

**THE IPO OF FLEXDEAL, SIMFE, SA**

**Tânia Isabel da Conceição Maria**

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Supervisor:  
Prof. Pedro Leite Inácio, Assistant Professor,  
ISCTE Business School, Finance Department

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## Resumo

O objetivo principal deste projeto é analisar a oferta pública inicial da Flexdeal, SIMFE, SA, confrontando o preço de entrada na bolsa com os valores estimados através dos métodos de avaliação utilizados.

A Flexdeal, SIMFE, SA é uma empresa que surge como uma alternativa de financiamento, tendo como principal atividade o investimento em pequenas e médias empresas e também em “*mid caps*” e “*small mid caps*”. A Flexdeal, SIMFE, SA é a primeira e única Sociedade de Investimento Mobiliário para Fomento da Economia (SIMFE) em Portugal.

Para atingir o objetivo deste projeto foram aplicados três modelos de avaliação: os fluxos de caixa descontados, através da avaliação na ótica da empresa; os múltiplos e o valor económico adicionado.

Considerando um horizonte previsional de cinco anos e as projeções realizadas com base no ano histórico de 2018 e no 1º Semestre de 2019, foi possível inferir três diferentes valores por ação. O preço mais baixo foi obtido através da avaliação dos múltiplos, 5,73 euros, já o preço mais elevado resultou da avaliação do valor económico adicionado, 6,43 euros. A avaliação dos fluxos de caixa descontados originou um preço de 6,21 euros.

Comparando estes resultados ao preço de fecho de 4,93 euros, a recomendação é comprar.

**Palavras-Chave:** Oferta Pública Inicial, Avaliação de Empresas, Fluxo de Caixa Descontados, Múltiplos, Valor Económico Adicionado

**Classificação JEL:** G30, G32

## Abstract

The main purpose of this project is to analyse the initial public offering of Flexdeal, SIMFE, SA, confronting the entry price on the stock market with the values estimated through the valuation methods used.

Flexdeal, SIMFE, SA is a company that emerges as a financing alternative, having as main activity the investment in small and medium companies and also in mid caps and small mid caps. Flexdeal, SIMFE, SA is the first and only Investment Company for Stimulation of the Economy (SIMFE) in Portugal.

In order to achieve the objective of this project, three valuation models were applied: discounted cash flows, through the valuation from the perspective of the firm; multiples (or relative valuation); and economic value added.

Considering a forecast period of five years and the projections based on the historical year 2018 and the 1<sup>st</sup> Semester of 2019, it was possible to infer three different values per share. The lowest was obtained through relative valuation, 5.73 euros, while the highest price resulted from economic value added valuation method, 6.43 euros, finally, discounted cash flow valuation led to a price of 6.21 euros.

Comparing these results with the closing price of 4.93 euros, the recommendation is to buy.

**Keywords:** Initial Public Offering, Company Valuation, Discounted Cash Flow, Multiples, Economic Value Added

**JEL Classification:** G30, G32

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## Glossary

CAPEX – Capital Expenditures

CAPM – Capital Asset Pricing Model

CFO – Chief Financial Officer

D – Debt

DCF – Discounted Cash Flow

DCL – Degree of Combined Leverage

DFL – Degree of Financial Leverage

DL – *Decreto-Lei* (Decree-Law)

DOL – Degree of Operation Leverage

D&A – Depreciation and Amortization

E – Equity

EBIT – Earnings Before Interest and Taxes

EBITDA – Earnings Before Interest, Taxes, Depreciation and Amortization

EBT – Earnings Before Taxes

EQV – Equity Value

EV – Enterprise Value

EVA – Economic Value Added

g – Growth Rate

GDP – Gross Domestic Product

IC – Invested Capital

IPO – Initial Public Offering

Lda – *Sociedade por Quotas* (Private Limited Company)

FCFF – Free Cash Flow to the Firm

MVA – Market Value Added

NI – Net Income

NOPLAT – Net Operating Profit Less Adjusted Taxes

NWC – Net Working Capital

NWC R/N – Net Working Capital Requirements/Needs

PSI – Portuguese Stock Index

PV – Present Value

R<sub>D</sub> – Cost of Debt

R<sub>E</sub> – Cost of Equity

$R_f$  – Risk-free rate

$R_m$  – Rate of return of the market

ROA – Return on Assets

ROE – Return on Equity

ROIC – Return on Invested Capital

SA – *Sociedade Anónima* (Public Limited Company)

SIMFE – Investment Company for the Stimulation of the Economy

SME – Small to Medium Enterprise

t – Tax Rate

TV – Terminal Value

UK – United Kingdom

US – United States of America

WACC – Weighted Average Cost of Capital

$\beta_D$  – Beta of debt

$\beta_L$  – Levered Beta

$\beta_U$  – Unlevered Beta

## 1. Introduction

The main purpose of this project is to value Flexdeal in order to determine a value per share using three different valuation methods and subsequently comparing them with the closing price on the first day of trading and/or the IPO issue price.

Flexdeal, SIMFE, SA, more commonly Flexdeal, is a Portuguese company that emerges as a financing alternative, having as main activity the investment in small and medium companies and also in mid caps and small mid caps. Flexdeal is the first and only Investment Company for Stimulation of the Economy (SIMFE) in Portugal.

For determining Flexdeal's value per share we applied three valuation models: Discounted Cash Flow (most used model according to Koller, Goedhart, & Wessels (2015)); Relative Valuation (as a complement of DCF model); and Economic Value Added Valuation Method.

This project constitutes an important tool for shareholders. They not only are informed of the financial situation of Flexdeal before the IPO but also of the current prospects of the company after the IPO, through a detailed analysis of market performance in the first semester. A shareholder should know when it is the most appropriate time to buy or sell stocks. Therefore, this project results in an investment recommendation to help them with that decision.

Although not everyone has the same level of financial literacy, this project is suitable and addressed at all investors who intend to incorporate Flexdeal into their portfolio.

Considering the assumptions made and applying the three methods, the values per share obtained are the following: 6.21 euros, through DCF model, 5.73 euros through relative valuation, and 6.43 euros through EVA model. Subsequently, taking into consideration a closing price of 4.93 euros (or even the IPO issue price of 5 euros), the recommendation for shareholders is to buy.

The project is laid out as follows: Section 2 contains themes underlying an IPO, such as reasons to go public, underpricing and underperformance. Section 3 presents a company overview and its market performance in the first semester. Section 4 describes the valuation methods that were applied. Section 5 describes the assumptions and applies those valuation methods. Last, section 6 compares the results of the different models with the closing price on the first day of trading.

## 2. Literature Review

An initial public offering, also called IPO, can be described as the process of offering shares of a private company to the public for the first time, however not all shares are available for purchase since a significant fraction might remain in the hands of managers.

But why do firms decide to go public? Most of the IPO theories focus on one of the two categories defined by Bender & Ward (2009), either for a growing company to raise funds for the company's continued expansion, or for mature companies with the purpose of providing an exit for some existing shareholders selling all or part of their holdings to the new shareholders. Nevertheless, they differ in the underlying assumptions and the balance between earns and costs of becoming public.

There are four major motivations behind an initial public offering. First, IPOs may operate as a strategic decision. Chemmanur & Fulghieri (1999) suggest a greater distribution of ownership which leads to an increase in the liquidity of the firm's capital. Brau, Ryan, & DeGraw (2005) support this motivation through a survey of CFOs of 438 US firms (with a participation rate of 44.5%) while Jong *et al.* (2012) refute this hypothesis finding a positive relationship between the probability of going public and the ownership, the insiders would prefer to maintain in total control of the firm instead of going public.

On the other hand, more externally to the firm, companies have the opportunity to improve their reputation (Bradley, Jordan, & Ritter, 2003) and consequently their position on the market (Chemmanur & He, 2011). Burton, Helliar, & Power (2006) show that the reputation and publicity are the major reasons to do an IPO on the UK firms and Pastor-Llorca & Poveda-Fuentes (2006) do so for Italian firms. In addition, over 80% of CFOs in Europe agree that the IPO acts as publicity for the firm leading to an increase in its reputation (Bancel & Mittoo, 2013). Not only issuer's reputation can be influenced by analysts recommendations, but also its trading volume (Mehran & Peristiani, 2009).

Analysts have an important role in IPO. Apart from repercussions on the issuer, the underwriter can also take advantage of analysts who may be pressured by investment bank/broker houses to produce biased recommendations since their reputation and revenues might be influenced (Dambra *et al.* (2018), Roger (2018)). To assure their reputation and increase commissions, investment bank/broker houses "encourage" their analysts through short-term incentives (compensation) and long-term incentives (reputation). Irvine (2004) discovers that both reputation effects and incentives to issue optimistic forecasts are present in Toronto Stock Exchange.

Dambra *et al.* (2018) also highlight the impact on the capital structure of the company as a result of analyst's predictions which leads to the second motivation to go public, the impact on the cost of capital.

According to the traditional approach of Modigliani & Miller (1963), the cost of equity capital rises with its debt-equity ratio. Considering that managers (insiders) and investors (outsiders) have access to all information, Modigliani & Miller (1963) defend a Trade-Off Theory where switching Equity for Debt, the company is changing the more expensive source of financing for the cheaper one. Consequently, the Debt-Equity ratio will increase and the cost of equity capital of the company will follow this evolution given that the firm's capital becomes riskier. As a result of an IPO, the Debt-Equity ratio will decrease and subsequently will minimize the cost of equity capital and increase the value of the equity of the company.

Inconsistent with Modigliani & Miller (1963), Myers & Majluf (1984) and Myers (1984) have referred the influence of asymmetric information between the managers and the investors and a possible fall in stock price. Additionally, they defend a pecking order of financing: internal funds, issue debt and as for last resort issue external equity. In other words, the companies tend to adopt a hierarchical financing order in which debt has priority over external equity. Sogorb-Mira (2005) shows that Spanish SMEs seems to follow the Pecking Order Theory. However, the author justifies that the hesitation of insiders in losing control of the company makes them prefer the internal resources to the external ones. On the other hand, Serrasqueiro & Caetano (2014) show, for the Portuguese market, a negative relationship between the profitability and debt (companies will prefer internal equity over debt) and a negative relationship between the firm's age and debt (the retained earnings tend to increase over time, therefore, the need of debt is lower). Their results allow concluding that the capital structure of SMEs in Portugal may also be explained by the Pecking Order Theory.

Third, IPOs may simplify acquisition activities. The owner can take advantage of IPO in order to maximize the value of the company for an eventual sale (Pagano, Panetta, & Zingales (1998), Zingales (1995)) or being acquired in exchange of shares allowing an exit for insiders and the possibility to earn around 22% greater premium than those who sell out to acquirers (Brau, Francis, & Kohers, 2003). Qi, Sutton, & Zheng (2015) follow the same line as Brau, Francis, & Kohers (2003) demonstrating, for US firms, that the stock offer premiums are more than the cash offer premium, independently of alliance experience.

As the last motivation to go public, Zingales (1995) explains that insiders can view the IPO as a mean to cash out. Therefore, the insiders sell shares in favourable conditions in order to maximize their wealth (Ang & Brau, 2003). Moreover, an IPO may also simplify the exit for

the Venture Capitalist of the company conceding to the entrepreneur more control (Black & Gilson (1998), Giot & Schwienbacher (2007)). However, Espenlaub, Khurshed, & Mohamed (2015) show that for UK firms, the most commonly used exit route is mergers and acquisitions while the IPO exit is more popular for firms outside the UK.

Although there are several reasons to go public, the company may face two major anomalies, underpricing and underperformance.

After the companies decide to go public, the evolution of the price might be unexpected, which means, the offer price of the stock can become lower than the closing price on the first day. Therefore, the stock was considered underpriced which can be translated into a potential wealth relocated from the old to new shareholders.

This underpricing is only temporary since the true value of the shares will eventually reach its value due to the demand of the shareholders. Stegehuis (2016) reports 11.9% of underpricing in Portugal, between 1992 and 2013.

There are four theoretical explanations for the underpricing event: information asymmetries between the three main players (investors, issuers and underwriter); ownership and control structure of issuers; litigation; and agency concerns.

Regarding the information asymmetries, Welch (1992) proposes the Cascade theory, where investors do not take their own personal information into account and end up making decisions based only on the decisions of others. In other words, the cascade is like a “herd behaviour”, the investors just follow others on the assumption that such a large number of people cannot be wrong. So, if the sentiment is high, investors will follow their convictions ignoring the opinions of other investors. On the other hand, investors will have herding behaviour if the sentiment is low (Vieira & Pereira, 2015). Around 41,67% of investors do not take in consideration their own beliefs and follow the decisions of other investors (Roider & Voskort, 2016).

Chang, Cheng, & Khorana (2000) find no evidence of herding behaviour in US firms while Barros (2009) and Vieira & Pereira (2015) find herding in the Portuguese market, specifically in PSI-20 index. Santos (2013) expands the study of the Portuguese market analysing PSI General, PSI 20, PSI Financials, PSI Consumer Services and PSI Industrials indexes. The results show that Portugal is exposed to herding behaviour mostly in times of crisis. Regulation is crucial for investors for a more equilibrated market preventing possible aggravation of the economy in the country.

Additionally, the uninformed investors might go through the Winner’s curse (Rock, 1986). During the IPO, there are information asymmetries between the informed and

uninformed investors and for that reason, the uninformed investors have a high probability to end up paying more than the true value. As a result of adverse selection, Rock (1986) and Chowdhry & Sherman (1996) defend that the uninformed investors must be compensated by the issuers. In response to this problem, Ritter & Welch (2002) recommend the allocation of the stocks in “hot issues”<sup>1</sup> to the investors who are willing to acquire other IPOs, meaning, the utilization of the underwriter discretion.

Besides the divergences among the two types of investors, Benveniste & Spindt (1989) suggest information asymmetries between the underwriter and the potential investors during the pre-offer period. This discrepancies arise as the third possible explanation and are called Carrot & Stick. Since the investors know more than the underwriter, the last one must collect as many information as possible from the investors, through the underpricing, before setting the issue price. Hence, the investors share their information with the interest of possible future compensation. In order to provide a favourable compensation, the underwriter does not incorporate in the price all the information disclosed, it means, the underwriter does a partial adjustment of the information.

Bakke, Leite, & Thorburn (2016) accomplish the same conclusions. The authors also establish that when the public signal is negative, the investors should get more compensation (more underpricing) which is equivalent to higher returns on the first day of the IPOs.

On the other hand, Baron (1982) and Baron & Holmström (1980) defend that the underwriter knows more than the issuer, therefore, there are information asymmetries between the issuer and underwriter regarding the demand of the securities. For that reason, Baron & Holmström (1980) suggest the possibility of the issuer delegating the decision of setting a minimum offer price to the underwriter so he can use his superior information. Moreover, the underwriter can impact the demand of the securities either putting its reputation on them or influence customers to purchase the securities (Baron, 1982). Although the underwriters have superior information that does not mean the competition among them solves the underpricing issue (Hoberg, 2007). Hoberg (2007) shows that the underwriters with superior information that leads to a more precise valuation of IPOs will present more underpricing than their competitors. He concludes that the underwriters that underprice IPOs more will continue to do so in the future.

In view of mitigating the information asymmetries consequences, Akyol *et al.* (2014) highlight that regulation must be adopted by the companies as the solution for underpricing.

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<sup>1</sup> When the demand exceeds the supply

Regulation has an impact on the amount of information accessible in the market, decreasing the information asymmetries. Tests in 3,677 IPOs in 18 European markets show that companies which listed their stocks on regulated markets have low underpricing in their stocks.

Booth & Chua (1996) propose an ownership dispersion as an explanation for underpricing. IPO's firms underprice their stocks, thus generating an excessive increase in demand. This oversubscription will create higher ownership distribution that would grow aftermarket liquidity and information costs. The authors justify "(...) that underpricing is a positive function of ownership dispersion in the presence of costly information." (Booth & Chua, 1996: 309). This hypothesis is corroborated by Jacoby & Zheng (2010) while Bouzouita, Gajewski, & Gresse (2015) find no relationship between the two variables which means that the degree of liquidity cannot be viewed as a result of ownership dispersion. Instead, they suggest that the level of liquidity is the result of information production, it means, information production will negatively influence the information asymmetries present in the market and thus enhance liquidity (hypothesis initially defended by Chemmanur (1993)).

In relation to litigation explanation, Tiniç (1988) argues that the underpricing is deliberate, it means, that firms underprice their stocks as a form of protection against possible future litigations. Lowry & Shu (2002) also defend that firms with higher litigation risk have a higher probability of underpricing their stocks. Consistent with Tiniç (1988) and Lowry & Shu (2002), Lin, Pukthuanthong, & Walker (2013) find evidence for international scenario. They suggest that the level of litigation risk of a given country influences the level of underpricing for firms that go public in that country. Contradictorily, Walker *et al.* (2015) find no evidence of a relationship between underpricing and litigation risk, as an alternative, they suggest a relationship between the price of supply and the risk of litigation, i.e. the higher the offer price, the greater the risk of post-IPO litigation.

Last but not least, the agency concerns. This explanation can be subdivided into three types: spinning hypothesis, strategic underpricing and laddering.

The study of Loughran & Ritter (2004) aims to examine the spinning theory. This theory suggests that the underwriter is intentionally hired to underprice the securities in exchange of side payments. "Underwriters can allocate these underpriced shares to investors in exchange for commission business or to executives to sway their decision in choosing which investment banking firm to hire, or the shares can be allocated by the firm itself through a "friends and family" program", a practice known as spinning (Liu & Ritter, 2010: 2028).

Secondly, Aggarwal & Wu (2006) analyse the practice of laddering which investors agree to buy stocks in the aftermarket, but in the meantime, they require access to the IPO.



Otherwise, underpricing can be viewed as a strategy by the firm. When firms go public, the owner-manager must set an offer price and the number of shares to sell. After the IPO, the proceeds are retained and he has in his possession the remaining shares. In the next day, the shares will be priced by the closing price of the previous day (the price of opening day). Aggarwal, Krigman, & Womack (2002) assume that there is a “lockup period effect”, which in the end creates higher prices where the owner-manager has the opportunity to sell extra stocks. Consequently, owner-managers end up accepting the initial underpricing in order to maximize their own wealth.

Besides underpricing, the public company might go through an underperformance in its stocks. The underperformance can be accentuated in the first three years post-IPO (Ritter, 1991) but in the meantime, Loughran & Ritter (1995) defend five years.

Underperformance can arise as a consequence of divergence in investors’ opinion, as a result of a window of opportunity or even influence by impresario’ actions.

Regarding the divergence of opinion hypothesis, Miller (1977) argues that there is a strong discrepancy among investors’ opinions on the future performance of initial public offerings, mainly caused by the associated uncertainty and risk. Considering that investors interpret public information in distinct ways, they will trade according to their own beliefs and expectations. Pessimistic investors are more likely to not buy stocks, whereas optimistic ones are more likely to buy them. Furthermore, Miller (1977) introduces a short-sales constraint in his model which will not allow pessimistic investors to trade and therefore optimistic investors will overvalue the stocks. This raises the divergence in investors’ opinions. This divergence will influence the market value of the stock since the greater the disagreement about the stock’s value, the higher will be the market price in relation to the true value of the stock and once the uncertainty is resolved over time the lower will be its future returns (Diether, Malloy, & Scherbina, 2002). Findings of Scherbina (2001) and Siganos, Vagenas-Nanos, & Verwijmeren (2017) support this idea. Additionally, Scherbina (2001) shows that larger dispersion in analysts’ opinions contributes to the underperformance of the stocks in the three-day window around earnings announcements dates.

Inconsistent with Miller (1977) theory, Banerjee & Kremer (2010) defend a positive relationship between the level of disagreement and future returns. They show that a higher disagreement in the future will increase the uncertainty in payoffs today, so investors will require a higher future return for a higher risk.

There are moments when demand can exceed supply, those moments are named “hot issue markets” and the managers have the ability to identify them. So, they take advantage of

that window of opportunity (Ritter, 1991) and sell overpriced shares. Huang (2004) results suggest windows of opportunity as an explanation for the fluctuations of financing in US firms. The firms exploit the chance to issue external equity since the cost of capital is low.

With the aim of attracting more investors and thus increasing demand, the impresario - the underwriter - intentionally underprices the stocks. Shiller (1990) argues that underpricing IPOs will result in high initial returns leaving the impression that the impresario is giving a good investment advice. "Underwriters then let the high initial returns run for a while to generate publicity and good will for the IPO's." (Shiller, 1990: 62). Over time, as more information is disclosed to the market, IPOs firms with high initial returns will afterwards underperform in the long-run. Bradley *et al.* (2009) report long-run underperformance in the U.S. and Pastor-Llorca & Poveda-Fuentes (2006) do so for Spain. In line with the previous studies, Berk & Peterle (2015) provide evidence of the long-run underperformance of the Central and Eastern Europe IPOs.

## 3. Company Overview

### 3.1 History

Flexdeal, SIMFE, SA, or simply Flexdeal, is the first and only Investment Company for the Stimulation of the Economy (*SIMFE — Sociedades de Investimento Mobiliário para Fomento da Economia*) in Portugal. The company achieved this status on 4<sup>th</sup> January of 2018.

Flexdeal emerges from the transformation of another company named *Método Garantido II SA*<sup>2</sup>, on 3<sup>rd</sup> August of 2017, with a well-defined vision of wanting to stand out from the financing alternatives already existing in the market, becoming a reference partner entity for SMEs. Its purpose is “to invest in securities issued by eligible companies for investment by the Investment Company for the Stimulation of the Economy (SIMFE) and, in general, to carry out all activities permitted by law to such companies (...)” (nr 1 of article 3 of Contract of Society). Eventually, the company may invest in other national or foreign firms, regardless of the services provided (nr 2 of article 3 of Contract of Society).

### 3.2 Investment Process

The investment decisions consist of four phases. Primarily, it is crucial to analyse if the companies in question are eligible. If so, Flexdeal will characterize the risk profile of the eligible company taking into consideration financial and operational factors giving particular attention to the treasury cycle of the company under analysis. This stage is decisive for the evaluation process and eventual implementation of the investment by Flexdeal. Subsequently, the cost of the capital to be invested should be measured and, therefore, drawn up an investment proposal.

#### 3.2.1 Limitations

Due to its status as SIMFE, Flexdeal has some restrictions on its activity. According to the DL nr 77/2017 of 30<sup>th</sup> June, Flexdeal is limited to 15% of participation in a single company or in companies of the same group.

On 30<sup>th</sup> September of 2018, the companies with more percentage invested are Lanidor Woman, Lda (14.50%), Spot d' Or, Lda (13.25%) and *Margem Astuta, Lda* (12.36%). All the investments in eligible companies must constitute, at all times, at least 50% of Flexdeal's assets. In 2018, the total amount invested corresponded to 95.4% of Flexdeal's assets.

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<sup>2</sup> *Método Garantido II, SA* was founded on September 19<sup>th</sup> 2014 and it provided services related to the company's management and consultancy for business realization.

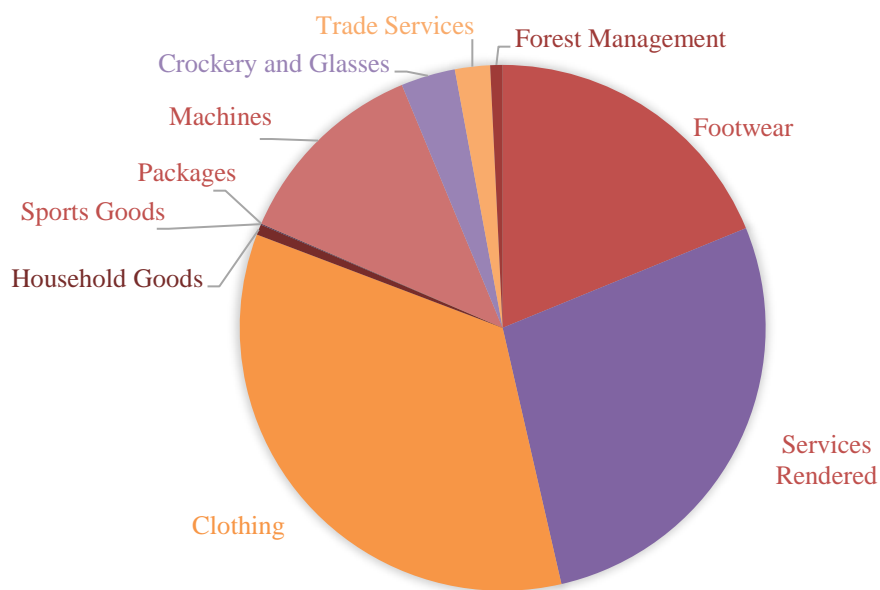
### 3.3 Investment Segments

Flexdeal operates only in the Portuguese market, with a strong concentration in the Northern region.

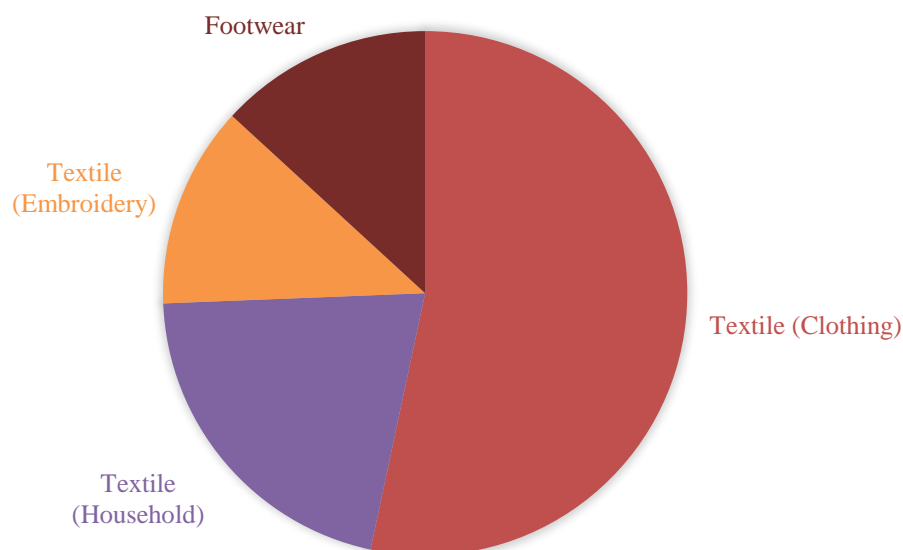
On 30<sup>th</sup> September of 2018, its companies' portfolio was constituted by 76,64% of the commerce sector and 23.36% of industry sector. The most significant areas of Flexdeal's investments are: in commerce sector - Clothing (26.34%), Services Rendered (21.15%) and Footwear (14.42%), and in the industry sector - Textile Industry (20.28%).

In 2018, the detailed diversification of Flexdeal's investments by segment was the following:

**FIGURE 1 - Distribution of Flexdeal's Investments in commerce sector**



**Source:** Author's elaboration considering the Flexdeal's Prospectus

**FIGURE 2 - Distribution of Flexdeal's Investments in industry sector**

**Source:** Author's elaboration considering the Flexdeal's Prospectus

In March of 2019, the distribution of investments by sector continued more or less constant with the commerce sector constituting about 77,3% of the total portfolio. The most relevant areas of Flexdeal's investments remain the same: in commerce sector - Clothing (31.1%), Services Rendered (17%) and Footwear (14.3%), and in the industry sector - Textile Industry (19.2%).

### 3.4 Corporate Structure

Flexdeal elected the members for the 2017-2020 mandates on 3<sup>rd</sup> August of 2017. Its corporate structure comprises the following governing bodies:

- Board of Directors – represented by the president Alberto Amaral, an executive administrator and three non-executive administrators;
- Supervisory Board – constituted by Susana de Jesus as president, two effective members and one substitute;
- General Shareholders Meeting – composed by Magda Viegas who is the president and one secretary;
- Statutory Auditor – a responsibility of *KPMG & Associados, Sociedade de Revisores de Oficiais de Contas, S.A.* and as its substitute Maria Ferreira;

- Company Secretary – position of José Nogueira and as it substitutes Paulo Branco.

### 3.5 Financial Analysis

Before the valuation of Flexdeal, it is important to verify the company's actual financial situation. For the purpose of this financial analysis, it only be considered the year of 2018 for two reasons: (1) Flexdeal was founded almost at the end of the previous fiscal year, so the results of 2017 are not representative of Flexdeal's activity and (2) the fiscal year of 2017 had only into account nine months of activity while 2018 had one year.

The financial analysis will be decomposed in five specific analyses, such as profitability, liquidity, solvency, risk and financial equilibrium.

#### 3.5.1 Profitability Analysis

Profitability measures the company's ability to generate profit from its operations. Essentially, it determines the level of efficiency with which the company has used its resources.

The profitability of Flexdeal can be analysed in absolute values of the different levels of income as described in table 1:

**TABLE 1** - Value of different levels of income of Flexdeal

<i>in euros</i>	<b>30-SET-2018</b>
EBITDA	579,689
EBIT	541,223
EBT	305,377
Net Income (NI)	396,430
NOPLAT	442,071

**Source:** Author's elaboration considering the Flexdeal's annual reports

In 2018, Flexdeal was able to generate enough earnings to pay its operating expenses, depreciation and amortization costs and pay the expenses related with its debt, resulting in an available income to shareholders of 396,430 euros. At the end of the year, the company had a tax benefit leading to an increment in NI.

Through the computation of NOPLAT, net income ignoring the interest costs of the company, it's possible to verify the significant impact of interest costs in net income. In September, the costs associated with debt expressed 43.58% of EBIT. Applying a tax rate of

18.32%<sup>3</sup>, NOPLAT ascends to 442,071 euros which compared to NI reflects a growth of only 11.5% because of the tax benefit. If the company did not have the tax benefit, the NOPLAT would reflect a growth of 77.23% over the NI.

Additionally, the profitability can also be analysed through some profitability ratios as described in table 2:

**TABLE 2 - Profitability Ratios**

	<b>30-SET-2018</b>
Gross ROA	4.26%
Return on Invested Capital (ROIC)	3.77%
Return on Assets (ROA)	3.12%
Return on Equity (ROE)	3.32%

**Source:** Author's elaboration considering the Flexdeal's annual reports

In the first year as SIMFE, Flexdeal's business generated profitability around 4.26%, according to the Gross ROA ratio.

ROIC ratio follows a similar approach that Gross ROA with only two differences. First, take into consideration the NOPLAT instead of EBIT as in Gross ROA computation. Second, it did not consider the assets but utilizes a new concept, the invested capital<sup>4</sup>.

The ROIC reflects the return of the invested capital by the company. At the end of 2018, Flexdeal's business produced a return of 3.77%, considering the investment realized in operating assets ignoring how they are financed.

Regarding the ROA and ROE, it is expected that both ratios present similar returns since the equity represents around 94% of the total assets of the company. However, they differ in meaning. On the one hand, ROA corresponds to the return generated from the assets that the company owns. On the other hand, ROE provides the rate of return that the Flexdeal can generate with the amount invested by the shareholders in the company.

Both ratios have a favourable evolution mainly caused by the substantial rise in the Flexdeal's net income at the end of the year to 396,430 euros. The only difference was the growth of 20.45% in the total assets and a small increase of 3% in total equity of the company between June and September. Thus, the ROA is slightly smaller than ROE.

<sup>3</sup> It represents approximately the effective tax rate calculated by Flexdeal in September 2018.

<sup>4</sup> It computed subtracting the operating assets by operating debt, reflecting how much the company needs to invest to carry out its activity

### 3.5.2 Liquidity Analysis

Liquidity is a short-term concept that measures the company's efficiency in paying its short-term financial commitments, indicating how rapidly and how efficiently the company's current assets can pay its current liabilities.

The liquidity of Flexdeal can be analysed through some liquidity ratios as described in table 3:

**TABLE 3 - Liquidity Ratios**

	<b>30-SET-2018</b>
Current Ratio	0.83
Quick Ratio	0.83

**Source:** Author's elaboration considering the Flexdeal's annual reports

Flexdeal's capability or not to pay its current liabilities with its current assets can be determined through the current ratio and quick ratio. Since the main activity of Flexdeal is to invest in other companies, the value of inventories is zero. So, the current ratio is equal to the quick ratio at all time.

Actually, the company presents a positive but lower current (and/or quick) ratio of 0.83 which means that Flexdeal's current assets cannot cover all of its short-term responsibilities. This lower ratio is mainly caused by a loan contraction of 454,000 euros and a sharp decline in the sum of cash and equivalents and credits receivables.

### 3.5.3 Solvency Analysis

Solvency, also named leverage, is similar to the liquidity analysis with the difference that solvency refers to the company's ability in paying its long-term obligations.

The solvency of Flexdeal can be analysed through some solvency ratios as described in table 4:

**TABLE 4 - Solvency Ratios**

	<b>30-SET-2018</b>
Solvency ( <i>total equity/total debt</i> )	15.58
Debt to Equity	0.06
Debt to Assets	0.00
Equity/Assets	0.94
Interest Coverage Ratio ( <i>EBIT/interests costs</i> )	2.29

**Source:** Author's elaboration considering the Flexdeal's annual reports



In one year of activity, Flexdeal produced a positive solvency ratio meaning that the company possesses more than it owes. Nevertheless, over 2018, total debt increased more significantly when compared with equity which leads to a decline in solvency ratio to 15.58 and an increase in debt-to-equity ratio to 0.06.

The debt-to-equity ratio is used to evaluate Flexdeal's financial leverage, reflecting the capacity of the company's equity to cover its liabilities.

Regarding the debt-to-assets ratio, it is predictable a ratio close to zero since the amount of debt<sup>5</sup> is almost insignificant when compared with the amount of assets. In other words, debt-to-assets around zero implies that the assets are completely financed by equity.

Both ratios, debt-to-equity and debt-to-assets, are important measures for investors. Low ratios represent a low risk for Flexdeal. These indicators will evolve with equity/assets ratio. Since equity represents around 94% of total assets of the company, debt represents the remaining 6%.

Last, the interest coverage ratio reflects the company's capacity to cover its interest costs. From June to September, this ratio increased to 2.29, which means that Flexdeal improved its ability to produce enough earnings to pay the expenses from its debt.

### 3.5.4 Risk Analysis

The risk of Flexdeal can be evaluated through some risk ratios as described in table 5:

	<b>30-SET-2018</b>
Degree of Operation Leverage (DOL)	3.00
Degree of Financial Leverage (DFL)	1.77
Degree of Combined Leverage (DCL)	5.32

**Source:** Author's elaboration considering the Flexdeal's annual reports

Concerning the first ratio, DOL measures operational risk. Since all costs of Flexdeal are fixed, there is more risk in the company the closer to the breakeven the company is.

DFL translates Flexdeal's ability to pay its interest costs in the face of EBIT fluctuations. A DFL of 1.77 means that if there is a 1% change in EBIT, net income would change by 1.77%.

<sup>5</sup> It only considered the short-term debt and long-term debt.

The DCL is a combination between the DCL and DFL. A higher DCL means more risk for the company, that being a function of the weight of fixed costs in the cost structure of the company, in this case it 100%, i.e. there are no variable costs. This high ratio can be explained mainly by DOL since fixed costs increase this ratio and subsequently the DCL ratio as well.

### 3.5.5 Financial Equilibrium Analysis

The financial equilibrium of a company is analysed using the measures, as Net Working Capital (NWC), the Net Working Capital Requirements/Needs (NWC R/N) and the Net Treasury.

The first one constitutes the amount needed for a company ensure the normality of its activity and it is obtained subtracting the permanent capital by the non-current assets, where the permanent capital corresponds to the difference between the equity and non-current debt.

The second one represents the ability of the company to pay its current assets, then, it will compute subtracting the current assets by its current liabilities.

The treasury will be the difference between the previous two measures, and it provides insight into the financial equilibrium or not of a company.

The table 6 present the analyse to the financial equilibrium of Flexdeal in 2018:

<i>in euros</i>	<b>30-SET-2018</b>
Net Working Capital	-126 713
Net Working Capital R/N	-340 590
Net Treasury	213 877

**Source:** Author's elaboration considering the Flexdeal's annual reports

In 2018, Flexdeal was in a financial disequilibrium since the NWC R/N was negative meaning that the company was not capable to pay its current assets. This negative value was mainly caused by a loan contraction of 454,000 euros and a substantial reduction in Flexdeal's current assets.

At the end of 2018, the Flexdeal's treasury was positive meaning that Flexdeal was in financial equilibrium presenting excess capital face to the needed. In sum, the Flexdeal has an excedentary treasury.

### 3.6 Admission to Euronext Lisbon

On 9<sup>th</sup> August of 2018 was decided, at the general shareholders meeting, to rise Flexdeal's share capital to a maximum amount of 21,053,580 euros and, consequently, admission to trading on the regulated market, in this case on Euronext Lisbon. During this process, *Carregosa* Bank was the financial intermediary (underwriter). However, Flexdeal must accomplish a dispersion level at least of 25% of its capital in order to be admitted to trading on Euronext Lisbon. According to Filipa Franco, head of listing of Euronext Lisbon, this dispersion could be accomplished either through a particular offering, an IPO or even through a mix of the two alternatives. So, before the integration on the regulated market, Flexdeal decided to conduct a particular offering ensuring that the minimum level of dispersion was reached.

On 19<sup>th</sup> December of 2018, Flexdeal realized the particular offering addressed a specific target of investors, issuing a maximum of 2,000,000 stocks with a nominal value of 5 euros each. As a result of that particular offering, 1,010,000 stocks were subscribed, resulting in an increment on the company's share capital of around 5,050,000 euros. Therefore, on the date of the Admission Prospectus<sup>6</sup>, which was disclosed on 20<sup>th</sup> December of 2018, the share capital of Flexdeal was 16,103,580 euros.

On 24<sup>th</sup> December of 2018, Flexdeal was admitted directly to Euronext Lisbon in the aftermath of the particular subscription offering of 5,050,000 euros. Flexdeal was public with 3,220,716 ordinary and registered stocks with a nominal value of 5 euros each, representing 100% of its share capital, for a total of 16,103,580 euros.

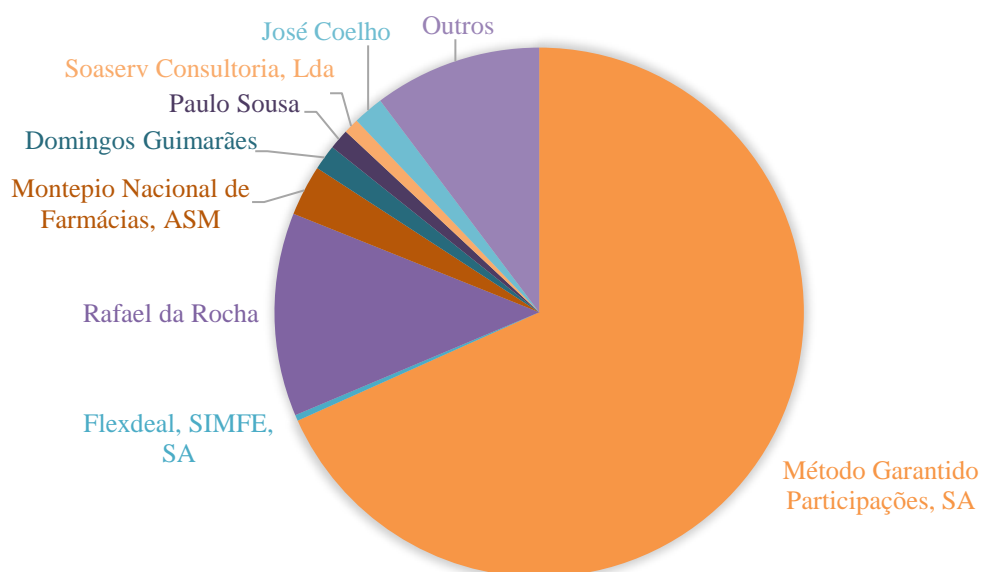
#### 3.6.1 Shareholder Structure

Previously to the offering, the shareholders of the company were only two, *Método Garantido Participações SA* and Flexdeal, SIMFE, SA, holding 2,199,219 stocks (99.5%) and 11,497 treasury stocks (0,5%), respectively.

After the dispersion of capital, *Método Garantido Participações SA* and Flexdeal, SIMFE, SA remained with the same amount of stocks with only a change in the percentage of share capital held, 68.28% and 0.36% respectively, due to the dilution effect of the new shares issued. The detailed distribution of Flexdeal's share capital can be presented as follows:

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<sup>6</sup> Document required with all information about the investment offering for sale to the public and also details about the company.

**FIGURE 3** - Flexdeal's shareholder structure after the particular offering

**Source:** Author's elaboration considering the Flexdeal's Prospectus

On March of 2019, *Método Garantido Participações SA* continues with the same percentage of Flexdeal's capital (68.28%), maintaining its position as the company's main shareholder. On the other side, Flexdeal reduced its position as a shareholder, from 0.36% to 0.33%, due to the transactions carried out in the market. During the 1<sup>st</sup> Semester of 2019, Flexdeal bought 1,852 stocks and sold 2,792 resulting in a total of 10,567 treasury stock.

### 3.6.2 Dividend Policy

According to the DL 77/2017, legislation that regulates SIMFEs, the company must distribute at least 30% of the annual net profit. Accordingly, the company decided to distribute 60% of annual net profit as dividend, i.e. a pay-out of 60%.

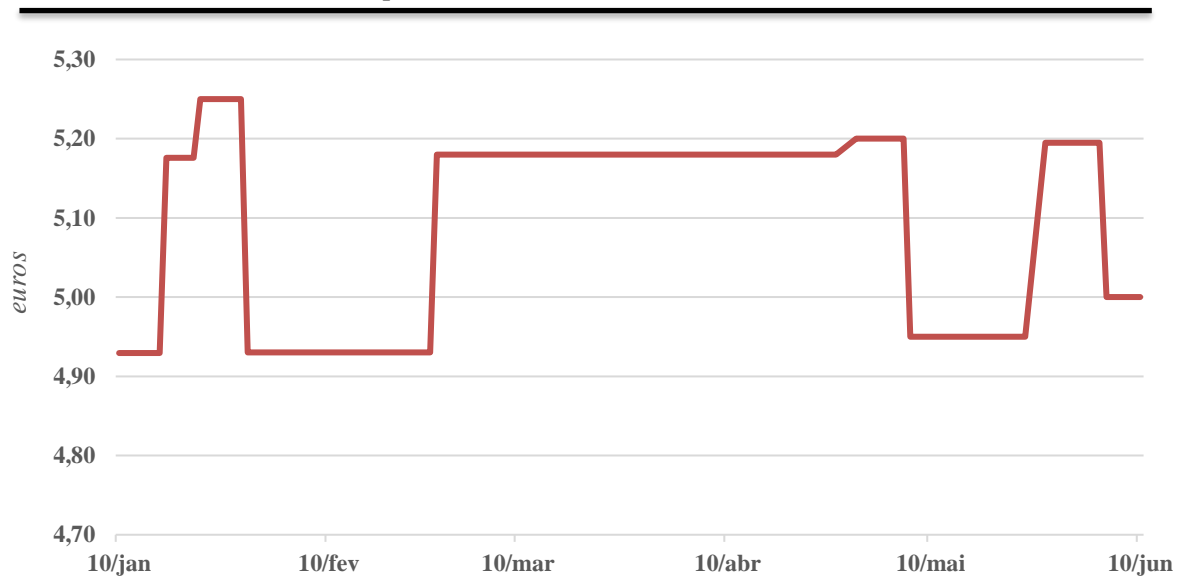
The distribution of dividends is decided in the general shareholders meeting when the results of the previous year are approved. The payment to the shareholders will be in accordance with their participation in Flexdeal's share capital. Furthermore, this payment shall take place no later than three months after the end of the fiscal year<sup>7</sup>, in case of Flexdeal until 31<sup>st</sup> December.

<sup>7</sup> **Source:** DL 76-A/2006, article 376, nr 1 a) and b)

### 3.6.3 Stock Performance

On 24<sup>th</sup> December of 2018, Flexdeal was admitted in Euronext Lisbon with 3,220,716 stocks with a nominal value of 5 euros each, as mentioned before. However, the company only started trading on 10<sup>th</sup> January of 2019. In figure 4 it is possible to examine the stock price performance over the six months, from January to June:

**FIGURE 4** - Flexdeal's stock performance



**Source:** Author's elaboration based on Flexdeal's prices of Yahoo Finance

Flexdeal entered the regulated market with a slight devaluation in the price sufficient to reach the minimum of 4.93 euros, during these six months. Therefore, it is concluded that the entry of Flexdeal into the regulated market was not initially marked by underpricing in its shares. But after only one week of transactions in Euronext Lisbon, the price started to rise achieving the maximum of 5.25 euros on 22<sup>nd</sup> January, and then the evidence of some (albeit slight) underpricing emerged.

In spite of this variation, February was marked by the decline in price to the minimum again. Conversely, in March there was an appreciation of approximately 5.1%, ending the 1<sup>st</sup> Semester of activity with a market capitalization equal to 16,683,309 euros.

As shown in figure 4, despite the small increase at the beginning of May, the month followed the same evolution that February with only change in 0.02 euros (4.95 euros). Regardless the growth in stock prices in the last days of May and at beginning of the sixth month, at the end of the analysis period, the price returned to the original IPO issue price, 5 euros.

In sum, on 10<sup>th</sup> June of 2019, Flexdeal had the same market capitalization as the one implied by the IPO operation, 16,103,580 euros represented by 3,220,716 stocks at 5 euros each.

## 4. Methodology

Flexdeal will be evaluated through three models: the Discounted Cash Flow model through the Free Cash Flow to the Firm method, the Relative Valuation (Multiples) and the Economic Value Added model. The methodology for these three models will be explained in the following.

### 4.1 Discounted Cash Flow

Damodaran (2005) and Koller, Goedhart, & Wessels (2015) defend Discounted Cash Flow (DCF) Model as the most used model for evaluating a company "(...) because it relies solely on the flow of cash in and out of the company, rather than on accounting-based earnings." (Koller, Goedhart, & Wessels, 2015: 135).

This method has its foundation in present value, where the value of an asset corresponds to the expected cash flows on that asset discounted at a rate that represents their riskiness (Damodaran, 2014).

In this methodology, Damodaran (2012) identifies three possible approaches: Firm Valuation, Equity Valuation and the Adjusted Present Value Model. In spite of this, in the following, only the first model will be analysed since it will be the model to be used in the Flexdeal's valuation.

#### 4.1.1 Firm Valuation

The firm valuation approach focuses on the entire value of the company, does not have in consideration how the company finances its investments. Therefore, the cash flows considered are the free cash flow to the firm (FCFF), that is, the cash flow available for distribution to all investors after the reinvestment needs of the company and before any debt payments Damodaran (2012). It can be written as follows:

$$\text{FCFF} = \text{EBIT} (1 - t) + \text{D\&A} - \text{Capital Expenditures} \quad [1]$$

$$\pm \text{Working Capital Changes}$$

where,

EBIT – Earnings Before Interest and Taxes

t – tax rate

D&A – Depreciation and Amortization

Subsequently, in order to get the company's market value meaning the enterprise value (EV) is necessary to discount, at the weighted average cost of capital (WACC) of the company, all the future FCFE and the terminal value (TV). Presuming the continuity of the company's activity, the terminal value represents the value of the business beyond the forecast period, assuming perpetuity with a constant growth rate (g), which should be lower than or equal to the growth rate of the economy (Damodaran, 2012).

$$EV = \sum_{t=1}^T \frac{FCFE_t}{(1+WACC)^t} + \frac{TV_T}{(1+WACC)^T} \quad [2]$$

where,

$$TV_T = \frac{FCFE_{T+1}}{WACC - g} = \frac{FCFE_T (1+g)}{WACC - g} \quad [3]$$

#### Weighted Average Cost of Capital (WACC)

Regarding the discount rate, it should be used the weighted average cost of capital of the company to discount the expected free cash flow to the firm when computing the value of the business, as represented in equation [2]. The WACC expresses the rate of return that all investors, equity and debt, require for the investments realized in the company (Pignataro, 2013). In other words, “(...) the weighted average cost of capital is the opportunity cost of investing in a company.” (Namany & Kissani, 2017:1)

According to Mota (2018), there are two possible approaches related to WACC: either using the current WACC of the company (considering the current capital structure) or using a target WACC (considering a target capital structure). The capital structure should be based on the company's market values of debt and equity (Pignataro, 2013).

Thus, using the capital structure of the company and the cost of equity (Re) and the cost of debt (Rd) estimated, the WACC can be computed as follow:

$$WACC = R_e \times \frac{E}{D + E} + R_d \times (1 - t) \times \frac{D}{D + E} \quad [4]$$

where,



$R_e$  – cost of equity

$R_d$  – cost of debt

$\frac{E}{D+E}$  – percentage of equity in the company's capital structure

$\frac{D}{D+E}$  – percentage of debt in the company's capital structure

$E$  – Equity's market value

$D$  – Debt's market value

$t$  – tax rate

### Cost of equity

Koller, Goedhart, & Wessels (2015) and Damodaran (2014) defend the existence of three methods to get the expected return to the equity investors namely the Capital Asset Pricing Model (CAPM), Fama-French three-factor model and Arbitrage Pricing Theory. Pratt & Grabowski (2014) argue also the presence of more three methods, Market-Derived Capital Pricing Model, Yield Spread Model and Implied Cost of Equity Capital. Despite the diversity of methods and some criticism, the CAPM remains the most used to compute the cost of equity ( $R_e$ ), relating the expected return and risk.

The CAPM suggests that the cost of equity is equal to the risk-free rate ( $R_f$ ) plus the market risk premium ( $R_m - R_f$ ) times the levered beta of the company plus the country risk premium (translating the additional risk in a specific market) (Damodaran, 2012, 2014).

$$R_e = R_f + \beta_L (R_m - R_f) + \text{Country Risk Premium} \quad [5]$$

where,

$R_e$  – cost of equity

$R_f$  – risk-free rate

$\beta_L$  – levered beta

$R_m$  – rate of return of the market

$(R_m - R_f)$  – market risk premium

Cost of debt

As Damodaran (2012: 211) argue “the cost of debt measures the current cost to the firm of borrowing funds to finance projects” meaning the expected return to the debt lenders (Pignataro, 2013). The cost of debt can be obtained in two ways:

$$R_D = \frac{\text{Net interest costs}}{\text{Financial Debt}} \quad [6]$$

or

$$R_D = R_f + \beta_D(R_m - R_f) + \text{Country Risk Premium} \quad [7]$$

where,

$R_D$  – cost of debt

$R_f$  – risk-free rate

$\beta_D$  – beta of debt

$R_m$  – rate of return of the market

$(R_m - R_f)$  – market risk premium

Betas

In order to calculate the levered beta ( $\beta_L$ ) and the beta of debt ( $\beta_D$ ) of the company, Rosenbaum & Pearl (2013) propose to use a peer group of public companies. According to the authors, it must get the unlevered beta of the peer group, determining the average of the unlevered beta of each company (since the capital structures between the companies are different). Then, it's possible to compute the  $\beta_L$  and  $\beta_D$ , applying the company's target/current capital structure and appropriate tax rate in the following formula:

$$\beta_L = \beta_U + (\beta_U - \beta_D) \times \frac{D}{E} \times (1 - t) \quad [8]$$

$$\beta_D = \frac{(R_D - R_f)}{(R_M - R_f)} \quad [9]$$

where,

$\beta_L$  – levered beta

$\beta_U$  – unlevered beta

$\beta_D$  – beta of debt

$\frac{D}{E}$  – debt-to-equity ratio, using the market value of equity (Rosenbaum & Pearl, 2013)

t – tax rate

Once the enterprise value is estimated it is possible to achieve the firm value adding the value of non-operating assets, which are related with all the company's assets that are not essential for its operations, such as investments, cash and equivalents and marketable securities.

$$\text{Firm Value} = \text{EV} + \text{Non-operating assets} \quad [10]$$

Subtracting the obligations that the company has to its creditors, the equity value of the company (EQV) is reached.

$$\text{EQV} = \text{Firm Value} - \text{Financial Debt} - \text{Non-Operating Liabilities} \quad [11]$$

The value per share is obtained dividing the EQV previously computed by the number of shares outstanding of the company.

## 4.2 Relative Valuation (Multiples)

Fernandez (2019: 2) highlights that “(...) multiples are useful in a second stage of the valuation: after performing the valuation using another method, a comparison with the multiples of comparable firms enables us to gage the valuation performed and identify differences between the firm valued and the firms it is compared with.”. This methodology is commonly used for mature and stable companies (Mota, 2018).

The relative valuation has four steps:

1. Standardize the prices by converting them into multiples (Damodaran, 2012);

2. Create a peer group of comparable companies, usually from the same industry, with similar characteristics, such as risk and growth perspectives (Chullen, Kaltenbrunner, & Schwetzler, 2015);
3. Exclude the possible outlier – company – in a particular multiple, if the value differs drastically from the rest (Mota, 2018);
4. Compute the average of the peer group for each multiple. These averages will represent the multiples for the industry.

Fernandez (2019) identifies three groups of multiples, such as, multiples based on company's capitalization – for example Price Earnings Ratio, Price to Sales and Price to Book Value –, multiples based on company's value – as EV/EBITDA and EV/Sales – and growth-referenced multiples – for example EV/EBITDA growth.

However, Damodaran (2012) categorises the multiples in four groups, multiples based on earnings – Price/earnings, EV/EBITDA –, multiples based on book value – Price/Book value –, multiples based on revenues – as Price/Sales and EV/Sales –, and as the fourth group, sector-specific multiples.

Despite the simplicity of this method, the selection of comparable companies may become difficult. Additionally, the main advantage behind the multiples is to conclude on the over or undervaluation of the evaluated company in relation to the peer group.

### 4.3 Economic Value Added

The Economic Value Added (EVA) Model is a measure of the company's performance, demonstrating the value created or destroyed the company (Koller, Goedhart, & Wessels, 2015) through the following formula:

$$EVA = NOPLAT - (IC_{BOY} \times WACC) \quad [12]$$

where,

$IC_{BOY}$ <sup>8</sup> – Invested Capital of the previous year

$NOPLAT$ <sup>9</sup> – Net Operating Profit Less Adjusted Taxes

WACC – Weighted Average Cost of Capital

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<sup>8</sup> It is calculated subtracting the operating assets by the operating liabilities.

<sup>9</sup> It represents the net income ignoring the interest costs of the company.

Additionally, it's possible to achieve the market value added (MVA), discounting the EVA and the TV at the WACC. In other words, MVA represents the present value of future expected EVA (Stern & Shiely, 2001):

$$MVA = \sum_{t=1}^T \frac{EVA_t}{(1 + WACC)^t} + \frac{TV_T}{(1 + WACC)^T} \quad [13]$$

where,

$$TV_T = \frac{EVA_{T+1}}{WACC - g} \quad [14]$$

While EVA is associated with the company's performance, MVA is associated with a company's wealth. As Stern & Shiely (2001) argue that EVA method allows for a company to know when it is creating value, year by year.

EV will be obtained adding the Invested Capital to MVA, as illustrated below:

$$EV = MVA + IC \quad [15]$$

Similar to the DCF model, the EQV is reached by adding the non-operating assets and subtracting the responsibilities that the company has to its creditors

$$EQV = EV + \text{Non-Operating Assets} - \text{Financial Debt} \quad [16]$$

Subsequently, the value per share is obtained dividing the EQV by the number of shares outstanding of the company.

## 5. Valuation

For the purpose of this valuation, it was considered a forecast period of 5 years, from 2019 to 2023, with 2018 as a base. As a result of the transformation to SIMFE, the fiscal year of Flexdeal was also changed and became between October (year n-1) and September (year n).

The previous year will not be considered since it is not a comparable year because: (1) it only has in consideration 9 months of activity and (2) it is not representative of Flexdeal's results since Flexdeal was only created in August 2017, approximately at the end of the fiscal year.

The valuation of Flexdeal will be based on the Discounted Cash Flow model, the Relative Valuation (as a complement to the DCF model) and the Economic Value Added model. In order to apply these three models, some assumptions have to be taken into consideration for the forecast period.

### 5.1 Assumptions

#### 5.1.1 Balance Sheet

##### Capital Expenditures

Capital Expenditures, also called CAPEX, are the company's investments in assets directly related to its activity. In the case of Flexdeal, the CAPEX will be constituted by the tangible fixed assets, intangible assets, financial investments and assets by deferred taxes, i.e., the CAPEX will be equivalent to the non-current assets.

For the next years, the items of CAPEX will be grown at the same growth rate of its incomes, meaning 5.99% growth forecast for 2020 and 2021 for the Investments & Asset Management industry (Damodaran, 2019a). After this period, it's assumed a reducing of 1%. In spite of this, the projection of 2019 will differ for each item of CAPEX as explain below:

##### *Tangible Fixed Assets*

Flexdeal's tangible fixed assets include several types of equipment such as basic equipment, administrative equipment, transportation equipment, buildings and other tangible fixed assets.

From 2018 to March of 2019, Flexdeal realized an investment of 63,830 euros<sup>10</sup>, it incurred depreciation expenses around 20,059 euros<sup>7</sup>, and it also had a transfer by sale in

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<sup>10</sup> **Source:** note 5 of Flexdeal semi-annual report

transportation equipment for the amount of 43,333 euros<sup>7</sup>. In order to project the 2<sup>nd</sup> Semester of 2019, it will be assumed that the company will invest the same amount of the previous semester and subsequently it will incur in the same costs for depreciation. Furthermore, the value for the transfer by sale will remain equal in the 2<sup>nd</sup> Semester.

### *Intangible Assets*

Flexdeal has two types of intangible assets, computer programs and investments in course.

In relation to computer programs, the amortization in the first semester of 2019 was around 671 euros<sup>11</sup> and considering that Flexdeal applies the straight-line (constant quotas) method the annual amortization will be 1,341 euros. The computer programs will be completely amortized in the 2<sup>nd</sup> Semester of 2019, so there will be an investment, at the same time, of 15,467 euros<sup>12</sup> in computer programs 2 and amortization of 671 euros.

As regards to the investments in course, it is assumed that these will remain unchanged until the end of 2019.

### *Financial Investments*

From September 2018 to March 2019, Flexdeal did not see an increase in the number of companies, maintaining its investments in the 27 companies.

Currently, its portfolio is constituted by 23 private limited companies (*Sociedades por Quotas*, in Portuguese) and 4 public limited companies (*Sociedades Anónimas*, in Portuguese), corresponding to 25 minority shareholdings and 2 majority shareholdings.

The value for the end of 2019 is obtained through the growth rate between September of 2018 and March of 2019 (1.78%) which is applied to the value of March of 2019. Furthermore, it will be assumed that the amount of 5,050,000 euros from the particular offering in December of 2018 will be totally invest in the 2<sup>nd</sup> Semester of 2019.

### *Assets by Deferred Taxes*

This item is associated with the receipt of a tax benefit arising from capital increases by Flexdeal. The assets by deferred taxes are calculated taking into consideration the article 41<sup>st</sup> - A of Tax Benefits Statute.

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<sup>11</sup> **Source:** note 6 of Flexdeal semi-annual report

<sup>12</sup> Acquisition value of computer programs 1 (**Source:** note 6 of Flexdeal semi-annual report)

For the year 2019, it is assumed that the values of March will remain unchanged until the end of the year.

In sum, the projections for each item of Non-Current Assets subsequently the estimation of investment in CAPEX of Flexdeal are presented in table 7:

**TABLE 7 - Projections of Non-Current Assets and respective Net CAPEX**

<i>rounded up to the euro</i>	<b>2018</b>	<b>2019 (E)</b>	<b>2020 (F)</b>	<b>2021 (F)</b>	<b>2022 (F)</b>	<b>2023 (F)</b>
Fixed Tangible Assets	115,886	246,761	261,542	277,209	291,041	305,564
Intangible Assets	919	14,923	15,817	16,764	17,601	18,479
Financial Investments	11,813,755	17,287,846	18,323,388	19,420,959	20,390,064	21,407,529
Assets by deferred taxes	147,000	294,000	311,611	330,276	346,757	364,060
<b>TOTAL</b>	<b>12,077,560</b>	<b>17,843,530</b>	<b>18,912,357</b>	<b>20,045,207</b>	<b>21,045,463</b>	<b>22,095,632</b>
Net CAPEX		5,765,970	1,068,827	1,132,850	1,000,256	1,050,169

**Source:** Author's estimates

#### Net Working Capital R/N

The Net Working Capital Requirements/Needs (NWC R/N) can be defined as the subtraction of the company's current assets by its current liabilities. The NWC R/N is a measure that quantifies the amount of cash that a company needs to cover its operations.

In case of Flexdeal, it will be considered as current assets - accounts receivable, customers, state and other public entities and deferrals - and as current liabilities - accounts payable, state and other entities, deferrals and other financial liabilities.

For the year 2019, it is assumed that the NWC R/N of March will be equal to the NWC R/N of the year, in September. For the following years, the NWC R/N will grow at 5.99% until 2021, the same rate applied to its income and CAPEX (growth rate for the sector of Investments & Asset Management (Damodaran, 2019a). From 2022 onwards, it will grow at 4.99%.

In sum, the projections for the investment in net working capital requirements/needs of Flexdeal and subsequently its variations are presented in table 8:

**TABLE 8 - Projections of NWC R/N**

<i>rounded up to the euro</i>	<b>2018</b>	<b>2019 (E)</b>	<b>2020 (F)</b>	<b>2021 (F)</b>	<b>2022 (F)</b>	<b>2023 (F)</b>
<b>NWC R/N</b>	-340,590	-204,446	-216,693	-229,672	-241,133	-253,166
$\Delta$ NWC R/N		136,143	-12,246	-12,980	-11,461	-12,033

**Source:** Author's estimates



In the forecast period, Flexdeal presents a negative variation in NWC R/N meaning an inflow, the company has sufficient resources to fund all of its needs.

### Invested Capital

The invested capital (IC) can be defined as the subtraction of the company's operating assets by its operating liabilities. Another way to compute the IC is to sum the company's non-current assets with the NWC R/N.

The value of IC quantifies the amount of capital required to be invested by the company to continue its activity.

The projections for the invested capital of Flexdeal are presented in table 9:

**TABLE 9** - Projections of Invested Capital

<i>rounded up to the euro</i>	<b>2018</b>	<b>2019 (E)</b>	<b>2020 (F)</b>	<b>2021 (F)</b>	<b>2022 (F)</b>	<b>2023 (F)</b>
Non-Current Assets	12,077,560	17,843,530	18,912,357	20,045,207	21,045,463	22,095,632
NWC R/N	-340,590	-204,446	-216,693	-229,672	-241,133	-253,166
<b>Invested Capital</b>	<b>11,736,970</b>	<b>17,639,084</b>	<b>18,695,665</b>	<b>19,815,535</b>	<b>20,804,330</b>	<b>21,842,466</b>

Source: Author's estimates

## 5.1.2 Income Statement

### Sales and Services Rendered

The company mainly focused on investments in other companies, so it is to be expected that there is no value for sales. However, this year, Flexdeal decided, in a partnership with AESE Business School, to create a Management and Business Program (*GEN - Programa de Gestão e Negócio*) addressed to SMEs managers. This program works as a kind of academy oriented towards the development of their skills, business and vision.

On the 1<sup>st</sup> Semester of 2019 (March of 2019), the services rendered constituted 100% of Flexdeal turnover. It is estimated that the 2<sup>nd</sup> Semester evolves similarly to the first one. Flexdeal's turnover forecast is based on 5.99% growth forecast for the next 2 years (2020 and 2021) for the Investments & Asset Management industry (Damodaran, 2019a). After this period, it is assumed a decreasing of 1%.

**TABLE 10** - Projections of Turnover

<i>rounded up to the euro</i>	<b>2018</b>	<b>2019 (E)</b>	<b>2020 (F)</b>	<b>2021 (F)</b>	<b>2022 (F)</b>	<b>2023 (F)</b>
<b>Sales and Services Rendered</b>	0	368,885	390,981	414,401	435,080	456,790
<i>% growth</i>			5.99%	5.99%	4.99%	4.99%

Source: Author's estimates

### Operating Subsidies

In March of 2019, the value for the operating subsidies was 3,398 euros. It will be assumed that this value will not change until September, the end of the fiscal year.

The forecast value for operating subsidies is based on *Banco de Portugal*'s projections for GDP growth to Portugal for the years 2020 and 2021, which is 1.6%. It is assumed that the GDP rate will decrease to 1.5% in 2022 and 2023.

**TABLE 11 - Projections of Operating Subsidies**

<i>rounded up to the euro</i>	<b>2018</b>	<b>2019 (E)</b>	<b>2020 (F)</b>	<b>2021 (F)</b>	<b>2022 (F)</b>	<b>2023 (F)</b>
<b>Operating Subsidies</b>	2,719	3,398	3,453	3,508	3,561	3,614
<i>% growth</i>			1.6%	1.6%	1.5%	1.5%

**Source:** Author's estimates

### Supplies and external services

Both in 2018 and in the 1<sup>st</sup> semester of 2019, Flexdeal has about 15 types of contracted services and only 3 of them represent about 86.2% and 89.4% respectively of company's total supplies and external services.

In March of 2019, the category most requested is the "Specialized Works" - with a weight of 75.6% - and concerns legal services, computer services, accounting, consultancy, among others. The second one is "Rents and Rentals" (8.4%) which include fundamentally the property's rent which works as the company's installations and licences paid by the software. The third is the energy with a weight of 5.41% of total supplies and external services of Flexdeal.

Regarding 2019, it is assumed that the 2<sup>nd</sup> Semester evolves similarly to the first one meaning that Flexdeal will pay the same amount of costs. For the rest of the forecast period, this type of expenses is expected that evolve as the same rate of Flexdeal's turnover.

**TABLE 12 - Projections of Supplies and External Services**

<i>rounded up to the euro</i>	<b>2018</b>	<b>2019 (E)</b>	<b>2020 (F)</b>	<b>2021 (F)</b>	<b>2022 (F)</b>	<b>2023 (F)</b>
<b>Supplies and External Services</b>	186,814	473,107	501,446	531,482	558,003	585,848
<i>% growth</i>			5.99%	5.99%	4.99%	4.99%

**Source:** Author's estimates

### Staff Expenses

The amount of staff costs comprises the remuneration of employees and board members, charges on that remunerations and others (where are included Holiday and Christmas subsidies to pay in the future).

Due to the transformation in SIMFE and the entry in Euronext Lisbon, the Flexdeal was forced to invest in its organizational structure. For that reason, the number of employees has been increasing every year. In 2017, the company had only 6, doubling this number at the end of 2018. Currently, it has 5 more contracts, totalling 17 employees.

Despite this growth, the company expects to reduce significantly the weight of staff expenses on its total expenses in the function of the company's capital growth and the income generated.

The value of staff costs will be obtained at expected inflation growth to Portugal for the next years. *Banco de Portugal's* projections point to an inflation rate of 1.2% and 1.3% for 2020 and 2021, respectively. For 2022 and 2023, it is expected that inflation increases to 1.4%. Furthermore, from 2018 to 2023, the projections point to an 18.15% reduction in the weight of staff expenses in the total company operating expenses.

**TABLE 13** - Projections of Staff Expenses

<i>rounded up to the euro</i>	<b>2018</b>	<b>2019 (E)</b>	<b>2020 (F)</b>	<b>2021 (F)</b>	<b>2022 (F)</b>	<b>2023 (F)</b>
<b>Staff Costs</b>	761,377	865,158 <sup>13</sup>	875,540	886,922	899,339	911,929
<i>% total costs</i>	76.66%	62.30%	61.22%	60.16%	59.34%	58.51%
<i>% growth</i>			1.2%	1.3%	1.4%	1.4%

**Source:** Author's estimates

### Impairment of non-depreciated/amortized investments (expenses/reversals)

The amount of impairment of non-depreciated/amortized investments not only takes into consideration the possible investments whose payment is not assured but also a risk rate related to the entire portfolio.

Although in 2019, Flexdeal registers 110,056 euros<sup>14</sup> in impairment of non-depreciated/amortized investment, in the next years will not consider any value for this item.

<sup>13</sup> It is computed taken in account the growth rate between March 2018 and March 2019 (52,9%), which is subsequently applied to value of 1<sup>st</sup> Semester of 2019.

<sup>14</sup> It is assumed that the value of March will remain unchanged until September.

Income of Premiums from supplementary payments

Most of the Flexdeal's revenues has origin in the income obtained through the financial instruments that it holds. In 2018, the income of premiums from supplementary payments corresponded to 82.92% of the company's total revenues.

As a result of the increase in the capital in December of 2018, the company will be able to augment the ongoing investments and start new investments. Therefore, it is expected that the income of premiums from supplementary payments grows at the same time as the value of investments.

Regarding 2019, it's assumed that the 2<sup>nd</sup> Semester evolves in the same way to the first one meaning that Flexdeal will receive the same amount of income from its investments. For the rest of the forecast period, since this type of income is the principal source of revenues, it is expected that evolve as the same rate of Flexdeal's turnover.

**TABLE 14** - Projections of Income of Premiums from Supplementary Payments

<i>rounded up to the euro</i>	<b>2018</b>	<b>2019 (E)</b>	<b>2020 (F)</b>	<b>2021 (F)</b>	<b>2022 (F)</b>	<b>2023 (F)</b>
<b>Premiums from suppl. payments</b>	1,272,329	1,919,179	2,034,138	2,155,983	2,263,566	2,376,518
<i>% growth</i>			5.99%	5.99%	4.99%	4.99%

**Source:** Author's estimates

Furthermore, from 2019 onwards there will be a new income source. As it was admitted previously, the increase in the capital in the amount of 5,050,000 euros it will be invested, thus, there was an extra income of premiums from supplementary payments from these 5,050,000 euros.

It is assumed that this additional income will evolve as a percentage of financial investments, namely the percentage of the amount of 5,050,000 euros. In 2019, this percentage will be only 5% growing until it stabilizes at 15%.

**TABLE 15** - Projections of Additional Income of Premiums from Supplementary Payments

<i>rounded up to the euro</i>	<b>2019 (E)</b>	<b>2020 (F)</b>	<b>2021 (F)</b>	<b>2022 (F)</b>	<b>2023 (F)</b>
<b>Premiums from suppl. payments</b>	252,500	505,000	757,500	757,500	757,500
<i>% Financial Investment of 5,050,000 euros</i>	5%	10%	15%	15%	15%

**Source:** Author's estimates

Other income

All the income that is not considered in previous categories of revenues is included in other income, such as, sale of tangible fixed assets, income linked to Prior-SIMFE contracts, corrections from previous years, excess estimation for tax, and other operating income among others.

In 2018, the income from Prior-SIMFE contracts corresponded to 86.83% of the total amount of other income. On the other hand, in March of 2019, this item presented no value. Most of the income this year came from the sale of tangible fixed assets.

Since the transformation into SIMFE was in 2018 and in 2019 there was no income from contracts prior to this transformation, it can be assumed that these items will be zero for the following years. Thus, it can be assumed that the 2<sup>nd</sup> Semester will evolve in the same way as the previous one.

In March of 2019, Flexdeal registered around 39,058 euros in other income. It is assumed that the company will receive an identical amount in the 2<sup>nd</sup> Semester of 2019. Concerning to the subsequent years, the value of other income will grow at *Banco de Portugal*'s projections for inflation growth to Portugal in the years 2020 and 2021, which is 1.2% and 1.3% respectively. It is expected that the inflation rate will continue to increase to 1.4% in 2022 and 2023.

**TABLE 16 - Projections of Other Income**

<i>rounded up to the euro</i>	<b>2018</b>	<b>2019 (E)</b>	<b>2020 (F)</b>	<b>2021 (F)</b>	<b>2022 (F)</b>	<b>2023 (F)</b>
<b>Other income</b>	259,342	79,077	80,025	81,066	82,201	83,352
<i>% growth</i>			1.2%	1.3%	1.4%	1.4%

**Source:** Author's estimates

Other costs

The value of other costs includes taxes, corrections from previous years, fines and other penalties, contributions, and other operating costs. In other words, all the expenses that are not considered in previous cost categories are included in other costs.

In September of 2018, Flexdeal paid approximately 637 euros in fines and other penalties; representing 9.78% of the total other costs. The item more significant, around 74.5%, is other operating costs (4,847 euros). In contrast, in March of 2019, most of the other cost was related to corrections from previous years, more precisely 2,688 euros.

The value of other costs will be based on *Banco de Portugal*'s projections for inflation growth to Portugal in the years 2020 and 2021, which is 1.2% and 1.3% respectively. It is assumed that the inflation rate will continue to increase to 1.4% in 2022 and 2023.

**TABLE 17** - Projections of Other Costs

<i>rounded up to the euro</i>	2018	2019 (E)	2020 (F)	2021 (F)	2022 (F)	2023 (F)
<b>Other costs</b>	6,509	8,776 <sup>15</sup>	8,881	8,996	9,122	9,250
<i>% growth</i>			1.2%	1.3%	1.4%	1.4%

Source: Author's estimates

### Depreciation and Amortization

The amount of depreciation and amortization (D&A) concerns to the depreciation of several types of equipment such as transport equipment, basic equipment, administrative equipment, building and others; and to amortization of computer programmes.

Bearing in mind that in 2<sup>nd</sup> Semester of 2019 the investment in CAPEX namely in fixed tangible assets was in the same amount as the previous one, the value for D&A will be also in the same amount, 20,059 euros.

Relating to the intangibles assets, there was an investment in a new computer program, the value of its semi-annual amortization will be the same as the previous computer program, 671 euros. Thus, the value of amortization for the 2<sup>nd</sup> Semester of 2019 will be constituted by the remaining amount of the computer program 1 which is approximately 249 euros and the amortization of the new intangible asset, 671 euros.

**TABLE 18** - Projections of Depreciation and Amortization

<i>rounded up to the euro</i>	2018	2019 (E)	2020 (F)	2021 (F)	2022 (F)	2023 (F)
<b>D&amp;A</b>	38,466	41,708	44,206	46,854	49,192	51,646
<i>% growth</i>			5.99%	5.99%	4.99%	4.99%

Source: Author's estimates

### **5.1.3 Weighted Average Cost of Capital**

The weighted average cost of capital (WACC) will represent the opportunity cost of investing in Flexdeal, in this case.

In case of Flexdeal's WACC calculation, the cost of debt and subsequently the market value of debt will not be considered since the amount of Flexdeal's financial debt is irrelevant

<sup>15</sup> It is computed taken in consideration the growth rate between March 2018 and March 2019 (100,97%) which is subsequently applied to value of 1<sup>st</sup> Semester of 2019.

when compared with the amount of its equity. For instance, in March of 2019, the debt-to-equity ratio was 0.005. For that reason, it will be assumed no value for Flexdeal's debt and consequently no cost of debt.

In sum, the WACC of Flexdeal will be equal to its cost of equity.

### Cost of Equity

The cost of equity is estimated taking into account three variables: risk-free rate, levered beta and equity risk premium, as described in equation [5].

#### *Risk-Free Rate*

Bearing in mind that Flexdeal operates only in the Portuguese market, it will be considered the Portuguese 10-year government bond as risk-free rate. At 30<sup>th</sup> of August of 2019, this value was 0.125%.

#### *Levered Beta*

The company's levered beta is calculated from the unlevered beta of the Investments & Asset Management industry, which, according to Damodaran's databases (2019e) is 0.67. Since it was considered no debt, the levered beta of Flexdeal is equal to the unlevered beta of industry.

#### *Equity Risk Premium*

The equity risk premium for the Portuguese market, according to Damodaran's databases (2019d) is 9.02%. This rate considers the risk premium of 5.96% for the US market and the country risk premium of 3.06% for Portugal.

The table 19 summarizes the values used to estimate the Flexdeal's cost of equity, which leads to a cost of approximately 6.17%:

**TABLE 19** - Estimation for the cost of equity

Risk-Free Rate	0.125%
Levered Beta	0.67
Equity Market Risk Premium	9.02%
<b>Cost of Equity</b>	<b>6.17%</b>

**Source:** Author's estimates

Thus, Flexdeal's WACC will be 6.17%. It is assumed that this rate will not change over the forecast period, until 2023.

### 5.1.4 Tax Rate

At the end of 2018, Flexdeal reached an effective tax rate of 18.32%<sup>16</sup>. Thus, this will be the tax rate assumed for the entire forecast period.

## 5.2 Discounted Cash Flow Valuation

As mentioned before, the first model to apply in order to evaluate Flexdeal will be the Discounted Cash Flow through the FCFF approach.

### 5.2.1 Enterprise Value

The value of the company, given by the enterprise value, is computed by discounting the future FCFF and the TV using the WACC of the company.

#### Free Cash Flow to the Firm

Considering the previous assumptions, the future FCFF can be computed through the equation [1], as described in table 20:

**TABLE 20** - DCF Valuation: FCFF Calculation

<i>rounded up to the euro</i>	<b>2019 (E)</b>	<b>2020 (F)</b>	<b>2021 (F)</b>	<b>2022 (F)</b>	<b>2023 (F)</b>
EBIT (1 – t)	918,275	1,293,423	1,583,124	1,655,042	1,730,881
Net CAPEX	5,765,970	1,068,827	1,132,850	1,000,256	1,050,169
ΔNWC N/R	136,143	-12,246	-12,980	-11,461	-12,033
<b>FCFF</b>	<b>-4,983,838</b>	<b>236,842</b>	<b>463,254</b>	<b>666,247</b>	<b>692,745</b>

**Source:** Author's estimates

Over the forecast period, except in the first year, Flexdeal was able to generate enough cash flow from their operations to fund its reinvestment needs.

#### Terminal Value

The TV will represent the value of the business assuming the perpetuity of the company's activity with a constant growth at Portuguese GDP growth rate for 2023 of 1.5%.

The TV will be computed through equation [3] only in relation to the denominator. Regarding the numerator, instead of applying the growth rate to the FCFF of the last forecast

<sup>16</sup> **Source:** Note 19 of Flexdeal's Prospectus



year, it will be applied to the EBIT (1-t). This in turn will be deducted by a percentage of the capital invested, in this case the percentage is the GDP growth rate expected for 2023.

The TV, as presented in table 21:

**TABLE 21 - DCF Valuation: TV Calculation**

<i>rounded up to the euro</i>	
FCFF of 2024 (F)	1,429,207
WACC	6.17%
g	1.5%
<b>Terminal Value</b>	<b>30,614,500</b>

**Source:** Author's estimates

### Enterprise Value

Applying equation [2] and the previously calculates values, the enterprise value of the Flexdeal can be obtained as described in table 22 (notice that the negative cash flow of 2019 was financed by the IPO operation):

**TABLE 22 - DCF Valuation: EV Calculation**

<i>rounded up to the euro</i>	<b>2019 (E)</b>	<b>2020 (F)</b>	<b>2021 (F)</b>	<b>2022 (F)</b>	<b>2023 (F)</b>
FCFF	-4,983,838	236,842	463,254	666,247	692,745
Terminal Value					30,614,500
WACC	6.17%	6.17%	6.17%	6.17%	6.17%
PV FCFF	-4,694,276	210,120	387,109	524,389	513,567
PV TV					22,696,077
<b>Enterprise Value</b>	<b>19,636,987</b>				

**Source:** Author's estimates

### 5.2.2 Equity Value

Before computing the equity value of the company, it is necessary to determine the firm value. This value is achieved through the equation [10], taking into account the EV and the amount of non-operating assets, such as cash and equivalents. Since the EV translates the business value in 2018, the value of non-operating assets should also be the value of 2018.

Thus, the equity value will be estimated subtracting the firm value by the financial debt of 2018, short-term and long-term debt, as defined in equation [11] and illustrated in table 23:

**TABLE 23 - DCF Valuation: EQV Calculation**

*rounded up to the euro*

EV	19,636,987
Non-Operating Assets	411,550
Firm Value	20,048,537
Financial Debt	43,588
<b>Equity Value</b>	<b>20,004,949</b>

**Source:** Author's estimates

Since the number of shares outstanding of Flexdeal was 3,220,716, the value per share is about 6.21 euros.

### 5.3 Relative Valuation

The second model used to evaluate Flexdeal will be the Relative Valuation using multiples of comparable firms.

#### 5.3.1 Peer Group

The creation of a peer group is a crucial step to perform the relative valuation. This peer group will be constituted by comparable firms to Flexdeal, usually in the same industry.

This group includes 327 firms of the same industry of Flexdeal, Investment and Asset Management industry (Damodaran, 2019b, 2019c, 2019f).

#### 5.3.2 Multiples

Table 24 summarizes the multiples that will be used in order to estimate the value per share for Flexdeal and its respective values:

**TABLE 24 - Relative Valuation: Multiples**

Current Price/Earnings	21.64
Price/Book Value	1.37
EV/Invested Capital	1.61
EV/EBITDA	10.51
EV/EBIT	11.39

**Source:** Multiples of Damodaran's databases  
(2019b,2019c, 2019f)

### Enterprise Value

In order to estimate the value per share of Flexdeal, firstly is required to compute the EV for the following three multiples EV/Invested Capital, EV/EBITDA and EV/EBIT. For that purpose, it will be used the Flexdeal's amount of IC, EBITDA and EBIT of 2018, respectively.

Secondly, similar to the DCF model, to the EV it is necessary to add the amount of non-operating assets and subtracting the financial debt to reach the EQV of Flexdeal.

In table 25 are presented the three values for the Flexdeal's EV and EQV:

**TABLE 25 - Relative Valuation: EV and EQV Calculations**

<i>rounded up to the euro</i>	<b>EV</b>	<b>EQV</b>
EV/Invested Capital	18,896,522	19,264,484
EV/EBITDA	12,250,592	12,618,554
EV/EBIT	6,165,707	6,533,669

**Source:** Author's estimates

### Value per Share

The method to calculate the value per share will differ from multiple to multiple.

For example, in the Price/Earnings ratio, the value per share is reached by multiplying the value of the ratio by the earnings per share in 2018. Regarding the Price/Book Value ratio, the value per share is found by multiplying, once again, the value of the ratio but in this case by the book value per share<sup>17</sup>. In relation to the last three multiples, the value per share is computed as in DCF model, dividing the EQV by the number of shares outstanding in 2018 – 2,210,716.

The table 26 summarizes all the calculations previously described and subsequently the value per share for Flexdeal using the relative valuation:

**TABLE 26 - Relative Valuation: Value per Share Calculation**

	<b>Value per Share</b>
Current Price/Earnings	3.90 euros
Price/Book Value	7.39 euros
EV/Invested Capital	8.71 euros
EV/EBITDA	5.71 euros
EV/EBIT	2.96 euros
<b>Average Share Price</b>	<b>5.73 EUROS</b>

**Source:** Author's estimates

<sup>17</sup> It is computed by dividing the book value of equity by the number of shares outstanding in 2018, 2,2210,716.

## 5.4 Economic Value Added Valuation

The EVA model constituted the third and last model applied to evaluate Flexdeal.

### 5.4.1 Market Value Added

The market value added is determined by discounting the future EVA and the TV using the WACC of the company.

#### Economic Value Added

The future EVA are estimated through the equation [12], take into consideration the previous assumptions, as described in table 27:

**TABLE 27 - EVA Valuation: EVA Calculation**

<i>rounded up to the euro</i>	<b>2019 (E)</b>	<b>2020 (F)</b>	<b>2021 (F)</b>	<b>2022 (F)</b>	<b>2023 (F)</b>
NOPLAT	918,275	1,293,423	1,583,124	1,655,042	1,730,881
Invested Capital <sup>BOY</sup>	11,736,970	17,639,084	18,695,665	19,815,535	20,804,330
WACC	6.17%	6.17%	6.17%	6.17%	6.17%
<b>EVA</b>	194,292	205,374	429,901	432,740	447,587

**Source:** Author's estimates

Since the first year of projections, Flexdeal was able to create value, increasing this value each year.

#### Terminal Value

Similar to the DCF valuation, the TV will represent the business value assuming the continuity of the company's activity with a constant growth of 1.5% which corresponds to the Portuguese GDP growth rate for 2023.

The TV is computed through the equation [14], unlike what happened in the DCF model., as presented in table 28:

**TABLE 28 - EVA Valuation: TV Calculation**

<i>rounded up to the euro</i>	
EVA of 2024 (F)	454,301
WACC	6.17%
g	1.5%
<b>Terminal Value</b>	<b>9,731,398</b>

**Source:** Author's estimates

### Market Value Added

Through equation [13], the MVA of the Flexdeal can be computed as described in table 29:

**TABLE 29 - EVA Valuation: MVA Calculation**

<i>rounded up to the euro</i>	<b>2019 (E)</b>	<b>2020 (F)</b>	<b>2021 (F)</b>	<b>2022 (F)</b>	<b>2023 (F)</b>
EVA	194,292	205,374	429,901	432,740	447,587
Terminal Value					9,731,398
WACC	6.17%	6.17%	6.17%	6.17%	6.17%
PV EVA	183,004	182,203	359,238	340,601	331,819
PV TV					7,214,378
<b>Market Value Added</b>	<b>8,611,242</b>				

**Source:** Author's estimates

### 5.4.2 Enterprise Value

The EV will be determined summing the MVA with the Flexdeal's IC, as illustrated in equation [15]. Since the MVA is the estimate for 2018, the IC will be the value at the end of 2018, i.e. the IC Boy. The calculation of Flexdeal's EV is described in table 30:

**TABLE 30 - EVA Valuation: EV Calculation**

<i>rounded up to the euro</i>	
MVA	7,025,141
Invested Capital Boy	11,925,546
<b>Enterprise Value</b>	<b>20,348,213</b>

**Source:** Author's estimates

### 5.4.3 Equity Value

The computation of equity value will follow the same line of the DCF model, using the equation [16]. Since the EV constitutes the value of the business in 2018, the value of non-operating assets and the value of financial debt should also be the value of 2018.

The table 31 sum up the calculations of Flexdeal's EQV:

**TABLE 31 - EVA Valuation: EQV Calculation**

*rounded up to the euro*

EV	20,348,213
Non-Operating Assets	411,550
Financial Debt	43,588
<b>Equity Value</b>	<b>20,716,174</b>

**Source:** Author's estimates

Considering the number of shares outstanding of 3,220,716, the value per share is around 6.43 euros. This final value is slightly above our DCF valuation, showing that there are some discrepancies between those two valuation models, but as the difference is not that large, we decided not to revise our calculations.

## 6. Conclusion

This project arises as a form to inform the shareholders and other investors about a Flexdeal's financial situation before and after the IPO and subsequently to give a recommendation.

From the three valuation models applied, the highest price for Flexdeal's shares was obtained through the EVA model (6.43 euros per share), followed by the DCF model (6.21 euros per share) and the lowest price resulted from Relative valuation (5.73 euros).

Comparing these results either with the closing price on the first day of trading (4.93 euros) or with the IPO issue price of 5 euros, we may conclude that the shares of Flexdeal incurred on underpricing, which can be explained through two reasons.

Firstly, before the IPO, Flexdeal conducted a private offering dispersing its capital, i.e. there was ownership dispersion. This positive relation between ownership dispersion and underpricing, considering the presence of costly information for investors, is an explanation defended by Booth & Chua (1996) and Jacoby & Zheng (2010).

Secondly, Flexdeal has a litigation risk underlying its activity, which results from the interests of the company and those of the remaining shareholders of the companies where Flexdeal invests. Thus, Tiniç (1988) defends a deliberate underpricing as a form of protection against future litigations. This explanation is in the same line of Lowry & Shu (2002) and Lin, Pukthuanthong, & Walker (2013).

In sum, our recommendation is to buy Flexdeal's shares as we feel the effects of underpricing are most yet fully reflected in Flexdeal's current market price.

The limitations of this project were mainly at the level of the historical of the company and consequently in the valuation. Although Flexdeal was created in August of 2017, this year is not considered for its valuation as it is not a comparable year since it only contemplated 9 months of activity but furthermore it is not representative of its activity since the company (in its current legal form) was founded near the end of the fiscal year. Thus, the assumptions and subsequently the valuation of Flexdeal were based only on the year of 2018 and on the 1st Semester of 2019.

Future research could involve the study the Flexdeal's market performance in a longer-term since its entry only occurred at the beginning of this year. On the other hand, an interesting project could be to compare Flexdeal with Raize, in terms of valuation and market performance, (since they both were the last companies to enter on regulated market with a short time difference) and conclude about which one is the best investment.

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## 8. Annexes

### 8.1 Balance Sheet

	<b>30-JUN-2018</b>	<b>30-SET-2018</b>	<b>31-MAR-2019</b>
<b>ASSETS</b>			
Non-Current Assets			
Fixed Tangible Assets	127,879	115,886	202,990
Intangible Assets	1,507	919	375
Financial Investments	9,807,925	11,813,755	12,023,931
Assets by Deferred Taxes	0	147,000	294,000
	9,937,312	12,077,560	12,521,296
Current Assets			
Customers	0	0	15,410
State and other entities	8,944	1,308	0,
Accounts Receivable	689,411	60,891	104,320
Deferrals	2,146	139,793	12,296
Cash and Equivalents	1,173,423	411,550	4,595,197
	1,873,924	613,541	4,727,223
<b>TOTAL OF ASSETS</b>	<b>11,811,236</b>	<b>12,691,101</b>	<b>17,248,518</b>
<b>EQUITY</b>			
Share Capital	11,053,580	11,053,580	16,103,580
Treasury Stocks (quotas)	57,485	57,485	52,835
Legal Reserves	144,606	161,748	181,570
Other reserves	47,360	373,056	37,336
Retained Earnings	341,056	1,783	136,994
Net Profit	48,294	396,430	358,210
<b>TOTAL OF EQUITY</b>	<b>11,577,411</b>	<b>11,925,546</b>	<b>16,690,182</b>
<b>LIABILITIES</b>			
Non-Current Liabilities			
Loans	30,958	25,301	52,158
	30,958	25,301	52,158
Current Liabilities			
Suppliers	2,068	15,694	6,509
State and other public entities	62,055	58,990	104,867
Loans	51,275	18,288	31,959
Other creditors	10,498	464,498	225,096
Deferrals	0	3,398	0
Other financial liabilities	76,971	179,386	137,747
	202,867	740,254	506,178
<b>TOTAL OF LIABILITIES</b>	<b>233,825</b>	<b>765,555</b>	<b>558,336</b>
<b>TOTAL OF EQUITY AND LIABILITIES</b>	<b>11,811,236</b>	<b>12,691,101</b>	<b>17,248,518</b>

Source: Prospectus, Report of June of 2018 and semi-annual report of 2019

## 8.2 Income Statement

	<b>31-MAR-2018</b>	<b>30-JUN-2018</b>	<b>30-SET-2018</b>	<b>31-MAR-2019</b>
Sales and Services Rendered	0	0	0	184,443
Operating Subsidies	0	0	2,719	3,398
Suppliers and External Services	91,578	140,098	186,814	236,553
Staff Expenses	370,047	562,702	761,377	565,817
Impairment of non-depreciated/amortized investments (expenses/reversals)	0	0	0	110,056
Income of Premiums from supplementary payments	499,409	813,810	1,272,329	959,589
Other income	162,370	234,694	259,342	39,538
Other costs	2,173	3,075	6,509	4,367
<b>EBITDA</b>	<b>197,982</b>	<b>342,630</b>	<b>579,689</b>	<b>270,176</b>
Depreciation and Amortization	3,149	25,570	38,466	20,729
<b>EBIT</b>	<b>194,833</b>	<b>317,060</b>	<b>541,223</b>	<b>249,446</b>
Interest Costs	172,122	238,248	235,846	2,863
<b>EBT</b>	<b>22,711</b>	<b>78,812</b>	<b>305,377</b>	<b>246,583</b>
Income Taxes	148,460	30,518	91,053	111,626
<b>NET INCOME</b>	<b>171,171</b>	<b>48,294</b>	<b>396,430</b>	<b>358,210</b>

Source: Prospectus, Report of June of 2018 and semi-annual report of 2019