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Equity Valuation: WTW

Teresa Bento Batista

Master Thesis

presented as partial requirement for obtaining a Master's Degree in Statistics and Information Management

NOVA Information Management School
Instituto Superior de Estatística e Gestão de Informação
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Equity Valuation: WTW

by

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Master Thesis presented as partial requirement for obtaining the Master's degree in Statistics and Information Management, with a specialization in Risk Management and Analysis

Supervised by

Prof. Doutor Jorge Miguel Ventura Bravo, PhD

NOVA Information Management School & Université Paris-Dauphine PSL

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STATEMENT OF INTEGRITY

I hereby declare having conducted this academic work with integrity. I confirm that I have not used plagiarism, any form of undue use of information or falsification of results along the process leading to its elaboration. I further declare that I have fully acknowledged the Rules of Conduct and Code of Honor from the NOVA Information Management School.

[Lisbon, July 2025]

Teresa Bento Batista

DEDICATION

À minha mãe, por tudo o que fez e continua a fazer por mim. Por nunca me ter cortado as asas, mas, pelo contrário, sempre me dar o espaço e a motivação para voar.

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ABSTRACT

The main purpose of this research is to estimate WTW's fair value per share on 28 February 2025, with a view to issuing a reasoned investment recommendation. WTW is a global consulting, brokerage, and solutions company with operations in more than 140 countries and listed on NASDAQ. Two complementary methodologies were applied to determine its intrinsic value: the discounted cash flow (DCF) method, focussing on the free cash flow to the firm (FCFF) model, and the relative valuation based on multiples of comparable companies. The target price obtained was $388.20 per share using the DCF method and $433.50 - $645.55 per share using the relative valuation, both significantly higher than the market price of $339.65 observed on the reference date. The analysis also includes a detailed assessment of the company's corporate and financial structure, an overview of the market, and a sensitivity analysis of the main valuation assumptions. A Monte Carlo simulation is also performed. The results obtained support the view that WTW shares are undervalued by the market, reinforcing a buy recommendation for investors.

KEYWORDS

WTW; Equity Valuation; Free Cash Flow to the Firm; Multiple Valuation; Monte Carlo Simulation

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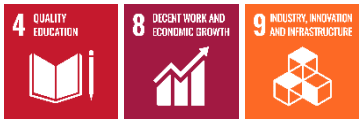

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LIST OF ABBREVIATIONS AND ACRONYMS

APT	Arbitrage Pricing Theory
APV	Adjusted Present Value
CAGR	Compounded Annual Growth Rate
CAPEX	Capital Expenditures
CAPM	Capital Asset Pricing Model
CEO	Chief Executive Officer
CRP	Country Risk Premium
D&A	Depreciation and Amortization
DCF	Discounted Cash Flow
EBIT	Earnings before Interest and Taxes
EBITDA	Earnings before Interest, Taxes, Depreciation and Amortization
EQV	Equity Value
EU	European Union
EV	Enterprise Value
FCF	Free Cash Flow
FCFE	Free Cash Flow to Equity
FCFF	Free Cash Flow to the Firm
FY	Fiscal Year
GDP	Gross Domestic Product
HR	Human Resources
HWC	Health, Wealth & Career
IMF	International Monetary Fund
MCS	Monte Carlo Simulation
MRP	Market Risk Premium
OWC	Operating Working Capital

PV	Present Value
R&B	Risk & Broking
R&D	Research and Development
ROA	Return on Assets
ROE	Return on Equity
ROIC	Return on Invested Capital
TGR	Terminal Growth Rate
TV	Terminal Value
U.K.	United Kingdom
U.S.	United States
WACC	Weighted Average Cost of Capital
WC	Working Capital

1. INTRODUCTION

Valuation is one of the keys to much of what is done in finance, and it plays a pivotal role. Equity valuation is one of the fundamental practices for investors, financial analysts, and other stakeholders in the capital markets, and is essential for determining the fair value of a company's shares. The valuation process allows investment opportunities to be identified, comprising not only tangible assets, but also intangible ones that influence the company's future performance. Valuation methods are also a key input of risk management strategies, including asset-liability management, hedging and speculative approaches (Simões et al., 2021; Bravo, 2025; Raimundo & Bravo, 2024).

A critical element of a listed company's financial communication is the provision of insights into a company's valuation, strategic direction and future outlook. Earnings calls are extensively used by senior management to engage with stakeholders and are distinguished by their spontaneity and increasing use of multimedia formats. These calls attract considerable attention from investors, who seek to interpret both explicit content and implicit cues to assess a company's trajectory. As such, earnings calls are essential for understanding a firm's financial health, strategic positioning, and future prospects (Maia & Bravo, 2024).

As such, performing an accurate valuation is crucial. In particular in the present era, characterised by constant risks, macroeconomic challenges, and uncertainty, the possession of advanced valuation techniques provides a significant advantage in making well-informed decisions.

In this context, the aim of this thesis is to carry out a detailed assessment of WTW's value, seeking to estimate the fair value of WTW's shares, determining whether they are undervalued or overvalued in relation to their fundamentals, offering a critical perspective for potential investors. This will involve calculating the target value of the company's shares on 28 February 2025, and comparing it with the market price on the same date.

It is important to note that the valuation is based on the information currently available and relies on projections made by the author. Therefore, it should be regarded as an estimate rather than as an absolute or definitive value.

WTW, known as Willis Towers Watson until it was rebranded as WTW in 2022, is a leading global advisory, broking, and solutions company. Operating in sectors such as risk management, insurance brokerage, and human capital and benefits, WTW provides a wide array of services to individual and corporative clients around the world. The company's extensive expertise in risk and benefit management, along with its global footprint, makes it a significant player in the consulting and financial services industry. As of 31 December 2024, WTW reported revenues of $9.9 billion, reflecting strong growth despite the challenges presented by the ongoing economic shifts. With a dedicated workforce of approximately 49,000 employees, the company maintains a strong competitive position in a dynamic market.

With a strong international presence, WTW plays a pivotal role in its sector, making its valuation essential for understanding the influence of market dynamics and global economic conditions. In recent years, the company has faced various challenges and opportunities, including regulatory changes, technological innovations, and the effects of macroeconomic conditions, all of which directly impact its growth prospects and profitability.

Accordingly, the thesis is structured as follows: Section 2 will cover the various methods of equity valuation, including their theoretical foundations, appropriate applications, and limitations. Subsequently, in Section 3 we will present an overview of WTW's business, its historical development, business model, principal services, competitive landscape, and a financial analysis to assess its current position. The thesis will then examine in Section 4 the macroeconomic conditions that affect the company, as well as the outlook for the industry.

The core of the project will be presented in Section 5, involving the valuation of WTW, where financial models will be applied, such as the discounted cash flow (DCF) method and market multiples, based on a set of assumptions. A sensitivity analysis, along with a Monte Carlo simulation, will be carried out to provide a more comprehensive view of potential results. Finally, Section 6 will compare the results of the different models, provide concluding information on the fair valuation of WTW's shares, and point out limitations of this research.

2. LITERATURE REVIEW

Understanding how to perform an accurate and insightful valuation, interpret the results with a nuanced perspective, and adapt decisions to evolving conditions provides a significant advantage in investment decision making. As highlighted by Damodaran (2012), a fundamental aspect of making informed investment decisions and managing assets effectively is understanding the key drivers of a firm's value and the methodologies for assessing it. The approach to valuation, as well as its complexity, varies depending on the specific context, making it a dynamic and flexible tool in financial analysis. The importance of valuation is further emphasised by Luerhman (1997, p.132), who asserts that it "is the financial analytical skill that general managers seek to learn and master more than any other".

Although valuation relies heavily on quantitative models and frameworks, it is important to recognise that it is not an entirely objective process. Uncertainty is an inherent component of valuation, stemming from the assumptions and projections that underline most models. Additionally, valuations are dynamic by nature and require continual revision and adjustment as new information emerges. For investors and analysts, the ability to navigate this uncertainty and incorporate new data is critical to refining estimates and making well-informed decisions.

The concept of valuation enables investors, managers, and stakeholders to assess the worth of both tangible and intangible assets. Fernández (2013) draws attention to the fact that although the terms ’value’ and ‘price’ are often used interchangeably, they hold distinct meanings. Value represents the intrinsic worth of an asset, determined through analytical methods and based on the underlying fundamentals. In contrast, price is the agreed upon amount in a transaction between a buyer and seller, which may deviate from the asset's true value due to market inefficiencies, behavioural biases, or incomplete information.

The importance of valuation remains, nevertheless, serving various purposes: on one hand, determining the maximum price that a buyer should be willing to pay, and on the other, to establish the minimum price at which a seller should be willing to sell; or even to decide whether it is better to buy, hold, or sell shares, by comparing the value obtained through valuation methods with its price on the stock market (Fernández, 2007).

2.1. VALUATION APPROACHES

According to Damodaran (2012), valuation can be carried out using three different approaches, each with various sub-approaches and a wide range of models, from the simplest to the most complex.

The first is the discounted cash flow method, which determines the value of an asset by calculating the present value (PV) of its future anticipated cash flows. The second approach,

relative valuation, assesses the value of an asset by comparing it to similar assets, using metrics such as earnings, cash flows, book value or sales as benchmarks. The third approach, contingent claim valuation, applies option pricing models to evaluate assets with characteristics similar to options. These assets may include financial instruments like warrants or non-tradable options based on real assets, such as projects, patents, or oil reserves, often referred to as real options. The choice of valuation method can lead to significant variations in the results.

In the following pages, we will dive deeper into the first two approaches mentioned, as they will be the methods used to value WTW, since the discounted cash flow valuation "is the foundation on which all other valuation approaches are built" (Damodaran, 2012, p.11) and relative valuations are characterized as the most valuations done in practice.

2.2. DISCOUNTED CASH FLOW VALUATION

The discounted cash flow valuation attempts to estimate the intrinsic value of an asset, considering the intrinsic value the "value that would be attached to an asset by an all-knowing analyst with access to all information available right now and a perfect valuation model" (Damodaran, 2006, p.6), based on the present value principle, which states that "the value of an asset is the present value of the expected cash flows on the asset, discounted back at a rate that reflects the riskiness of these cash flows" (Damodaran, 2006, p.4). As a result, the precision of these future cash flow forecasts is critical to the reliability of the valuation.

Damodaran (2012) also highlights the crucial importance of understanding the fundamentals of DCF valuation, since it is the foundation on which other valuation methods are built.

In this context, the value of an asset can be determined as follows (Damodaran, 2012):

$$Value = \sum_{t=1}^{t=n} \frac{CF_t}{(1+r)^t} \quad (1)$$

where,

n = Life of the asset;

CF_t = Cash flow in period t;

r = Discount rate that reflects the riskiness of the cash flow.

The DCF approach comprises various models. Damodaran (2006) explains that four variants of discounted cash flow models can be employed, in practice. The first discounts expected cash flows at a risk-adjusted rate to determine value. The second adjusts cash flows for risk (certainty equivalents) and discounts them at the risk-free rate. The third, the adjusted

present value (APV) approach, values a business without debt and then incorporates the effects of borrowing. Finally, the fourth focusses on valuing a business based on the excess returns it generates (which includes the economic value added model).

We will focus our attention on the first variant, delving into the FCFF and FCFE models, as they provide a more comprehensive and flexible framework and are considered standard practices for valuing businesses.

2.2.1. Discount Rate Adjustment Models

Among the methods for incorporating risk into discounted cash flow valuation, the most widely used is the risk-adjusted discount rate approach. In this method, higher discount rates are applied to the expected cash flows of riskier assets, while lower rates are used for safer assets (Damodaran, 2006).

It is essential to highlight that there are two ways to value a business: firm valuation, which considers the value of the entire business, and equity valuation, which focusses solely on assessing the value of the equity stake in the business. As explained by Damodaran (2006), the value of equity can be derived from the firm value by deducting the market value of outstanding debt. This implies that "the value for equity obtained from the firm valuation and equity valuation approaches will be the same if you make consistent assumptions about financial leverage" (Damodaran, 2006, p.30).

As such, discounted cash flow valuation can be approached in two ways: the first involves valuing the entire business, encompassing both existing assets and potential growth opportunities, and the second involves just valuing the equity stake of a business. Both approaches involve discounting expected cash flows at a specific rate; however, the cash flows and discount rates applied vary between the two.

2.2.1.1. Equity DCF Models

Equity valuation models focus on assessing the value of the equity investor's stake in a business. This assessment comprises a few models, but their foundation is the same: the value of equity is obtained by discounting expected cash flows to equity investors at a rate of return that is appropriate for the equity risk in the company. The difference lies in what is considered as cash flows to equity in each model.

The traditional approach to equity valuation, rooted in dividend discount models, considers only dividends as cash flows to equity, representing the earliest form of discounted cash flow models. However, broader definitions of equity cash flows have since been developed, incorporating stock buybacks and extending the analysis to include potential dividends or free cash flows to equity (Damodaran, 2006).

There are indeed cases where the dividend discount models can be useful, and their simplicity, intuitive logic, and need of fewer assumptions are pointed as advantages; however, they also come with several limitations, as stated by Damodaran (2006).

The free cash flow to equity (FCFE) model arises from this traditional approach and can be described as a model where potential dividends are discounted, rather than actual dividends. Using FCFE to value equity implicitly assumes that the FCFE will be paid out to stockholders.

In the next section, this approach will be explored, as it allows for a more accurate representation of a company's financial flexibility and future growth potential.

2.2.1.1.1. Free Cash Flow to Equity (FCFE) Model

Free cash flow to equity (FCFE) refers to the cash available to equity holders after accounting for debt payments, interest expenses, and necessary reinvestments. Unlike actual dividends, FCFE represents potential dividends because it reflects the amount of cash that could potentially be distributed to shareholders if the company chooses to do so (Damodaran, 2006). This metric is a useful tool to assess a company's capacity to generate value for its shareholders, since it factors in the impact of financing decisions and capital expenditure requirements on the cash flows available for equity distribution.

In the free cash flow to equity model, the FCFE are discounted using the cost of equity as the discount rate.

According to Damodaran (2006), the FCFE can be expressed as follows:

$$\begin{aligned} FCFE \;=\; & Net\ Income \;+\; Depreciation \;-\; Capital\ Expenditures \\ & -\; Change\ in\ non-cash\ Working\ Capital \\ & -\; (New\ Debt\ Issued \;-\; Debt\ repayments) \end{aligned} \tag{2}$$

As such, the value of a stock is given by:

$$Value\ per\ share\ of\ stock = \sum_{t=1}^{t=\infty} \frac{FCFE_t}{(1+k_e)^t} \tag{3}$$

where k_e represents the cost of equity.

2.2.1.1.1.1. Cost of Equity

The cost of equity is the return that equity investors require as compensation for the risk they assume by investing in a company, representing the rate of return they could earn by investing in an alternative investment with a similar risk profile. This concept is central to corporate finance, as it underpins investment decisions and valuation models.

Koller et al. (2020) mention three models to estimate the cost of equity that primarily differ in how they define risk: the capital asset pricing model (CAPM), the Fama-French three-factor model, and the arbitrage pricing theory model (APT).

Next, we will dive into a more detailed exploration of the CAPM, since it is the model that has been in use the longest and is still widely regarded as the standard for most practitioners (Damodaran, 2012). The CAPM's strength lies in its simplicity, focussing on market risk as a stock's sensitivity to the overall market.

The CAPM defines the expected rate of return on any security as follows (Koller et al., 2020):

$$E(R_i) = r_f + \beta_i[E(R_m) - r_f] \quad (4)$$

where,

$E(R_i)$ = Expected return of security i;

r_f = Risk-free rate;

β_i = Stock's sensitivity to the market;

$E(R_m)$ = Expected return of the market.

Bodie et al. (2024) specifies that the CAPM relies on two main sets of assumptions. The first pertains to individual investor behaviour, assuming that all investors are rational, mean-variance optimisers who operate with a single-period planning horizon and share homogeneous expectations based on publicly available information. The second set concerns the market structure, positing that all assets are publicly traded on efficient markets with no taxes, trading costs, or restrictions on borrowing or short selling at a common risk-free rate. While these assumptions simplify the model's application and provide a theoretical framework for understanding market risk, they are notably restrictive. In practice, markets are not entirely efficient, taxes and transaction costs exist, and investors often have heterogeneous expectations and varied planning horizons. These limitations can reduce the empirical accuracy and applicability in real-world scenarios. Despite criticisms and more complex alternatives, it remains central to financial analysis and valuation.

Risk-free Rate

According to Damodaran (2008, p.3), "most risk and return models in finance start off with an asset that is defined as risk-free and use the expected return on that asset as the risk-free rate". But what is a risk-free asset? As in finance risk is perceived in terms of the variance in actual returns around the expected return, a risk-free asset is viewed as an asset whose actual return should always be equal to the expected return (Damodaran, 2008). To be considered in this category, the assets need to be issued by an entity with no default risk, and the choice

of the instrument used to determine the risk-free rate depends on the duration for which the return is intended to be guaranteed.

To estimate the risk-free rate, in a simple way, it is common to use highly liquid, long-term government securities. Corporate valuations ideally match cash flows to government bonds of similar maturities; however, for simplicity, 10-year bonds, such as U.S. Treasury STRIPS or German Eurobonds, depending on the currency of the company's cash flows, are commonly used due to their liquidity and credit reliability (Koller et al., 2020).

Beta

As Damodaran (2012) also makes reference, investors can diversify their investments to reduce their exposure to firm-specific risk. However, investors are always subject to a certain level of risk. As such, the beta variable plays a pivotal role in this equation as it represents the systematic risk of the asset, a risk that cannot be eliminated through diversification, relative to the market. Consequently, it quantifies the risk premium required to compensate investors for the additional risk assumed compared to a risk-free investment. This makes it a critical component in determining expected returns, aligning risk compensation with the asset's contribution to overall portfolio volatility.

There are three primary methods for estimating beta. The first involves analysing historical market price data for individual investments. The second focusses on deriving betas based on the investment's fundamental characteristics. The third relies on the use of accounting information (Damodaran, 2012).

Historical regression approach

The historical regression approach, the first method mentioned, is the most common method used to estimate beta and relatively straightforward to apply for publicly traded firms with sufficient historical data. Damodaran (2012) explains that it involves performing a linear regression of the returns of the investment against the returns of a market index over a specific period. Ideally, the returns of the investment should be compared to those of a theoretical market portfolio that includes all traded assets. However, in practice, stock indices like the S&P 500 are often used as proxies for the market portfolio.

The beta coefficient corresponds to the slope of the regression line, which measures the sensitivity of the investment's returns to changes in the index's returns, mathematically expressed as the covariance of its returns with the returns of the market portfolio, divided by the variance of the market portfolio. This calculation standardises the relationship between the asset's movements and the overall market, isolating the portion of risk attributable to market factors rather than firm-specific factors.

It is equally essential to note that the market portfolio is a theoretical construction that represents a portfolio that contains all available assets in the market, weighted by their market value. In essence, "can include not just traded financial assets, but also consumer durables, real estate, and human capital" (Fama & French, 2004, p.25) —and reflects the aggregate behaviour of the entire market.

In other words, we can state that the role of the market portfolio in the beta calculation is to provide the benchmark against which an asset's risk is measured. By comparing the covariance of an asset's returns with the returns of this portfolio, beta quantifies how much the asset contributes to the portfolio's systematic risk. This aligns with the principle that investors are only compensated for bearing risks that cannot be diversified away. Therefore, the market portfolio is foundational to understanding the relationship between individual asset risk and overall market movements within the CAPM.

According to Damodaran (2012) and in mathematical terms, beta of asset i (β_i) is calculated as following:

$$\beta_i = \frac{Covariance\ of\ asset\ i\ within\ market\ portfolio}{Variance\ of\ the\ market\ portfolio} = \frac{Cov\ (R_i, R_m)}{Var\ (R_m)} \qquad (5)$$

where R_i represents the returns of the individual asset i, and R_m represents the returns of the market portfolio.

This approach to calculating beta ensures that it accurately reflects the systematic risk that an asset adds to a well-diversified portfolio. By standardising covariance with the market variance, beta provides a dimensionless metric that is comparable across different assets. A beta greater than 1 indicates that the asset amplifies market risk, that is, it is riskier than average, moving more aggressively than the market, while a beta below 1 suggests that the assets are less volatile relative to the market, this is, it is safer than the average. Assets with a beta of 0 are not correlated with market movements, and risk-free assets inherently have a beta of 0 (Damodaran, 2012).

Damodaran (2012) states, however, that this approach should be avoided for individual firms due to the standard errors in beta estimates, the failures of the local indexes (as is the case with most emerging market companies), and the inability of these regressions to reflect the effects of major changes in the business mix and financial risk at the firm.

Fundamental Betas

An alternative way to estimate betas is to consider that it is determined by the type of business the company is in, its degree of operating leverage and the company's financial leverage (Damodaran, 2012).

As, by definition, beta measures the risk of a firm relative to the market index, the sensitivity of a business to market conditions impacts beta. By instance, cyclical companies and those selling discretionary products are more sensitive to economic conditions, leading to higher betas, whereas noncyclical companies and those offering essential products typically have lower betas.

Betas are also influenced by the degree of operating leverage, this is, the relation between fixed costs and total costs. For example, companies with higher fixed costs relative to total costs experience greater variability in operating income, leading to higher betas; however, firms can reduce operating leverage and market risk through strategies like outsourcing, joint ventures, and flexible labour contracts.

Furthermore, Damodaran (2012) underscores the importance of the financial structure in calculating the betas of a company. Financial leverage increases a firm's equity beta by amplifying the risk borne by equity investors, as fixed interest payments cause greater income variability. The author states that the unlevered beta is calculated when the company is financed entirely by equity, and when the company is financed throught of a mix of equity and debt, the levered beta is computed, which can be determined using the following equation:

$$\beta_L = \beta_u[1 + (1 - t)\frac{D}{E}] \quad (6)$$

where,

β_L = Levered beta for equity in the company;

β_u = Unlevered beta of the company;

t = Marginal tax rate;

$\frac{D}{E}$ = Debt-to-equity ratio.

Bottom-Up Betas

As explained by Damodaran (2012), the bottom-up beta approach assumes that “the beta for a firm is a weighted average of the betas of all the different businesses it is in” (Damodaran, 2012, p.197), using comparable companies in each sector and adjusting for the firm’s specific financial leverage. By analysing the betas of similar firms in each industry, this method accounts for the firm’s exposure to systematic risk in its various business segments, while also factoring in its capital structure. This approach provides a more tailored and potentially more accurate estimate of the firm’s risk profile than historical betas, particularly for firms that are diversified across multiple sectors.

Accounting Betas

The third approach that can be followed to estimate the betas of a company is the accounting beta approach, where betas are estimated from accounting earnings rather, by relating changes in a firm's accounting earnings to changes in market earnings over the same period, than from traded prices (Damodaran, 2012).

While intuitive, this approach has limitations: accounting earnings are smoothed, leading to biased betas (closer to 1 for all firms); they can be influenced by non-operating factors like depreciation or inventory changes; and earnings data are infrequent, resulting in regressions with limited observations and low reliability. Due to these limitations, this approach is rarely used.

Market Risk Premium

The market risk premium (MRP) can be defined as the difference between the expected return and the risk-free rate (Koller et al., 2020). As such, it is perceived as the extra return demanded by investors for investing in the market portfolio rather than the risk-free asset (Damodaran, 2002).

According to Koller et al. (2020), there are three methods to estimate the market risk premium:

1. Measure and extrapolating historical returns to estimate the future risk premium.
2. Using the aggregate dividend-to-price ratio to estimate the expected market risk premium.
3. Apply DCF valuation combined with return on investment and growth projections to derive the market's cost of capital through reverse engineering.

However, there is no consensus among the authors regarding the estimation of the MRP.

Country Risk Premium

The importance of the incorporation of a country risk premium to the computation of the cost of equity is, according to Damodaran (2012), contingent on some criteria, namely if the risk can or cannot be diversified away and the correlation across markets. If investors can eliminate this risk through a well-diversified global portfolio and there is a low correlation between the returns of the country, no additional premium is necessary. However, if the risk is systematic and cannot be diversified away, or if the returns across countries have significant positive correlation, it should be reflected in the cost of equity as a country risk premium.

2.2.1.2 FIRM DCF MODELS

Instead of assessing only the value of the equity investor's stake in a business, we can assess the value of the entire business, with both assets-in-place and growth assets. This approach is known by firm or enterprise valuation.

The value of equity can be determined by subtracting the market value of the outstanding debt from the total value of the firm. Consequently, the equity value derived from the firm valuation approach will align with that from the equity valuation approach, provided that consistent assumptions regarding financial leverage are applied.

The firm's valuation approach simplifies the analysis by eliminating the need to explicitly account for debt-related cash flows, since the cash flows considered for this analysis reflect a flow before debt repayment. This is particularly useful in scenarios of variable indebtedness, where projecting new debt issuances and repayments becomes increasingly complex. However, information on debt ratios and interest rates is required to calculate the weighted average cost of capital (WACC).

One of the most widely used models for company valuation is the free cash flow to the firm (FCFF), which will be explored in the next section.

2.2.1.2.1. Free Cash Flow to the Firm (FCFF) Model

According to Damodaran (2006), free cash flows to the firm are defined as the cash flows generated before debt payments and after accounting for taxes and reinvestment needs. These cash flows are "computed as if the firm had no debt and no tax benefits from interest expenses" (Damodaran, 2006, p.26).

In the free cash flow to the firm model, the FCFF are discounted using the cost of capital as discount rate, which reflects the composite cost of financing from all sources of capital, including both equity and debt.

According to Damodaran (2006), the FCFF can be expressed as follows:

$$FCFF = EBIT \times (1 - t) + D\&A - CAPEX \pm \Delta WC \quad (7)$$

where,

$EBIT$ = Earnings before interest and taxes;

t = Corporate tax rate;

$D\&A$ = Depreciation and amortization;

$CAPEX$ =Capital expenditures;

ΔWC =Changes in working capital.

As such, the value of a firm, also known as enterprise value (EV), is, according to Damodaran (2006), given by:

$$Value\ of\ Firm = \sum_{t=1}^{t=\infty} \frac{FCFF_t}{(1+WACC)^t} \quad (8)$$

where,

$FCFF_t$ = Free cashflow to firm in year t;

$WACC$ = Weighted average cost of capital.

2.2.1.2.1.1. Weighted Average Cost of Capital

The WACC reflects the opportunity cost for investors, representing the return they forgo by choosing to invest in a specific business rather than in alternative ventures with comparable risk (Koller et al., 2020).

As stated by Damodaran (2012, p.211), "the cost of capital is the weighted average of the costs of the different components of financing, including debt, equity, and hybrid securities, used by a firm to fund its financial requirements". As such, the weights assigned to each component reflect their relative proportion in the total capital structure, typically calculated based on their market values, not their book values. This comprehensive approach ensures that the cost of capital accounts for the varying levels of risk and return expectations associated with each funding source, serving as a critical metric for assessing investment opportunities and making financial decisions.

The weighted average cost of capital can be represented, at its core, as follows (Koller et al., 2020):

$$WACC = \frac{D}{V}k_d(1-T_m) + \frac{E}{V}k_e \quad (9)$$

where:

D = Market value of debt;

E = Market value of equity;

$V = D + E$;

$\frac{D}{V}$ = Target level of debt relative to the total enterprise value, calculated using market-based values;

$\frac{E}{V}$ = Target level of equity relative to the total enterprise value, calculated using market-based values;

k_d = Cost of debt;

k_e = Cost of equity;

T_m = Company's marginal income tax rate.

Regarding the cost of equity component, we have previously examined its definition, the models used for its estimation, and its underlying factors. We will now proceed to analyse the remaining components of the WACC, focussing on their individual characteristics, methods of calculation, and their contributions to the overall cost of capital.

Cost of debt

The cost of debt reflects the interest rate a firm pays on its borrowed funds to finance its projects. Damodaran (2012) points out that this rate is defined by three variables: the riskless rate, the default spread (due to the default risk in the debt) of the firm, and the tax advantage associated with debt.

In line with the author, it is worth noting that the estimation of the default spread depends on whether the company is listed or not. For rated companies with less liquid outstanding bonds, the default component can be obtained using the company's rating and associated default spreads. However, for unrated companies, the best approach is to analyse recent loan history or estimate a projected synthetic rating.

To obtain the pre-tax cost of debt, one needs to sum the risk-free rate with the default spread. Then, the after-tax cost of debt can be computed as follows (Damodaran, 2012):

$$After - tax\ cost\ of\ debt = Pre - tax\ cost\ of\ debt \times (1 - tax\ rate) \qquad (10)$$

On the other hand, to estimate the cost of debt for a firm with investment-grade credit, the company's yield to maturity (YTM) on its long-term debt serves as a reliable measure. This is the most straightforward method, as stated by Damodaran (2012).

For firms with publicly traded bonds, the YTM can be directly derived from the bond's current market price and its promised cashflows. In cases where a firm's debt is rarely traded, its credit rating can be used as a proxy to approximate the yield to maturity. Since free cash flows are assessed without incorporating the benefits of interest tax shields, the cost of debt should reflect an after-tax basis, adjusted by applying the company's marginal income tax rate to the YTM (Koller et al., 2020).

Although YTM is commonly used to estimate the cost of debt, it is important to recognise that it represents the promised rate of return on a company's debt, assuming that all payments are made on time and in full. Technically, this makes YTM a proxy rather than a precise measure of the expected return, as it does not account for the possibility of default. However, for firms with investment-grade debt (rated BBB or higher), the probability of default is typically low enough that this theoretical inconsistency becomes negligible. This is especially true compared to other uncertainties, such as those associated with estimating the equity risk premium or beta. Therefore, the YTM is considered a sufficiently accurate measure of the after-tax cost of debt in such cases. For companies with lower credit ratings, where default risk is more significant, alternative valuation approaches, such as the adjusted present value (APV) method, may be more appropriate than WACC (Koller et al., 2020).

Yield to Maturity

The YTM is the interest rate that makes the present value of the payments of a bond equal to its price (Bravo & Silva, 2006). As such, it can be obtained by reverse engineering, as Koller et al. (2020) mentions:

$$Price = \frac{Coupon}{(1+YTM)} + \frac{Coupon}{(1+YTM)^2} + \cdots + \frac{Face + Coupon}{(1+YTM)^N} \tag{11}$$

where N represents the total number of payment periods remaining until the bond reaches maturity.

Market value of equity

The market value of the equity of a firm, also known as the market capitalisation, is measured by the total market value of all its outstanding stocks and represents how much investors think a firm is worth today, that is, the total value of a firm perceived by the market. It can be computed as follows:

$$\begin{aligned} &Market\ Value\ of\ Equity \\ &\quad = Market\ value\ per\ Share\ \times Total\ Shares\ Outstanding \end{aligned} \tag{12}$$

Market value of debt

The market value of the debt measures the market price that investors would be willing to pay for the debt of a firm. Unlike the book value, which reflects the amount recorded on the company's balance sheet, the market value accounts for current market conditions, interest rates, and the company's creditworthiness.

Unlikely the market value of equity, determining the market value of debt can be challenging, since the majority of the firms hold nontraded debt, which is recorded at book value rather than market value. An easy approach to estimate the market value is to treat total book debt as a single-coupon bond, where the coupon equals total interest expenses, and the maturity reflects the face-value weighted average maturity. This bond is then valued using the firm's current cost of debt.

Company's marginal income tax rate

It is essential to note that selecting the correct tax rate to estimate the after-tax cost of debt is a complex task. It is also important to note that when we refer to a tax, we need to make a distinction between the marginal tax rate and the effective tax rate, as they differ significantly in their definitions and implications (Damodaran, 2012).

Damodaran (2012) explains that the marginal tax rate is the rate applied to the last dollar of taxable income, reflecting the incremental tax savings associated with deductible expenses such as interest. It is the appropriate rate for calculating the after-tax cost of debt, as it directly captures the tax benefit of interest payments.

In contrast, Damodaran (2012) goes on to explain that the effective tax rate is calculated by dividing total taxes paid by taxable income. While this rate provides a broader perspective on a firm's overall tax burden, it does not accurately measure the marginal tax benefit of interest expenses and is therefore less suitable for this purpose.

Additionally, as Damodaran (2012) highlights, it is crucial to consider the firm's profitability. If a company has operating losses, it will not benefit from tax deductions on interest in the year of the loss, rendering the after-tax cost of debt equal to the pre-tax cost of debt for that period. However, if the firm is expected to generate taxable income in future years, adjustments must be made to incorporate the anticipated tax benefits in those periods.

2.3. CLOSING IN VALUATION

The discounted cash flow valuations were discussed in this research from a going-concern perspective, that is, from a perspective that the company will generate cash flows in perpetuity. In reality, estimating the cash flows a company will generate until perpetuity is unrealistic, thus necessitating the cessation of such estimations at some point in the future.

To overcome this limitation, it is common to divide a company's lifetime into two periods: the forecast period, where the expected cash flows are estimated for all periods (the growth rate used during this period will be explored later in this research); and the period where the terminal value is estimated. Therefore, determining the residual value or terminal value of a

company becomes one of the most important aspects of a valuation. When determining the residual value of the company in a certain period, we consider all the cashflows updated up to that point (Damodaran, 2012).

$$Value\ of\ a\ firm = \sum_{t=1}^{t=n} \frac{FCFF_t}{(1+WACC)^t} + \frac{Terminal\ Value_n}{(1+WACC)^n} \quad (13)$$

Damodaran (2012) presents three methodologies for calculating the terminal value:

1. A liquidation approach, where it is assumed that the business is closed at the terminal year and the assets accumulated until that point are sold.
2. Apply a multiple to earnings, book value, or revenue to estimate the value in the terminal year.
3. Using a perpetual growth model, assume that the cashflows of the firm will grow at a constant rate forever.

2.3.1. LIQUIDATION VALUE

Following this approach means that it is assumed that the company will cease operation at a point in time in the future, having a finite life, and sell the assets accumulated.

To estimate the liquidation value, Damodaran (2012) asserts that two procedures can be followed. The first considers the book value of assets adjusted for the inflation rate during the period:

$$\begin{aligned} &Expected\ liquidation\ value \\ &\quad = Book\ value\ of\ assets_{term\ year} \times (1 \\ &\quad + Inflation\ rate)^{average\ life\ of\ assets} \end{aligned} \quad (14)$$

The limitation of this approach lies in its reliance on accounting book value, which fails to capture the earning potential of the assets.

The second approach, according to Damodaran (2012), captures the earning power of the assets by estimating the expected cash flows from the assets and then discounting them back to present, using an appropriate discount rate:

$$\begin{aligned} &Expected\ liquidation\ value \\ &= Expected\ after \\ &- tax\ cash\ flows\ from\ assets \\ &\times (PV\ of\ annuity, number\ of\ years\ the\ CF\ are\ generated\ after \\ &terminal\ year\ @\ cost\ of\ capital) \end{aligned} \quad (15)$$

2.3.2. MULTIPLE APPROACH

Damodaran (2012) states that, following the multiple approach, the terminal value of a company in a year is estimated by applying a multiple to the firm's earnings or revenues in that year. The choice of multiples and metric depends on the purpose of the valuation and the availability of the data.

The multiple approach to estimating the terminal value is simple, but the multiple used is decisive, and its origin is crucial. When the multiples are based on the pricing of comparable companies on the market, the valuation becomes relative, unlike a discounted cash flow analysis. When estimated based on fundamentals, multiples are in line with the stable growth model, which will be analysed in the next section. To maintain consistency in the discounted cash flow model, which requires an intrinsic rather than a relative terminal value estimate, the terminal value should be estimated by a stable growth model or by a liquidation value.

2.3.3. STABLE GROWTH MODEL

The stable growth model assumes that the cash flows of the firms are reinvested back into new assets. Accordingly, assuming that cash flows, beyond the terminal year, will grow forever at a constant rate, the terminal value is estimated as follows, according to Damodaran (2012):

$$Terminal\ Value_t = \frac{Cash\ Flow_{t+1}}{r - g_t} \tag{16}$$

where,

g_t = Stable growth rate;

$r = cost\ of\ equity_{t+1}$ if valuing equity or $r = cost\ of\ capital_{t+1}$ if valuing a firm.

Damodaran (2012) considers the stable growth rate the input in the DCF model that most affects the value of the firm, since small changes in this rate will lead to significant changes in the value of the firm. This effect becomes more noticeable when the g rate approaches the value of the discount rate.

According to this author, the sustainable growth rate cannot be higher than the growth rate of the economy of the country in which the company operates, and he also points out three issues to take into account when determining this rate.

1. If the firm is purely domestic, i.e., it only operates in its home country, the limiting value of the stable growth rate is the growth rate in the domestic economy. If the firm is a multinational, the growth rate of the global economy, or at least the regions where the firm operates, will serve as the limiting factor.

2. If the valuation is being done in nominal terms, the stable growth rate should also be a nominal rate, that is, should include an expected inflation component. On the other hand, if it is a real valuation, the stable growth rate will be constrained to be lower.
3. The currency used in the valuation will impact the limits on stable growth rate. For the high-inflationary currency, we will have higher limits to the stable growth rate and the opposite to the lower-inflationary currency.

Damodaran (2012) further notes that it is possible to observe a negative growth rate to the firm, causing it to gradually liquidate with each passing year until it eventually ceases to exist. The author also highlights that the assumptions of stable growth have to be consistent with the characteristics of the firm being valuated.

It is common for the residual value to correspond to 75% of the overall value of the company. This proportion will be higher with the shorter the number of years in the forecast period (Rotkowski & Clough, 2013, as cited in Santos, 2022).

2.3.3.1. RESIDUAL PERIOD STABLE GROWTH RATE

The stable growth rate must be consistent with the return on equity (ROE) and the reinvestment rate.

According to Bodie et al. (2024), g can be computed, following the equity method, as:

$$g = ROE \times (1 - d) \tag{17}$$

where,

ROE = Return on equity;

$(1 - d)$ = Reinvestment rate of the results, which represents how much the company is investing in order to generate growth;

d = Distribution rate of the results.

We should ensure that the sustainable growth rate does not exceed the growth rate of the sector or the economy in general, in which it is located. Therefore, a more conservative estimate should be adopted to ensure that the company can grow perpetually in a sustainable way. In turn, the real growth rate of the economy is calculated as follows (Santos, 2022):

$$g_n = (1 + PIB) \times (1 + Tx.inflação) - 1 \tag{18}$$

The stable growth rate will have a major impact on a company's residual value and may bias the valuation, so it is advisable to use a relatively low rate. Lastly, Damodaran (2012) emphasises that the stable growth rate should not exceed the risk-free rate used in the valuation.

2.4. Forecast Period Growth Rate

The growth rate applied during the forecast period can be determined through two approaches: examining the trend of fluctuations over time or evaluating its historical growth (Santos, 2022).

Based on the second approach mentioned, it is essential to distinguish between the two key measurement methods applicable to the forecast period: the arithmetic average rate and the geometric average rate.

$$Arithmetic\ Average\ Rate: g_a = \frac{\sum_{i=0}^{n} \frac{V_{i+1} - V_i}{V_i}}{n} \quad (19)$$

$$Geometric\ Average\ Rate: g_g = \left(\frac{V_n}{V_0}\right)^{\left(\frac{1}{n}\right)} - 1 \quad (20)$$

where,

V_i = Value of the indicator in year i;

n = Number of years under analysis.

These two methods of estimating growth can lead to significantly different outcomes, particularly in companies with high volatility results. In this context, Damodaran (2012) argues that the geometric average generally provides a more accurate estimate for companies with inconsistent historical performance. However, it is essential that the company does not present zero or negative figures in the first year of analysis when using this rate. Furthermore, unrealistically high growth rates can be obtained in the presence of extremely low values.

Damodaran (2012) also highlights that the growth rates of smaller companies tend to be more volatile compared to those of larger or publicly traded companies.

2.5. Terminal Value and the Average Life Expectancy of Companies

According to Reis (2014), conventional firm valuation models do not account for critical factors that influence the value of business continuity, notably the company's average life expectancy of the company.

Although the calculation of terminal value based on a perpetuity formula, as we explored earlier, is widespread and accepted in the literature, due to its simplicity, it has been criticised by several authors, who question the validity of the perpetuity assumption. The possibility of significant distortions as a result of accepting the assumption that companies have unlimited lives becomes especially relevant when considering that, in many cases, the terminal value represents the majority of the company's total estimated value.

Although there are authors who have studied the average life of companies and the life cycle of industries and products, the literature has paid very little attention to the relationship between the average life expectancy of companies and their value (Morris, 2009, as mentioned in Reis, 2014). Reis (2014) also highlights the work in this area by Queen and Roll (1987), Chen et al. (2010), and Bhattacharya et al. (2011).

Taking this into account, as well as the gaps identified in previous work, Reis (2014) established a mortality profile and consequent calculation of business life expectancy, by determining a 'mortality table', to make it possible to gauge the expected period of cash flow production, instead of assuming its infinite production. In addition to studying the companies in the sample from birth to death, it provides an estimate of the average life expectancy and mortality for each stage of the company's life. It also showed that after reaching a certain age, companies can reinvent their business by acquiring maturity and, therefore, postpone their death by an additional period of life.

Based on an empirical analysis of 182,000 records of bankruptcies, dissolutions, and cessation of activity in Portugal between 1900 and 2009, and using actuarial methods common in demographic studies, Reis (2014) estimated that around 31% of companies close in the first five years of their life, with an average life expectancy at birth of 12 years. These figures directly challenge the logic of perpetuity and support the proposal to replace the conventional model with a finite-horizon approach. Thus, he argues that, taking into account the valuation of the company from the perspective of the entity, we should have the following:

$$EqV_t = \sum_{\tau=1}^{T} \frac{FCF_{t+\tau} \times SurvP_{t+\tau} \times I_{t+\tau} \times G_{t+\tau} \times L_{t+\tau} \times Ct}{\prod_{j=1}^{\tau}(1 + WACC_{t+j})} - D_t + C_t - SoMI_t \quad (21)$$

where,

t = Evaluation period at company age;

τ = Expected additional life;

$t + \tau$ = Maximum expected lifetime, as determined by the mortality function for the specific company and sector;

EqV = Market value of shareholders' equity;

FCF = Free cash flow;

$SurvP$ = Probability of survival, derived from sector-specific mortality table;

I = Innovation coefficient and allocation of resources to R&D activities;

G = Coefficient measuring management quality;

L = Liquidity of the market in which the security may be traded;

Ct = Percentage of ownership to be divested, which may represent control, significant influence, or no influence over the target company;

D = Gross debt;

C = Cash and non-recurring assets;

$SoMI$ = Employee stock options, in addition to the present value of preferred equity and non-controlling interests;

$WACC$ = Cost of capital.

In this sense, Reis (2014) emphasises the importance of the evolution of the theory of company valuation, as well as the adoption of future models that are closer to the valuation practices of the real contexts in which companies operate and that consider the risk of disappearance or structural transformation, adjusting future cash flows accordingly.

2.6. MONTE CARLO SIMULATION

The valuation process we have been discussing inherently involves the estimation of multiple variables based on a set of assumptions. However, these assumptions are subject to considerable uncertainty and risk, especially when they depend on future events or market conditions that are difficult to predict. Traditional valuation models, like the DCF, while useful, are deterministic models that rely on point estimates that may not fully capture the variability of the inputs involved, not incorporating any probabilistic input.

In this context, Monte Carlo Simulation (MCS) emerges as a powerful universal computer technique for assessing the impact of uncertainty and risk in quantitative models. Rather than relying on single-point estimates, it allows for the modelling of a range of possible outcomes by incorporating randomness into the input variables, making it possible to convert a deterministic evaluation model into a stochastic model that incorporates probabilistic components essential for decision-making in uncertain environments (Oliveira, 2012, as cited in Santos, 2022).

The MCS technique involves generating multiple iterations of random numbers for uncertain input variables in order to estimate the probabilistic distribution of the output of a model (Mencik, 2016), providing a deeper understanding of the relationships between the input variables and the range of possible output values.

The MCS procedure generally follows six key steps:

> **1º Step:** Specify a parametric model, $y = f(x_1, x_2, \dots, x_n)$, where y represents the valuation outcome and $x_1, x_2, \dots, x_n$ are uncertain input variables (e.g., cost of capital,

market risk premium). These variables should reflect key sources of valuation uncertainty (Neves, 2002, as cited in Santos, 2022).

2º Step: For each simulation run, random values are generated from predefined probability distributions associated with each variable. Prior to this, sensitivity and uncertainty analyses help identify which variables are most critical to the model, allowing for a more focused and computationally efficient simulation (Savvides, 1994, as cited in Santos, 2022). It is essential to evaluate potential correlations between variables to ensure realistic scenario generation (Neves, 2002, as cited in Santos, 2022).

3º Step: Using the sampled input values, the model computes a corresponding output (i.e., the valuation result), which is recorded for analysis.

4º Step: Steps 2 and 3 are repeated across a large number of simulations (e.g., thousands, or even millions, of iterations) to build a distribution of possible outcomes for the valuation indicator.

5º Step: The adequacy of the chosen probability distributions must be statistically tested - commonly through goodness-of-fit methods such as the Chi-square or Kolmogorov-Smirnov tests - to ensure they accurately represent the real-world uncertainty.

6º Step: Simulation results are interpreted using statistical tools such as histograms, confidence intervals, or summary metrics. This helps quantify the range and likelihood of valuation outcomes, providing a deeper understanding of associated risks.

Although MCS provides valuable insight into the uncertainty of valuation outputs, it also involves challenges, particularly in defining appropriate distributions for input variables and determining reliable parameter estimates. Furthermore, the process can be time-consuming, especially in the model-building and result interpretation phases (Evans & Olson, 1998, as cited in Santos, 2022). Nevertheless, it remains a robust, realistic, and widely accepted method for integrating risk into valuation and decision-making processes, which is particularly valuable in fields where forecasting accuracy is critical, such as finance and engineering.

2.7. RELATIVE VALUATION

We have focused our attention on discounted cash flow valuation, but the truth is that most valuations are relative. We must start by defining what relative valuation is: in simple terms, relative valuation involves comparing the price of an asset with the price of comparable assets that are standardized by a common variable, computing the so-called multiples (Damodaran, 2012).

This type of valuation is widely used due to its advantages, as Damodaran (2012) explains. The primary advantage of using multiples is their simplicity and efficiency in estimating a firm's value, especially in markets with many comparable companies that are priced correctly on average. Multiples allow quick comparisons and are particularly useful for benchmarking valuation metrics across similar firms. Their straightforward nature makes them accessible and easy to interpret, enabling analysts to derive preliminary valuations rapidly without the need for detailed forecasts or assumptions required in more complex valuation methods, like discounted cash flow models, and is much more likely to reflect the current mood of the market, since it is an attempt to measure relative and not intrinsic value.

Some relative valuation models compare multiples across companies, specifically across those known as comparable firms, while others compare a company's multiples with those from a different time in the past (Damodaran, 2012).

Damodaran (2012) places significant emphasis on the need to clarify the concept of a comparable firm. A comparable firm is one with similar cash flows, growth potential, and risk to the firm being valued. Ideally, comparable firms come from the same sector. However, if there are insufficient firms within the sector, companies from other industries with similar characteristics can be considered. When defining comparable firms, analysts can narrow the list based on factors such as company size, assuming that firms of similar size, even if from different sectors, will have more comparable risk, growth, and cash flow profiles.

When selecting comparable firms, it is crucial to establish clear criteria for their inclusion. According to Koller et al. (2020), firms should belong to the same industry and demonstrate a similar return on invested capital (ROIC) and growth potential. Bhojraj & Lee (2001) further emphasise that the choice of peers should be based on the factors influencing the variation of valuation multiples. If these conditions are not met, Damodaran (2006) suggests using firms with similar valuation fundamentals as an alternative.

Damodaran (2012) highlights that when valuing a firm, two primary approaches are used: the fundamentals-based approach and the comparables-based approach, each with distinct methodologies and implications. The first approach derives multiples directly from the firm's underlying characteristics, such as growth rates, reinvestment and risk, which makes this method closely aligned with the discounted cash flow valuation. The advantage of this approach lies in its ability to explain how changes in firm-specific factors affect multiples, which is a critical and valuable understanding. The second approach evaluates the value of a firm by comparing its multiples with those of similar firms or its own historical values. Although this method is more commonly used, it requires careful consideration of comparability. Firms may differ in growth prospects, risk levels, or cash flow generation, necessitating adjustments to account for these variations.

To use the comparables-based approach, it is necessary to standardise the values to have a common measure. According to Damodaran (2012, p. 454), "values for businesses can be

standardised relative to the earnings generated, to the book value or replacement value of the assets employed, the revenues generated, or to measures that are specific to firms in a sector".

The selection of multiples is a crucial element of this model and varies according to the type of business and the industry in which the company operates. Fernández (2001) classifies the multiples into three main categories, which are outlined below:

Table 2-1: Main groups of multiples.

Source: Adapted from Fernández (2001).

Equity Value (EQV) Multiples	P/E (Price to Earnings Ratio)
	P/S (Price to Sales)
	P/BV (Price to Book Value)
Enterprise Value (EV) Multiples	EV/EBITDA (Enterprise Value to EBITDA)
	EV/Sales (Enterprise Value to Sales)
	EV/FCF (Enterprise Value to Free Cash Flow)
Growth-referenced Multiples	PEG (Price/Earnings to Growth)
	EV/EG (Enterprise Value to EBITA Growth)

EQV multiples reflect a company's market capitalisation or stock price and are widely used because of their intuitive nature and ease of calculation. According to Koller et al. (2020), the price-to-earnings (P/E) ratio is the most applied multiple, primarily due to its simplicity. However, its reliance on earnings, which can be influenced by accounting choices and temporary fluctuations, makes it prone to misestimation and potential misinterpretation of a firm's financial fundamentals.

However, EV multiples provide a broader perspective by incorporating both the company's market capitalisation and financial debt. While EV multiples share similarities with EQV multiples, they account for the firm's overall capital structure. Among these, the EV/EBITDA multiple is widely used by analysts, as highlighted by Fernández (2001). However, despite its popularity, it also presents limitations, such as not being able to capture changes in working capital requirements and overlooking capital investment considerations.

Finally, the growth-referenced multiples are particularly relevant in high-growth industries, including technology, healthcare, and telecommunications. These sectors often require alternative valuation approaches that reflect their rapid expansion and unique financial characteristics.

Damodaran (2012) further states that every multiple is influenced by the same three factors - risk, growth, and cashflows - that determine discounted cash flow valuation.

However, the differences between DCF valuation and relative valuation stem from their differing perspectives on market efficiency. In DCF, it is assumed that markets often make mistakes, which are eventually corrected over time, and that these errors can affect entire sectors or even the broader market. On the contrary, relative valuation assumes that while markets may misprice individual stocks, they tend to be accurate on average across the market as a whole.

There are four basic steps to ensure the proper use of multiples (Damodaran, 2012):

1. Ensure consistency in the way the multiple is defined and measured between the companies being compared.
2. Analyse the distribution of multiples, both within the sector and in the broader market.
3. Understand the fundamentals that influence the multiple and how changes in these fundamentals affect its value.
4. Choose suitable comparable companies and adjust for relevant differences between them.

In addition to the advantages and ease of use of relative valuations already discussed, this approach has several disadvantages. Its reliance on comparable firms introduces subjectivity and a lack of transparency, allowing for bias as analysts can selectively choose comparables to support preconceived valuations. It is also less effective in valuing unique firms, startups, or businesses with negative earnings or minimal revenues. Furthermore, the implicit and unstated assumptions underlying multiples make it more difficult to scrutinise their validity compared to more explicit methods, such as discounted cash flow analysis, and may lead to inconsistent value estimates (Damodaran, 2012).

This approach can still be valuable for company evaluation. Fernández (2001) argues that relative valuation can serve as a secondary method in the valuation process. Similarly, Koller et al. (2020) suggest that it can complement other valuation techniques, for example, by highlighting differences between methods or by assisting in calculating terminal values.

3. WTW OVERVIEW

3.1. HISTORY

WTW Company is a global advisory, broking and solutions company that provides data-driven, insight-led solutions in the areas of people, risk and capital. Based in London, its tax residence is located in Ireland.

The beginning of what is nowadays known as WTW date back to 1828, when Henry Willis began his career as a merchant selling imported goods on commission in the U.K. at the Baltic Exchange in London. Thirteen years later, Willis began brokering cargo insurance at Lloyd's, expanding into marine insurance and founding Henry Willis & Company.

Parallel to this, actuarial consulting began to take shape in the United States. Fackler & Co. was founded in 1865 and, Reuben Watson formed R. Watson & Sons in 1878, the world's oldest actuarial firm, laying the groundwork for the actuarial profession. By 1898, Henry Willis & Co merged with Faber Brothers to form Willis, Faber & Co., reputedly the largest broking portfolio globally.

In the 20th century, Willis, Faber & Dumas (company resulted from the merge of Willis Faber & Co with Dumas & Wylie Limited in 1928) expanded globally and diversified, listing on the London Stock Exchange in 1976 and entering the US market in 1990. On the actuarial side, the merger of R. Watson & Sons and the Wyatt Company in 1995 formed Watson Wyatt, consolidating expertise in pensions and employee benefits.

In 2001, Willis Group, the amalgamation of Willis operations under one name, was listed on the New York Stock Exchange (NYSE) and experienced strong growth, right after the Watson Wyatt was listed in 2000.

The 21st century brought transformative changes. In a merger of equals, Towers Perrin and Watson Wyatt combined to form Towers Watson in 2010, while Willis Group expanded through acquisitions.

The transformative and crucial merger occurred in 2016 between Willis Group and Towers Watson created Willis Towers Watson (WTW), combining strengths in broking, actuarial consulting, and risk management. In the same year, the merged entity joined the Paradigm for Parity® (P4P) coalition, which is committed to reach gender parity in leadership by 2030. WTW's recent milestones include the acquisition of TRANZACT in 2019, linking individuals to U.S. insurance carriers, and the acquisition of Unity Group in 2020, expanding its presence in Central America. Willis Towers Watson embraced not only innovation but also sustainability, committing to delivering net zero greenhouse gas emissions by 2050 at the latest.

In 2022, Willis Towers Watson rebranded as WTW, its current name, and transferred its listing from the NYSE to NASDAQ, adopting the stock ticker WTW. In the same year Carl Hess succeeded John Haley as CEO, after 23 years in that position.

Nowadays, standing as a global leader in the services it provides, WTW design and deliver solutions that manage risk, optimize benefits, cultivate talent and expand the power of capital to protect and strengthen the needs of its institutional and individual clients. Seeking to help organizations sharpen strategies, enhancing resilience, motivating workforces and maximizing performance, WTW uses the global view and local expertise of 48,900 colleagues serving more than 140 countries and markets.

The clients served range from local to global scale, in a multitude of businesses and industries throughout the work and from large, major multinational corporations to middle-market domestic and internation companies. WTW clients include many of the world's leading corporations, including approximately 96% of the FTSE 100[1], 89% of the Fortune 1000[2], and 90% of the Fortune Global 500[3] companies. WTW also advises the majority of the world's leading insurance companies and work with major corporations, emerging growth companies, governmental agencies and not-for-profit institutions in a wide variety of industries, with numerous client relationships extending over several decades, which highlights the company's reach, influence, and the quality of its services.

3.2. BUSINESS STRATEGY

WTW states that the path to growth for organizations around the world is a unified and integrated approach to advisory, broking and solutions, through smart connections to serve and support the clients.

WTW operates in both growing and mature markets with a diversified platform across industries, segments and businesses globally.

The vision of WTW is to be the best advisory, broking and solution company, by creating a competitive advantage and delivering sustainable, profitable growth, which benefits all the stakeholders. To achieve this goal, growing at or above market in priority areas, simplify the business to increase agility and effectiveness and transform operations to drive savings while enhancing client and colleague experiences were the three strategic priorities to be executed.

WTW's strategy focuses on broadening its strength to drive sustainable profitability and growth to its clients. This approach aims to increase revenue, enhance margins, and boost

[1] Index that represents the biggest 100 companies listed in the London Stock Exchange, LSE.
[2] List that contains the 1000 biggest companies in the United States of America.
[3] List that contains the 500 biggest companies in the world.

free cash flow, EBITDA, and earnings, ultimately enabling the company to fulfil its shared purpose - "We transform tomorrows".

WTW considers this can be achieved by executing three key objectives, supported by a well-defined investment framework and capital allocation strategy:

- Accelerate performance: Strengthen business fundamentals, drive segment growth and expand innovative solutions, and capitalize its global presence.

- Enhance efficiency: Promote continuous improvement, optimize operations and leverage the WTW Enterprise Delivery Organization (WE DO) to focus on the right work, in the right place, with the right tools.

- Optimize portfolio: Invest strategically in inorganic and organic investments in high-growth areas such as corporate risk, brokerage, health and benefits, while divesting businesses that no longer align with WTW's strategy or desired financial profile.

3.3. PRINCIPAL SERVICES

WTW is structured across two integrated reportable operating segments: Health, Wealth & Career (HWC) and Risk & Broking (R&B).

The percentages of revenue generated by each segment are 59% for HWC and 41% for R&B for the year ended 31 December 2024, which is in line with the past trend, in which 60% for HWC and 40% for R&B were observable for each of the years ended 31 December 2023, 2022 and 2021. It is worth noting that these percentages exclude revenue that has been classified as discontinued operations in WTW's consolidated statements of comprehensive income.

3.3.1. HEALTH, WEALTH & CARRER

The HWC segment provides an array of advice, broking, solutions and technology for employee benefit plans, institutional investors, compensation and career programs, and employee experience overall. Its portfolio of services supports the interrelated challenges that the management teams of its clients face across human resources (HR) and finance. As such, the main goal is addressing the clients' people and risk needs to help succeed in a global marketplace.

HWC is the larger of the two segments of WTW and focuses on four key areas: Health, Wealth, Career and Benefits Delivery & Outsourcing.

Health

The Health & Benefits (H&B) business provides consulting, plan management, broking, and administration for health, wellbeing, and other group benefit programs, including medical, dental, disability, life, voluntary benefits and other coverage. It serves clients from small/mid-market to large-market and multinational and across industries and geographies in over 140 countries.

Consultants are trained to support strategic decision-making on topics such as cost optimization, vendor selection, and above-inflation-rate increases in healthcare costs. Assisting clients in selecting the appropriate insurance carriers to cover benefit risks and administering the programs is also covered by this segment.

Global Benefits Management also offers a global service supporting medical, dental and risk programs, which offer tailored global solutions for multinationals through proven technology and integrated service delivery.

A significant portion of revenue in this business is from recurring work, although contracts may be annual or multi-year, with contributions balanced across consulting, broking, and solutions, particularly in the first half of the year.

Wealth

This business includes both Retirement and Investments.

The Retirement business offers actuarial support, plan design, and administrative services for all forms of pension and retirement savings plans, providing a range of integrated retirement consulting services and solutions to meet the needs of all types of employers.

The services go through bring in-depth data analysis and prospective to the multinationals' decision-making process, which is made possible by decades of work with companies around the world.

It is also offered broking services and integrated solutions for clients seeking to outsource pension plan management, including investment management, pension administration, actuarial services, and communication support.

Retirement relationships are typically long-term, with high client retention rates. A significant portion of revenue comes from recurring work, driven by multi-year contracts due to the heavily regulated nature of pension plans and clients' annual service needs.

On the other hand, the Investment business provides advice and discretionary investment management solutions to defined benefit and defined contribution pension plans, as well as other types of clients that range from insurers to private wealth investors.

The goal is to offer a flexible approach able to adapt to a wide range of client needs and circumstances, enabling higher returns, lower risk and lower costs within each client's unique situation. The solutions offered range from single asset class activity, through complete management of entire pension plan assets including sophisticated liability hedging programs, as well as a broad array of specialist investment knowledge and expect advisors with experience across all types of clients.

The majority of the revenue in this business is driven by retainer contracts, since WTW have a long-term relationship with its Investment clients.

Career

The Career segment provides services such as advice, data, software and products to address clients' total rewards and talent issues across the world and includes both Work & Rewards and Employee Experience businesses.

The Work & Rewards business focuses on helping clients determine the best ways to get work done, the skills needed for jobs, and how to reward employees. Emphasis is placed on aligning pay plans with an organization's business strategy and driving desired performance.

The solutions include proprietary market benchmarking data and software to support compensation administration.

On the other side, the Employee Experience business focuses on the provision of solutions including employee insight and listening tools, a technology platform that connects users across the HWC segment, communication and change management services.

Due to the annual compensation, benefits and survey cycles having heightened activity in the half of the year, the revenue for the career-related businesses is partly seasonal in nature.

Although these businesses hold long-term relationships with clients, they rely on project-based work impacted by economic conditions, benefiting from regulatory changes, technological impacts on work, and shifting labour markets that drive demand for strategic advice and program adjustments.

Benefits Delivery & Outsourcing

This business includes both Benefits Delivery & Administration (BDA) and Global Outsourcing.

The BDA business, in turn, includes Individual Marketplace and Benefits Account. The Individual Marketplace connects consumers to insurance providers in the private and Medicare markets through advanced decision support tools and comprehensive platforms. It

serves employer-based and direct-to-consumer populations by integrating call routing technology, efficient quoting and enrolment engines, customer relations management systems and strong partnerships with insurers. Using diversified distribution channels and a broad product portfolio, it makes it easy for consumers to compare, buy and use health insurance and tools.

The Benefits Accounts offer employees and retirees tax-advantaged medical savings and spending options, such as health savings accounts (HSA), health care flexible spending accounts (HCFSA), dependent care flexible spending accounts (DCFSA), limited purpose flexible spending accounts (LPFSA) and health reimbursement arrangements (HRA). These solutions allow employers to choose an array of funding accounts when offering employees and retirees account-based health plans.

Regarding Global Outsourcing, it uses WTW proprietary technology to administers the heath, welfare and retirement plans of clients, as well as to provide trustees and HR teams with management information to monitor activity and service levels and reduce administration costs.

With high client retention rates and multi-year contracts, WTW is a leading administrator among the 200 largest pension plans in the U.K. and a key player in Germany. Revenue in Benefits Delivery & Outsourcing is largely recurring in nature, driven by policy commissions and long-term contracts (ranging from three to five years), with seasonal peaks in the fourth quarter due to annual enrolment activities.

3.3.2. RISK AND BROKING

The R&B segment provides a range of risk advice, insurance brokerage and consulting services to clients around the world, varying from small businesses to multinational corporations.

This segment includes two primary businesses: Corporate Risk & Broking (CRB) and Insurance Consulting and Technology (ICT).

Corporate Risk & Broking

The CRB business delivers integrated, global and personalized solutions tailored to client needs with a focus on risk analysis and climate analytics, based on a specialized and data-driven approach. The global footprint is divided into three geographical areas: North America, Europe and International.

The experts deliver a broad perspective and data informed decision-making to the clients across all businesses, through an industry-focused approach to risk management and assessment.

The lines of business include:

- Property and Casualty: Provides property and liability insurance brokerage services across a wide range of industries and segments;
- Affinity: Arrange insurance products and services for WTW's affinity client partners to offer to their customers, employees, or members alongside, or in addition to, their principal business offerings;
- Risk & Analytics: Provides tailored expertise, leveraging holistic analysis to quantify risks, develop robust portfolio strategies, and deliver sound financial solutions to clients;
- Specialty global lines of business: Include Aerospace, Construction, Global Markets Direct & Facultative, Financial, Executive and Professional Risks, Financial Solutions, Crisis Management, Surety, Marine and Natural Resources.

The CRB business adds more than $30 billion in premiums to the insurance markets annually.

Insurance Consulting and Technology

The ICT business uses the sector experience, strategic perspectives and amnatic skills of its experts to provide advice and technological solutions for the insurance sector.

With the aim of measuring and managing risk and capital, improving company performance and creating a sustainable competitive advantage, software and technology, risk and capital management, products and product pricing, financial and regulatory reporting, financial and capital modeling, M&A, outsourcing and business management services are offered.

3.4. COMPETITION

WTW has competition in every field in which it operates, based on factors including innovation, quality of service, global capability, product breadth, and price. Also, the human capital and risk management consulting industries are known to be highly competitive.
In the pension consulting industry, WTW's largest competitors are Mercer HR Consulting (a Marsh & McLennan company) and Aon plc.

In turn, in the insurance consulting and software industry, WTW faced major competition from Milliman, Oliver Wyman (a Marsh & McLennan company), the big four accounting firms (Deloitte LLP, Ernst & Young, PricewaterhouseCoopers, and KPMG), and SunGard.

On the other hand, Aon plc, Buck Consultants (an HIG Capital Company), Connextions (a United Healthcare company), Mercer (a Marsh & McLennan company), Automatic Data

Processing and Fidelity are among WTW’s largest competitors in the insurance exchange industry.

Public exchanges currently run by the U.S. federal, and state governments also represents a competition since the implementation of the Patient Protection and Affordable Care Act.
WTW also competes with providers of account-based health plans and consumer-directed benefits such as WageWorks and HealthEquity.

3.5. Revenue by Region

The WTW’s main sources of revenue come from commissions or fees for brokerage or consulting services. Commissions generally correspond to a percentage of the insurance premiums set by insurers, which means that variations in these premiums can have a direct impact on WTW's results. WTW’s fees, on the other hand, tend to be more stable, spread over various complementary areas. Notably, some businesses, such as health services, benefits and administration, tend to be counter cyclical and may perform well during early phases of economic downturns.

As previously mentioned, WTW operates in more than 140 countries and markets. Among these markets, United States, United Kingdom, France, Canada and Germany are the ones that stand out in terms of revenue generated.

As illustrated in the Figure 3-1, in 2024, the United States is the country that contributes the most to the company’s revenue, accounting for 52%, followed by the United Kingdom, which contributes 19%. Together, these two countries represent a significant portion of WTW's revenue, being followed by France with 4%, while Canada and Germany each contribute 3%. The remaining 19% are generated by other countries.

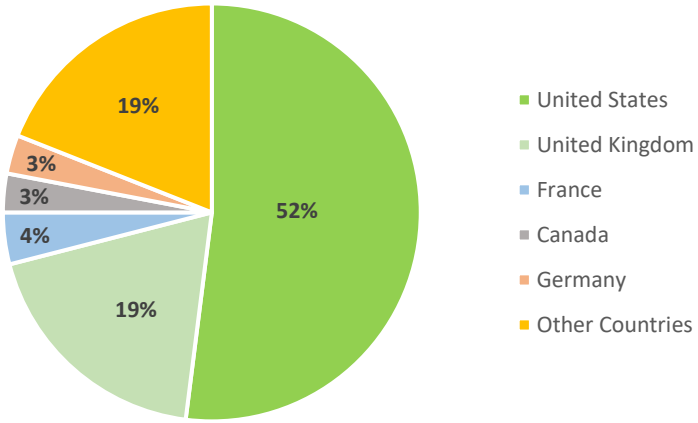

Figure 3-1: Revenues per region (%).

Source: Own preparation based on WTW FY[4]2024 annual report[5].

3.6. Financial Performance

Financial analysis can be defined as the critical process aimed at evaluating an organization's financial standing, focused on analysing viability, measuring business performance and ensuring efficient allocation of resources to guarantee long-term stability and growth. This process encompasses a set of actions, methodologies and tools designed to assess and preserve the financial health of a company, primarily through the generation and interpretation of key financial performance indicators.

As a strategic management action, constant and rigorous monitoring is essential to verify the real situation of the business. It is through this process that weaknesses are identified, problems are prevented in the short, medium or long term and decision-making is carried out.

The three crucial elements that we will explore to carry out the WTW's financial analysis include:

- Profitability: The ability to generate income/profit from services provided and products offered;
- Liquidity: The ability to meet short-term financial obligations, such as salaries, administrative expenses, and contractual commitments with suppliers and partners;
- Solvency: The strength of the company's capital structure, focusing on adequate financial reserves and controlled exposure to risks, particularly those related to pension liabilities and employee benefits, which are significant in actuarial consulting.

[4] WTW's fiscal year (FY) begins on 1 January and ends on 31 December.

[5] Annual report on Form 10-K for the fiscal year ended 31 December 2024, filed by WTW with the U.S. Securities and Exchange Commission (SEC) in 2024.

Having said that, in the next section we will carry out a financial analysis of WTW taking into account historical data from the last five years.

3.6.1. PROFITABILITY AND OPERATING EFFICIENCY ANALYSIS

From year ended 31 December 2020 to year ended 31 December 2024, WTW experienced a slight increase of total revenues in the amount of $1,315 million. The increase has been driven by sustained organic growth, supported by specialization in high value-added business lines, expansion into emerging markets, the digitalization of services and the strengthening of the value proposition in benefits consulting, risk management and investments, as well as strategic operational efficiency initiatives that have optimized profitability and allowed for greater reinvestment in the company's growth.

In the figure below we can observe the revenue trend of WTW over the past five years. We have employed a proxy method to determine the total revenue generated by each business segment. The WTW FY2024 annual report provides the total revenue derived from the HWC and R&B segments, as well as additional revenue arising from adjustments or other sources not directly allocated to the operating segments, which are assigned to divested businesses and corporate. To account for all the revenues each year, we have allocated these last two categories of revenue to each business line in proportion to the percentage of each segment's revenue relative to the total revenue across both segments (please refer to Appendix A).

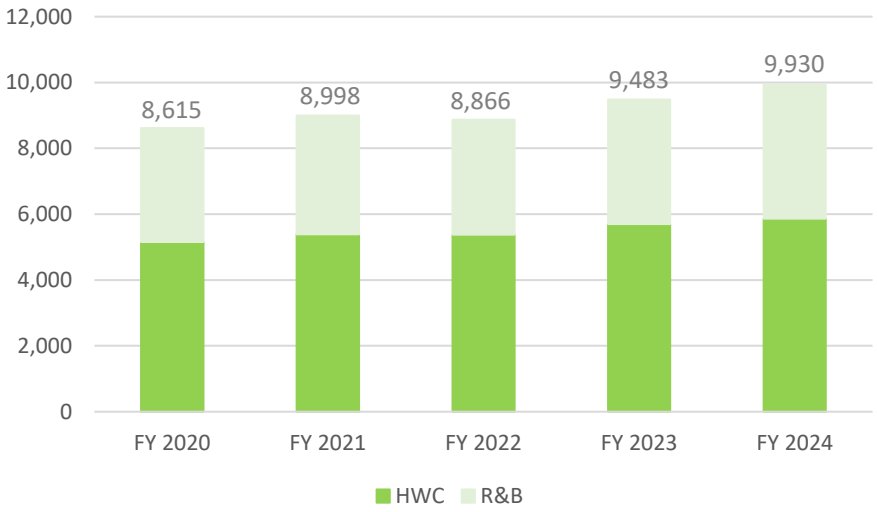

Figure 3-2: WTW total revenues by segment (million $).

Source: Own preparation based on WTW annual reports.

The decrease of $132 million observed for FY2022 in Figure 3-2 ($8.9 billion for FY2022, compared to $9.0 billion for FY2021) was primarily driven by unfavourable foreign currency exchange movement. As such, it is important to note that WTW's revenue can be materially impacted by changes in currency conversions, which can fluctuate significantly over the course

of a calendar year. For the FY2024, currency translation decreased WTW's consolidated revenue by $19 million, with the Argentine Peso being the primary currency driving this change.

Other important measures that can be analysed to evaluate the financial performance of a company are net income and the earnings before interest and taxes (EBIT). WTW's net income, which is the amount of accounting profit a company has left over after paying off all its expenses, including interest and taxes, reflecting the capacity to generate value for shareholders, can be observed in Figure 3-3. The net income figure of $1,020 million in 2020 represents a slight decrease from the previous year, which can be attributed primarily to higher salaries and benefits, tax expense and transaction and integration expenses, partially offset by higher revenue year over year and the net gains on disposals of operations. As for 2021, net income increased significantly to $ 4,236 million, which was primarily driven by the $2.1 billion net income from the discontinued operations of the Willis Re business, the $1 billion income receipt from the termination of the proposed Aon transaction after regulatory issues prevented the combination agreement, the sale of the Miller business in the first quarter of 2021, and higher revenue. In the following two years, net income returned to more normal levels, reaching $1,024 million in 2022 and $1,064 million in 2023, indicating a return to operational and financial stability. However, in 2024, we can observe a negative net income of $88 million, mainly due to the pre-tax impairment of $1,042 million related to the sale of TRANZACT. TRANZACT was a WTW subsidiary specializing in direct sales of insurance to consumers, acquired by WTW in 2019. As part of its portfolio optimization strategy, WTW decided to sell this subsidiary in 2024 to focus on its main lines of business, and it was sold for less than the amount recorded in the company's books. Thus, this revaluation of the value of the assets associated with TRANZACT led to a significant negative impact on net income.

We can therefore conclude that WTW's net income remains consistent, taking out the outstanding values of 2021 and 2024 due to extraordinary events, indicating stability.

In turn, EBIT is a crucial measure of efficiency and profitability because it isolates the company's core operating performance, excluding the effects of financing and tax structures. As such, EBIT growth is a clear indicator of how well a company manages its core operations, which is a sign of robust management practices and effective cost control. In this research we consider the adjusted EBIT for the analysis, which is defined as net income adjusted for income or loss from discontinued operations, net of tax, provision for income taxes, interest expense, impairment, restructuring costs, transaction and transformation, gains and losses on disposals of operations and non-recurring items that, in management's judgment, significantly affect the period-over-period assessment of operating results. As stated in the WTW FY2024 annual report, using adjusted metrics in WTW's valuation is essential to obtain a more accurate view of the company's operating performance and value generation, as they allow us to eliminate distortions caused by non-recurring items, such as restructuring or impairment costs, ensuring a more accurate and comparable valuation over time. This makes it possible to model more

coherent financial projections, improve sensitivity analysis and reduce the impact of exceptional events on the estimate of the company's value.

We can observe in Figure 3-3 that its evolution was stable over the past five years, reflecting the company's consistent ability to generate results from its core operations. This metric rose moderately from 2020 to 2021, remained strong in 2022 and followed a gradual growth path until 2024, reaching $2,252 million. The consistency in adjusted EBIT demonstrates that WTW has managed to maintain a solid operating performance, even in years of greater volatility.

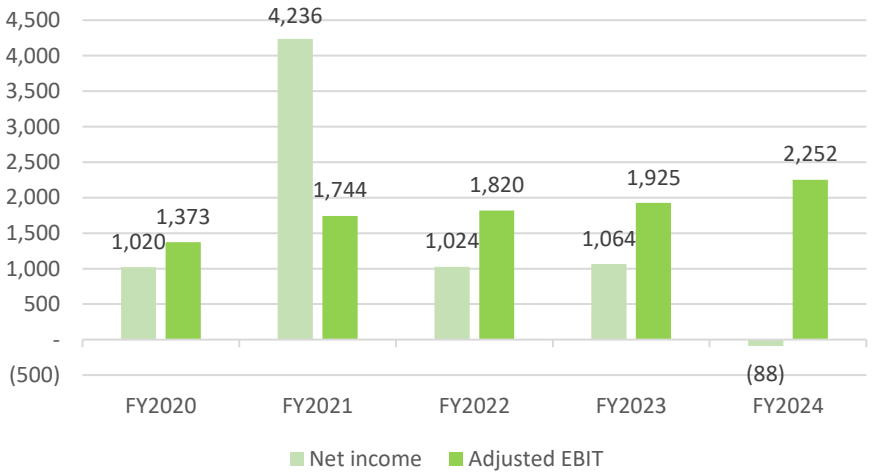

Figure 3-3: WTW net income and adjusted EBIT (million $).

Source: Own preparation based on WTW annual reports.

These two metrics together offer complementary insights into the company's performance, as net income allows for evaluating overall profitability, while EBIT highlights operational efficiency. Adjusted EBIT further refines this analysis by focusing on the profitability of core operations, eliminating distortions caused by one-time or non-recurring events.

EBITDA is another financial measure that should be analysed. While both EBIT and EBITDA provide insights into a company's financial performance, they focus on different aspects. EBIT includes depreciation and amortization, offering a broader view of a company's expenses, including non-cash charges. This makes EBIT a key metric for analysing operational efficiency and the overall cost structure. In contrast, EBITDA excludes depreciation and amortization, emphasizing cash flow and a company's ability to generate operating profit. This focus on cash flow makes EBITDA particularly useful for investors for assessing the ability to pay dividends, repurchase shares, and service debt.

In Figure 3-4 we can observe the revenues, total costs of providing services as well as the adjusted EBITDA margin, which is calculated by dividing adjusted EBITDA by revenue, over the last five years. The last measure is considered by WTW to be an important financial measure, which is used internally to evaluate and assess core operations, to benchmark operating

results against WTW's competitors and to evaluate and measure their performance-based compensation plan. Similarly to the EBIT analysis, we will use the adjusted EBITDA in this analysis, which is calculated as adjusted EBIT plus depreciation and amortization.

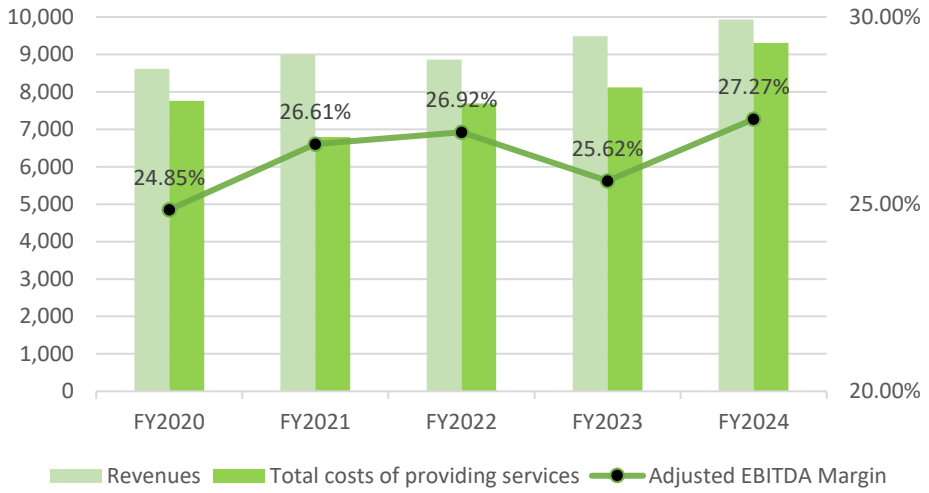

Figure 3-4: WTW revenues, total costs of providing services and adjusted EBITDA margin (million $).

Source: Own preparation based on WTW annual reports.

The adjusted EBITDA margin ranged from 24.85% in 2020 to 27.27% in 2024, reflecting a general trend of improvement in operating profitability. The slight drop in 2023 after the slight increase year by year between 2020 and 2022 can be explained by the fact that the growth in revenues was accompanied by a greater increase in operating costs. Nevertheless, the margin remains robust, indicating a good level of operational efficiency. As such, we can conclude that WTW has demonstrated a solid trajectory of revenue growth, with reasonable control over costs, which has enabled it to maintain high adjusted EBITDA margins over the years under analysis.

WTW has demonstrated in recent years slight and consistent increases in return ratios, which are key indicators for evaluating the company's profitability and operational efficiency and reflect its ability to deliver attractive returns to investors.

First, we will start by analysing the return on equity (ROE) of WTW in the past years. This metric, that can be obtained by dividing net income by shareholder's equity, measures the profitability of a company from the perspective of its equity investors, this is, shows the return amount per each one euro of shareholder's money. As such, it offers the possibility of assessing whether a company is able to generate value based on the use of its own resources. Over the analysed period, and observing Figure 3-5, which data is adapted from the Stock Analysis website, WTW's ROE has experienced an increase from 7.15% in 2020 to 17.79% in 2021, due to extraordinary events previously analysed. Nonetheless, this improvement was not sustained, with ROE declining to 9.09% in 2022 and increasing modestly to 10.81% in 2023.

In 2024, WTW's ROE declined sharply to -1.00%, primarily due to the significant reduction in net income following the sale of TRANZACT, as also previously analysed.

Second, the return on assets (ROA) is another important metric that measures the ability of the company to generate value based on its total assets, this is, provides insights into how well the company utilizes its assets. It can be obtained by diving the net income by the total assets. It is possible to observe that it experienced a consistent increase from 2.32% in 2020 to 4.71% in 2024.

Third, the return on invested capital (ROIC) considers both the company's earnings and the capital invested to offers a measure of a company's efficiency in generating profit with its available money to invest. From 4.94% in 2020 to 9.07% in 2024, WTW's ROIC showed a consistent increase. This progressive increase suggests greater efficiency in the allocation of resources and successful investments and indicates operational resilience and improved profitability relative to the capital invested.

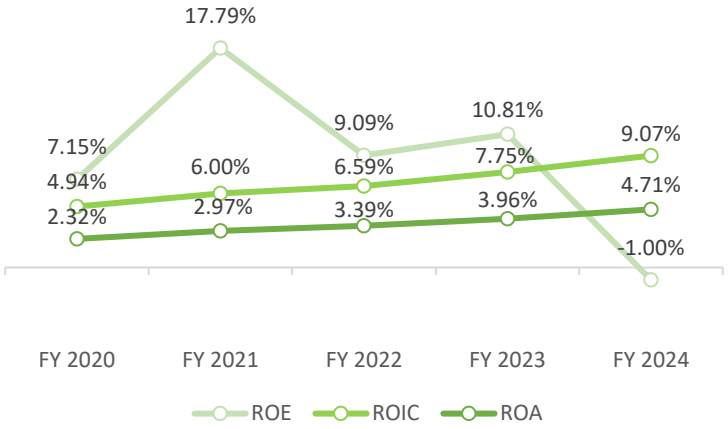

Figure 3-5: WTW return ratios (%).

Source: Own preparation based on the Stock Analysis website.

Whether these metrics are considered satisfactory will depend on what is normal for the industry or company peers. They are most useful and meaningful when comparing companies of similar sizes, growth rates, and margins – they are not as useful when we are comparing a high-growth company to a stable, mature firm. For now, we are just comparing a company to its previous performance, this is, performing a longitudinal analysis.

3.6.2. Liquidity and Cash Flow Management

Assessing the liquidity of a company is an important step in evaluating its financial performance. It provides information on the company's ability to meet its short-term obligations without raising external capital, while also providing information on mitigating

liquidity risks and effectively managing cash flow. The computation of key liquidity ratios, such as the current ratio the quick ratio, and the cash ratio, the most common, serve as valuable indicators of the company's liquidity position and contribute to a comprehensive evaluation of its financial health and stability.

In Figure 3-6, we can observe the evolution of the quick ratio and current ratio, which data are adapted from the Stock Analysis website. The quick ratio measures a company's ability to meet its short-term obligations with its most liquid assets, that is, cash or those that can be converted to cash within 90 days or less and therefore excludes inventories from its current assets. It can be obtained by dividing the sum of cash and cash equivales, marketable securities, and accounts receivable by current liabilities. As such, values below 1 indicate that the company may not have enough liquidity to cover its short-term debts and may not be in a position to meet its current obligations.

When analysing the trend over time, it is evident that the quick ratio of WTW is consistently below 1. However, this trend is typical in service companies such as WTW, where the dependence on immediate liquid assets is lower than in the retail or industrial sectors. However, one cannot ignore the fact that very low values suggest that there are few immediate liquid assets available to cover short-term obligations, which can become a problem in periods of economic volatility or delays in customer receipts. It is also observable that the peak of 0.49 was reached in 2021, as a result of the increase in cash and cash equivalents due to the discontinued operations of the Willis Re business, the sale of the Miller business and the termination of the proposed Aon transaction, as previously mentioned.

Regarding the current ratio, it measures a company's ability to meet its short-term obligations that are due in a year. It can be calculated by dividing the company's current assets by its current liabilities. Figure 3-6 show the fluctuation in the current ratio over the years, which is above 1 and, similarly to the quick ratio, exhibits a peak of 1.26 in 2021 due to the extraordinary events already mentioned. The figures reveal that WTW has sufficient current assets to cover short-term liabilities, but with a limited margin and dependence on less liquid assets, the company can limit its flexibility in situations of financial stress.

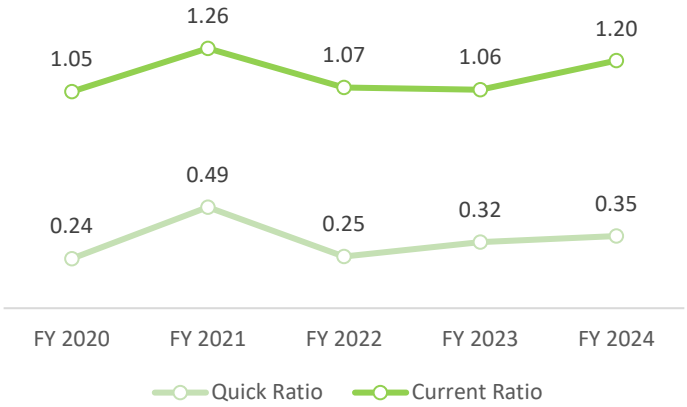

Figure 3-6: WTW liquidity ratios.

Source: Own preparation based on the Stock Analysis website.

Asset turnover is another metric used to assess the liquidity of a company and to measure the efficient use of assets to generate revenue. The WTW's asset turnover shows consistent and low values throughout the analysed period, ranging from 0.23 in 2020 to a peak of 0.35 in 2024. However, given that WTW operates in the service sector, where intangible assets and human capital are predominant, asset turnover is not necessarily a key performance indicator. Companies in this sector, unlike industries based on tangible goods, tend to register lower asset turnover values because of the nature of their assets, which are not directly linked to revenue generation. Thus, while the data show stable and slightly increasing operational efficiency, the relevance of this metric in the context of WTW is limited, being more useful for specific comparisons with direct competitors or for assessing long-term trends in operational changes.

3.6.3. Financial Resilience and Solvency

Solvency analysis is another important aspect to consider when assessing the financial position of a company. Solvency is the ability of a company to meet its long-term debts and financial obligations and can be an important measure of financial health, since it is one way of demonstrating a company's ability to manage its operations into the foreseeable future.

First, we will analyse the debt/equity ratio, which measures the company's degree of financial leverage, i.e. the proportion of debt to equity. The higher the ratio, the more debt a company has on its books, meaning the likelihood of default is higher. Looking at Figure 3-7, the WTW ratio fluctuated during the last years, beginning at 0.62 in FY2020, decreasing to 0.41 in FY2021, and then increasing to 0.74 in FY2024. The lower ratio in FY2021 suggests a more conservative financial structure with a reduced reliance on debt relative to equity. The increase in FY2022, FY2023, and FY2024 follows the decrease in equity. We may say that WTW maintained a debt/equity ratio within manageable levels.

Following the analysis of the debt/EBITDA ratio, it measures the company's ability to repay its debt using earnings before interest, taxes, depreciation, and amortisation. A low ratio (below 3.00) is favourable, indicating a company's capacity to repay debts and potentially better credit ratings. In contrast, a high ratio (4.00 to 6.00+) raises red flags, signalling potential financial distress and risks for investors and creditors. Over the period, we observe in Figure 3-7 that WTW's ratio improved, i.e. decreased, starting at 2.85 in 2020 and dropping to 2.09 in 2021. However, it increased slightly to 2.14 in 2024. Nevertheless, the ratio remaining below the critical threshold of 3.00 indicates that WTW is financially stable and capable of managing its debt obligations efficiently.

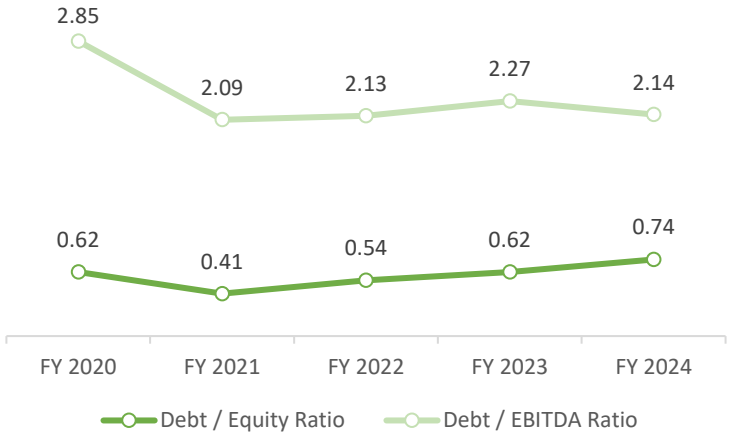

Figure 3-7: WTW leverage ratios.

Source: Own preparation based on the Stock Analysis website.

3.7. Share Data, Stock Performance and Dividends

3.7.1 Stock Performance

In 2022, Carl Hess assumed the role of CEO, succeeding John Haley, who had led the company for 23 years. In the same year, Willis Towers Watson rebranded as WTW, and as of 10 January, it changed its stock ticker to 'WTW' on the NASDAQ Global Select Market. The company is also included in S&P500.

From January 2020 until the end of February 2025, the price of WTW's stock has experienced slight fluctuations, with notable highs and lows, but overall, it has demonstrated a significant upward trend, increasing from $204.28 on 2 January 2020, to $339.65 on 28 February 2025. Throughout this period, the stock price reached its lowest point on 23 March 2020, at $147.56/share and its highest point on 28 February 2025, at $339.65/share. Figure 3-8 shows that WTW's presents a similar volatility to the S&P500 index.

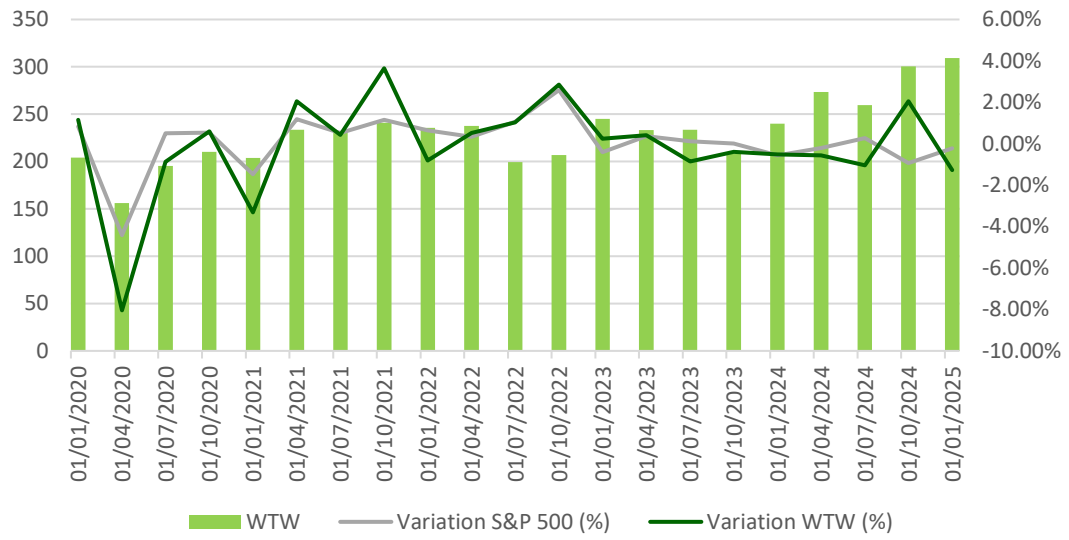

Figure 3-8: Stock performance (2020-2025).

Source: Own preparation based on Reuters and Investing website.

3.7.2. Share Data

According to WTW FY2024 annual report, there were 958 shareholders on record of WTW's ordinary shares, not including those ordinary shares held on the street or in the nominee name, as of 24 February 2025. This number suggests a relatively diverse shareholder base, though the true number of shareholders may be higher when accounting for indirect holdings.

As of 30 June 2024 (the last day of WTW's second quarter), the aggregate market value of the voting common equity held by non-affiliates of the Registrant, calculated using the last recorded stock price on that date, was approximately $26.56 billion. This figure reflects the firm's robust market presence and the valuation of its publicly traded common equity at the close of Q2 2024.

As of 19 February 2025, there were outstanding 99,692,639 ordinary shares, nominal value $0.000304635 per share, of the Registrant. This value represents a decrease from the figure of 102,481,452 as of 16 February 2024, which can be attributed to the repurchase plan, where WTW periodically considers and is authorised to repurchase shares, by way of redemption, based on various factors, such as market conditions.

3.7.3. Dividends

WTW normally pay dividends on a quarterly basis to shareholders of record on 31 March, 30 June, 30 September and 31 December. On 24 February 2025, WTW announced that its Board of Directors approved a regular quarterly cash dividend of $0.92 per common share for the

quarter ending 31 December 2024. The dividend is payable on or around 15 April 2025, to shareholders of record at the close of business on 31 March 2025.

This amount represents an increase of approximately 5% compared to the previous quarter's dividend of $0.88 per common share, which was announced on 11 December 2024, for the quarter ended 30 September 2024, and paid on 15 January 2025, to shareholders of record at the close of business on 31 December 2024. This resulted in an annualized dividend of $3.52 per share (the sum of the last four dividends paid, amounting to $0.88 each, relating to the four quarters of 2024), with a yield of approximately 1.14% (obtained by dividing the annualized dividend by the current stock price, which amounts to $316.31 as of 27 December 2024).

The company has increased its dividends for eight consecutive years, as seen in Figure 3-9, which discloses the amount of dividend payout by record date, showing an upward trend and indicating that the company has maintained its commitment to shareholder remuneration.

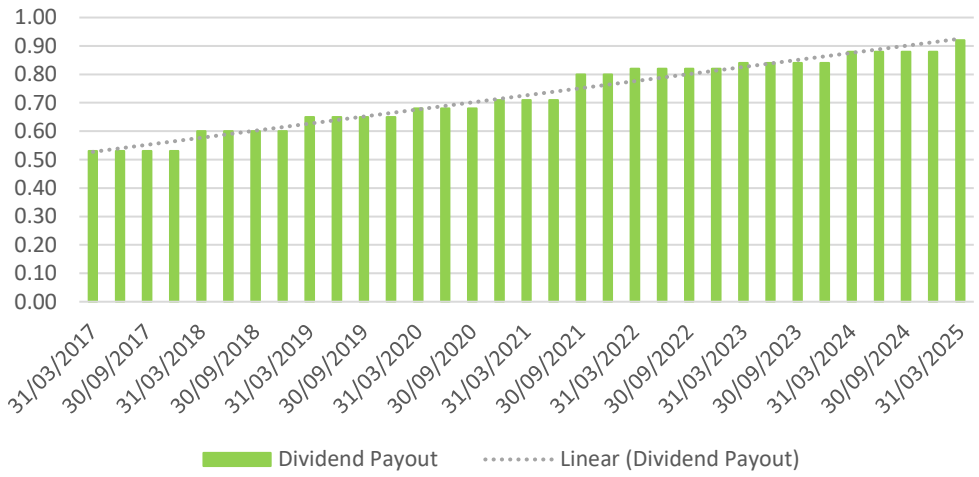

Figure 3-9: WTW dividend payout.

Source: Own preparation based on Koyfin website.

Referring once again to the data shared on the Stock Analysis website, WTW demonstrates a payout ratio of 33.36% in FY2023, which is significantly higher than the 18.13% ratio observed for the 'Financial Services (Non-bank & Insurance)' industry according to Damodaran website. This higher index suggests that WTW adopts a more generous dividend policy compared to the rest of the industry, which may reflect a strategy aimed at remunerating shareholders. However, it is important to consider that the 'Financial Services (Non-bank & Insurance)' industry considered by Damodaran comprises 166 companies, many of which may have very different financial and operational profiles from WTW, which specialises in advisory, broking, and solutions. Therefore, the industry's average payout ratio may be skewed by companies with different characteristics or reinvestment needs, which may dampen the direct

comparison between WTW and the rest of the sector. It is also important to note that we cannot analyse this ratio for FY2024 since the net income for that year end is negative.

Additionally, WTW presents a dividend yield of 1.14% for FY2024, representing a decrease from 1.43% for FY2023, which is higher than the 0.79% observed for the industry. Although this indicator suggests that WTW offers a more attractive dividend yield for its shareholders compared to the sector average, we must not forget the above disclaimer.

WTW continues to expand its global presence and diversify its services, maintaining a constant focus on innovation and excellence in customer service, reflected in the performance of its stock, which has mirrored the company's growth and its adaptation to market needs. Therefore, it can be concluded that WTW demonstrates solid performance in the stock market and a consistent dividend policy, reflecting its commitment to creating value for shareholders.

4. MARKET OVERVIEW

4.1. WORLD ECONOMIC OUTLOOK

Global and national economic performance is a determining factor for market analysis, financial projections and corporate strategies. In this section, we explore a comprehensive overview of the world economic panorama, with a particular focus on the countries that contribute most to WTW's revenue generation. This analysis includes examining macroeconomic indicators such as the gross domestic product (GDP) growth and inflation rates, key variables for understanding economic dynamics and their impact on business, providing valuable information on market expectations and trends.

4.1.1. GLOBALLY

Reflecting on 2020, a year marked by the global pandemic and widespread lockdowns, the economic downturn became unmistakable, as evidenced by the GDP growth trends during that period. As illustrated in Figure 4-1, GDP growth was severely affected, plummeting to -2.7%.

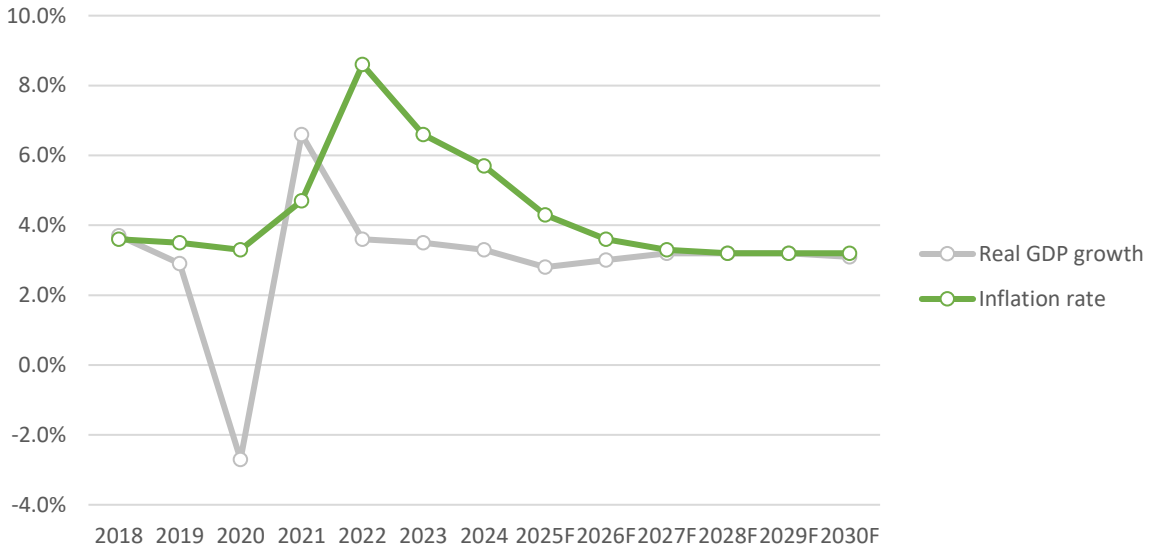

Figure 4-1: Global indicators.

Source: Own preparation based on IMF database.

The market began to recover, reflected in the increase in GDP growth, until the global economy faced significant headwinds in 2022, marked by a notable slowdown in growth. Key contributors to this decline included geopolitical and health-related disruptions. The war in Ukraine triggered an energy crisis in Europe, highlighted by soaring gas prices, while the

resurgence of COVID-19 in China prompted renewed lockdown measures, further dampening economic activity on a global scale.

The economic challenges of this period extended beyond growth concerns to include pervasive inflationary pressures. Inflation soared due to rising consumer prices and supply chain disruptions. These conditions strained households and businesses alike. For households, elevated living costs eroded purchasing power, while businesses grappled with increased production expenses and limited access to essential resources.

In response to rising inflation, central banks worldwide adopted tighter monetary policies, primarily through interest rate hikes. While these measures aim to curtail inflation, they also pose a risk of triggering economic recessions if not carefully calibrated. Achieving a delicate balance between controlling inflation and maintaining economic stability remains a key challenge.

In 2024, the global fight against inflation reached a significant milestone, though challenges persist. Global inflation, which peaked at 9.4% year-over-year in Q3 2022, is projected to decline to 4.2% in 2025 and further to 3.5% in 2026, which marks a level below the average of 3.6% observed between 2000 and 2019. Advanced economies are expected to converge to inflation targets earlier than emerging market and developing economies.

At the same time, despite a sharp and synchronized tightening of monetary policy worldwide as previous mentioned, the global economy has shown remarkable resilience, avoiding a global recession. Growth is expected to stabilize at 3.3% in 2025, below the historical 2000-2019 average of 3.7%, although certain low-income developing countries face notable growth downgrades, often exacerbated by rising conflicts. This stability hides divergent paths across countries: while the United States shows robust growth, the euro area continues to recover more gradually in a framework of persistent geopolitical tensions and political uncertainty.

However, the improved inflation outlook comes with rising downside risks. These include potential escalations in regional conflicts, the persistence of geopolitical tensions, notably in the Middle East, vulnerabilities in sovereign debt markets, elevated policy uncertainty, and the continued adoption of protectionist policies.

Focusing now on understanding the decline of inflation, it reflects a unique confluence of shocks and subsequent adjustments. Initial inflationary pressures arose from widespread supply chain disruptions and strong post-pandemic demand, compounded by sharp increases in commodity prices due to the war in Ukraine.

As supply disruptions eased and monetary policy constrained demand, labour markets began to normalize. This allowed inflation to decline without triggering a significant slowdown in economic activity.

While these developments represent progress, the current environment remains challenging, with persistent inflation in services, elevated food prices in some emerging markets, and a world increasingly prone to supply disruptions driven by climate, health, and geopolitical factors. Maintaining price stability under these conditions will likely be more challenging in the future.

The improving inflation outlook sets the stage for a necessary 'policy triple pivot' across monetary, fiscal, and structural domains, which are critical for addressing the evolving global economic landscape, offering a pathway to sustain economic resilience and address future challenges:

- Monetary Policy

Monetary policy is undergoing a pivotal shift and should ensure the restore of price stability while encouraging employment and activity. Central banks for some economies are carefully beginning to reduce policy rates as inflation pressures ease, while others remain restrained where inflation proves sticky. It is becoming increasingly evident the divergence in monetary policy, with the United States expected to maintain a relatively less restrictive stance compared to other economies, which could produce significant movements in capital flows and exchange rates. However, challenges persist and sustained and vigilant policy measures are crucial to anchor inflation expectations and maintain economic resilience.

- Fiscal Policy

Stabilizing debt and rebuilding fiscal buffers are critical for financial stability. After years of expansionary policies, many countries must pursue gradual and credible fiscal adjustments. Fiscal policy must be consolidated gradually, credibly and adjusted to the conditions of each economy, preserving economic growth and minimizing impacts on the most vulnerable, in order to ensure the sustainability of public debt and restore fiscal room for maneuver.

The optimal approach is disciplined, multiyear adjustments that restore fiscal credibility and allow monetary policy to support economic stability. However, political and institutional challenges often impede progress. As such, well-communicated, and growth-friendly fiscal strategies are essential to avoid financial instability and to safeguard recovery prospects.

- Structural Reforms

Structural reforms are crucial for enhancing economic dynamism, counteracting the growing risks to medium-term growth prospects and boosting the supply side. Through targeted reforms in labour markets, healthcare, competition, education and digitalization, productivity growth can be relaunched and capital attracted.

The success of structural reforms depends on overcoming social resistance. Key factors include trust in government, inclusive policy design, and compensatory measures to mitigate

distributional impacts. Building trust and actively engaging stakeholders throughout the reform process are essential to ensure acceptance and effectiveness.

4.1.2. UNITED STATES OF AMERICA

The United States is the largest contributor to the WTW's revenue, representing 52% of the total. As such, and because it holds high relevance, it is important to understand the dynamics and trends of its economy.

Over the past few years, the U.S. economy had a remarkable performance. According to the latest IMF data, the U.S. is the only G20[6] economy operating now above the levels of employment and output expected prior to the pandemic, not permitting the hysteresis effects of the pandemic to materialize, which highlights its resilience and indicates that its economy has returned to balance.

To proceed with the analysis, we will examine the inflation rate and GDP growth, whose data for the past seven years, as well as the projections for the next six years are displayed in Figure 4-2. Following a decline in inflation to 1.30% in 2020, primarily due to the economic impact of the COVID-19 pandemic, it surged to a peak of around 8.00% in 2022, the highest level since 1980. To address this increase, the Federal Reserve raised the policy rate, which acted as a stabilizing factor for prices and wages. In 2023, the impact of these measures became evident, as inflation decreased to 4.10%, with a forecast stabilization at 2.20% from 2028 onward, aligning with the FOMC's (Federal Open Market Committee) 2% target. However, these figures are below the expected global trend.

In terms of GDP, following a drop to -2.20% in 2020, it recovered to 2.80% in 2024, mainly driven by the increase of consumer spending. Nevertheless, it stands below the world GDP growth of 3.3%. According to the IMF, experts project a more moderate growth rate for the U.S. in following years, with a forecast of 2.10% in Real GDP from 2028 onward. This downward trend is attributed to a decrease in both private consumption and investment.

[6] Formed in 1999, the G20 is a group of the world's largest economies, comprising nineteen countries, including the U.S., the U.K., France, Canada and Germany, as well as the European Union (EU). Together, the nations of the G20 account for more than 85% of global economic output, about 75% of global exports, and around 80% of the world's population. G20 meets regularly to coordinate global policy on trade, climate, health, and other matters.

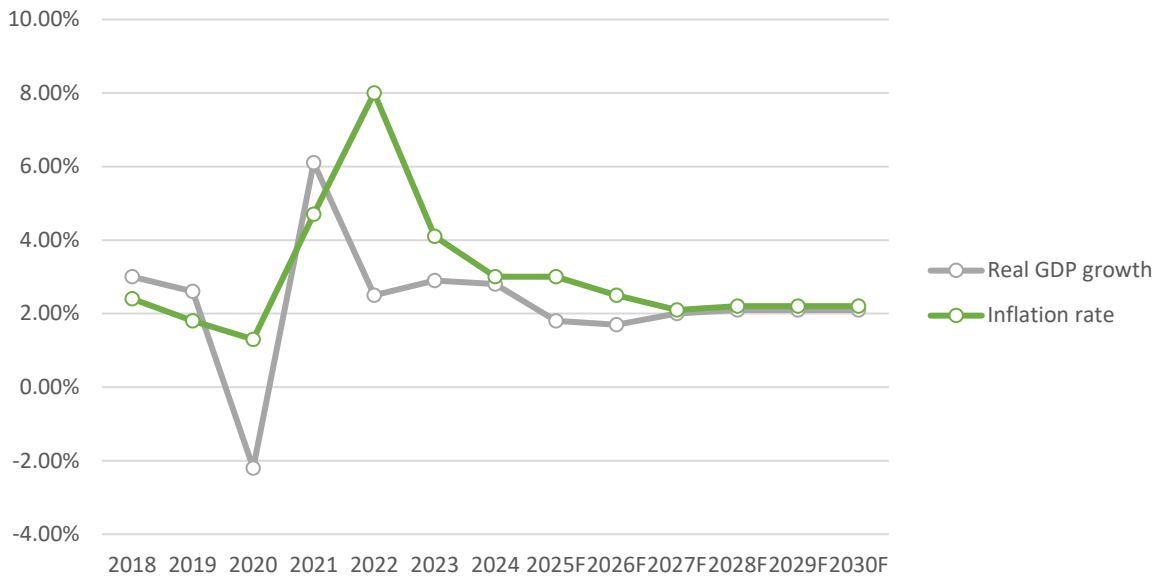

Figure 4-2: United States indicators.

Source: Own preparation based on IMF database.

4.1.3. UNITED KINGDOM

The U.K. stands out as the second largest revenue generator for WTW, accounting for 19% of the company's total revenues.

Similar to what was observed around the world, the U.K.'s real GDP growth dropped to -10.30% in 2020 as a result of the impacts of the global pandemic. In 2021, highly accommodative policies facilitated a faster-than-expected recovery, reaching a GDP growth of 8.60%. However, the post-pandemic rebound was disrupted by energy price shocks stemming from the Russia-Ukraine war, a decline in labour force participation, and large policy rate increases - needed to curb elevated and persistent inflation. These factors tightened financial conditions and led to a reduction in real GDP growth to 4.80% in 2022.

In 2023, U.K.'s economy experienced what is termed a technical recession, following two straight quarters of negative growth, with declines in services, production and construction output, resulting in a modest GDP growth rate of 0.40%. According to IMF experts, the economy is now recovering, reaching a GDP growth rate of 1.10% in 2024, with growth levels projected to rise to 1.50% by 2027.

On the other hand, policies implemented to address the high inflation rate, that was recorded at 9.10% in 2022, have contributed to its decline, with forecasts indicating stabilization at 2% from 2027 onwards.

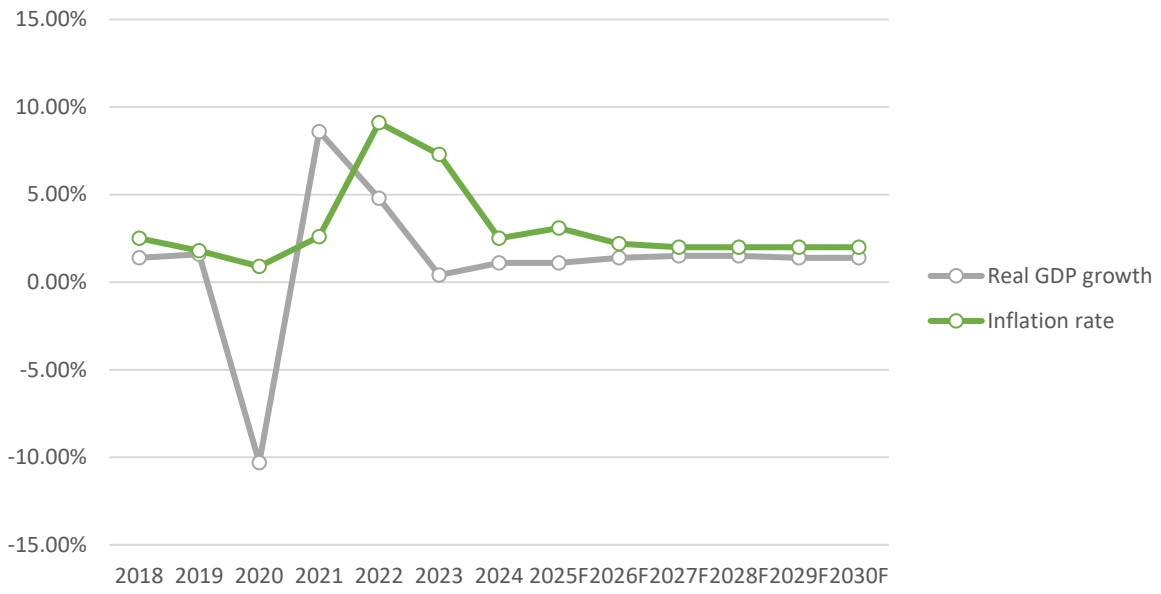

Figure 4-3: United Kingdom indicators.

Source: Own preparation based on IMF database.

4.2. Industry Outlook

Conducting an industry analysis is a crucial component to evaluate the markets where a company operates, as well as gain insight into the dynamics and trends in the respective sectors. Examining factors such as market trends, competitive forces and consumer behaviour allows the company to take well-informed decisions and develop efficient strategies to highlight its performance in the market.

In this section we will dive into a detailed analysis of the markets where WTW plays a major role. Being a global advisory, broking and solutions company, providing services in the areas of people, risk and capital and operating across the Health, Wealth & Career (that comprises Health, Wealth, Career and Benefits Delivery & Outsourcing) and Risk & Broking (comprising Corporate Risk & Broking and Insurance Consulting and Technology) segments, the markets we will analyse are the human capital, the insurance brokerage and the risk management markets.

4.2.1. Human Capital

Human capital management is a set of HR practices, tools and systems employed to attract, recruit, develop, train, retain, and manage employees to accomplish the goals of the company. According to Financial News Media data, this market has been constantly growing over the past years, and this trend is expected to continue over this decade due to the increasing

demand for people and performance management solutions as well as the demand for solutions to automate HR activities through the integration of advanced technologies, such as artificial intelligence and robotic process automation. As this demand increases, so does the demand for companies that provide consultancy and services in this area.

The Fortune Business insights experts value the human capital management market at $31.34 billion in 2024 and predict a growth from $34.12 billion in 2025 to $64.97 billion by 2032, presenting a CAGR of 9.6%.

The COVID-19 pandemic has also played a role in changing the operational structure and policy of several industries. Forcing companies to adopt remote work strategies, it created significant opportunities and highlighted the need for effective human capital management, leveraging market growth.

4.2.2. INSURANCE BROKERAGE

According to the Mordor Intelligence data, the global insurance brokerage market size was valued in 2024 at $320.14 billion. This value is expected to growth at a CAGR of 3.56% from 2025 to 2030. As insurance brokers help customers access and understand the varied and complex insurance offerings available, the rising demand for insurance products translates directly into increased demand for brokerage services.

This industry is expanding mainly due to the increased demand for insurance products led by economic growth. The increase in population can also be pointed out as a reason for the increase in demand for insurance products, as well as the growing awareness of the importance of having adequate insurance coverage. These types of services are also being more demanding due to the increasing complexity of insurance regulations across different regions and sectors, which requires the expertise of insurance brokers.

It is also necessary to focus our attention on the impact of technology and growing use of artificial intelligence in this market. The ongoing digital transformation in the insurance industry is reshaping the role of insurance brokers, which can now offer digital tools and platforms that are easier to access and allow for more personalized and efficient services.

4.2.3. RISK MANAGEMENT

The increasing complexity and emergence of risks, regulatory changes and technological advancements are leading to higher demand for risk management consulting services. It is essential for businesses to identify, assess and mitigate the risks that they are exposed to, what makes it imperative to use sophisticated risk management solutions to support the organization's growth and resilience.

The risks that companies face encompass a broad spectrum, including operational, environmental, cybersecurity and financial risks.

According to IMARC group experts, the global risk management market is valued at $13.5 billion in 2024, and it is expected to reach $38.9 billion by 2033, displaying a CAGR of 12.48% during 2025-2033.

5. VALUATION

To obtain the share value of WTW on 28 February 2025, we will follow the discounted cash flow method and the relative valuation.

Regarding the first approach, we will start by valuing WTW using the FCFF model, projecting the cash flows on a horizon of five years (2025F-2029F), and further discounting these at the WACC. After this projecting period, the terminal value is calculated, assuming a terminal growth rate that is in line with the growth rate of the economy, allowing the company's value to be determined, and consequently the value of WTW's shares.

A sensitivity analysis will be conducted on the key variables of the model, where a variation of +/-1% will be applied in isolation to assess its impact on the company's value. The variables with a significant impact will then be considered for a Monte Carlo simulation.

Relative valuation is the second approach applied, which is used to complement the analysis by comparing the WTW multiples with those of a peer group.

5.1. VALUATION ASSUMPTIONS

The following sections outline and explain the assumptions applied in the valuation process. Establishing these assumptions is a fundamental and complex task, as they serve as the foundation for the model and directly influence the resulting valuation. As such, it is essential to ensure their consistency with both the global environment and the specific industry context, while providing well-supported justifications for their inclusion.

5.1.1. REVENUES

An accurate forecast of the future revenues of WTW is a crucial step in the valuation, given the impact it will have on other critical inputs, which are dependent on this item. As such, formulating the correct assumptions is a process that demands careful consideration, considering historical growth, the macroeconomic framework as well as the tendencies in the main geographies where the firm operates and the industry trends.

WTW intends to broaden and amplify its strengths by accelerating performance, focussing on achieving operational efficiencies, and investing strategically to optimise its portfolio to help sustain and increase margins and FCF. As such, they state that from now on the effort to accelerate performance will be reflected in the HWC and R&B segments, enabling core growth, smart connections, and expansion and innovation for HWC and focused specialisation in high-growth global business lines, data, and digitalization for R&B.

In 2021, WTW embarked on a 3-year Transformation Program with the aim of growing, simplifying and transforming its processes and business. It has streamlined WTW's operations, driven cost savings, and created platforms to drive future efficiency, exceeding expectations. Now, they are channelling efforts to leverage and continue the progress made in data, as well as to increase automation and AI.

The company is also optimising its portfolio by investing in high-growth and high-margin segments, such as CRB, health brokerage, and Wealth, while divesting non-strategic businesses. In addition, it is seeking expansion via acquisitions and partnerships, including a joint venture to re-enter reinsurance brokerage, ensuring a capital allocation aligned with optimised returns.

Let us take a closer look at the two business lines separately instead of a generalized approach for the entire company, to avoid an oversimplification of the valuation process.

Representing approximately 59% of the total revenues of WTW, the Health, Wealth & Career business segment has achieved a CAGR of 3.27% from 2020 to 2024. As businesses increasingly prioritise employee benefits, financial well-being, risk management solutions, and digitalization of health insurance brokerage services, HWC is positioned to capitalise on these evolving demands, also driven by regulatory changes and new working models. Furthermore, WTW also states that the HWC segment is experiencing an MSD[7] growth profile.

The Risk & Broking business segment, which represents approximately 41% of the total revenues generated by WTW, which provides risk advisory, insurance brokerage and consulting services to a diverse client base, shows a CAGR of 4.13% from 2020 to 2024. Organic revenue growth has accelerated to a level equal to or above that of the market, mainly due to high customer retention and strong new business generation, augmented by targeted investments. With the expansion of the middle market and specialization in global risks, the growth in demand for technology and data for risk analysis, and the reentry into the reinsurance sector, new revenues are expected to be generated from 2025 onwards and the growth of this line of WTW's business is expected to continue. Furthermore, WTW also states that the R&B segment has an MSD to HSD[8] growth profile.

Having said this, considering historical performance and previous forecasts, we assume an initial phase of relatively strong growth in the yearly years, with higher growth observed for the R&B business line, gradually tapering to a more conservative rate by 2029. To maintain a smooth transition between these phases, we have applied a consistent annual reduction to the growth rate over the interim years of 0.20%, as shown in the table below.

[7] MSD (Mid-Single Digit) indicate approximate ranges of annual percentage growth, usually between 4% and 6%.

[8] HSD (High-Single Digit) indicate approximate ranges of annual percentage growth, generally between 7% and 9%.

Table 5-1: WTW 2025-2029 revenue forecast.

Source: Own estimations.

(million $)	FY2025 (F)	FY2026 (F)	FY2027 (F)	FY2028 (F)	FY2029 (F)
Health, Wealth & Career	6,100	6,332	6,560	6,783	7,000
Growth	4.00%	3.80%	3.60%	3.40%	3.20%
Risk & Broking	4,268	4,473	4,678	4,884	5,089
Growth	5.00%	4.80%	4.60%	4.40%	4.20%
Total Revenues	**10,368**	**10,805**	**11,238**	**11,667**	**12,089**

The projected revenues translate to a CAGAR for F2025-F2029 of 3.50% for the HWC business segment and 4.50% for the R&B business segment.

5.1.2. Adjusted EBITDA Margin

To project the adjusted EBITDA, we have considered the average of the adjusted EBITDA margin's historical performance over 2020 to 2024, which accounts for 26.26% (see Annex 4). This margin measures how much in earnings a company is generating before interest, taxes, depreciation and amortization, as a percentage of revenue.

Using the projected revenues presented previously and the average adjusted EBITDA margin as the projection driver, we obtained the following projection:

Table 5-2: WTW 2025-2029 adjusted EBITDA forecast.

Source: Own estimates.

(million $)	FY2025 (F)	FY2026 (F)	FY2027 (F)	FY2028 (F)	FY2029 (F)
Revenues	10,368	10,805	11,238	11,667	12,089
Adjusted EBITDA Margin	26.26%	26.26%	26.26%	26.26%	26.26%
Adjusted EBITDA	**2,722**	**2,837**	**2,951**	**3,063**	**3,174**

5.1.3. Depreciation and Amortization

The cost allocated over the useful lives of WTW's tangible fixed assets and internally developed software is reflected as depreciation. On the other hand, the amortization of acquired intangible assets represents amortization.

According to WTW FY2024 annual report, the decrease in depreciation observed in the past five years is primarily driven by a lower depreciable base due to business disposals placed in service, associated with their Transformation Program, as well as fewer new assets placed in service. Additionally, amortization of intangible assets, which is more front-loaded in the early years of their useful lives, is expected to continue decreasing over time.

Based on these trends, and since the observable historical D&A as a percentage of revenues has been decreasing from 2020 to 2024, we projected that D&A/revenues will decline by 0.35% annually from 2025 to 2029. This assumption is also corroborated by the information available in the WTW FY2024 annual report, where it is stated that the reduction in fixed assets and the amortization of intangible assets reflect a process of structural optimization, aligned with the company's Transformation Program. The report also provides an estimate of the amortization expense for amortizable intangible assets for the next five years, showing a year-over-year decrease, from an estimated $184 million for 2025 to $112 million for 2029.

Then, we applied this ratio to the projected revenues computed previously for 2025-2029, resulting in the following output:

Table 5-3: WTW 2025-2029 D&A forecast.

Source: Own estimates.

(million $)	**FY2025 (F)**	**FY2026 (F)**	**FY2027 (F)**	**FY2028 (F)**	**FY2029 (F)**
Revenues	10,368	10,805	11,238	11,667	12,089
D&A/Revenues	**4.24%**	**3.89%**	**3.54%**	**3.19%**	**2.84%**
D&A	**440**	**421**	**398**	**372**	**344**

5.1.4. CAPITAL EXPENDITURES

Capital expenditures are funds that a firm spends to acquire, maintain or upgrade its fixed assets, such as equipment or technology.

Although WTW reports treat CapEx exclusively as the additions to fixed assets and software for internal use item, in this analysis we also include the capitalized software costs item. This approach reflects a broader concept and seeks to better capture WTW's investments in long-term assets, especially those focused on automation, digitization and innovation. It is in line with the practice of many companies that consider software essential for operations and growth, and WTW itself presents these two items together in its reports, which reinforces the relationship between the two.

To proceed with the projection of the CAPEX for 2025 to 2029, we have computed the average ratio of CAPEX over revenues for the last five years of historical data, obtaining a value of 2.57%. Similar to the approach used previously in EBITDA's projection, we applied this average to the 2025-2029 projected revenues:

Table 5-4: WTW 2025-2029 CAPEX forecast.

Source: Own estimates.

(million $)	**FY2025 (F)**	**FY2026 (F)**	**FY2027 (F)**	**FY2028 (F)**	**FY2029 (F)**
Revenues	10,368	10,805	11,238	11,667	12,089
CAPEX/Revenues	2.57%	2.57%	2.57%	2.57%	2.57%
CAPEX	**267**	**278**	**289**	**300**	**311**

5.1.5. WORKING CAPITAL

Defined as the difference between the firm's current assets and its current liabilities, the working capital item measures the ability of the firm to meet its short-term financial obligations and grow its business, translated into its short-term liquidity and operational efficiency. A more polished version of general working capital is operating working capital, which is defined as the difference between a company's operating current assets and its operating current liabilities. Our research will be based on the latter measure, as it focuses on elements that directly affect the company's core activities.

The historical OWC observed from 2019 to 2024 is displayed in the Table 5-5, where accounts receivable and prepaid and other current assets are considered operating current assets, and deferred revenue and accrued expenses and other current liabilities are deemed as operating current liabilities.

It is worth noting that items such as cash and cash equivalents were excluded since usually it is not directly linked to current operations, as well as fiduciary assets/liabilities, because they represent fiduciary funds that the company manages on behalf of third parties, current debt, which is often classified separately because it is related to the company's capital structure, current lease liabilities, obligations that are generally associated with asset financing, not daily operations and current liabilities held for sale , which is related to discontinued operations.

Table 5-5: WTW historical operating working capital.

Source: Own estimates.

(million $)	**FY2019**	**FY2020**	**FY2021**	**FY2022**	**FY2023**	**FY2024**
Accounts receivable, net	2,621	2,408	2,370	2,387	2,572	2,494
Prepaid and other current assets	525	479	612	414	364	1,217
Operating Current Assets	3,146	2,887	2,982	2,801	2,936	3,711
Deferred revenue and accrued expenses	1,784	2,098	1,926	1,915	2,104	2,211
Other current liabilities	802	798	1,015	716	678	793
Operating Current Liabilities	2,586	2,896	2,941	2,631	2,782	3,004
Operating Working Capital	**560**	**(9)**	**41**	**170**	**154**	**707**

To estimate the WC for the period FY2025-FY2029, we computed the average operating working capital/revenues ratio between FY2020 and FY2024, obtaining the value of 2.20%.

Consistent with the approach taken to previous assumptions, we applied this average ratio to the projected revenues for FY2025-FY2029, which made it possible to obtain the projected values of OWC, which in turn led to the calculation of the change in OWC, the input needed in the FCFF computation, yielding the following results:

Table 5-6: WTW 2025-2029 OWC forecast.

Source: Own estimates.

(million $)	**FY2025 (F)**	**FY2026 (F)**	**FY2027 (F)**	**FY2028 (F)**	**FY2029 (F)**
Revenues	10,368	10,805	11,238	11,667	12,089
Operating Working Capital/Revenues	2.20%	2.20%	2.20%	2.20%	2.20%
Operating Working Capital	228	238	248	257	266
ΔOWC	**(479)**	**10**	**10**	**9**	**9**

5.1.6. Effective Tax Rate

WTW is a non-trading holding company with tax residency in Ireland, where it is subject to a statutory tax rate of 25%. Currently, the federal statutory tax rate in the United States, the country that most contributes to generate revenue to WTW and serves as the base for significant operations, stands at 21%, as established by the Tax Cuts and Jobs Act of 2017, the rate to which its operational income tax provisions have been reconciled.

In WTW's financial reports, two different tax rates are presented: the U.S. GAAP tax rate and the adjusted income tax rate. The first is the tax rate calculated in accordance with U.S. generally accepted accounting principles (GAAP), which takes into account all items that affect pre-tax income, including non-recurring expenses such as restructuring, amortization and provisions for litigation. This rate can be distorted by extraordinary or non-recurring events that do not reflect the company's ongoing operation, such as the sale of businesses or one-off tax adjustments, resulting in a tax rate that may not be representative of the company's regular tax burden. On the other hand, the adjusted income tax rate is an adjusted measure that excludes these non-recurring items, providing a more accurate view of the tax burden associated with the company's main and ongoing operations, ultimately making it more useful for assessing actual operating performance and future tax prospects, as it eliminates the impacts of extraordinary events that should not affect the company's performance in the long term.

WTW shows an U.S. GAAP tax rate ranging from -28.07% to 184.62% between 2016 and 2024 (see Annex 5), which clearly reflects the effects of extraordinary events, as explained above. The very high amount in 2024 is largely due to the sale of TRANZACT. In turn, the adjusted income tax rate ranges between 19.51% to 21.92% over the same time span, which offers the

possibility of a more accurate projection of future cash flows and a more robust assessment of the company's performance, without the effects of extraordinary factors that do not represent its core operation.

We proceeded by computing the average of the adjusted income tax rate for 2016-2024, resulting in an amount of 20.76%. This figure is, on average, aligned with the statutory rates of both the U.S. (21%) and Ireland (25%), indicating that the company operates within competitive tax standards. Given the stability of the company's tax and operational practices, the historical average of 20.76% was used as a benchmark for the forecasting period, assuming tax conditions remain unchanged during the analysis period.

5.1.7. Terminal Growth Rate

The terminal growth rate is a crucial measure to compute the terminal value of a company, and it is defined as the stable rate at which a firm's cash flows are assumed to grow in perpetuity after a certain point in time, this is, the forecast period.

To calculate the TGR for WTW, we took into consideration the average forecast for real GDP growth and inflation from 2024 to 2030, based on the projections of the IMF. We considered the most relevant countries in terms of revenues generation for the company, namely the U.S., U.K., Germany, Canada and France. For simplification, we adopted the IMF's world forecast values as reference for 'other countries' as the company is present in more than 140 countries. Then, these rates were weighed by the percentage of revenues generated per country, as provided by WTW FY2024 annual report (please refer to Appendix F). Finally, we proceeded with the computation by following Equation (18).

As the value obtained was too high, 4.72%, we decided to follow a similar approach but considering only the average forecast real GDP growth from 2024 to 2030. This time, it resulted in a terminal growth rate of 2.04%.

5.2. Discounted Cash Flow Valuation of WTW

We are now in position to build the DCF-FCFF, as explained in the literature review, upon the assumptions established before.

Next, we will estimate the FCFF and proceed with the estimation of the cost of capital, the rate used to discount these cash flows, in order to compute the equity value and therefore arrive at the value per share of the WTW.

5.2.1. Free Cash Flow to the Firm

The WTW projected FCFF from 2025 to 2029 are displayed in Table 5-7 below, where we can observe the expected steady increase from 2026 onwards.

Table 5-7: WTW 2025-2029 FCFF forecast.

Source: Own estimates.

(million $)	**FY2025 (F)**	**FY2026 (F)**	**FY2027 (F)**	**FY2028 (F)**	**FY2029 (F)**	**Perpetuity**
EBITDA	2,722	2,837	2,951	3,063	3,174	3,239
(-) D&A	440	421	398	372	344	801
EBIT	2,282	2,416	2,553	2,691	2,830	2,438
Tax Value	474	502	530	559	588	506
NOPAT	1,809	1,915	2,023	2,132	2,243	1,932
(+) D&A	440	421	398	372	344	801
(-) Capex	267	278	289	300	311	318
(-) ΔWC	(479)	10	10	9	9	5
FCFF	**2,460**	**2,047**	**2,122**	**2,195**	**2,266**	**2,312**

5.2.2. Cost of Capital Estimation

In this section, the key variables to estimate the cost of capital will be developed.

5.2.2.1. Capital Structure

As previously explored, the market value of equity can be obtained by multiplying the number of shares outstanding at a certain date by the stock price on the same date. According to the WTW FY2024 annual report, there were 99,692,639 shares outstanding by 19, February 2025, which for the sake of simplicity we'll assume the same value for 28 February 2025, each valued at $339.65, according to Reuters on 28 February 2025. As such, we conclude that the market value of WTW is $33,861 million by that date.

Regarding the market value of WTW's debt, according to WTW FY2024 annual report, the fair value of WTW's long-term debt is $5,052 million, which refers to the fair value of its traded bonds, specifically senior notes. To obtain a more precise estimate of the market value of debt, we also added to this amount the operating leases, which account for $118 million of current lease liabilities and $502 million of long-term lease liabilities, as recorded on the company's balance sheet. As operating leases represent future financial commitments which, like traditional debt, have an impact on the company's capital structure, they should be considered when assessing their market value. It can then be concluded that WTW's market value of debt is $5,672 million.

5.2.2.2. COST OF EQUITY

The Capital Asset Pricing Model is used to determine the cost of equity for WTW, using the several inputs explored and explained in the literature review, as outlined hereafter.

Risk-free Rate

The risk-free interest rate corresponds to the return obtained by an investor when investing in risk-free assets, although there are no completely risk-free assets.

The determination of the risk-free interest rate must have subjacent the currency of the company's cash flows, in this case, the U.S. dollar. As such, we will follow the literature and use the U.S. Treasury STRIPS as a proxy for the risk-free rate.

At the time of the valuation, the yields on most Treasury bonds were notably higher when compared to previous years, mainly attributed to the current macroeconomic conditions, which have caused heightened inflationary pressures. As of 28 February 2025, and using the data from the S&P Global website, the observed yield of the U.S. Treasury Principal STRIPS 10+ stands at 4.58%. It is unlikely that these conditions will continue in the future, although possible. As such, we have computed the daily average of the U.S. Treasury STRIPS over the past five years, obtaining a more accurate estimate of the risk-free rate at 3.17%.

Market Risk Premium

The market risk premium results from the difference between the average rate of the return of shares on the market and the average rate of risk-free assets over a certain period, that is, is a measure of the additional return that investors require for bearing the risk of investing in the stock market.

Since WTW has a significant presence in the United States, which is its largest market, we will use the average market risk premium of the United States in 2024 provided by Damodaran Online[9], which was 4.33%.

Country Risk Premium

The country risk premium (CRP) is the additional return that investors require to compensate for the political, financial, and economic risks associated with investing in a foreign country compared to investing in the domestic market.

As WTW is an international company that operates in over 140 countries, we should account for this risk in our valuation. For that, we consider the country's risk premium of the relevant

[9] Retrieved from https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html, consulted on January 2025

countries provided by Damodaran Online[10]. We then calculated the weighted average of the CRP for the key countries, considering the percentage of revenue generated in YE2024 in each of them as a weighing factor.

To address the 'other countries' that account for 19% of WTW's revenues in YE2024, for which we do not have specific individual revenue information, we applied an average of country-specific risk premiums available in Damodaran's database, taking into account WTW offices and operations in each location. This method allows for a more accurate assessment of the risks associated with the company's operations in different markets, contributing to effective global risk management.

Following this approach, a CRP of 1.17% was derived (please refer to Appendix G).

Beta

The beta parameter of an investment security is used to measure its volatility of returns relative to the entire market and, as such, is a risk measure. In this research, we started by applying the bottom-up approach to compute the levered beta, as recommended in the literature.

The first step is to identify the sectors in which WTW operates and obtain the unleavered beta for each of these sectors, which is retrieved from Damodaran's database[11]. Subsequently, the unlevered beta for WTW is calculated as a weighted average of the betas of all the sectors in which the company is involved, with the weights corresponding to the revenues generated by each business. For this research, we considered WTW to be part of the 'Financial Services (Non-bank & Insurer)' Industry, which, according to Damodaran's database, leads to an unlevered beta of 0.34. The levered beta, which accounts for financial leverage, was afterwards estimated using Equation (6), which required the incorporation of the debt-to-equity ratio of 0.168, the unlevered beta of WTW of 0.34, and a tax rate of 20.76%. This results in a levered beta of 0.39.

In order to compare the results obtained using different methodologies, we calculated the beta using the historical approach. As such, we took into account the daily returns of the WTW stock and the market, using the S&P500 index as a proxy, considering data from approximately the last five years. Using the slope of the linear regression line with WTW's daily returns as the independent variable and daily returns as the dependent variable, we obtain a beta of 0.78.

[10] Retrieved from https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html, consulted on January 2025

[11] Extracted from https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/Betas.html, consulted on January 2025

Although the beta obtained is unlevered, we will proceed with our valuation using this approach because it is more in line with the WTW beta recommended by various financial information websites.

Given the previously calculated, the cost of equity can be calculated using the CAPM equation (Equation (4)). As presented in the table below, this results in a cost of equity of 7.70%.

Table 5-8: WTW cost of equity.

Source: Own estimates.

Inputs	Value
Risk Free Rate	3.17%
Beta	0.78
Market Risk Premium	4.33%
Country Risk Premium	1.17%
Cost of Equity	**7.70%**

5.2.2.3. COST OF DEBT

The cost of debt is the return provided to debtholders and creditors of a company to compensate for the risk exposure they are subject to when lending to the company.

Following the literature, more specifically Damodaran studies, and because WTW is rated, we will compute the cost of debt as the sum of the risk-free rate and the default spread on bonds associated with the company's rating.

According to Fitch Ratings, WTW was rated as BBB by February. Similarly, Standard & Poor's (S&P) Global Ratings rates WTW as BBB by the same date.

Damodaran associates a company's credit rating with its default spread. For a company rated Baa3/BBB+, the corresponding spread is 1.20%. Considering the previously determined risk-free rate of 3.17%, we derived a pre-tax cost of debt of 4.37%. Subsequently, accounting for a tax rate of 20.76%, the after-tax cost of debt is estimated to be 3.46%.

5.2.2.4. WACC

Having calculated and analyzed the market value of the firm's equity and debt, the cost of equity, the cost of debt, and the tax rate, we are now in a position to determine the cost of capital, WACC, a critical measure for performing the valuation of WTW.

Using Equation (9) and as presented in the table below, we obtained a cost of equity of 6.99%:

Table 5-9: WTW cost of capital.

Source: Own estimations.

Inputs	Value
After-tax Cost of Debt	3.46%
Cost of Equity	7.70%
Equity/Capital	85.65%
Debt/Capital	14.35%
Tax Rate	20.76%
WACC	**6.99%**

5.2.3. Enterprise and Equity Values – Valuation Results

After having computed FCFF for each year of forecast, the WACC and the TGR, we were able to determine WTW's Enterprise Value by summing up all FCFF's present value, discounted by the WACC, obtaining a value of $42,482 million.

We need to bring attention to the middle step we had to perform regarding the computation of the terminal value through the application of Equation (16). We assumed that the cash flows would grow at a constant rate, TGR, in perpetuity, and applied that rate to the FCFF of FY2029 to obtain the FCFF in perpetuity. As expected, the terminal value represents 79% of the total enterprise value.

For WTW's equity value computation, we subtracted the value of debt and added the value of the cash and cash equivalents to the enterprise value previously obtained. Dividing the equity value of $38,700 million by the 99.69m shares outstanding at FY2024, we arrive at a final WTW's share price of $388.20, as shown in Table 5-10 below:

Table 5-10: WTW FCFF valuation results.

Source: Own estimates.

(million $)	**FY2024**	**FY2025 (F)**	**FY2026 (F)**	**FY2027 (F)**	**FY2028 (F)**	**FY2029 (F)**	**Perpetuity**
FCFF	-	2,460	2,047	2,122	2,195	2,266	2,312
WACC	-						6.99%
PV FCFF	-	2,299	1,789	1,733	1,675	1 ,617	
TGR	-						2.04%
PV Terminal Value	-						33,370
Enterprise Value	**42,482**						
Cash and Cash Equivalents	1,890						
Debt	5,672						
Equity Value	**38,700**						
Shares Outstanding	99.69						
Value per Share	**388.20**						

5.3. Sensitivity Analysis and Monte Carlo Simulation

The discounted cash flow model we have developed in this study inherently has uncertainty associated with the estimation of the parameters and assumptions used for the valuation, as it relies on forecasts based on how we expect things to evolve, based on past trends and relevant information available to date, all of which are subject to macroeconomic fluctuations, industry dynamics, and firm-specific risks. As such, it is crucial to test the accuracy and robustness of the FCFF model results in the presence of this uncertainty.

We began by introducing isolated variations to each of the model's key variables in order to conduct a sensitivity analysis and measure the percentage impact of these changes on the estimated share price. As shown in Figure 5-1, the results indicate that the variables with the greatest impact on the valuation are the risk-free rate, TGR, CRP and MRP. Consequently, these variables were selected for the subsequent stochastic simulation phase, which was carried out using Monte Carlo simulation.

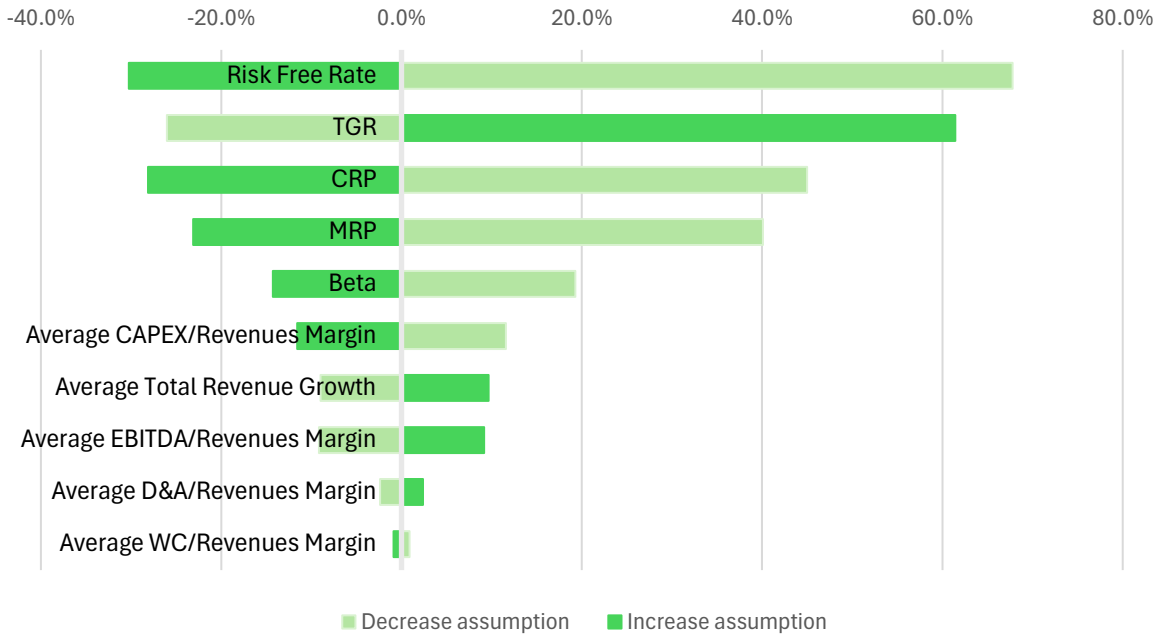

Figure 5-1: Sensitivity of WTW share price to key valuation assumptions.

Source: Own estimates.

To strengthen the risk analysis and assess the robustness of the company's valuation under adverse market conditions, i.e. macroeconomic and financial shocks, a scenario analysis was also carried out. In this analysis, the risk-free rate and the TGR, identified as the variables to which the share price is most sensitive, were successively adjusted to market-bound values under both pessimistic and optimistic scenarios.

Table 5-11: WTW scenario analysis ($ per share).

Source: Own estimates.

$ per share		Risk-free rate								
		1.97%	2.27%	2.57%	2.87%	3.17%	3.47%	3.77%	4.07%	4.37%
TGR	0.84%	400.75	377.21	356.07	336.97	319.65	303.85	289.40	276.11	263.87
	1.14%	423.80	397.56	374.14	353.12	334.15	316.93	301.24	286.88	273.69
	1.44%	449.97	420.50	394.40	371.11	350.21	331.35	314.24	298.65	284.39
	1.74%	479.98	446.59	417.25	391.28	368.12	347.34	328.59	311.59	296.10
	2.04%	514.71	476.49	443.24	414.04	**388.20**	365.16	344.50	325.86	308.96
	2.34%	555.38	511.14	473.06	439.94	410.87	385.15	362.24	341.69	323.16
	2.64%	603.66	551.73	507.61	469.66	436.68	407.74	382.15	359.35	338.92
	2.94%	661.90	599.95	548.13	504.13	466.31	433.46	404.65	379.18	356.50
	3.24%	733.55	658.19	596.30	544.58	500.70	463.00	430.27	401.59	376.24

As the risk-free rate increases, the WACC also increases, resulting in a higher discount rate and, consequently, a lower present value of future cash flows. Conversely, a decrease in this rate reduces the WACC, thereby increasing valuation outcomes. In turn, an increase in the TGR, which reflects a scenario of strong operational performance and great market penetration, has a positive impact on valuation and its decrease has a negative effect, for the opposite reasons.

The optimistic scenario, which assumes a favourable macroeconomic environment with a risk-free rate of 1.97% and a TGR of 3.24%, reflecting investor confidence and a sustained path of economic growth, leads to a share price of $733.55 - approximately 89% higher than the base case. In contrast, the pessimistic scenario simulates weak company growth in the context of tighter monetary policy, with the risk-free rate rising to 4.37% and the TGR declining to 0.84%. This scenario reflects an environment of higher capital costs, increased regulatory uncertainty, and economic stagnation, resulting in a share price of $263.87 - approximately 32% below the base value.

Table 5-12: WTW scenario analysis (% change).

Source: Own estimates.

% change		Risk-free rate								
		1.97%	2.27%	2.57%	2.87%	**3.17%**	3.47%	3.77%	4.07%	4.37%
TGR	0.84%	3.2%	-2.8%	-8.3%	-13.2%	-17.7%	-21.7%	-25.5%	-28.9%	-32.0%
	1.14%	9.2%	2.4%	-3.6%	-9.0%	-13.9%	-18.4%	-22.4%	-26.1%	-29.5%
	1.44%	15.9%	8.3%	1.6%	-4.4%	-9.8%	-14.6%	-19.1%	-23.1%	-26.7%
	1.74%	23.6%	15.0%	7.5%	0.8%	-5.2%	-10.5%	-15.4%	-19.7%	-23.7%
	2.04%	32.6%	22.7%	14.2%	6.7%	0.0%	-5.9%	-11.3%	-16.1%	-20.4%
	2.34%	43.1%	31.7%	21.9%	13.3%	5.8%	-0.8%	-6.7%	-12.0%	-16.8%
	2.64%	55.5%	42.1%	30.8%	21.0%	12.5%	5.0%	-1.6%	-7.4%	-12.7%
	2.94%	70.5%	54.5%	41.2%	29.9%	20.1%	11.7%	4.2%	-2.3%	-8.2%
	3.24%	89.0%	69.5%	53.6%	40.3%	29.0%	19.3%	10.8%	3.4%	-3.1%

To perform the Monte Carlo Simulation we will present next, we utilize the Crystal Ball software in Excel. The first step involves assigning a probability distribution to each of the selected variables. The 'Batch Fit' functionality of Crystal Ball was employed to determine the most appropriate statistical distribution based on the available historical data, using the Kolmogorov-Smirnov as the goodness-of-fit statistic.

For the MRP, data from Damodaran's database covering the period from 1961 to 2024 was used, as well as the data spanning from 2000 to 2024 for the CRP. For the risk-free rate, historical daily data from the S&P U.S. Treasury Principal STRIPS 10+ Year Bond Index was considered, covering the period from January 2020 to the end of February 2025.

In contrast, since there is no directly observable historical data for the TGR at the company level, it was assumed to follow a triangular distribution. The triangular distribution is commonly used in situations where available sample data is limited, making it appropriate for this case. A range of 1.5% to 3.0% was therefore selected, following a conservative approach, with a most likely value of 2.04%, corresponding to the current estimate for the TGR.

The distributions used and their respective parameters are presented in Table 5-13 below.

Table 5-13: Monte Carlo assumptions.

Source: Own estimates.

	MRP	CRP	Rf	TGR
	Extreme Value	Beta Pert	Normal	Triangular
Min	-	0.27%	1.03%	1.00%
Most Likely	-	0.62%	-	2.04%
Max	-	2.45%	5.21%	3.00%
Mean	-	-	3.17%	-
StDev	-	-	1.23%	-
Location	3.72%	-	-	-
Scale	0.95%	-	-	-

100,000 iterations were considered in the simulation, as well as a 95% confidence level, resulting in a standard error of the mean of 0.57. The results indicate an estimated average share price of $460.49 with a standard deviation of $179.97, reflecting moderate variability in the simulated results. Even so, although lower, the base value of the deterministic model, $388.20, falls within the range formed by the mean plus and minus the standard deviation, which indicates that it is in line with the most probable range of the simulated results. The total range of variation of the price per share was $136.76 to $4,028.69, revealing a high degree of dispersion and a coefficient of variation of 0.39, which means that the dispersion of the simulated values is equivalent to around 39% of the expected value of the share.

Given the positive skewness of the distribution, visible in the histogram of the distribution of results in Figure 5-2, reflected in the skewness of 2.64, and the long tail to the right, reflected in the high kurtosis of 19.48, the median ($418.84) is an additionally informative metric for comparison with the base value, reinforcing the analysis by taking into account the skewed shape of the distribution. The percentile graph shows an almost linear increase in the simulated values up to approximately the 80% percentile, with a sharper increase in the higher percentiles. Around 60% of the simulations are concentrated in the interval between approximately €329.17 and €562.24, corresponding to the 20% to 80% percentiles of the distribution of results, which indicates that, although there is considerable uncertainty, the values tend to be concentrated around the estimated average.

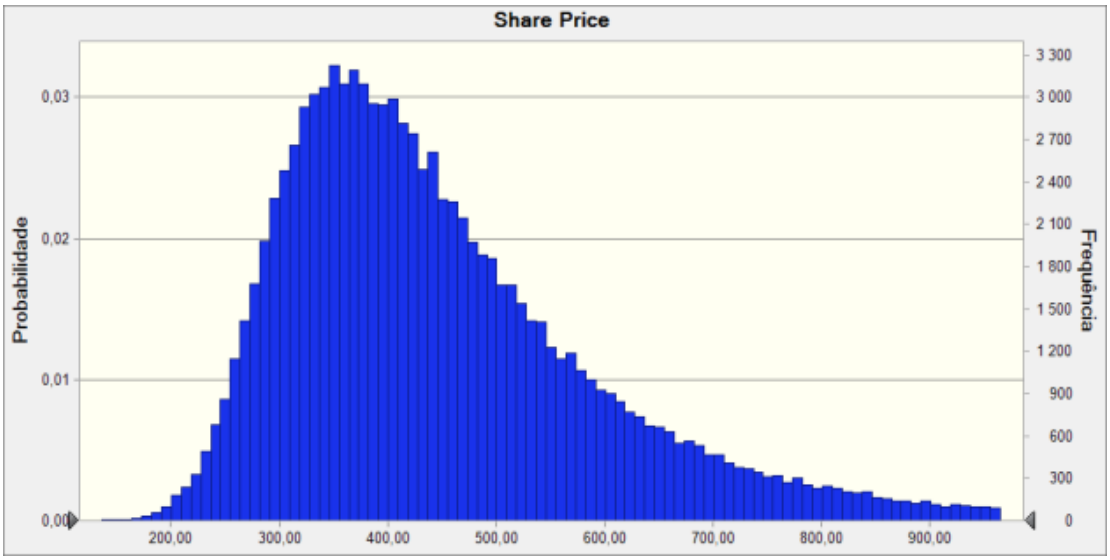

Figure 5-2: Monte Carlo simulation.

Source: Crystal Ball software; Own estimates.

To complement the analysis and bearing in mind that, as explored above, CRP is a component that may or may not be considered in the WACC calculation, depending on the diversifiability of the risk and the correlation between markets, we intend to study the impact of taking this premium into account when computing the cost of capital. We performed the valuation without considering the CRP, which resulted in a price per share approximately 28% higher than that obtained considering this premium. This demonstrates the importance of the country's risk perception on the cost of capital and, consequently, on the cost of the share.

We have also previously explained the reason for using the unlevered beta in this valuation. However, it is important to ask what the impact would have been if we had conducted the analysis using leveraged beta, which, after all, is the most recommended in literature. To this end, we carried out the valuation based on a leveraged beta of 0.39, which resulted in a price per share approximately 45% higher than that obtained using an unleveraged beta of 0.78. This result shows how financial leverage can significantly influence the perception of a company's systematic risk and, consequently, the estimated value of its WACC. Although leveraged beta leads to a lower capital cost, it is important to note that it may not accurately reflect the real risk of the underlying asset.

5.4. Relative Valuation

In order to complete and compare the valuation based on the FCFF model previously executed, we will perform a relative valuation, which requires understanding how similar companies are priced in the market.

As stated in the literature review, the price-to-earnings (P/E) ratio is the most applied EQV multiple, and the EV/EBITDA ratio is a widely used EV multiple. As such, this would be our first choice of multiples to analyse. However, the P/E multiple cannot be analysed since WTW's net income as of 31 December 2024 is negative, which would result in a multiple with a negative or undefined value, which makes no economic sense, since a valuation multiple should reflect the relationship between price and earnings generation. In this case, we will use the forward approach to analyse this ratio, which relies on projected metrics for the next 12 months rather than historical data. Besides these two ratios, we will proceed with the valuation also including the analysis of the price-to-sales (P/S) multiple, price-to-book (P/B) multiple and the dividend yield.

To determine WTW's share price based on multiples of comparable firms, our first step is to define the peer group for the valuation, that is, a set of similar companies operating in the same industry, with a similar complexity level, market presence, revenues, and / or market capitalization scale, as well as a similar ROIC.

Starting with the competitors identified by WTW in its annual report, we have selected a group of companies that meet these criteria and have publicly traded shares: Aon plc, Arthur J. Gallagher & Co., Marsh & McLennan Companies, Inc. ('Marsh & McLennan') and Brown & Brown Inc..

Using the data available on the Zacks website, we obtained the value of the multiples for each company considered for the analysis, except for the EV/EBITDA ratio, which is retrieved from the Stock Analysis website, and then calculated the comparable average. Note that the values date to 28 February 2025, since we are also determining WTW's share price as of that date.

Table 5-14: WTW peer group multiples.

Source: Zacks and Stock Analysis.

Company	P/E (TTM)	P/S	P/B	EV/EBITDA	Dividend Yield (TTM)
WTW	20.10	3.49	4.27	13.97	1.04%
Aon plc (AON)	26.01	5.69	14.03	20.4	0.66%
Arthur J. Gallagher & Co. (AJG)	33.31	6.75	4.18	22.99	0.71%
Marsh & McLennan Companies, Inc. (MMC)	27.03	4.82	8.63	18.64	1.37%
Brown & Brown Inc. (BRO)	30.87	7.01	5.27	22.99	0.51%
Comparable Average	**29.30**	**6.07**	**8.03**	**21.26**	**0.81%**

As we can see in Table 5-15, we are using the EPS average 1 year forecast value, obtained from the WallStreetZen website, in order to determine the WTW's share price, since the EPS as of 28 February 2025 is negative, as previously explained. Applying this value to the comparable average P/E multiple, we obtained a share price of $497.28. The application of the comparable average P/S multiple to 2024 WTW's revenues led to a share price of $604.41 and the application of the comparable average P/B multiple to 2024 WTW's book value of equity led to a share price of $645.55. On the other hand, applying the comparable average EV/EBITDA multiple and considering WTW's adjusted EBITDA of 2024, we obtained an enterprise value of $57,558.54m. We then applied the same logic as the FCFF model to obtain the equity value and the respective target price of $539.42. Finally, the WTW share price obtained by applying the comparable average dividend yield to the annual dividend per share (which is the sum of the four quarterly dividends of $0.88 in 2024) is $433.50.

Therefore, according to the relative valuation, WTW's share price should be between $433.50 and $645.55, which is 10%-63% higher than the value obtained through our DCF valuation.

Table 5-15: WTW relative valuation results.

Source: Own estimates.

($)	P/E	P/S	P/B	EV/EBITDA	Dividend Yield
Multiple	29.30	6.07	8.03	21.26	0.81%
EPS Avg 1 Year forecast	16.97	-	-	-	-
Revenue	-	9,930.00	-	-	-
Book Value of Equity	-	-	8,017.00	-	-
Adjusted EBITDA	-	-	-	2,708.00	-
Enterprise Value	-	-	-	57,558.54	-
Cash and Cash Equivalents	-	-	-	1,890.00	-
Debt	-	-	-	5,672.00	-
Equity Value	-	60,255.24	64,356.47	53,776.54	-
Shares Outstanding	-	99.69	99.69	99.69	-
Annual Dividend per Share	-	-	-	-	3.52
Value per share	**497.28**	**604.41**	**645.55**	**539.42**	**433.50**

6. RESULTS AND DISCUSSION

The deterministic analysis, this is, the traditional DCF-FCFF model, points to a fair value for WTW's share price of $388.20, which represents an appreciation potential of approximately 14% compared to the market price at the time of valuation, $339.65. The Monte Carlo simulation, in turn, provided a more robust analysis in line with the reality of the market, making it possible to quantify the risks involved in the company's valuation process. With 100,000 iterations, an 80% confidence interval was estimated between $294.72 and $670.75 for the WTW's share price, focussing on the most probable scenarios and excluding the 20% most extreme results, with a median of $418.84. These results reinforce the view that the share is undervalued by the market.

Regarding relative valuation, it provided additional insight by comparing WTW to a selected group of four peer companies, involving the use of relevant financial multiples. The similarity between the selected peer companies and WTW is crucial to the accuracy of the results and better supports the conclusions of the DCF model. This method indicates that WTW's share value should range from $433.50 to $645.55.

Table 6-1 below summarizes the results obtained through the two valuation methods, as well as the absolute and relative difference in comparison to the WTW market price on 28 February 2025.

Table 6-1: Comparison of valuation method results with WTW market share price.

Source: Own estimates.

Model	Share Price ($)	Absolute Difference	Relative Difference
FCFF	388.20	48.55	14.3%
P/E	497.28	157.63	46.4%
P/S	604.41	264.76	78.0%
P/B	645.55	305.90	90.1%
EV/EBITDA	539.42	199.77	58.8%
Dividend Yield	433.50	93.85	27.6%
Market Value	**339.65**		

The market price of the WTW share on 28 February 2025 is significantly lower than the values obtained by the two methods. We should point out that the choice of model used has a significant impact on the final value obtained, as do the assumptions used to develop the models and the inherent limitations of the models.

Other possible explanations for the discrepancy include factors such as the failure of past strategic mergers and the decision to divest non-core units, such as the sale of TRANZACT, which can generate uncertainty in the market. Even though the models indicate a higher intrinsic value, the market seems to maintain a more conservative attitude towards the

company. This is mirrored, for example, in the revision of WTW's target price downwards by analysts at Goldman Sachs at the beginning of February, which reflects more moderate expectations regarding WTW's future growth and profitability.

Another reason may be the credit rating assigned by specialised agencies. Although WTW is considered investment grade, it is close to the lower limit of this category, which implies a higher perception of risk and contributes to the market applying an additional discount to the calculated intrinsic value.

Lastly, investors' lack of confidence in WTW's leadership and strategic decisions may be another factor contributing to the company's lower market valuation.

7. CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH

The main goal of this research was to derive the share price of WTW as of 28 February 2025, based on two approaches - the discounted cash flow model, which incorporates uncertainty inherent in the assumptions of the model through Monte Carlo simulation, and the relative valuation - in order to give a recommendation to investors.

We could infer that both models lead to the same conclusion that WTW's share price is undervalued. Therefore, our final recommendation is for investors to buy WTW's shares, since the prices obtained are above market value in the period under analysis.

Despite the confidence in the models adopted, it is recognised that there are other valuation methodologies that could have been explored to enrich the robustness of the results. Additionally, the relative valuation could have incorporated alternative multiples, which would inevitably have generated variations in the estimated results. In addition, the methodology used for the terminal value could have been tested with other approaches, since it is a key factor, since it represents a substantial part of the company's present value.

The DCF model, by its nature, relies on historical data as well as projection of future cash flows, which requires an extensive set of assumptions, making it one of the most demanding stages of research. Some differences in reference periods used (such as the discrepancy between the valuation date and the market value of the debt calculated with data from December 2024, or the number of shares outstanding as of 19 February, or certain inputs used in the relative valuation that refer to data as of 31 December 2024) reflect limitations in the availability of up-to-date data.

Finally, this analysis represents a snapshot of WTW's value at a specific point in time. The company's future evolution will depend on various factors, especially given the current macroeconomic, sectoral, and regulatory uncertainties. However, the global economic context has undergone significant changes since then. In particular, the recent imposition of additional tariffs by the United States represents a significant risk factor that introduces uncertainty and volatility into international trade. Such measures could result in higher operating costs, reduced margins, and less predictability in economic activity, with direct implications for global growth. In this sense, it is recommended that future WTW equity evaluations be conducted with up-to-date data to more fully reflect the risks and opportunities that the company may face.

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APPENDIX A – REVENUE BREAKDOWN BY BUSINESS SEGMENT

Source: WTW annual reports and own estimates.

(million $)	FY2020	FY2021	FY2022	FY2023	FY2024
HWC					
Total revenue by service offering	4,877	5,231	5,248	5,552	5,735
Interest and other income	18	37	39	30	42
HWC Segment Revenue	**4,895**	**5,268**	**5,287**	**5,582**	**5,777**
Reimbursable expenses and other	64	60	64	73	69
HWC Total Revenue	**4,959**	**5,328**	**5,351**	**5,655**	**5,846**
R&B					
Total revenue by service offering	3,278	3,469	3,384	3,628	3,911
Interest and other income	38	95	76	107	127
R&B Segment Revenue	**3,316**	**3,564**	**3,460**	**3,735**	**4,038**
Reimbursable expenses and other	7	7	11	13	13
R&B Total Revenue	**3,323**	**3,571**	**3,471**	**3,748**	**4,051**
Divested Businesses	324	106	-	-	-
Corporate	9	(7)	44	80	33
Total	**8,615**	**8,998**	**8,866**	**9,483**	**9,930**

(million $)	FY2020	FY2021	FY2022	FY2023	FY2024
HWC Segment Revenue	4,895	5,268	5,287	5,582	5,777
R&B Segment Revenue	3,316	3,564	3,460	3,735	4,038
Total Segment Revenue	**8,211**	**8,832**	**8,747**	**9,317**	**9,815**
% of Total Segment Revenues					
HWC	60%	60%	60%	60%	59%
R&B	40%	40%	40%	40%	41%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

(million $)	FY2020	FY2021	FY2022	FY2023	FY2024
HWC	5,158	5,387	5,378	5,703	5,865
R&B	3,457	3,611	3,488	3,780	4,065
Total	**8,615**	**8,998**	**8,866**	**9,483**	**9,930**

APPENDIX B – HISTORICAL ADJUSTED EBITDA MARGIN

Source: WTW annual reports and own estimates.

(million $)	**FY2020**	**FY2021**	**FY2022**	**FY2023**	**FY2024**
Revenues	8,615	8,998	8,866	9,483	9,930
Adjusted EBITDA Margin	**24.85%**	**26.61%**	**26.92%**	**25.62%**	**27.27%**
Adjusted EBITDA	2,141	2,394	2,387	2,430	2,708

APPENDIX C – HISTORICAL D&A/REVENUES

Source: WTW annual reports and own estimates.

(million $)	FY2020	FY2021	FY2022	FY2023	FY2024
Revenues	8,615	8,998	8,866	9,483	9,930
D&A/Revenues	**8.91%**	**7.22%**	**6.40%**	**5.33%**	**4.59%**
D&A	768	650	567	505	456

APPENDIX D – HISTORICAL CAPEX/REVENUES

Source: WTW annual reports and own estimates.

(million $)	**FY2020**	**FY2021**	**FY2022**	**FY2023**	**FY2024**
Revenues	8,615	8,998	8,866	9,483	9,930
CAPEX/Revenues	**3.32%**	**2.23%**	**2.30%**	**2.55%**	**2.47%**
CAPEX	286	201	204	242	245

APPENDIX E – HISTORICAL OPERATING WORKING CAPITAL

Source: WTW annual reports and own estimates.

(million $)	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Accounts receivable, net	2,621	2,408	2,370	2,387	2,572	2,494
Prepaid and other current assets	525	479	612	414	364	1,217
Operating Current Assets	3,146	2,887	2,982	2,801	2,936	3,711
Deferred revenue and accrued expenses	1,784	2,098	1,926	1,915	2,104	2,211
Other current liabilities	802	798	1,015	716	678	793
Operating Current Liabilities	2,586	2,896	2,941	2,631	2,782	3,004
Operating Working Capital	**560**	**(9)**	**41**	**170**	**154**	**707**

(million $)	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Revenues	8,370	8,615	8,998	8,866	9,483	9,930
Operating Working Capital/Revenues	6.69%	-0.10%	0.46%	1.92%	1.62%	7.12%
Operating Working Capital	560	(9)	41	170	154	707
ΔOWC		**(569)**	**50**	**129**	**(16)**	**553**

APPENDIX F – COMPUTATION OF THE TERMINAL GROWTH RATE

Source: IMF database and own estimates.

Countries	Revenues (%)	Expected Inflation	Weighted Expected inflation	Expected GDP growth	Weighted Expected GDP growth
U.S.	52.00%	2.46%	1.28%	2.09%	1.08%
U.K.	19.00%	2.26%	0.43%	1.34%	0.26%
France	4.00%	1.83%	0.07%	1.09%	0.04%
Canada	3.00%	2.07%	0.06%	1.56%	0.05%
Germany	3.00%	2.17%	0.07%	0.73%	0.02%
Other Countries	19.00%	3.79%	0.72%	3.11%	0.59%
Total	100.00%	-	**2.63%**	-	**2.04%**

APPENDIX G – COMPUTATION OF THE COUNTRY RISK PREMIUM

Source: Damodaran database and own estimates.

Countries	Revenue (%)	CRP	Weighted CRP (%)
United States	52.00%	0.00%	0.00%
United Kingdom	19.00%	0.80%	0.15%
France	4.00%	0.80%	0.03%
Canada	3.00%	0.00%	0.00%
Germany	3.00%	0.00%	0.00%
Other Countries	19.00%	5.20%*	0.99%
TOTAL	**100.00%**		**1.17%**

*Average CRP of the remaining countries

ANNEX 1 – WTW HISTORICAL BALANCE SHEET

Source: WTW annual reports.

(million $, except share data)	FY2020	FY2021	FY2022	FY2023	FY2024
ASSETS					
Current assets					
Cash and cash equivalents	2,039	4,486	1,262	1,424	1,890
Fiduciary assets	12,003	11,014	11,772	9,073	9,504
Accounts receivable, net	2,408	2,370	2,387	2,572	2,494
Prepaid and other current assets	479	612	414	364	1,217
Current assets held for sale	3,372	6	-	-	-
Total Current assets	**20,301**	**18,488**	**15,835**	**13,433**	**15,105**
Non-current assets					
Fixed assets, net	1,013	851	718	720	661
Goodwill	10,392	10,183	10,173	10,195	8,799
Other intangible assets, net	2,989	2,555	2,273	2,016	1,295
Right-of-use assets	901	720	586	565	485
Pension benefits assets	971	971	827	588	530
Other non-current assets	1,080	1,202	1,357	1,573	806
Non-current assets held for sale	884	-	-	-	-
Total Non-Current assets	**18,230**	**16,482**	**15,934**	**15,657**	**12,576**
Total assets	**38,531**	**34,970**	**31,769**	**29,090**	**27,681**
LIABILITIES					
Current liabilities					
Fiduciary liabilities	12,003	11,014	11,772	9,073	9,504
Deferred revenue and accrued expenses	2,098	1,926	1,915	2,104	2,211
Current debt	971	613	250	650	-
Current lease liabilities	152	150	126	125	118
Other current liabilities	798	1,015	716	678	793
Current liabilities held for sale	3,310	6	-	-	-
Total current liabilities	**19,332**	**14,724**	**14,779**	**12,630**	**12,626**
Non-current liabilities					
Long-term debt	4,664	3,974	4,471	4,567	5,309
Liability for pension benefits	1,403	757	480	563	615
Deferred tax liabilities	561	845	748	542	45
Provision for liabilities	406	375	357	365	341
Long-term lease liabilities	917	734	620	592	502
Other non-current liabilities	290	253	221	238	226
Non-current liabilities held for sale	26	-	-	-	-
Total non-current liabilities	**8,267**	**6,938**	**6,897**	**6,867**	**7,038**
Total liabilities	**27,599**	**21,662**	**21,676**	**19,497**	**19,664**

EQUITY					
Additional paid-in capital	10,748	10,804	10,876	10,910	10,989
Retained earnings	2,434	4,645	1,764	1,466	109
Accumulated other comprehensive loss, net of tax	(2,359)	(2,186)	(2,621)	(2,856)	(3,158)
Treasury shares, at cost*	(3)	(3)	(3)	-	-
Total WTW shareholders' equity	**10,820**	**13,260**	**10,016**	**9,520**	**7,940**
Non-controlling interest	112	48	77	73	77
Total equity	**10,932**	**13,308**	**10,093**	**9,593**	**8,017**

*17,519 shares in 2022, 2021 and 2020

ANNEX 2 – WTW HISTORICAL INCOME STATEMENT

Source: WTW annual reports.

(millions $, except per share data)	FY2020	FY2021	FY2022	FY2023	FY2024
Revenue	8,615	8,998	8,866	9,483	9,930
Costs of providing services					
Salaries and benefits	5,157	5,253	5,065	5,344	5,502
Other operating expenses	1,697	1,673	1,695	1,815	1,833
Impairment	-	-	81	-	1,042
Depreciation	307	281	255	242	230
Amortization	461	369	312	263	226
Restructuring costs	24	26	99	68	61
Transaction and transformation, net	110	(806)	181	386	409
Total costs of providing services	**7,756**	**6,796**	**7,688**	**8,118**	**9,303**
Income from operations	**859**	**2,202**	**1,178**	**1,365**	**627**
Interest expense	(244)	(211)	(208)	(235)	(263)
Other income,net	396	701	288	149	(260)
Income from continuing operations before income taxes	**1,011**	**2,692**	**1,258**	**1,279**	**104**
Provision for income taxes	(249)	(536)	(194)	(215)	(192)
Income from continuing operations	**762**	**2,156**	**1,064**	**1,064**	**(88)**
(Loss)/income from discontinued operations, net of tax	258	2,080	(40)	-	-
Net income	**1,020**	**4,236**	**1,024**	**1,064**	**(88)**
Income attributable to non-controlling interests	(24)	(14)	(15)	(9)	**(10)**
Net income attributable to WTW	**996**	**4,222**	**1,009**	**1,055**	**(98)**
Earnings per share					
Basic earnings per share					
Income from continuing operations per share	5.69	16.68	9.36	10.01	(0.96)
(Loss)/income from discontinued operations per share	1.99	16.20	(0.36)	-	-
Basic earnings per share	**7.68**	**32.88**	**9.00**	**10.01**	**(0.96)**
Diluted earnings per share					
Income from continuing operations per share	5.67	16.63	9.34	9.95	(0.96)
(Loss)/income from discontinued operations per share	1.98	16.15	(0.36)	-	-
Diluted earnings per share	**7.65**	**32.78**	**8.98**	**9.95**	**(0.96)**

Other comprehensive (loss)/income, net of tax					
Foreign currency translation	139	(87)	(499)	173	(204)
Defined pension and post-retirement benefits (408) 65 26	(266)	260	65	(408)	(94)
Derivative instruments	(4)	2	(2)	2	84)
Other comprehensive (loss)/income, net of tax, before non-controlling interests	**(131)**	**175**	**(436)**	**(233)**	**(302)**
Comprehensive income before non-controlling interests	889	4 411	588	831	(390)
Comprehensive income attributable to non-controlling interests	(25)	(16)	(14)	(11)	(10)
Comprehensive income attributable to WTW	**864**	**4 395**	**574**	**820**	**(400)**

ANNEX 3 – WTW HISTORICAL CASH FLOW STATEMENT

Source: WTW annual reports.

(million $)	FY2020	FY2021	FY2022	FY2023	FY2024
Cash flows from operating activities:					
Net income	1,020	4,236	1,024	1,064	(88)
Adjustments to reconcile net income to total net cash from operating activities:					
Depreciation	308	281	255	242	230
Amortization	462	369	312	263	226
Impairment	-	-	81	-	1,042
Non-cash restructuring charges	-	-	71	38	41
Non-cash lease expense	146	160	120	105	98
Net periodic benefit of defined benefit pension plans	(196)	(168)	(153)	(26)	4
Provision for doubtful receivables from clients	29	19	13	6	13
(Benefit from)/provision for deferred income taxes	99	226	(50)	(109)	(213)
Share-based compensation	90	101	99	125	121
Net loss/(gain) on disposal of operations	(81)	(2,679)	59	(43)	337
Non-cash foreign exchange loss/(gain)	(6)	(10)	(137)	20	(31)
Other, net	(41)	(25)	6	31	58
Changes in operating assets and liabilities, net of effects from purchase of subsidiaries:					
Accounts Receivable	72	(134)	(188)	(206)	(233)
Other assets	(205)	(122)	(197)	(185)	(373)
Other liabilities	215	(175)	(495)	16	301
Provisions	(138)	(18)	(8)	4	(21)
Net cash from operating activities	**1,774**	**2,061**	**812**	**1,345**	**1,512**
Cash flows (used in)/from investing activities:					
Additions to fixed assets and software for internal use	(223)	(148)	(138)	(153)	(136)
Capitalized software costs	(63)	(53)	(66)	(89)	(109)
Acquisitions of operations, net of cash acquired	(69)	(47)	(81)	(6)	(107)
Net proceeds/(payments) from sale of operations	237	4,048	(59)	89	619
Cash and fiduciary funds transferred in sale of operations	(25)	(1,030)	(29)	(922)	(5)
(Purchase)/sale of investments	-	(200)	200	(4)	(12)
Other, net	(17)	-	-	-	-
Net Cash used in investing activities	**(160)**	**2,570**	**(173)**	**(1,085)**	**250**

Cash flows used in financing activities:					
Net payments on revolving credit facility	-	-	-	-	-
Senior notes issued	282	-	750	748	746
Proceeds from issuance of other debt	-	-	-	-	-
Debt issuance costs	(2)	(4)	(5)	(7)	(9)
Repayments of debt	(327)	(1,008)	(585)	(254)	(655)
Repurchase of shares	-	(1,627)	(3,530)	(1,000)	(901)
Proceeds from issuance of shares	16	10	7	-	-
Net (payments)/proceeds from fiduciary funds held for clients	812	(40)	354	(234)	785
Payments of deferred and contingent consideration related to acquisitions	(12)	(19)	(22)	(12)	(2)
Cash paid for employee taxes on withholding shares	(14)	(16)	(34)	(26)	(56)
Dividends paid	(346)	(374)	(369)	(352)	(354)
Acquisitions of and dividends paid to non-controlling interests	(28)	(36)	(11)	(63)	(13)
Other, net	(3)	-	-	-	-
Net cash used in financing activities	**378**	**(3,114)**	**(3,445)**	**(1,200)**	**(459)**
Supplemental disclosures of cash flow information:					
(Decrease)/increase in cash, cash equivalents and restricted cash	1,992	1,517	(2,806)	(940)	1,303
Effect of exchange rate changes on cash, cash equivalents and restricted cash	126	(127)	(164)	11	(97)
Cash, cash equivalents and restricted cash, beginning of period	4,183	6,301	7,691	4,721	3,792
Cash, cash equivalents and restricted cash, end of period	**6,301**	**7,691**	**4,721**	**3,792**	**4,998**

ANNEX 4 – WTW ADJUSTED EBITDA

Source: WTW annual reports.

(million $)	FY2020	FY2021	FY2022	FY2023	FY2024
Net income	1,020	4,236	1,024	1,064	(88)
(Income)/loss from discontinued operations, net of tax	(258)	(2,080)	40	-	-
Provision for income taxes	249	536	194	215	192
Interest expense	244	211	208	235	263
Impairment	-	-	81	-	1,042
Depreciation	307	281	255	242	230
Amortization	461	369	312	263	226
Restructuring costs	24	26	99	68	61
Transaction and transformation, net	110	(806)	181	386	409
Provision for significant litigation	65	-	-	-	13
Pension settlement	0	0	0	0	23
(Gain)/loss on disposal of operations	-81	-379	-7	-43	337
Adjusted EBITDA	**2,141**	**2,394**	**2,387**	**2,430**	**2,708**

ANNEX 5 – ADJUSTED TAX RATE

Source: WTW annual reports.

(million $)	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Income from Continuing Operations Before Income Taxes	342	492	851	1,046	1,011	2,692	1,258	1,279	104
Adjusted for certain items:									
Impairment	-	-	-	-	-	-	81	-	1,042
Abandonment of long-lived asset	-	-	-	-	35	-	-	-	-
Amortization	591	581	534	488	461	369	312	263	226
Restructuring costs	193	132	-	-	24	26	99	68	61
Transaction and transformation	177	269	202	13	110	(806)	181	386	409
Provision for specified litigation matter	50	11	-	-	65	-	-	-	13
Fair value adjustment for deferred revenue	58	-	-	-	-	-	-	-	0
Pension settlement	-	36	24	-	-	-	-	-	23
Loss/(gain) on disposal of operations	(2)	(13)	9	2	(81)	(379)	(7)	(43)	337
Venezuela currency devaluation	-	2	-	-	-	-	-	-	-
Adjusted income before taxes	1,409	1,510	1,620	1,549	1,625	1,902	1,924	1,953	2,215
Provisions for Income Taxes	(96)	(100)	136	197	249	536	194	215	192
Tax effect on certain items listed above	320	275	184	121	140	(103)	188	195	276
Tax effect of statutory rate change	-	-	-	-	-	(40)	-	-	-
Tax effect of the CARES Act	-	-	-	-	(61)	-	24	-	-
Tax effect of internal reorganizations	-	(48)	(4)	-	-	-	(4)	(2)	7
Tax effect of U.S. Tax Reform	-	204	-	-	-	-	-	-	-
Deferred tax valuation allowance	69	-	-	-	-	-	-	-	-
Adjusted income taxes	293	331	316	318	328	393	402	408	475
U.S. GAAP Tax rate	(28.07%)	(20.33%)	15.98%	18.83%	24.63%	19.91%	15.42%	16.81%	184.62%
Adjusted income Tax rate	20.79%	21.92%	19.51%	20.53%	20.18%	20.66%	20.89%	20.89%	21.44%

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