-	-	-
pre-tax gain related to the Company's sale of its Dynamic Yield business	-	-	-	-	271,0	-	-	-	-	-	-	-	-	-	-	-
Asset Disposition & Other Expenses	(33,7)	(87,2)	(290,7)	(75,0)	(136,8)	(150,2)	(162,3)	(176,4)	(191,6)	(208,2)	(226,3)	(246,0)	(267,4)	(277,2)	(289,4)	(302,0)
Impairment and other charges(gains),net	(231,7)	(74,3)	267,5	285,0	-	-	-	-	-	-	-	-	-	-	-	-
Other operating (income) expense, net - Balancing value	-	-	-	0,3	0,2	-	-	-	-	-	-	-	-	-	-	-
Non operating (income) expense, net	-	-	-	-	(517,0)	-	-	-	-	-	-	-	-	-	-	-
Non-Operating Income Before Taxes	(265,4)	(161,5)	(23,2)	210,3	(1.663,6)	(150,2)	(162,3)	(176,4)	(191,6)	(208,2)	(226,3)	(246,0)	(267,4)	(277,2)	(289,4)	(302,0)
Notional Taxes	55,7	33,9	4,9	(44,2)	349,4	31,5	34,1	37,0	40,2	43,7	47,5	51,7	56,2	58,2	60,8	63,4
Tax Adjustments	8,5	6,2	0,5	7,7	1,0	1,6	1,8	1,9	2,1	2,3	2,5	2,7	2,9	3,0	3,1	3,3
Non-Operating Income After Taxes (before OCI)	(201,2)	(121,4)	(17,9)	173,8	(1.313,3)	(117,0)	(126,5)	(137,4)	(149,3)	(162,2)	(176,3)	(191,7)	(208,4)	(216,0)	(225,5)	(235,3)
Other Comprehensive Income	(431,1)	126,8	(104,1)	13,1	87,1	-	-	-	-	-	-	-	-	-	-	-
Non-Operating Income After Taxes (after OCI)	(632,3)	5,4	(122,0)	186,9	(1.226,2)	(117,0)	(126,5)	(137,4)	(149,3)	(162,2)	(176,3)	(191,7)	(208,4)	(216,0)	(225,5)	(235,3)
Financing Activities																
Interest expenses	(981,2)	(1.121,9)	(1.218,1)	(1.185,8)	(1.207,0)	(1.366,5)	(1.427,7)	(1.489,2)	(1.550,4)	(1.610,4)	(1.668,9)	(1.709,4)	(1.749,0)	(1.788,5)	(1.827,4)	(1.867,2)
Nonoperating (income) expense, net	(25,3)	70,2	34,8	(42,3)	178,4	48,4	50,1	51,8	53,4	55,0	56,4	57,8	59,2	60,5	61,8	63,1
Financial Result before Taxes	(1.006,5)	(1.051,7)	(1.183,3)	(1.228,1)	(1.028,6)	(1.318,0)	(1.377,6)	(1.437,4)	(1.496,9)	(1.555,4)	(1.612,5)	(1.651,6)	(1.689,9)	(1.728,0)	(1.765,6)	(1.804,0)
Notional Taxes	211,4	220,9	248,5	257,9	216,0	276,8	289,3	301,9	314,4	326,6	338,6	346,8	354,9	362,9	370,8	378,8
Tax Adjustments	32,2	40,5	23,2	(45,0)	0,6	14,3	14,9	15,6	16,2	16,9	17,5	17,9	18,3	18,7	19,1	19,6
Financial Result after Taxes	(762,9)	(790,3)	(911,6)	(1.015,2)	(812,0)	(1.026,9)	(1.073,3)	(1.120,0)	(1.166,4)	(1.211,9)	(1.256,4)	(1.286,9)	(1.316,7)	(1.346,4)	(1.375,7)	(1.405,6)
Total Comprehensive Income for the Year (excluding OCI)	5.924,3	6.025,4	4.730,5	7.545,2	6.177,4	7.592,8	8.343,6	9.166,8	10.069,4	11.066,9	12.256,1	13.505,8	14.871,3	15.744,2	16.429,0	17.141,4
Total Comprehensive Income for the Year (including OCI)	5.493,2	6.152,2	4.626,4	7.558,3	6.264,5	7.592,8	8.343,6	9.166,8	10.069,4	11.066,9	12.256,1	13.505,8	14.871,3	15.744,2	16.429,0	17.141,4

Cashflow Statement

			Historical Period						Projection Period						Steady State	
Year ended December 31 ($, in millions)	FY2018A	FY2019A	FY2020A	FY2021A	FY2022A	FY2023E	FY2024F	FY2025F	FY2026F	FY2027F	FY2028F	FY2029F	FY2030F	FY2031F	FY2032F	FY2033F
Free Cashflow																
Cashflow																
NOPLAT	6.888,4	6.937,1	5.659,9	8.386,5	8.302,6	8.736,7	9.543,4	10.424,2	11.385,1	12.441,1	13.688,8	14.984,4	16.396,3	17.306,7	18.030,1	18.782,3
Depreciation & Amortization	214,8	262,5	300,6	329,7	370,4	439,5	489,1	542,4	599,8	661,9	607,6	633,3	661,1	688,6	717,4	747,1
Gross Cash Flow	7.103,2	7.199,6	5.960,5	8.716,2	8.673,0	9.176,3	10.032,5	10.966,5	11.984,9	13.103,0	14.296,5	15.617,6	17.057,5	17.995,2	18.747,5	19.529,4
Delta in NWC		701,1	97,3	735,4	(400,0)	331,0	115,3	127,1	140,6	156,6	173,2	191,8	212,4	143,4	147,6	155,4
Delta Capex		(14.908,5)	(2.383,4)	175,8	1.630,3	(2.447,3)	(1.897,8)	(2.077,0)	(2.268,8)	(2.479,3)	(2.585,3)	(2.785,5)	(3.002,9)	(2.951,2)	(3.041,6)	(3.155,5)
Delta Goodwill		(345,9)	(95,7)	(9,4)	(117,9)	-	-	-	-	-	-	-	-	-	-	-
Delta Long-term lease liability		12.757,8	563,5	(300,4)	(886,5)	1.301,6	389,9	423,3	449,6	501,3	514,1	539,0	563,4	327,0	333,4	339,9
Total Investments		(1.795,5)	(1.818,3)	601,4	225,9	(814,8)	(1.392,6)	(1.526,6)	(1.678,6)	(1.821,4)	(1.898,0)	(2.054,7)	(2.227,1)	(2.480,7)	(2.560,6)	(2.660,2)
Operating FCF	7.103,2	5.404,1	4.142,2	9.317,6	8.899,0	8.361,5	8.639,9	9.440,0	10.306,2	11.281,6	12.398,5	13.562,9	14.830,4	15.514,5	16.186,9	16.869,2
Growth in %			-23,3%	124,9%	-4,5%	-6,0%	3,3%	9,3%	9,2%	9,5%	9,9%	9,4%	9,3%	4,6%	4,3%	4,2%
Non operating result	(201,2)	(121,4)	(17,9)	173,8	(1.313,3)	(117,0)	(126,5)	(137,4)	(149,3)	(162,2)	(176,3)	(191,7)	(208,4)	(216,0)	(225,5)	(235,3)
Delta Derivative Assets		106,6	(499,9)	1.660,1	(230,5)	(1.122,8)	(255,4)	(295,2)	(320,9)	(349,7)	(381,2)	(414,7)	(450,6)	(206,7)	(255,1)	(266,3)
Delta Tax asset (liability)		384,5	801,2	(2.751,6)	(1.370,4)	69,4	73,6	85,1	92,5	100,8	109,9	119,6	129,9	59,6	73,6	76,8
Delta Derivative Liabilities		(116,7)	74,5	26,9	(29,2)	173,8	99,0	114,4	124,4	135,5	147,7	160,7	174,6	80,1	98,9	103,2
Non operating FCF	(201,2)	253,0	357,9	(890,8)	(2.943,4)	(996,7)	(209,2)	(233,1)	(253,3)	(275,5)	(299,9)	(326,1)	(354,4)	(283,0)	(308,1)	(321,6)
Growth in %			41,5%	-348,9%	230,4%	-66,1%	-79,0%	11,4%	8,7%	8,8%	8,8%	8,7%	8,7%	-20,1%	8,9%	4,4%
Total FCF		5.657,1	4.500,2	8.426,8	5.955,6	7.364,9	8.430,6	9.206,9	10.052,9	11.006,1	12.098,6	13.236,9	14.476,0	15.231,5	15.878,8	16.547,6
Growth in %			-20,5%	87,3%	-29,3%	23,7%	14,5%	9,2%	9,2%	9,5%	9,9%	9,4%	9,4%	5,2%	4,2%	4,2%
Financing FCF																
Financing Result	(762,9)	(790,3)	(911,6)	(1.015,2)	(812,0)	(1.026,9)	(1.073,3)	(1.120,0)	(1.166,4)	(1.211,9)	(1.256,4)	(1.286,9)	(1.316,7)	(1.346,4)	(1.375,7)	(1.405,6)
Delta Net Debt		3.110,5	756,5	(3.090,4)	2.436,2	4.067,1	1.409,6	1.391,6	1.357,4	1.301,3	1.234,7	1.149,2	1.125,4	1.115,0	1.100,9	1.123,8
Change in Equity		(1.951,9)	385,4	3.223,9	(1.402,4)	(2.812,2)	(423,3)	(311,8)	(174,6)	(28,5)	179,2	406,6	586,6	744,2	825,0	875,6
Comprehensive Income		6.025,4	4.730,5	7.545,2	6.177,4	7.592,8	8.343,6	9.166,8	10.069,4	11.066,9	12.256,1	13.505,8	14.871,3	15.744,2	16.429,0	17.141,4
Financial Free Cashflow	(762,9)	(5.657,1)	(4.500,2)	(8.426,8)	(5.955,6)	(7.364,9)	(8.430,6)	(9.206,9)	(10.052,9)	(11.006,1)	(12.098,6)	(13.236,9)	(14.476,0)	(15.231,5)	(15.878,8)	(16.547,6)
Growth in %			-20,5%	87,3%	-29,3%	23,7%	14,5%	9,2%	9,2%	9,5%	9,9%	9,4%	9,4%	5,2%	4,2%	4,2%

Balance Sheet for McDonalds Corp.

Year ended December 31 ($, in millions)	FY2018A	FY2019A	FY2020A	FY2021A	FY2022A	FY2023E	FY2024F	FY2025F	FY2026F	FY2027F	FY2028F	FY2029F	FY2030F	FY2031F	FY2032F	FY2033F
	Historical Period					Projection Period								Steady State		
Balance Sheet Forecast																
Core business																
Operating cash	66,2	66,6	59,9	72,4	72,2	78,2	84,5	91,8	99,7	108,4	117,8	128,1	139,2	144,3	150,6	157,2
Accounts receivable	2.441,5	2.224,2	2.110,3	1.872,4	2.115,0	2.156,1	2.330,3	2.531,5	2.750,4	2.988,8	3.248,7	3.531,4	3.838,7	3.979,7	4.153,6	4.335,2
Inventories, at cost, not in excess of market	51,1	50,2	51,1	55,6	52,0	56,2	59,9	64,6	69,6	75,1	80,9	87,3	94,1	95,1	99,4	103,8
Deferred revenues - initial franchise liabilities	(627,8)	(660,6)	(702,0)	(738,3)	(757,8)	(855,6)	(937,1)	(1.025,2)	(1.121,9)	(1.228,7)	(1.346,0)	(1.474,8)	(1.616,0)	(1.712,1)	(1.788,2)	(1.867,7)
Accounts payable	(1.207,9)	(988,2)	(741,3)	(1.006,8)	(980,2)	(1.055,4)	(1.124,9)	(1.213,0)	(1.307,9)	(1.409,7)	(1.520,0)	(1.639,0)	(1.767,1)	(1.786,7)	(1.866,0)	(1.948,9)
Current Liabilities	(986,6)	(1.656,7)	(1.839,8)	(2.052,5)	(1.898,5)	(2.107,8)	(2.256,2)	(2.420,4)	(2.601,3)	(2.801,7)	(3.022,5)	(3.266,0)	(3.534,2)	(3.709,0)	(3.885,8)	(4.071,3)
Lease liability	-	(621,0)	(701,5)	(705,5)	(661,1)	(674,3)	(695,5)	(718,5)	(743,5)	(770,7)	(800,2)	(832,4)	(867,3)	(903,4)	(941,1)	(980,4)
Accrued payroll and other liabilities	(986,6)	(1.035,7)	(1.138,3)	(1.347,0)	(1.237,4)	(1.433,4)	(1.560,7)	(1.701,9)	(1.857,8)	(2.031,0)	(2.222,3)	(2.433,6)	(2.667,0)	(2.805,6)	(2.944,6)	(3.090,9)
NWC	(263,5)	(964,5)	(1.061,8)	(1.797,2)	(1.397,3)	(1.728,2)	(1.843,6)	(1.970,7)	(2.111,3)	(2.267,9)	(2.441,1)	(2.633,0)	(2.845,3)	(2.988,7)	(3.136,4)	(3.291,8)
Goodwill	2.331,5	2.677,4	2.773,1	2.782,5	2.900,4	2.900,4	2.900,4	2.900,4	2.900,4	2.900,4	2.900,4	2.900,4	2.900,4	2.900,4	2.900,4	2.900,4
Intangible Assets - net	-	-	691,2	795,0	864,3	899,1	971,7	1.055,7	1.146,9	1.246,4	1.354,7	1.472,7	1.600,8	1.659,6	1.732,1	1.794,2
Property Plant & Equipment	22.842,7	24.160,0	24.958,2	24.720,6	23.773,6	24.485,5	25.254,8	26.090,7	26.998,7	27.985,5	29.058,1	30.224,0	31.491,4	32.805,3	34.173,7	35.599,3
Lease right-of-use asset, net	-	13.261,2	13.827,7	13.552,0	12.565,7	13.342,7	13.761,9	14.217,4	14.712,2	15.249,9	15.834,4	16.469,7	17.160,4	17.876,4	18.622,0	19.398,8
Investments in advance to affiliates	1.202,8	1.270,3	1.297,2	1.201,2	1.064,5	1.548,6	1.696,2	1.855,6	2.030,5	2.224,0	2.436,3	2.669,3	2.924,9	3.098,8	3.236,6	3.380,5
Long-term lease liability	-	(12.757,8)	(13.321,3)	(13.020,9)	(12.134,4)	(13.436,0)	(13.825,9)	(14.249,3)	(14.698,8)	(15.200,1)	(15.714,3)	(16.253,3)	(16.816,7)	(17.143,7)	(17.477,1)	(17.817,0)
Core Invested Capital	26.113,5	27.646,6	29.164,3	28.233,2	27.636,8	28.012,0	28.915,6	29.899,8	30.978,6	32.138,1	33.428,5	34.849,9	36.415,9	38.208,0	40.051,3	41.964,4
Non Core business																
Derivative Assets	3.075,6	2.969,0	3.468,9	1.808,8	2.039,3	3.162,1	3.417,5	3.712,6	4.033,6	4.383,2	4.764,4	5.179,1	5.629,6	5.836,4	6.091,5	6.357,8
Tax asset (liability)	(3.778,7)	(4.163,2)	(4.964,4)	(2.212,8)	(842,4)	(911,8)	(985,4)	(1.070,5)	(1.163,1)	(1.263,9)	(1.373,8)	(1.493,4)	(1.623,3)	(1.682,9)	(1.756,5)	(1.833,2)
Derivative Liabilities	(1.096,3)	(979,6)	(1.054,1)	(1.081,0)	(1.051,8)	(1.225,6)	(1.324,6)	(1.439,0)	(1.563,4)	(1.698,9)	(1.846,6)	(2.007,3)	(2.182,0)	(2.262,1)	(2.361,0)	(2.464,2)
Non Core invested capital	**(1.799,4)**	**(2.173,8)**	**(2.549,6)**	**(1.485,0)**	**145,1**	**1.024,7**	**1.107,5**	**1.203,1**	**1.307,1**	**1.420,4**	**1.544,0**	**1.678,4**	**1.824,4**	**1.891,4**	**1.974,0**	**2.060,3**
Financing																
Long-term debt	31.075,3	34.118,1	35.196,8	35.622,7	35.903,5	39.863,8	41.252,7	42.622,9	43.958,6	45.238,0	46.450,7	47.578,1	48.680,9	49.779,5	50.862,9	51.968,6
Current maturities of longterm debt	-	59,1	2.243,6	-	-	-	-	-	-	-	-	-	-	-	-	-
Accrued Interest	297,0	337,8	388,4	363,3	393,4	411,8	426,1	440,3	454,1	467,3	479,8	491,5	502,9	514,2	525,4	536,8
Debt	**31.372,3**	**34.515,0**	**37.828,8**	**35.986,0**	**36.296,9**	**40.275,6**	**41.678,8**	**43.063,2**	**44.412,7**	**45.705,3**	**46.930,6**	**48.069,5**	**49.183,8**	**50.293,7**	**51.388,3**	**52.505,5**
Excess cash	799,8	831,9	3.389,2	4.636,8	2.511,6	2.423,1	2.416,8	2.409,5	2.401,6	2.392,9	2.383,5	2.373,3	2.362,1	2.357,0	2.350,7	2.344,1
Net debt	**30.572,5**	**33.683,1**	**34.439,6**	**31.349,2**	**33.785,3**	**37.852,4**	**39.262,0**	**40.653,7**	**42.011,1**	**43.312,4**	**44.547,0**	**45.696,3**	**46.821,7**	**47.936,7**	**49.037,6**	**50.161,3**
Equity	(6.258,4)	(8.210,3)	(7.824,9)	(4.601,0)	(6.003,4)	**(8.815,6)**	**(9.239,0)**	**(9.550,8)**	**(9.725,4)**	**(9.753,8)**	**(9.574,6)**	**(9.168,0)**	**(8.581,5)**	**(7.837,3)**	**(7.012,3)**	**(6.136,6)**

DCF Valuation

DCF

Year ended December 31 ($, in millions)	FY2018A	FY2019A	FY2020A	FY2021A	FY2022A	FY2023E	FY2024F	FY2025F	FY2026F	FY2027F	FY2028F	FY2029F	FY2030F	FY2031F	FY2032F	FY2033F	TV
	Historical Period					Projection Period								Steady State			
Operating Free Cash Flow to Firm (base case)						8.361,5	8.430,6	9.206,9	10.052,9	11.006,1	12.098,6	13.236,9	14.476,0	15.231,5	15.878,8	16.547,6	16.944,8
Operating Free Cash Flow to Firm (default case)						2.499,2	2.027,0	2.212,3	2.413,6	2.658,1	2.913,4	3.182,3	3.474,1	3.618,7	3.780,5	3.944,7	4.039,3
Ultimately expected Cash Flow							8.430,0	9.206,2	10.052,2	11.005,3	12.097,7	13.235,9	14.474,9	15.230,3	15.877,6	16.546,4	16.943,5
discounted @ WACC							7,13%	7,13%	7,13%	7,13%	7,13%	7,13%	7,13%	7,13%	7,13%	7,13%	7,13%
Discount factor								0,93	0,87	0,81	0,76	0,71	0,66	0,62	0,58	0,54	0,50
Discounted FCF								**8.593,6**	**8.758,9**	**8.951,2**	**9.184,9**	**9.380,4**	**9.575,8**	**9.405,1**	**9.152,3**	**8.903,2**	**179.961,5**

Enterprise Value	**261.866,8**
Share Projection Period	*31,3%*
Share Terminal Value	*68,7%*
Invested Capital Non Core Operations	1.107,5
Value of Financial Debt and other claim	- 39.262,4
Equity Value	**223.711,9**
Total shares outstading (mn)	725,3
Price per share ($)	**308,4**

Sources

Aswath Damodaran. (2023, July). *Country Default Spreads and Risk Premiums*. NYU.edu. https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html

Berk, J. B. & DeMarzo, P. (2016). *Corporate Finance*. Pearson Higher Education.

Board of Directors | McDonald's Corporation. (o. D.). https://corporate.mcdonalds.com/corpmcd/investors/corporate-governance/board-of-directors.html

Bryant, C. (2021, 27. June). *McDonald's (MCD) stock: Capital Structure analysis*. Investopedia. https://www.investopedia.com/articles/markets/052016/mcdonalds-stock-capital-structure-analysis-mcd.asp

Chipotle InvestorRoom - Home. (o. D.). https://ir.chipotle.com/

Corporate Profile | Restaurant Brands International TM. (o. D.). https://www.rbi.com/English/corporate-profile/default.aspx

Global Economic Outlook. (o. D.). The Conference Board. https://www.conference-board.org/topics/global-economic-outlook

Handelsblatt. (2023, November) *Ozempic: Eine Spritze, die die Welt verändert*. *https://www.handelsblatt.com/audio/today/handelsblatt-today-spezial-abnehmen-mit-ozempic-eine-spritze-die-die-welt-veraendert/29507326.html*

Home | McDonald's Corporation. (o. D.). https://corporate.mcdonalds.com/corpmcd/home.html

How McDonald's Middle East franchises got into a public feud over Israel. (2023, October). CNN. Retrieved 6. December 2023, https://edition.cnn.com/2023/10/23/business/mcdonalds-israel-middle-east/index.html

Inc, M. &. C., Koller, T., Goedhart, M. & Wessels, D. (2020). *Valuation: Measuring and Managing the Value of Companies*. John Wiley & Sons.

Investor Relations | Domino's Pizza. (o. D.). Domino's Pizza. https://ir.dominos.com/

Jankowicz, M. (2023, 24. July). McDonald's workers in Italy declared a strike after being forced to work in sweltering kitchens in 104-degree temperatures with no AC. *Business Insider*. https://www.businessinsider.com/italy-mcdonalds-workers-strike-in-104-degree-heat-2023-7

Khaveen Investments. (2022, 5. April). McDonald's: king of fast food is here to stay. *Seeking Alpha*. https://seekingalpha.com/article/4499843-mcdonalds-king-of-fast-food-is-here-to-stay

LSEG. (2023, December). LSEG ESG Scores. https://www.lseg.com/en/data-analytics/sustainable-finance/esg-scores?esg=Mcdonald%27s+Corp

McDonald`s Corporation. (o. D.). *Shareholder Engagment Slides 2023* [PDF]. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiZueOPuISDAxX3VKQEHTmHAa0QFnoECBAQAQ&url=https%3A%2F%2Fcorporate.mcdonalds.com%2Fcontent%2Fdam%2Fsites%2Fcorp%2Fnfl%2Fpdf%2FShareholder%2520Engagement%2520Slides.pdf&usg=AOvVaw2xBBMY_l9UgsV35fXX2fNZ&opi=89978449

McDonald`s Corporation. (2021). *McDonald`s Annual Report 2020*.

McDonald`s Corporation. (2022a). *McDonald`s Annual Report 2022*.

McDonald`s Corporation. (2022b). *McDonald`s Annual Report 2021*.

McDonald's: Brand Value 2023 | Statista. (2023, 23. November). Statista. https://www.statista.com/statistics/326059/mcdonalds-brand-value/

McDonald's Corporation (Hrsg.). (2023a). *McDonald's Corporation Annual Shareholders' Meeting*.

McDonald's Corporation. (2023b, July). *McDONALD'S REPORTS SECOND QUARTER 2023 RESULTS* [Pressemeldung].

McDonald's reports third quarter 2023 results. (o. D.). https://corporate.mcdonalds.com/corpmcd/our-stories/article/Q3-2023-results.html

McDonald's Stock (NYSE:MCD): Dividend Growth Acceleration is Here to Stay. (2023, 10. November). Yahoo!Finance. Abgerufen am 6. Dezember 2023, von https://finance.yahoo.com/news/mcdonald-stock-nyse-mcd-dividend-223037307.html

Nair, S. (2013, 30. December). *Whom does McDonald's compete with and who poses the biggest threat?* Yahoo!Finance. https://finance.yahoo.com/news/whom-does-mcdonald-compete-poses-130008039.html

Reuters. (2021, 24. September). McDonald's restarts share buybacks as business recovers from pandemic hit. *Reuters*. https://www.reuters.com/business/retail-consumer/mcdonalds-restarts-share-buybacks-business-recovers-pandemic-hit-2021-09-23/#:~:text=McDonald's%20restarts%20share%20buybacks%20as%20business%20recovers%20from%20pandemic%20hit,-Reuters&text=Sept%2023%20(Reuters)%20%2D%20McDonald's,of%20the%20COVID%2D19%20pandemic

Starbucks Corporation - IR Home. (o. D.). https://investor.starbucks.com/ir-home/default.aspx

Topic: McDonald's. (2023, 31. August). Statista. https://www.statista.com/topics/1444/mcdonalds/

United States rates & bonds. (o. D.). Bloomberg.com. https://www.bloomberg.com/markets/rates-bonds/government-bonds/us

Your online destination to all things Wendy's. Ya welcome! (o. D.). Wendy's. https://www.wendys.com/en-uk/

Yum.Com. (o. D.). https://www.yum.com/wps/portal/yumbrands/Yumbrands

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Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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