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Equity valuation: PJSC Magnit

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Abstract

Title: Equity valuation - PJSC Magnit

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Equity valuation is one of the key instruments of investors in their decision-making process. Understanding the value of the asset allows them to make rational and informed investment decisions.

This dissertation presents the equity valuation of Magnit, the Russian leading grocery retailer, and provides an independent investment recommendation that is relevant for Russian and international investors. Based on the existing valuation methods and Magnit's business specifics, DCF and relative valuations were performed with a higher preference towards DCF results. These results give a target price of 6693 RUB/share with "Buy" recommendation which is in line with the available equity research of the global broker and with the analysts' consensus.

Keywords: Equity Valuation, Magnit, Retail, Discounted Cash Flow, Relative Valuation

Resumo

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A avaliação patrimonial é um dos principais instrumentos dos investidores no seu processo de tomada de decisão. Compreender o valor do ativo permite que eles tomem decisões de investimento racionais e informadas.

Esta dissertação apresenta a avaliação patrimonial da Magnit, o principal retalhista de alimentos da Rússia, e fornece uma recomendação de investimento independente que é relevante para investidores russos e internacionais. Com base nos métodos de avaliação existentes e nos negócios específicos da Magnit, o método DCF e as avaliações relativas foram realizadas com uma preferência maior em relação aos resultados do método DCF. Estes resultados fornecem um preço-alvo de 6693 RUB / ação com recomendação "Comprar", que está em linha com a análise de ações disponível do corretor global e com o consenso dos analistas.

Palavras-Chave: Avaliação patrimonial, Magnit, Retalho, Fluxo de Caixa Descontados, Avaliação Relativa

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List of Abbreviations

APM – Arbitrage Pricing Model

APV – Adjusted Present Value

CAPM – Capital Asset Pricing Model

BV – Book Value

CAGR – Compounded Annual Growth Rate

CAPEX – Capital Expenditures

CFROI – Cash Flow Return on Investment

CPI – Consumer Price Index

D&A – Depreciation and Amortization

DCF – Discounted Cash Flow

DPS – Dividend Per Share

DTL – Deferred Tax Liabilities

EBIT – Earnings Before Interest and Taxes

EBITDA – Earnings Before Interest, Taxes, Depreciation and Amortization

EV – Enterprise Value

EVA – Economic Value Added

FCFE – Free Cash Flow to Equity

FCFF – Free Cash Flow to Firm

GDP – Gross Domestic Product

IC – Invested Capital

LFL – Like for Like

MV – Market Value

NA – Net Assets

NCC – Non-cash Charges

NCWC – Non-cash Working Capital

NI – Net Income

NOPAT – Net Operating Profit After Tax

PJSC – Public Joint-stock Company

PP&E – Property, Plants and Equipment

PPP – Purchasing Power Parity

SG&A – Selling, General and Administrative

TV – Terminal Value

USD – United States Dollar

USSR – Union of Soviet Socialist Republics

WACC – Weighted Average Cost of Capital

WC – Working Capital

Table of contents

0. Introduction

The objective of this paper is to implement current financial valuation concepts used by the academic and practical financial experts to value a publicly-traded company and give an independent recommendation to investors. Russian company Magnit was selected for the valuation purposes due to its professional investor relations team and highly detailed operational and financial performance disclosure that makes valuation process more accurate. The dissertation is structured in four parts. The first part of the thesis aims to review current valuation practises and to understand which methods are the best for the valuation of the selected company. The second part of the paper analyses the company, its market and the macroeconomic conditions of the country it operates in. The third part of the work describes the valuation process based on the selected valuation methods from the first part and the company analysis from the second part. The fourth part compares the valuation results from this paper with the latest available equity research from the leading investment company as of August 2020.

1. Literature review

As one of the main objectives of this work is to determine the value of the selected company, it is crucial to understand the main methods and approaches in quantifying the value of the company. Understanding the value of the assets gives a maximum threshold of what amount of money a rational investor would be ready to pay for a certain asset or a security. In that case, such a definition would allow us to answer the main question if the stock is worth buying or selling.

There are many ways to evaluate the fair value of the share. "Analysts use a wide spectrum of models, ranging from the simple to the sophisticated" (Damodaran, 2007). Valuation methods can be divided into six main groups, according to Fernandez (2002). These methods are balance sheet, income statement, goodwill, cash flow discounting, value creation and options methods. Detailed explanation of these methods is provided in Appendix 1.

It can be concluded that there are a lot of theoretical concepts that can be applied to the idea of valuing the equity of the company or in particular of one share. However, some of these concepts give the theoretical view on the idea of the value but do not give an exact methodology of determining the value. For example, goodwill-based methods focus on determining the value which exceeds the book value or balance sheet method tries to adjust balance sheet lines to get the real value of the assets. While these methods offer a practical approach, in some cases there is a kind of vicious circle where you need to determine the value of the company, so you need to determine extra value above the balance sheet which can be an adjusted asset or goodwill based on the real value of the asset and its possibility to create profits.

Damodaran (2012) suggests three main methods that are applied by modern financial analysts (that are already mentioned in Fernandez (2002) but with a different classification of these methods): Discounted Cash Flow method, Relative Valuation Method and Option Pricing Method. Below is a more detailed review of these methods based on the Damodaran (2012) and on other academic articles.

1.1 Discounted Cash Flow Method

The DCF method uses cash as the main source of value based on the time value of the money concept - cash flows are discounted with an appropriate discount rate.

For the valuation purpose, two main types of free cash flows are determined: Free Cash Flow to Firm (FCFF) and Free Cash Flow to Equity (FCFE). The following formulas are determined by Damodaran (2012) and are in line with Copeland, Koller and Murrin (2000).

$$FCFF = NOPAT + NCC - Changes\ in\ WC - CAPEX$$

NOPAT – net operating profit after tax. In other words, it's the profit of the firm after taxes if the company was financed by 100% equity. So, there is no tax shield effect in the FCFF calculations.

Non-Cash Charges usually include D&A as they decrease NOPAT but in fact, they do not decrease the cash flow. Furthermore, D&A increases free cash flow as the total income tax of the company decreases.

Working capital should be adjusted for valuation purposes. Cash, cash equivalents and short-term investments should be excluded from the working capital as they are not a part of the core business operations. They will be included in the net debt calculations, so they should not be counted twice. Also, short-term interest-bearing debt must be excluded for the same purposes.

CAPEX refers to capital expenditures and includes funds used by the company to acquire, upgrade or repair its fixed assets.

FCFF is a free cash flow that the company would have if it was 100% financed by equity. There are no interest expenses, no tax shield effect and no debt changes inside it. FCFE instead must include these metrics.

$$FCFE = Net\ Income + D\&A - CAPEX - Change\ in\ WC + New\ debt\ issued - Debt\ repayments$$

FCFE starts with the Net Income as the basis instead of NOPAT, so it has tax shield and interest payments inside the formula. Also, the formula takes into account debt changes for the period.

Discounting these cash flows gives different values. FCFF discounting gives the value of the Firm that is distributed among debt and equity holders, while FCFE discounting gives the value for the equity holders directly. Each free cash flow has an appropriate discounting factor. For the FCFE, it is the cost of equity, while for the FCFF there are two options which discount rate should be used.

FCFF can be discounted using pre-tax WACC or after-tax WACC. If FCFF is discounted using pre-tax WACC, it does not take the tax shield into account. Pre-tax WACC is, in other words, unlevered cost of equity - the required return if the company was 100% financed by the equity. Once the unlevered value of the firm is calculated, the present value of the future tax shield incomes must be calculated and added to the value of the firm. This method is also known as the APV method (Adjusted Present Value). The other way to do this is to include the tax shield into the WACC formula, into the cost of debt in particular. It will decrease the WACC and increase the total value of the firm, which must be similar to the APV approach.

In order to get from the Firm Value to Equity Value, Net debt should be subtracted with other adjustments that were not included in the equity valuation, for example, non-controlling interest, if it exists, should be subtracted but the investments in associates must be added back.

Cost of equity is a discount rate for the FCFE and a sufficient part of the WACC.

Cost of equity is the required rate of return for a certain stock. There are 4 main models of determining the cost of equity: The Capital Assets Pricing Model (CAPM), Arbitrage Pricing Model (APM), Multi-factor Models for risk and returns and Regression or Proxy models. It is worth mentioning that the CAPM is considered as the optimal model, while other methods can be used as alternatives in situations where CAPM is not applicable due to its limitations.

1) The Capital Assets Pricing Model (CAPM)
   CAPM model is the most commonly used model. It uses the risk-return concept. The general formula for the CAPM model is the following:

$$Cost\ of\ equity = R_f + b * equity\ risk\ premium$$

   R_f is a risk-free rate. It is the rate of return that can be collected by investing in a risk-free asset. According to Fernandez (2004), the current long-term US government bond will be the most appropriate for CAPM. According to Bruner (1988), analysts chose between 90-day Treasury bill and a long-term Treasury bond and most of them prefer to use the second option.
   b stands for "beta" – the variable that measures the level of risk of a certain company. Beta is defined as the covariance of the share divided by the variance of the market portfolio. In other words, beta is a regression coefficient between the market returns and the stock returns. Beta derived from that formula can be inappropriate as the

ordinary least-squared regression can give inaccurate results (Fabozzi and Francis 1978) and the beta can be determined using the data from the peers.

Equity risk premium "reflects the incremental premium required by investors, relative to a risk-free asset like U.S. Treasury bonds, to invest in a globally diversified market portfolio" (Zenner, Hill, Clark, and Mago 2008). The risk premium is equal to market return minus the risk-free rate. According to Fernandez (2004), the equity risk premium should not be based on the historical numbers as they are not good predictors. At the same time, the results from Goyal and Welch (2008) state that a simple historical average is as good an equity risk premium predictor as all the other modern equity risk premium prediction models, which is in line with Damoradan (2013), and its results that the historical approach is the most widely used method.

CAPM model has its assumptions and limitations including the fact that it measures only non-diversified risk maximizing diversification effect inside the portfolio. Also, the model assumes the existence of a market portfolio that all the investors have an access to and the same information about. Nevertheless, CAPM "offers powerful and intuitively pleasing predictions about how to measure risk and the relation between expected return and risk" (Fama, French 2004).

If the company operates in emerging markets, the common practice is to add the country risk premium which is equal to the default spread of the government USD nominated bonds over the US treasury bonds (Froot and Carl Kester 1995).

2) Arbitrage Pricing Model (APM)

Arbitrage Pricing Model uses factor analysis to determine different factor betas to estimate the risk of a given security.

$$R = E(R) + m + \alpha$$
$$= R + \left(\beta_j F_j + \beta_2 F_2 + \cdots + \beta_n F_n\right) + \varepsilon$$

Where

β_j = Sensitivity of investment to unanticipated changes in factor j

F_j = Unanticipated changes in factor j

In other way, the formula can be rewritten as:

$$E(R) = R_f + \beta_1\left[E(R_1) - R_f\right] + \beta_2\left[E(R_2) - R_f\right] + \cdots + \beta_n[E(R_n) - R_f]$$

Where

R_f = Expected return on a zero-beta portfolio

$E(R_j)$ = Expected return on a portfolio with a factor beta of 1 for factor j and zero for all other factors.

The general idea of this method is that there is a big number of portfolios in the market with different betas and returns that would theoretically create an arbitrage opportunity because in practice the return of the portfolio and the beta is a non-linear function. In order to take this into account, the model adds factor betas in the model for different portfolios that would explain possible differences in the required rate of return besides the market risk.

3) Multi-factor Models for risk and returns

This method is a logical continuation of the APM model. Here, the factor analysis is used not with the undetermined factors but with exact macro-economic factors such as industrial production, inflation, etc.

An example of the Multi-factor Model is Chen, Roll and Ross (1986) and the formula is the following:

$$E(R) = R_f + \beta_{GNP}\left[E(R_{GNP}) - R_f\right] + \beta_I\left[E(R_I) - R_f\right] + \cdots + \beta_\delta[E(R_\delta) - R_f]$$

Where

β_{GNP} = Beta relative to changes in industrial production

$E(R_{GNP})$ = Expected return on a portfolio with a beta of one on the industrial production factor and zero on all other factors

β_I = Beta relative to changes in inflation

$E(R_I)$ = Expected return on a portfolio with a beta of one on the inflation factor and zero on all other factor

This method is very agile as the analyst can use any factors that possibly affect the required rate of return; however, the biggest disadvantage is reasoning of adding or putting away different factors as it can lead to logical errors in the calculations. Economic factors that have an impact on the required rate of return can change over time.

4) Regression or Proxy Models

While the previous methods tried to find the historical connection between the companies' returns and the external factors, this method uses the internal financial metrics of the company to determine the return on equity.

The general idea of the method is that if the company is able to generate higher returns than the other companies, then it's a riskier business, consequently, common factors of the risky investments should be taken into consideration.

For example, the influential study by Fama and French (1992) suggested that there is a high correlation between the return on equity and book to price ratios and size. Their regression gave a significant result and, accordingly, their results can be used to determine the required return on equity.

$$R_t = 1{,}77\% - 0{,}11\ln(MV) + 0{,}35\ln\left(\frac{BV}{MV}\right)$$

Where

MV = Market Value of Equity

BV/MV = Book Value of Equity / Market Value of Equity

The problem of that model is that those regression coefficients and their significance vary over time and other significant financial metrics of the company could be missing.

Among these four methods of defining the cost of equity, the CAPM has shown its consistency over the years and should be used as the main method, while the other 3 methods can be applied if CAPM cannot be used due to its restrictions and assumptions.

WACC

WACC (Weighted Average Cost of Equity) is a discount rate for the FCFF. The formula is the following:

$$WACC = \frac{EK_e + DK_d(1-T)}{E+D}$$

Where

D = market value of the debt

E = market value of the equity

K_d = cost of the debt before tax = required return to debt

T = tax rate

K_e = required return to equity, which reflects the equity's risk

The cost of equity component was reviewed above and the missing components are Cost of Debt, the market values of Equity and Debt, and the Tax Rate.

It is important to note that for the most accurate calculations these metrics should be based on the market values, not the book values, while some analysts use book values. Also, a tax shield effect on the cost of debt should be included if the APV method is not used.

To determine the cost of debt, the easiest case would be if the company has liquid bonds traded in the financial market. Yield to maturity for the long-term bonds would represent the cost of debt for the company implied by the market.

If the company does not have appropriate bonds outstanding, the synthetic method can be used to estimate the cost of debt.

The price of the borrowing of the firm consists of two parts: riskless rate and the default spread. Riskless rate is the required rate of return for the investors in an asset that has no risk. In addition to that, when investing in the companies, investors are looking for an additional return for the risk associated with investing in a particular company - default risk spread.

Based on the current credit rating or synthetic rating according to the financial performance of the company, default risk spread can be determined and added to the current risk-free rate to get the cost of debt.

Equity Value is the market capitalization of the firm.

There are two main types of the tax rates used in the valuation: marginal and effective. The marginal tax rate is the tax rate according to the local law, while the effective tax rate is based on the historical taxes due divided by the taxable income. The difference may exist because some costs or incomes are not taxable. There is no consensus which tax rate is better than another so it depends on the company.

The market value of debt could be calculated as Equity Value if all the securities connected with the bonds are traded. Most of the times that is not the case so the market value of debt should be calculated separately. The estimation includes the book value of the debt and treating it as a one coupon bond, with a coupon set equal to the interest expenses on all the debt, and then to value this coupon at the current cost of debt.

Terminal Value

The DCF method assumes discounting all the future cash flows (either FCFF or FCFE) with an appropriate discount rate (WACC or Cost of Equity respectively). In many cases, there is no certain number of years the company is going to generate cash in the future, so infinite cash flows can be assumed in the valuation. The valuation process includes cash flow discounting to a certain point. After it, the financial model should include the terminal value.

$$Value\ of\ a\ Firm = \sum_{t=1}^{t=n} \frac{CF_t}{(1+k_e)^t} + \frac{Terminal\ Value_n}{(1+k_e)^n}$$

Where

CF_t = Cash flow at time t

k_e = Discount rate

The Terminal Value can be estimated using three methods: liquidation value, multiple and stable growth model methods.

Liquidation value method assumes that at some point in the future the company will stop its operations and sell its assets at the highest possible price. The earnings received from the selling can be estimated based on the book values of the assets adjusted for the inflation or based on the market value of assets according to their ability to generate income for the owners.

Multiple approach estimates the terminal value based on the multiple of revenue or income. The idea of that valuation is that at some point the owner of the company will be able to sell the company at a reasonable market price and receive the final cash flow from owning that company.

Stable growth model assumes infinite cash flows in the future with a stable growth rate.

$$Terminal\ Value_t = \frac{Cash\ Flow_{t+1}}{r - g_{stable}}$$

Where

r = appropriate discount rate to the cash flow used in the formula

g = future infinite growth rate.

Applying growth rate model incorporates a lot of restrictions mostly within the growth rate. It should not be higher than the growth rate of the economy. Also, all the financial metrics of the firm should be stable in order to apply this method, such as profitability, capital structure, etc.

While stable growth model seems to have a lot of important assumptions, currently it is one of the most popular ways to estimate the Terminal Value among the analysts.

1.2 Relative Valuation

As we discussed before, relative valuation allows using historical or expected financial metrics of the company to quickly get to the equity valuation based on the multiples of the relatable comparable companies. However, this method is less fundamental than the DCF method because if comparable companies are overvalued or undervalued, the relative valuation will lead to an error. At the same time, relative valuation requires less assumptions, which is the maid advantage over the DCF method. Relative valuation can be based on the current listed companies or past transactions.

There are four types of multiples: earnings multiples, book value or replacement value multiples, revenue multiples, sector-specific multiples.

Multiples approach with different classifications is explained in Appendix 1 when Fernandez (2002) categorization was analysed with the exception for the industry-specific multiples.

Industry-specific multiple approach uses operational metrics of the company and connects them to the value of the firm. For example, for the internet companies, that have negative earnings and low sales due to their early-stage development, the value can be derived from the number of visitors of their website or the number of registered users.

When creating a peer group for a certain multiple valuation, the biggest challenge is to select companies for the peer group. Firstly, the companies must operate in the same industry, have a quite similar risk profile, preferably operate in the same geographical area. It is not always possible to find companies from the same industry, so the analysis can include other alternatives. A peer group can include firms with the same valuation fundamentals. The analyst can check the firms with the same beta, expected growth rate, EPS and return on equity. However, besides that, the company's financial performance must also be considered when creating a peer group.

It is important to consider the outlier of the sample. A company with P/E of 1000 is likely to be an outlier if their latest earnings dropped to a couple of dollars. This peer will not be representative for that multiple and forward P/E multiple should be considered. In addition, forward multiples show less pricing errors than current multiples (Liu 2002), which could lead to bigger weights for the forward multiples in the analysis.

If the company has negative earnings, their P/E coefficient is not appropriate for the calculation of the average for the peer group and should be eliminated from the sample. However, there is another way to deal with negative values – aggregated ratio. In the case of P/E ratio, the market capitalization of all the peers is summed as well as their earnings, including negative earnings, and then aggregated P/E ratio can be calculated.

Each multiple has its determinants that make some firms more or less comparable with the valued firm. If we take EV/EBITDA multiple, EBITDA can be expressed as Revenue multiplied by EBITDA margin. EBITDA margin can be significantly different from other company's and make a peer group less representative.

Also, it is important to check the growth rates of financial metrics. Calculated P/E ratio for the peer group with the average Net Income growth of 5% is not correct to apply for a company that has 25% Net Income growth rate as its P/E ratio must be higher than for the peer group. In that case, P/E ratio can be modified to take into account the differences in growth rates. P/E ratio can be divided by the growth rate that gives a PEG ratio. Assuming that the relation between the growth rate and the P/E ratio is linear, the PEG ratio allows creating a peer group for the P/E multiple with the different growth rates.

1.3 Valuation methods for Magnit

Based on the analysis above, DCF and relative valuation are the most appropriate valuation methods for Magnit. The stable capital structure over the years, that will be explained further, and general disadvantages of the APV method make standard DCF method with FCFF calculations the most appropriate cash flow valuation method. Relative valuation may include industry-specific multiples in case the peer group will be highly comparable in its business model, while standard equity and enterprise value multiples are applicable for the less comparable peer group.

2. Company analysis

In order to value a company based on the DCF model and relative valuation, operational and financial performance must be forecasted. It is crucial to understand the market, macroeconomic conditions and risk profile of the company to correctly estimate future possible earnings of the company and risks.

2.1 Magnit overview

2.1.1 Description

Magnit is a Russian food retail chain. It is one of the leading food retail companies in Russia and the leader by the number of stores and geographical coverage.

Magnit was founded by Sergey Galitsky in 1994 under the "Tander" brand and was involved in the wholesale of cosmetics and household cleaning products distribution. A couple of years later, the company enters the food retail market in the Cash&Carry segment and is named "Magnit". Discounter model with affordable grocery products becomes the new focus of the company. In 2006, Magnit went public after completing an IPO on the London stock exchange with further development of different segments. After the IPO in London, Magnit shares started to be traded on the Moscow Stock exchange as well.

Currently, the company operates in a multi-format model that includes convenience stores, supermarkets, drogeries and pharmacies with the total revenue of 1,369 RUB bn. Magnit is a partially vertically integrated company. Magnit has its own logistic system with 38 distribution centres. It also sells its private labels and operates 15 agricultural and food production units in Russia. The company has more than 300 th. employees and, according to Magnit estimations, the company serves nearly 13 mn customers daily. Magnit operates 20 725 stores by the end of 2019, 14 622 of each are in convenience stores format, 5 630 and 473 are in drogeries and supermarkets formats respectively. The total selling space was 7 238 th. sq. m. by the end of 2019.

2.1.2 Convenience store segment

Convenience store segment includes small stores for everyday shopping with the most demanded food and non-food products. Magnit is also developing Magnit city (small stores with a café) and Magnit evening (small stores specialized on alcoholic beverages) formats. The average selling space for the convenience store segment is 338 sq. m. This is the main business segment that brought 1 020,4 RUB bn in revenue in 2019, which is around 75% of total revenue.

2.1.3 Supermarkets

Supermarkets are larger stores (with average selling space of 500 sq. m.) with broader assortment that are located at a walking distance in residential and business areas. Magnit also develops cash&carry stores as well as superstores – compact and high-tech modern stores with a focus on fresh products. Supermarkets are the second largest segment with 200 RUB bn in revenue contribution in 2019 which accounted for 15% of total revenue.

2.1.4 Drogerie

Drogerie format was launched in 2010 and its main focus is non-food products. It mostly sells cosmetics and personal care goods (including private labels), perfume and household products. Its format is similar to the convenience store segment, but the assortment is much different – average selling space is 231 sq. m. Drogerie segment revenue contribution in 2019 was 110 RUB bn (8% of total revenue).

Magnit also develops and experiments with other formats - the company launched its pharmacy chain in 2017 and develops ultra-small format stores in post offices.

2.2 Russian economy overview

Russia is an emerging economy with a solid growth since 1991 when the USSR collapsed and the Russian Federation became an independent country. GDP of Russia went from 518 USD bn in 1991 to 1.7 USD tn in 2019 in current prices (Figure 1). That puts Russia on the 61st place in terms of nominal GDP per capita (9 972 USD) and 50th place in terms of GDP (PPP) per capita (27 394 USD). Russia is the largest country by territory and the ninth-most populous country in the world with more than 146 mn people.

Russian economy is mostly based on the natural resources – they account for 11,3% of the GDP and 63,3% of total export (Figure 2), according to Russian official government sources[1]. Russia is considered as a major energy supplier with one of the biggest oil and gas reserves on the continent.

[1] Source: https://ac.gov.ru/uploads/2-Publications/BRE_62.pdf

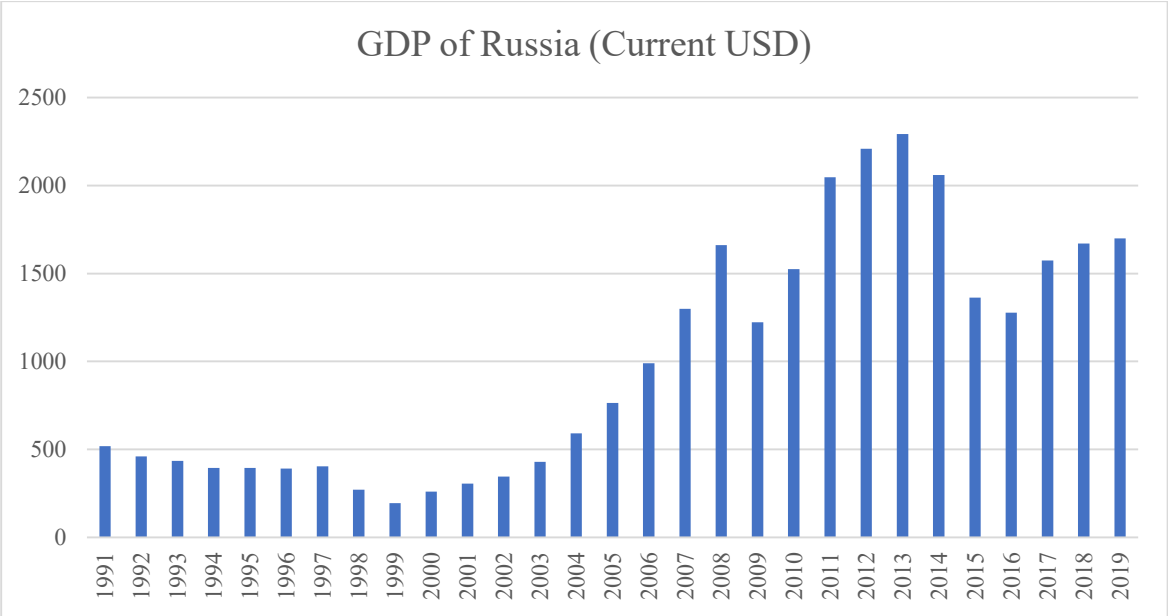

Figure 1- Russian GDP. Source: Federal State Statistics Service of Russia

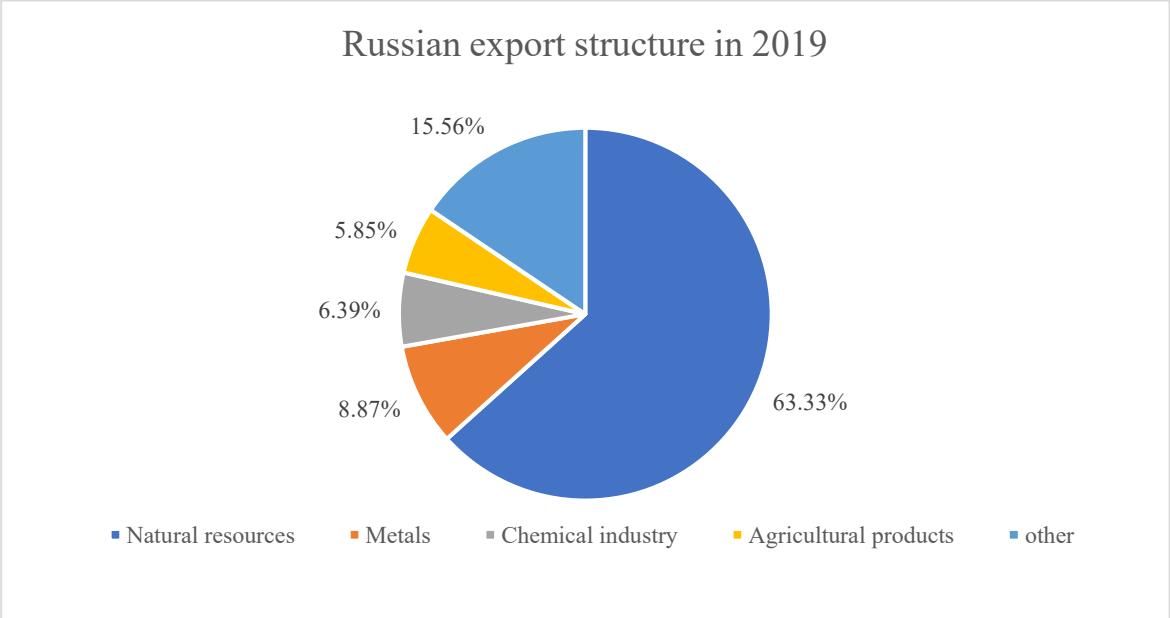

Figure 2- Russian export structure. Source: Federal State Statistics Service of Russia

The inflation is moderate and was decreased in the recent years due to fiscal policy with decreasing central bank refinancing rate to its historical minimum of 4,25% and the inflation rate is around 4% (Figure 3).

Figure 3- Inflation rate in Russia. Source: Federal State Statistics Service of Russia

Russian political situation is one of the biggest risks for investments. The current political structure includes corruption at different levels of the government that puts Russia on the 137th place in the corruption perception index according to Transparency International[2]. Russian economy is also influenced by the sanctions and counter-sanctions of Westerns countries mostly due to different international conflicts – such as the Crimea-Ukrainian military crisis in 2014 or Sergei and Yulia Skripal poisoning on the territory of the United Kingdom in 2018.

According to the World Bank, Russia is handling COVID pandemic better than most of the countries from an economic perspective[3]. As in most countries, the Russian government implemented lockdown measures in March, which led to an economic shock. Volatility on the oil markets and global oil demand decrease had an additional negative impact. Supportive economic measures from the Central bank in combination with introduced support measures for households, banks and businesses allowed to stabilize the economic situation. The Russian National Wealth Fund had a great role. Russian sovereign fund is made of excess money from the oil exports and is funded when the oil prices are high and is used in case of the oil prices decrease. As of the 1st October 2020, the Russian National Fund has more than 172 USD bn in assets, which is 12,1% of GDP.

[2] Source: https://www.transparency.org/en/cpi
[3] Source: https://openknowledge.worldbank.org/bitstream/handle/10986/34518/9781464816437.pdf

According to the current macroeconomic outlook, Russia is expected to have 5% GDP decrease in 2020 and to recover it in 2 years with GDP growth of 2,8% in 2021 and 2,4% in 2022 with further demand recovery.

2.3 Industry overview

In 2019, the global retail sales accounted for 24,8 USD tn. With historical growth around 5%, it is expected that in 2020 the world retail market will decrease by 5,7% but will recover already in 2021 with further stable growth, assuming the end of the pandemic in 2021.

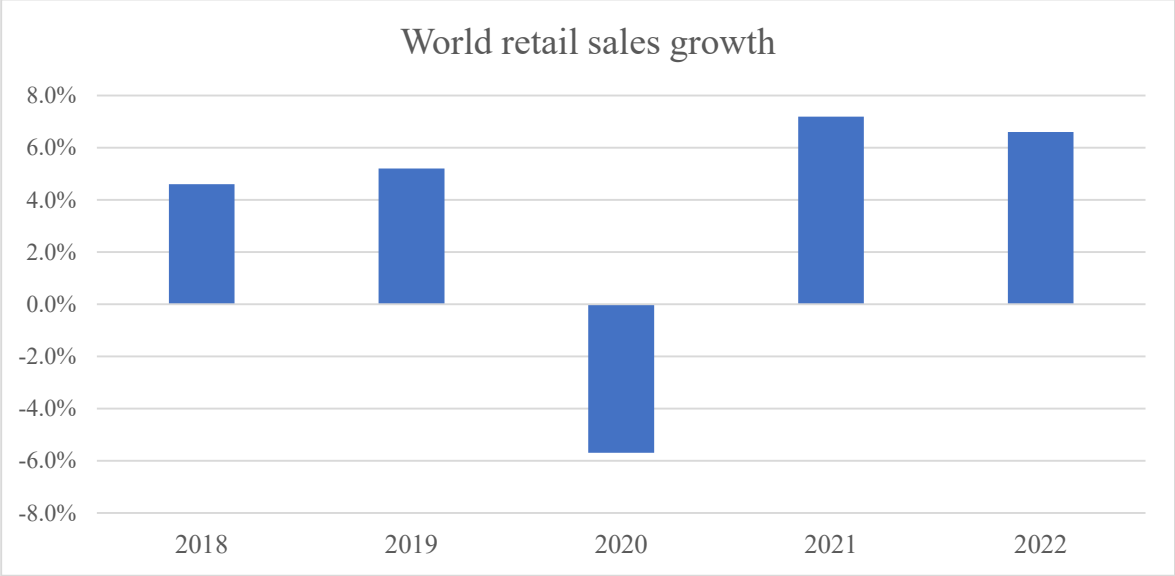

Figure 4- Global retail sales growth. Source: Statista

Retail sales are mostly connected with the economic situation and consumers wealth and spending. According to the World Bank, 2020 can face the biggest recession in decades with 5,2% world GDP decline in 2020 and 4,2 GDP growth in 2021 in the baseline scenario. This recession leads directly to a decrease in consumer spending.

Besides the expected decline due to macroeconomic recession, the global retail market is developing. Some of its trends had started to develop before the COVID crisis and the pandemic became the catalyst for the changes. According to the KMPG report, 4 main global trends can be highlighted in the retail industry[4].

1) Retailers tend to develop their own ecosystems and platforms with a focus on online retail and delivery services. The growth of e-commerce was significantly increased by the coronavirus outbreak. Some of the businesses (for example, food retail) were

[4] Source: https://home.kpmg/xx/en/home/insights/2020/05/global-retail-trends-2020-preparing-for-new-reality.html

allowed to continue working in the physical retail, but still many customers do not wish to put their health at risk and would prefer online food retail. This factor is the reason for food retailers to develop their online sales similar to non-food retail companies that were forced to do so in many countries due to lockdowns as they are sellers of non-essential goods.

2) Companies increasingly need to state their political or social position. Nearly 66% of consumers in the world mention that they would decide to either buy or boycott a brand solely because of its position regarding a social or political issue.
3) Current global retail margins are at a very low level as for many years companies invested a lot of money for cost efficiency in supply chain management, inventory management, shipping and receiving. At this moment, there are much fewer opportunities in these operations to increase profits, so the retailers are expected to look at other growth options: stores, employees and customer loyalty. Employees will probably not only work with cash management and putting products on the shelves but will also be engaged in assessing customer experience.
4) Even before the COVID pandemic, the customers started to seek more for the availability of the product than for the wide assortment. Because of the lockdown, some products disappeared from the shelves and the pandemic made this trend for the retailers more relevant. Companies are expected to spend a lot to get the understanding of nearest customers expectation shifts in order to deliver the most appropriate but not the widest assortment.

If we look at the global food retail, we can say that most of the trends and changes for global retail are applicable for the grocery segment. However, there are some differences worth mentioning.

From the Deloitte research, we may see that food retail is one of the retail segments that suffers less than others[5]. In general, people do not consume less food due to pandemic so global food consumption is not volatile. Even more, due to lockdowns in many countries, cafes and restaurants are locked so people consume more food cooked at their households, which creates additional demand from the customers. At the same time, with the global

[5] Source: https://www2.deloitte.com/us/en/pages/consumer-business/articles/retail-distribution-industry-outlook.html

recession, people try to save money and buy cheaper products, which leads to global revenue decrease.

According to another Deloitte research, with the economic recession and significant decrease of the average household income, food retailers started to shift more towards private labels in their portfolio as in most cases they are cheaper for the customers and have higher margins for the company[6]. As the people are facing wealth decline, they are ready to buy cheaper and, in some cases, lower quality products.

New hygiene and contamination concerns create additional demand for fresh environmentally friendly products. People are more concerned about what they are eating and become more informed regarding food products. This leads to additional benefits for local fresh food producers.

2.4 Russian food retail market

Russian total food retail sales accounted for 16,1 RUB tn in 2019 with further pre-COVID forecast with 5.9% CAGR until 2024. The growth rate of the food retail sales must be compared with the Food CPI growth because due to inflation nominal sales may grow not because of the increasing sales volumes but due to general prices growth. 5,9% pre-COVID expected CAGR assumes stable future 4% Food CPI growth. Historical Russian Food Retail Sales, growth and Food CPI growth are presented (Figure 5).

[6] Source: https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-dae-retail-forecasts-executive-summary-sepetmber-111120.pdf

Figure 5- Russian food retail growth. Source: Federal State Statistics Service of Russia, Ministry of Economic Development of Russia

It is observable, that in most years (except 2014-216, 2 years of the Ukrainian crisis) food retail sales have bigger growth than the price index.

After-COVID analysis of 2020 shows negative growth for the last two consecutive quarters in food retail. 1Q of 2020 did not have a significant impact on Russian markets as the lockdowns started mainly at the end of the 1Q and beginning of 2Q 2020. 1Q showed 3,6% growth in real terms and 2,0% of CPI growth in 1Q. 2Q showed the most significant drop in sales – 7,1% decrease in real terms even with 3,6% food CPI growth with the negative total nominal growth rate. Real disposable incomes drop by 8% y-o-y in 2Q and the consumer confidence index drops from 89% in 1Q 2020 to 70% in 2Q 2020. These are the main drivers of significant sales decrease in the second quarter. 3Q 2020 continued the negative trend in the Russian food industry with 3,6% decrease in sales y-o-y, but the 4,3% food CPI growth led to a positive nominal sales growth.

There are four main types of food retail formats in Russia – convenience stores, hypermarkets, Cash&Carry and discounters. According to the Marketline, convenience stores account for 44,6%, hypermarkets and supermarkets are 28,4% of the Russian market, while Cash&Carry is only 3% (Figure 6).

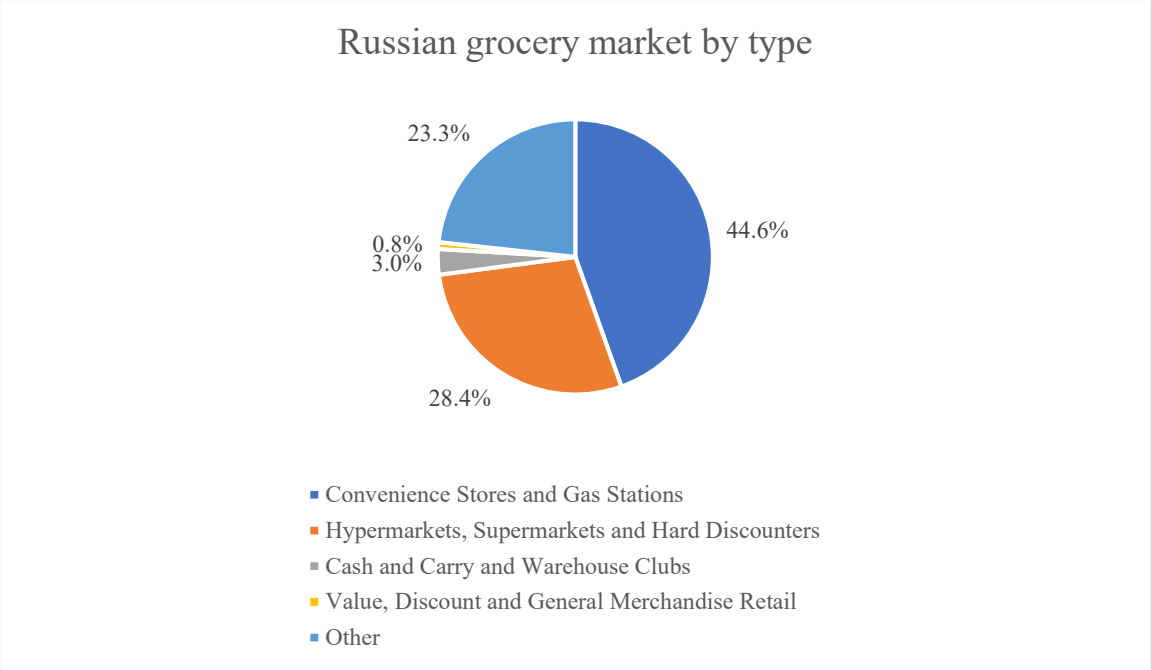

Figure 6- Russian grocery market structure by type. Source: Marketline

Food is the biggest product segment with 69% of the market share, drinks (including alcoholic) are 27,3% and tobacco is 6,3%.

Food is the biggest product segment within the industry and it has experienced significant changes for the last decades. Because of the food deficit in the USSR and in Russia during the 90s, traditional markets and trade fairs were extremely popular. It was a place where people could buy fresh food at low prices and usually with good quality from individuals and local producers. As people's income increased and modern trade formats developed, customers' preferences shifted towards branded shops and supermarkets, while buying food in the traditional market is more considered for poor people. Nevertheless, traditional retail formats, in general, still have a great portion of the Russian retail market, while modern trade formats continue to increase their market share.

Russian food and grocery market features are a lower level of loyalty of the customers compared to the Western market. The price and the distance are the key factors in the customers' decision-making process, so the companies are competing mostly on the price levels as the switching costs are very low.

Russian customers are less concerned about the corporate and social responsibility of the producers but pay attention to the county of production and are willing to support Russian producers. In addition, the political conflict between Russia and Western countries made the Russian government ban some food imports from countries that supported sanctions against

Russia. It makes local retailers highlight that they buy most of the products from the local producers. Even McDonald's advertisement campaign in Russia makes a big focus on the fact that they buy a lot of Russian-made meat and vegetables[7].

2.5 Key food and grocery players

Magnit is the second leading retail chain in Russia with 9,6% market share. The largest retail company is X5 retail group. The key difference between these two companies is that Magnit is developing only one brand called Magnit and customers understand that different Magnit shop formats belong to the big retail chain of Magnit. X5 retail group incorporates many brands that are not clearly associated with each other from the customers perspective. X5 retail owns "Pyaterochka" retail chain that is the biggest chain of the group and represents its focus on medium-size supermarkets with its own franchise development. The other two biggest retail chains of X5 retail group are "Perekrestok" and "Karusel". "Perekrestok" focuses on the medium-plus size supermarkets with fresh food assortment while "Karusel" is a hypermarket retail chain.

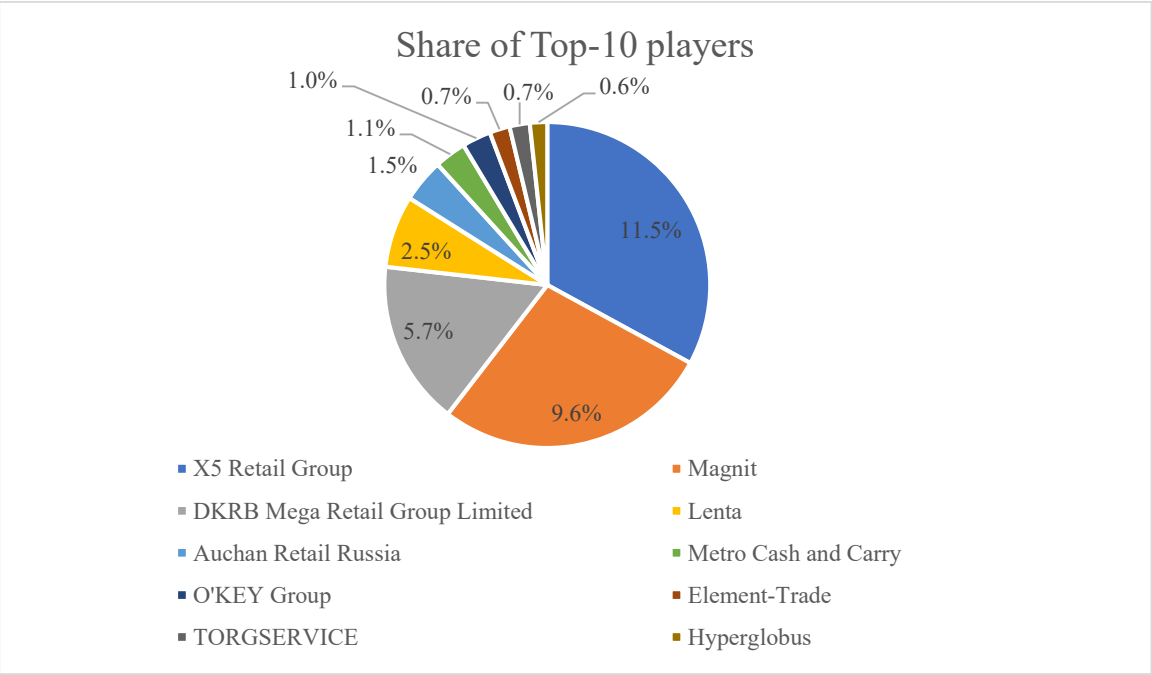

Figure 7- Market share of Top-10 players. Source: Magnit

The third leading company DKRB Mega Retail Group Limited is more comparable with the Magnit in terms of the business model. It includes convenience stores "Dixi" and alcohol stores "Krasnoe I Beloe".

[7] Source: https://mcdonalds.ru/quality

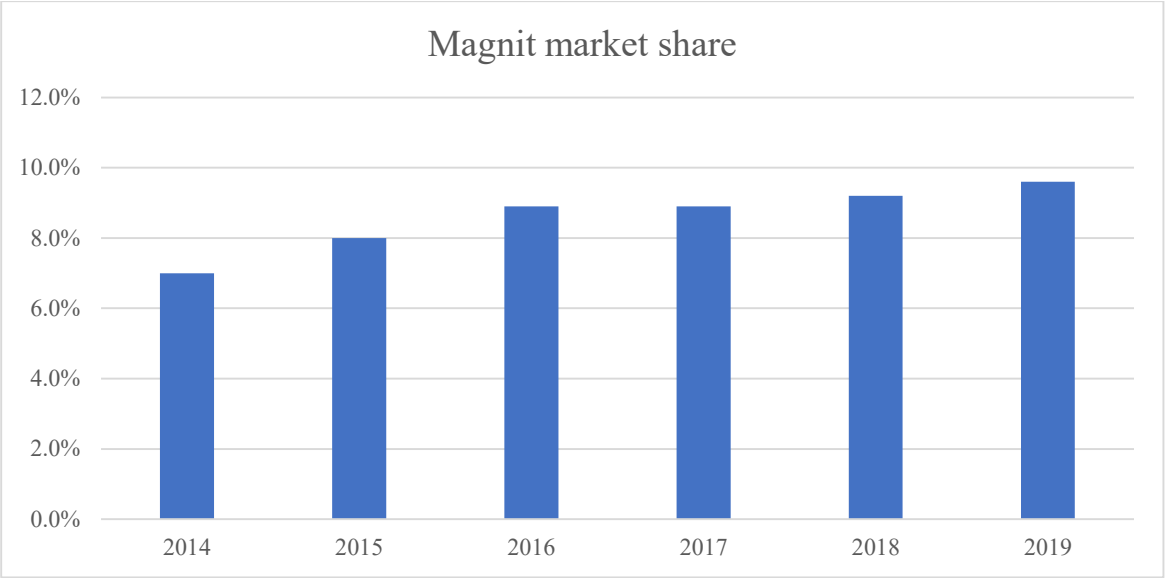

Figure 8- Magnit's historical market share. Source: Magnit

Magnit's market share has been growing steadily over the recent years (Figure 8). With 7% of the Russian grocery market in 2014, the company reached 9,6% in 2019. These numbers are in line with common consolidation trend in the industry as the share of top 10 retailers has been growing as well. Magnit's market share historically was always slightly lower than X5 retail group share with a significant advantage over the third biggest player. Consolidation trend in Russian retail market led to a DKRB Mega Retail Group creation in 2019. That created the strong 3rd player in the industry with 5,7% of the market share.

Russian food retail market has a very low concentration comparing to European markets due to high traditional retail presence, as it is mentioned above. Single traditional or modern format retail chains successfully compete with the federal chains at the local levels, however a strong consolidation trend increased modern retail market share to 70% in 2019. This growth is driven by the acquisition of the selling spaces from the traditional retailers and transforming them into modern retail points. Building new shops is a limited growth option, while relatively big market share of traditional format (30% against 14% in North America and 19% in Europe) makes consolidation the main growth option for modern retailers.

3. Valuation

3.1 DCF valuation

The Valuation is done as of 1st January 2021. On the date of the analysis 1H 2020 financial results are available. The company also publishes its operational data on a monthly basis. Operational and financial forecast is created on a semi-year basis due to low predictability on a quarterly basis because of the coronavirus pandemic. Basic COVID scenario is based on the global macroeconomic consensus with the recovery start in the 2H 2021. 4Q performance will be forecasted in order to create the valuation as of 1st January 2021 with further semi-annual outlook. Furthermore, as there is a small seasonality on a quarterly basis, semi-annual consolidated financial estimates eliminate seasonality and allow to compare financial results in a consequent order and not only on a year over year basis.

3.1.1 Revenue

Magnit shops of different formats are the main revenue sources for the company. Some of them are owned by the company and some of them are leased. According to the IFRS 16, the leased property was put on the balance sheet as an asset with appropriate lease liability based on the future lease cash flows. As it was mentioned earlier, the main segments of the retail revenue are convenience stores, supermarkets and drogerie stores.

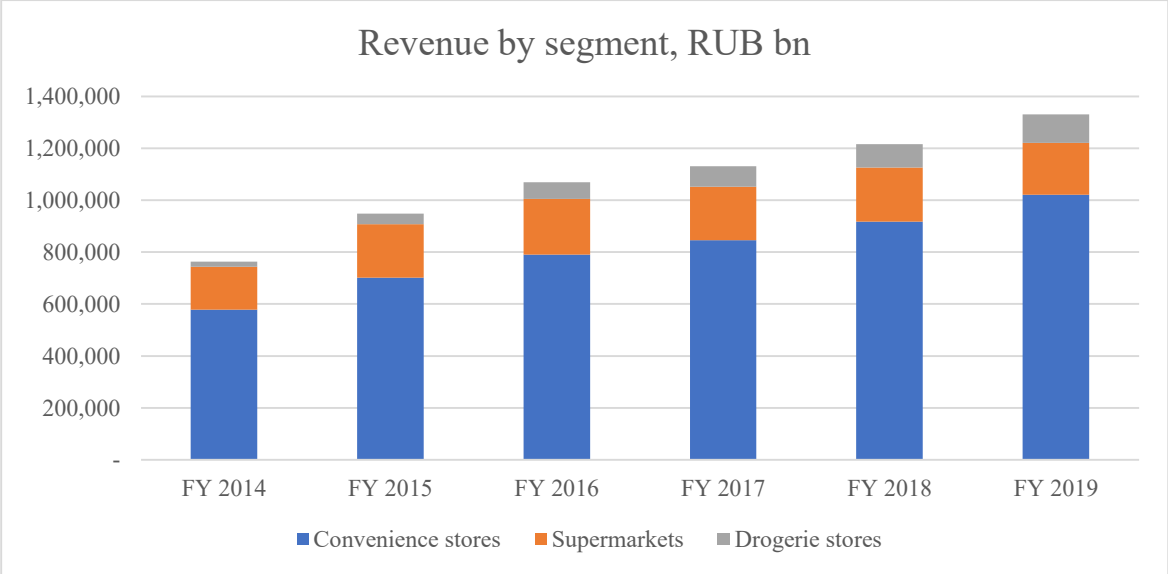

Figure 9- Magnit's revenue breakdown by segment. Source: Magnit

There is a stable growth in the convenience stores segments and high growth rates in the drogerie stores segment, while supermarkets revenue is fluctuating at the same level. These trends are in line with the current company strategy which is based on the increasing overall

effectiveness and marginality of the business. Supermarket segment has the lowest marginality, while new drogerie format has the highest margins among these segments and becomes the key investment project of the company. Convenience stores segment is the main segment with attractive marginality and, according to the statement from the CEO, the company decreases the expansion rates of convenience stores and focuses on the increasing its marginality and effectiveness also by closing existing less effective shops and opening new ones.

The forecast is based on the current strategy of the firm, the macroeconomic consensus of the COVID pandemic outlook and the analysis of the performance of Magnit during and before the pandemic.

Magnit's operations were influenced by the pandemic in a similar way as other retail chains with a decrease in traffic and increased average ticket because customers want to visit shops rarely. LFL analysis shows that at the start of the pandemic average ticket grew by 26,3% in the most intense in terms of lockdown 2Q 2020 and by 13,6% in the 3Q 2020 in the convenience store segment (Figure 10).

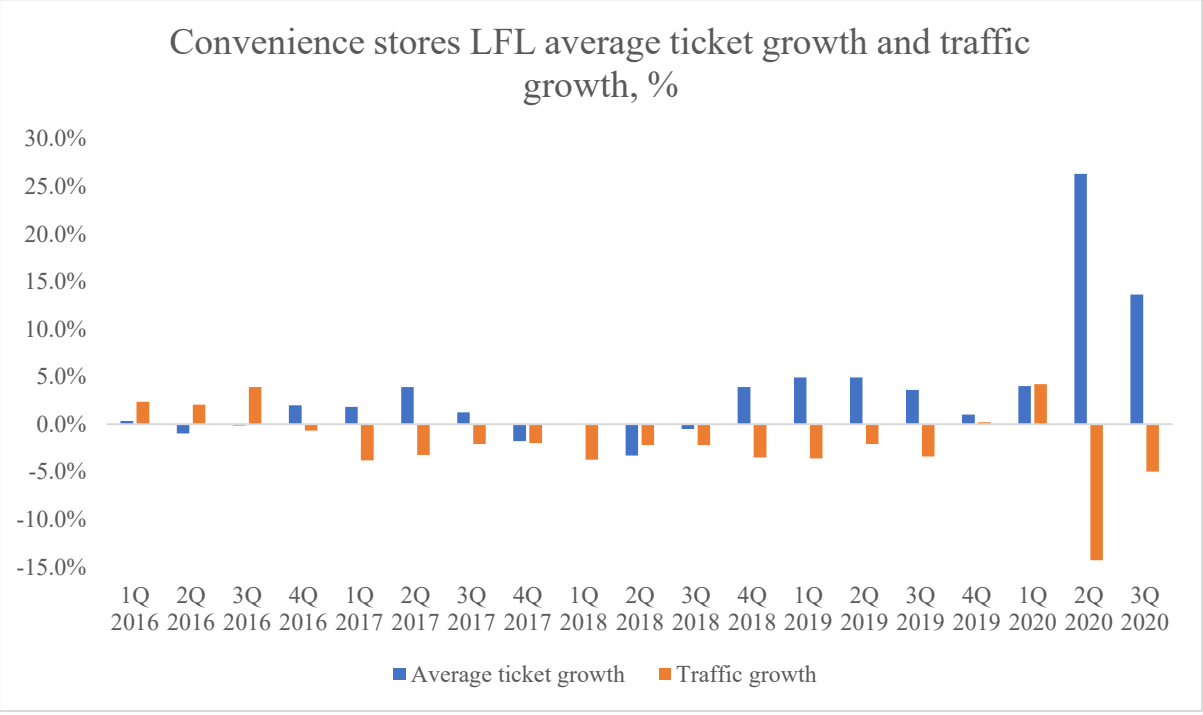

Figure 10- Convenience stores LFL average ticket and traffic growth. Source: Magnit

Supermarkets showed quite similar ticket growth rates but much more significant traffic decrease (20,2% traffic decrease in 2Q 2020 compared to 14,3% traffic decrease in 2Q 2020 in the convenience stores segment) (Figure 11). It can be explained that as convenience stores

are located close to the customers, people try to avoid public transportation, wish to be more self-isolated and avoid big crowds of people. In that case, people tend to use convenience stores more, which highly mitigated negative outcomes for the Magnit comparing to X5 retail group whose focus is super and hypermarkets.

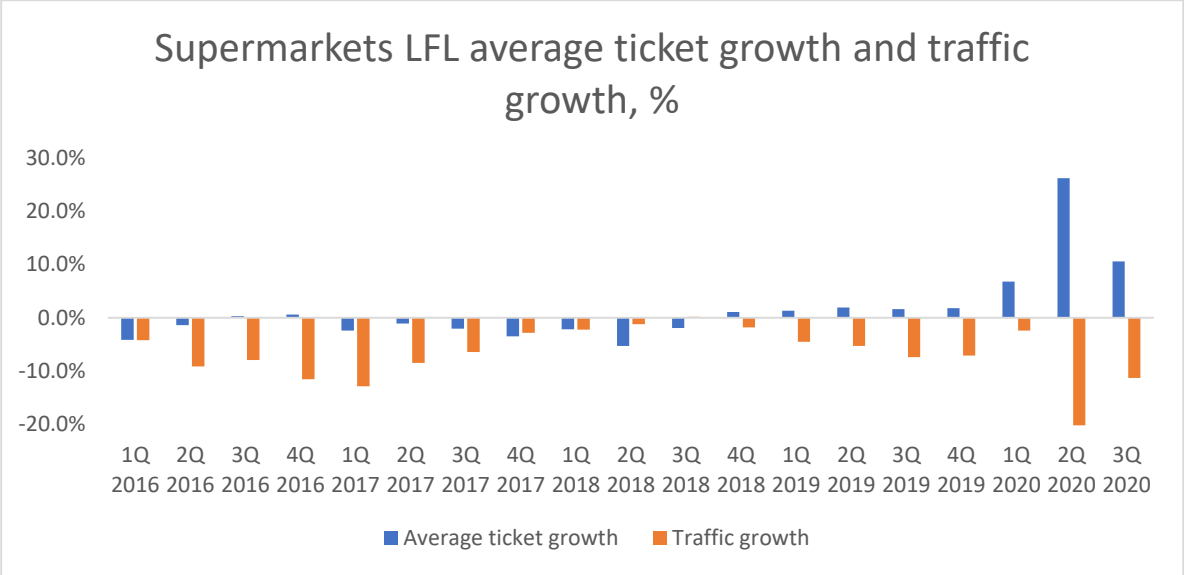

Figure 11- Supermarkets LFL average ticket and traffic growth. Source: Magnit

According to the strategic development plan, the company started to decrease the number of stores in order to increase margins. However, at the start of the pandemic the company had to respond to the growing demand for the convenience stores and to increase the number of stores. Supermarkets segment continued to slowly decrease the number of shops during the pandemic. The current forecast assumes similar growth rates of the number of stores in 1H 2021 with nearly 0% growth rate since 2H 2021. The basic scenario assumes pandemic to finish at that time, so the company will continue to execute its strategy which limits the total selling spaces.

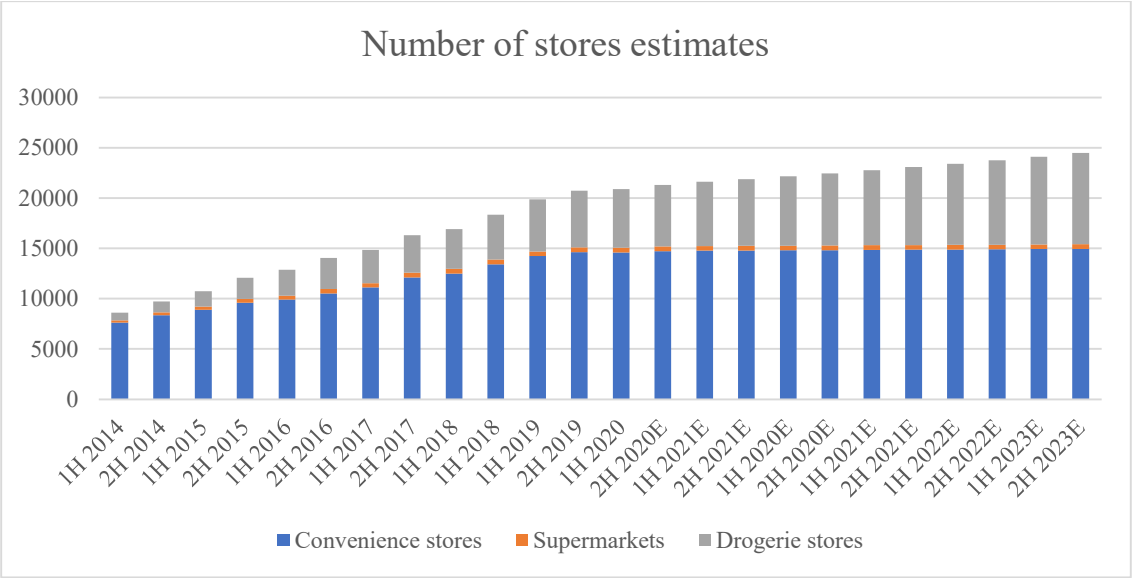

Figure 12- Number of stores by segment. Source: Magnit

Drogeries stores are expected to be the main driver in the number of stores growth. The company mentions drogeries development as the strategic goal for the next year and its number of stores is expected to reach around 9000 shops by the end of FY 2023.

As the company has its understanding of the most effective formats, the last year's average selling space per shop and the average selling space of the new shops almost converged and came to the optimal level. The model assumes that there will be no significant changes in the average selling spaces per shop in each segment.

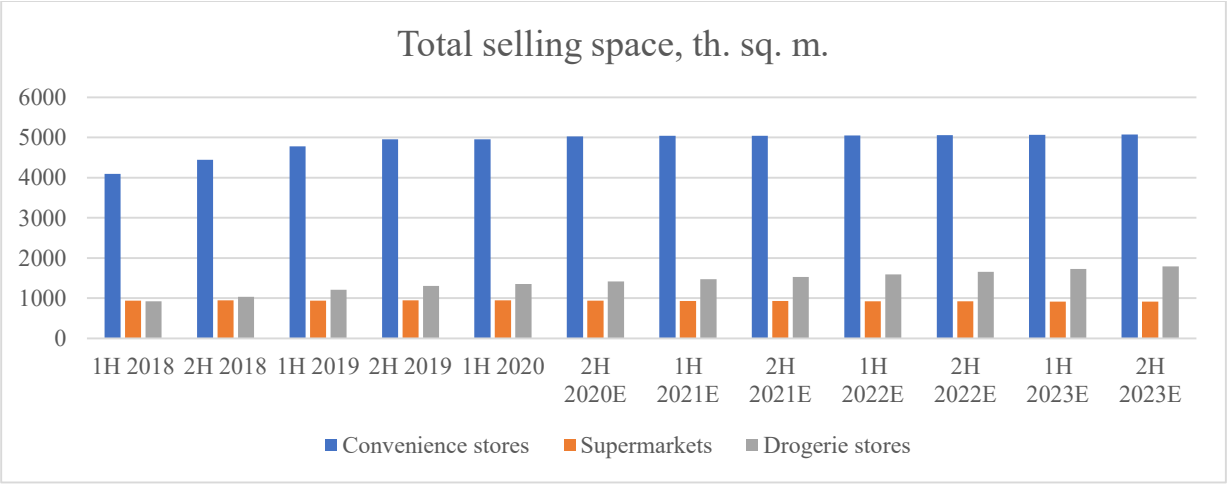

Figure 13- Magnit's total selling space. Source: Magnit, own estimations

Expected traffic represents forecasted total selling spaces and macroeconomic condition mostly driven by the COVID economic outcomes. A similar trend is expected until the end of the 1H 2021 with decreased traffic and increased average ticket. The effect of the pandemic

does not have a significant impact on the revenue directly, as was mentioned. However, two factors may be highlighted that impact gross margins indirectly. As the overall wealth of the population decreases, people tend to buy less expensive products and try to save more money as their household income decreases. Even if the average revenue per capita does not change, same revenue brings different margins comparing to the pre-COVID times.

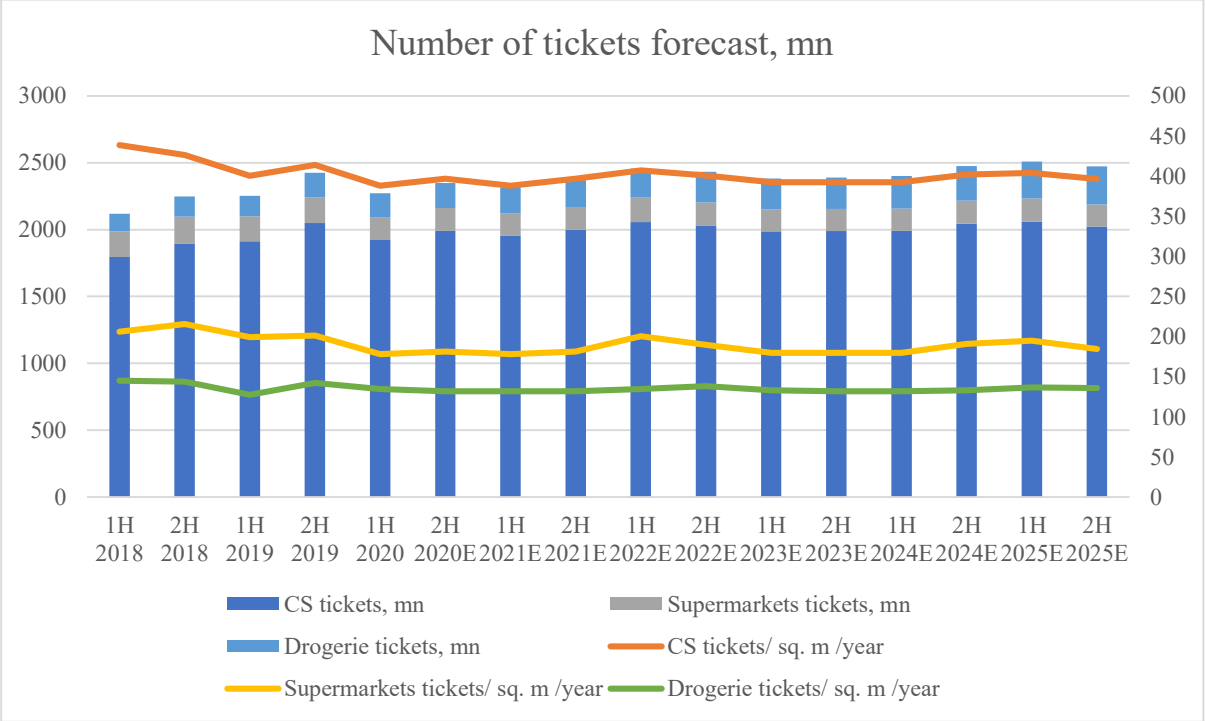

Figure 14- Magnit's number of tickets. Source: Magnit, own estimations

The number of tickets is driven by total selling spaces. Ticket/sq. m is expected to stabilize in 2H 2021 and get to the pre-COVID times (Figure 14).

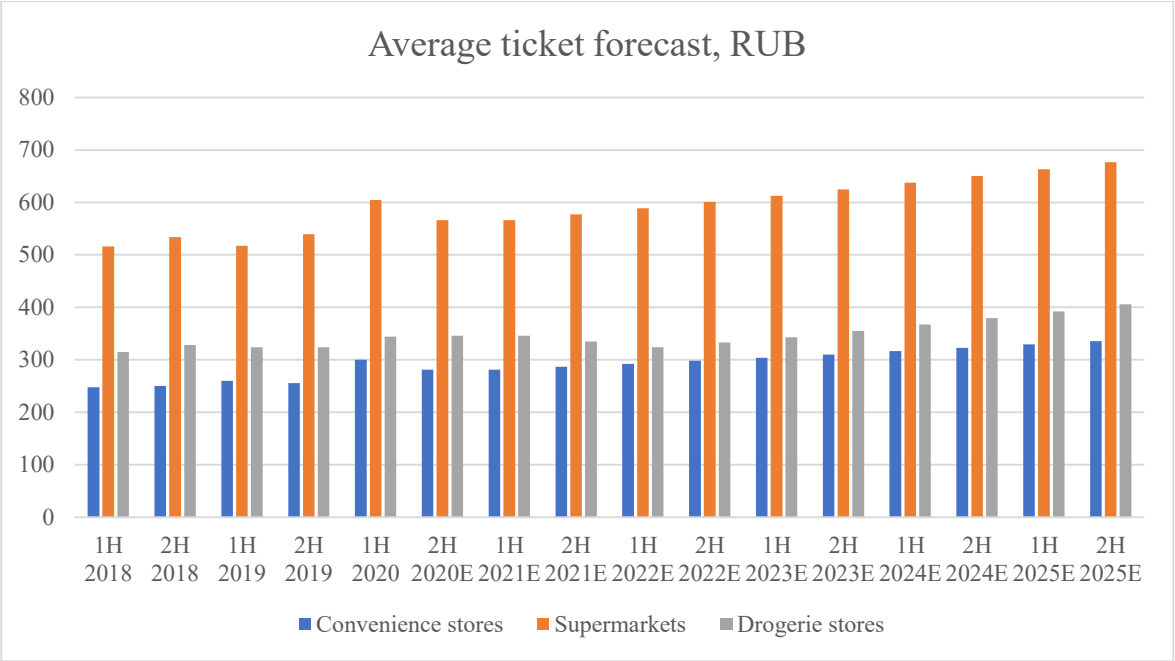

Figure 15- Magnit's average ticket. Source: Magnit, own estimations

Average ticket decline in the 3Q will continue in the 4Q and will stabilize in 2021 with further growth rates of pre-crisis levels with food CPI growth rate. In other words, at the start of the COVID pandemic, there was an increase in the average ticket with a decrease in the number of tickets/sq. m in each segment. These ratios are expected to stabilize until 2H 2021 and get to pre-crisis levels with further improvements based on the strategy of the firm and macroeconomic conditions.

3.1.2 Operating costs

According to the Ministry of Finance of Russia, people spent their money reserves during the first wave of the pandemic and are much less ready for the second wave of the pandemic. The forecast implies lower margins and revenues than in the first wave of the pandemic but still better results than in the 2019 fiscal year. The margins are expected to slightly increase in 4Q 2020 and in 1H 2021. H2 2020 and H1 2021 are expected to be without restrictions for the restaurants and fast-food and its additional activity would decrease the demand for the groceries.

There is an important mitigation developed from Magnit – own private labels. The customers switched their attention to cheaper products with lower margins for the company but cheap grocery products segment is highly represented by the private labels of Magnit that create higher margins for the company. Another mitigation is that people move to convenience

stores that are in general more marginal business than supermarkets. These factors allowed to increase operational profits during the pandemic.

RUB mn	1Q 2019	2Q 2019	3Q 2019	4Q 2019	1Q 2020	2Q 2020	3Q 2020
Revenue	317 242	340 675	342 583	368 206	376 038	387 323	383 189
Gross profit	74 333	80 989	76 930	79 747	85 185	94 337	91 180
Operating profit	12 544	16 074	14 345	16 253	17 407	24 396	23 080
Net profit	915	2 857	1 287	4 505	2 329	11 442	8 603

Figure 16- Magnit quarterly results. Source: Magnit

These expectations accommodate a positive outlook for Magnit until the expected end of the pandemic. As the company will increase the share of the most marginal segments of the company (convenience stores and drogerie stores), gross margin is expected to grow based on the historical margins and revenue breakdown. Operating profits are affected by SG&A expenses. As the future growth of the company is limited, economies of scale effect will not allow to significantly decrease the portion of the SG&A expenses as the percentage of total costs. Strategy change would decrease future D&A expenses growth and increase marketing expenses, while still change in the gross margins would be the key driver for the operating profits. As the company started implementing its new strategy in 2019, 2019 and 2020 financial results taken as the main benchmark of the effect of the structural change within the company. 9M 2020 results show that the company is able to increase its margins capitalizing on the convenience stores and drogeries stores segments without its expansion.

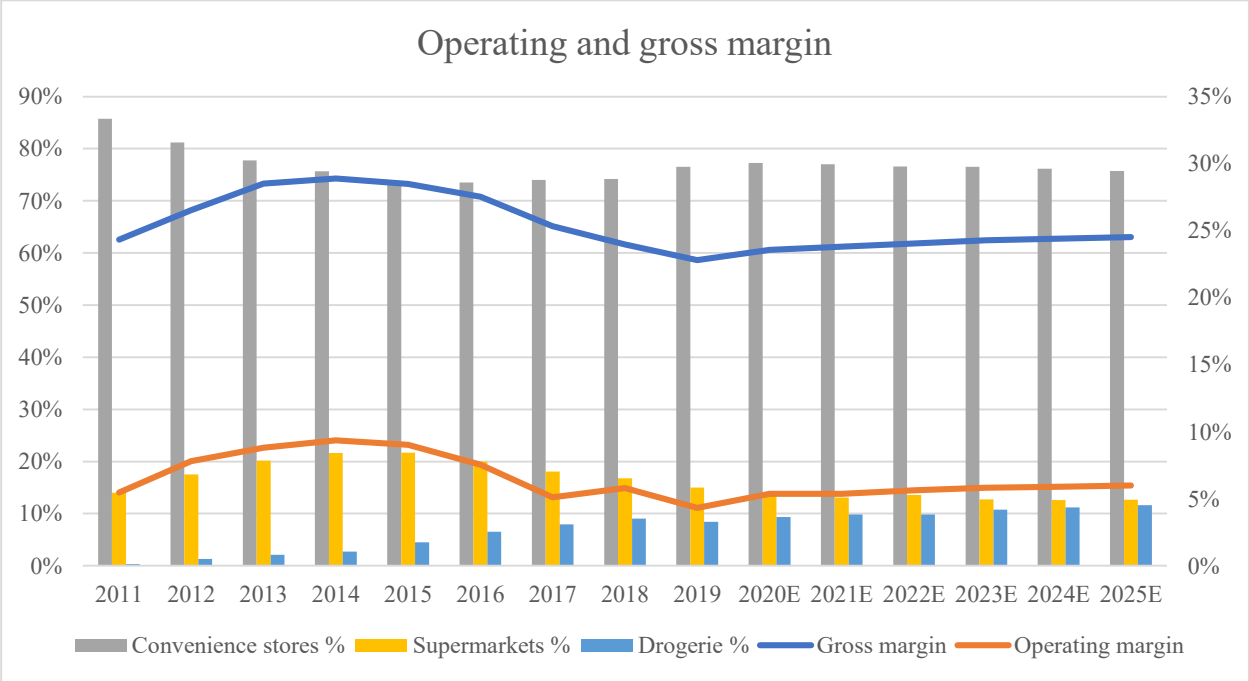

Figure 17- Magnit's operating and gross margin. Source: Magnit, own estimations

The current situation will allow Magnit to complete its strategy focusing on the increase of operating efficiency and using the developed current point for further future revenue growth.

RUB mn	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E
Revenue	1 237 015	1 368 705	1 509 541	1 496 700	1 614 696	1 636 676	1 677 584	1 744 500
Retail sales	*1 216 851*	*1 332 929*	*1 470 001*	*1 456 976*	*1 574 926*	*1 596 896*	*1 637 798*	*1 704 717*
Convenience stores	*917 853*	*1 020 400*	*1 135 393*	*1 122 524*	*1 205 996*	*1 221 640*	*1 247 823*	*1 290 444*
Supermarkets	*207 434*	*200 096*	*197 230*	*191 155*	*213 842*	*203 245*	*206 387*	*216 139*
Drogerie stores	*91 000*	*109 670*	*126 638*	*134 526*	*145 962*	*162 515*	*173 903*	*188 256*
Other formats	*564*	*2 763*	*10 741*	*8 772*	*9 126*	*9 495*	*9 685*	*9 878*
Wholesale revenue	*20 164*	*35 777*	*39 540*	*39 723*	*39 769*	*39 781*	*39 786*	*39 783*
Gross profit	296 074	311 999	355 877	356 384	388 250	397 379	409 277	427 660
Operating profit	71 809	59 216	81 104	80 474	91 009	95 064	99 020	104 575

Figure 18- Magnit gross and operational profit forecast. Source: Magnit, own estimations

3.1.3 Net Working Capital

The biggest part of the working capital is inventory and its growth is in line with selling space growth and revenues. Trade receivables and payables are also connected to the trading activities and the pandemic situation did not affect the working capital structure and its size. The current forecast assumes stable net working capital growth in line with the revenue growth in the forecasted period.

The company does not state the minimum amount of cash they need to sustain for their operations. Damodaran's approach recommends to determine all the cash as excess cash and to calculate non-cash working capital. However, due to its nature, retailers have to use some cash within its operations and to keep some cash in their shops. The current analysis assumes a certain minimum of operating cash as a part of the working capital. One day cash reserves were calculated to determine the minimum level of operating cash reserves in the forecasted periods. Historical fluctuations of cash and equivalents by the end of the fiscal years show that cash reached similar numbers but never fell above the one-day reserve.

3.1.4 Capital expenditures

Net CAPEX is expected to decrease compared to FY 2019 as the levels of new openings are expected to significantly decrease. Property plant and equipment required to gain 1 Rub of revenue are expected to drop as forecasted increase in the operating efficiency would allow increasing sales density (revenue per sq. m). Expansion slowdown in combination with the higher efficiency strongly decreases CAPEX requirements in the future. Depreciation and amortization are based on the previous year's average percentage of property, plant and equipment. Future CAPEX estimation covers revenue growth above the food inflation.

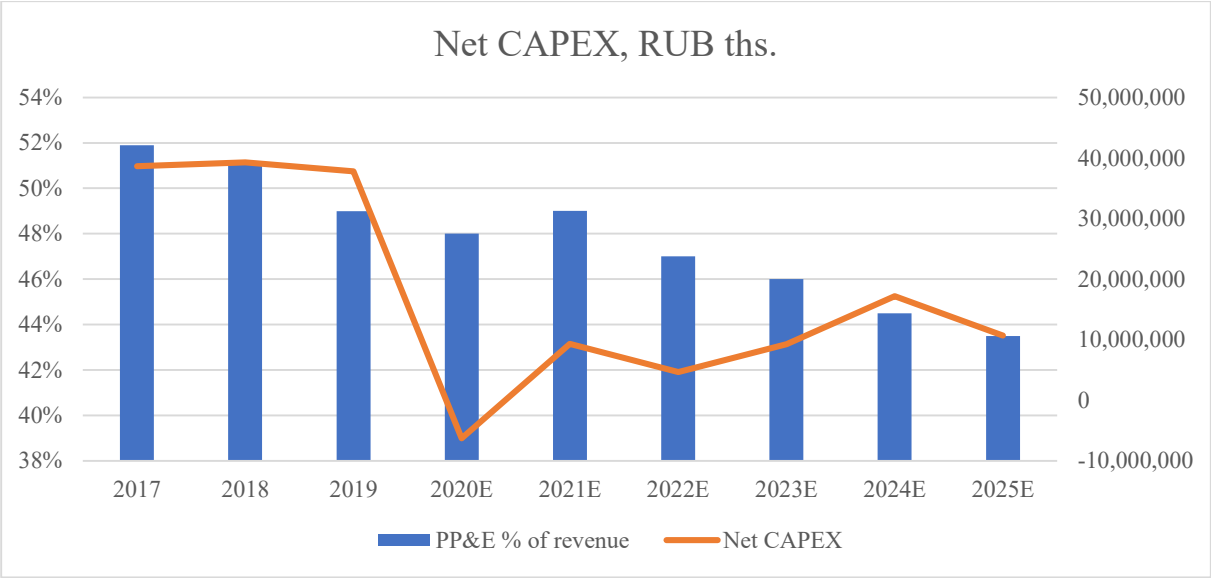

Figure 19- Magnit's net CAPEX. Source: Magnit, own estimations

3.1.5 Tax rate

Historical effective tax rate is 23% while the Russian corporate income tax rate is 20%. The historical numbers fluctuated without any regularity. As the average is close to the official tax rate, the marginal tax rate of 20% was used.

3.1.6 Deferred tax liabilities

Analysing deferred tax liabilities, it is important to look at their main sources and historical values. The main source of the DTL for Magnit is PP&E investments and its depreciation rules based on the Russian tax code. For example, based on the Russian tax code, after a certain type of investments in PP&E, up to 25% of the investments can be depreciated on the first day. Historically DTL grew slower or with the same rate as PP&E. Taking into account that the company changes its strategy to decrease investments in new shops (one of the main sources of the DTL) and overall CAPEX growth rate decrease (while still having a net CAPEX positive), a minimal growth rate of the DTL or the absence of the growth at all are assumed. As the historic values fluctuate a lot with low regularity, zero change was taken in the explicit period. Based on the nature of the business and the Russian tax code, the company will not repay the deferred tax liability, assuming infinite stable business operations in the future.

3.1.7 WACC

As all the financial metrics are presented in RUB, WACC must be estimated in Russian Rubles currency.

As of the 20th of November, the Russian risk-free rate is represented by the long-term government bonds "OFZ" and the rate was 6,3%.

The US market risk premium is 5,23% which represents an additional risk for investing in stocks according to the Damodaran[8].

The country risk premium is estimated based on the difference between Russian USD nominated government bonds and US treasury bonds yield with similar maturities. As of the 20th of November, Russian USD nominated government bonds had 1,95% yield to maturity (until 2030) and US treasury bonds with the same maturity had 0,90% which results to 1,05% country risk premium. According to the Damodaran approach, calculated country risk premium can be adjusted by the average equity to bond market volatility. In line with this approach, the country default spread was adjusted by the 1,5 coefficient.

Beta was calculated based on the stock prices adjusted for the dividends and full Russian market return index which includes dividends repayment. The model takes monthly beta for the last 5 years and is calculated using the formula given in the first chapter of this paper. Regression analysis did not give any statistically significant results on the monthly basis (with a 5% significance level). So weekly beta was calculated with a statistically significant result of 0,99.

These estimates resulted in the cost of equity equal to 13,05%. Cost of debt is based on the current yield to maturity of the outstanding Magnit bonds. Magnit has bonds with maturity in 2021, 2022 and 2023. According to Damodaran method, the cost of debt is a weighted average of the YTMs of the traded bonds. At the date of the analysis, the weighted average cost of debt is 7,2%.

Risk free	6,30%
Market return	5,23%
beta	0,99
Country risk premium	1,58%
Ce	13,05%
Cd	7,20%
after tax cd	6%
WACC	9,41%

Figure 20- WACC components. Source: Thomson Reuters Eikon, own estimations

[8] Source: http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html

Public source data give 533 RUB bn Net Debt estimate, based on Thomson Reuters. Equity reports of the leading brokers give approximately the same figures. The company states its Net Debt of 540 RUB bn. Damodaran approach for the market value of debt was applied in order to compare public data with theoretical figures. There is no public information regarding the lease liabilities and bank loans maturities and effective interest rates as of 3Q 2020 and even 1H 2020, so the data for the end of FY 2019 were used. The weighted average maturity of the debt based on the bank loans, lease liabilities and bonds issued is 14,65 years with the lease debt as the main driver with 25 years average maturity. Damodaran approximation approach comes with the estimate of 610 RUB bn. The difference may come due to partial usage of the outdated information and not 100% accuracy of the original formula that has some disadvantages. Book value of the net debt based on the IFRS 16 is 540 RUB bn and it mostly consists of the lease liabilities (63% of the debt) and IFRS 16 requires to value lease debt based on the market value estimations. Therefore, the company data of 540 RUB bn will be used for the further calculations.

The company does not clearly state its target capital structure and historical D/E ratio is mostly driven by the significant changes in market capitalisation, while the debt did not change significantly over time. Current D/E ratio is nearly 1 and, based on the peer group it may be concluded that D/E of 1 is industry consensus and could be a target capital structure in the future as all the main public Russian food retailers (Lenta, X5 Retail Group) have D/E of nearly 1.

Company name	D/E
Magnit	1,1
X5 Retail Group	1,0
Lenta	1,2

Figure 21- Peer group's leverage. Source: Thomson Reuters Eikon

Based on the calculations above Magnit's RUB nominated WACC is 9,41% (Figure 20).

3.1.8 DCF results

Base case scenario terminal growth rate is 4,5% which is made of long-term expected inflation of 4% and 0,5% growth rate. This includes economy growth and conservative future strategy as the company plans to stop expanding their operations and focus on the operational efficiency.

Based on the assumptions above, discounting future FCFF gives Enterprise Value of 1,193 RUB tn as of 1st January 2021. The company does not have investments in associates and non-controlled interest. Given that equity bridge consists only of Net Debt which is equal to 540 RUB bn and is not expected to change by 1st January 2020 as debt is expected to change only in 2021 mostly because of the lack of cash to pay the dividends while the company avoids dividends decrease even during the years with net income and free cash flow decrease. As a result, DCF valuation gives 653 RUB bn equity value with 6693 RUB/share target price and 36% upside based on the stock price of 4933 RUB/share as of the 20th of November.

RUB mn	2021E	2022E	2023E	2024E	2025E	TV
EBIT(1-t)	64 380	72 808	76 051	79 216	83 660	
CNWC	-6 632	-2 901	-1 461	-9 623	-2 169	
D&A	80 282	83 983	84 653	84 869	87 599	
CAPEX	-89 599	-88 641	-93 885	-102 050	-98 259	
FCFF	48 431	65 250	65 358	52 412	70 831	1 508 630
DFCFF	44 267	54 512	49 908	36 581	45 187	962 432
EV	1 192 887					
Net debt	540 000					

Equity value	652 887

Figure 22- Magnit's DCF model. Source: own estimations

3.1.9 Sensitivity analysis

As it was mentioned in the first chapter, DCF valuation highly depends on the assumptions of the analysts. Sensitivity analysis shows how changes in certain assumptions in calculations and forecast would affect the valuation.

Target price sensitivity to terminal growth rate and WACC were analysed as these two parameters of the DCF model have the biggest impact on the result (Figure 23).

		Terminal growth rate				
		3,50%	**4,00%**	**4,50%**	**5,00%**	**5,50%**
WACC	**8,41%**	7 122	8 338	9 865	11 841	14 496
	8,91%	5 932	6 905	8 099	9 598	11 538
	9,41%	4 944	5 738	6 693	7 865	9 337
	9,91%	4 110	4 768	5 547	6 485	7 636
	10,41%	3 398	3 950	4 596	5 361	6 282

Figure 23- Sensitivity analysis. Source: own estimations

We may see that even slight changes in WACC or terminal growth rate assumptions significantly change the target price of the company. Minimum changes in TGR and WACC

give target price range between 4768 and 9568 RUB/share which is mostly higher than the stock price as of the 20th of November of 4933 RUB/share.

3.2 Relative valuation.

In order to make a relative valuation peer group must be created. Magnit operates within the retail industry with the majority of business operations in the grocery retail business. As it was mentioned in the first chapter, companies must be selected based on their operations, risk profile, growth rates and financial performance.

Metric	Magnit's value
Revenue 3 year CAGR	8%
EBIT Margin	5%
Net Profit margin	1%
D/E	1

Figure 24- Magnit's key metrics. Source: Magnit

3.2.1 Peer group

The first candidates for the peer group are Magnit's competitors. X5 retail group is a listed company and the leader in the Russian grocery market. Its shop mix is different from Magnit's with a bigger focus on the larger supermarkets and hypermarkets. Despite that, the X5 retail group has similar average EBIT margin of around 5%. X5 is very close to Magnit in other financial metrics with D/E of close to 1, net profit margin equals 1,12. X5 retail group shows bigger 3-year revenue CAGR of 19%.

Lenta is engaged in the development and operation of hypermarket and supermarket stores and is listed on the London Stock exchange. It has a different shop mix with a focus on the larger shops just like X5 retail group. Lenta's financials are also similar to Magnit with D/E of 1,2, EBIT margin historically fluctuating around 1-2% with 3-year revenue CAGR of 11%. The difference between Lenta and Magnit is defined by Lenta's 2019 net loss, while historically the company managed to perform positive net income.

The third listed Russian grocery retailer that could be compared to Magnit is OKEY Group. It is also focused on supermarkets just like previous companies. OKEY is less comparable with its D/E equal to 3,3, EBIT margin of 3% and negative revenue 3-year CAGR.

The listed Russian grocery retailers create moderate peer group with a lack of companies involved in the business focusing on the convenience stores. DIXY was the only public

company with the same focus but was delisted due to DKRB Mega Retail Group merger. All the companies except OKEY Group are quite similar in terms of their business and financial performanceю

Detskiy Mir is a Russian retailer primarily engaged in the children products retail sector. The Company offers a wide range of products, such as toys, clothing and footwear, baby goods, and food. Detskiy Mir could possibly be compared to Magnit as its operations are strongly connected with the distribution of food products, however, its financial profile makes it less comparable with 10% EBIT margin, 0,5 D/E coefficient and 17% revenue CAGR. There are no other retail companies with a focus on offline sales and sufficient activities in the grocery segment.

Creating international peer group can give additional comparison to companies with a similar business model focused on the small-sized shops and low prices with the best-value proposition.

Among the US companies, such firms as Dollar General and Dollar Tree. Dollar General Corporation is a discount retailer focused on small and mid-sized shops as well as Dollar Tree with a specific fixed-price business model.

Alimentation Couche-Tard Inc. is a convenience stores operator in the US that is more comparable to Magnit in terms of the shops' operations. However, a significant part of its business is sales transportation fuel, car services and other road specialized products.

Seven&I Holdings is similar to Magnit in terms of focus on the convenience stores with limited presence in the supermarkets and hypermarkets segments. However, Seven&I Holdings operates 7 Eleven brand in the US and in Asian countries such as Japan, China, Singapore, which differentiates it from the other peers.

North West Company is a Canada-based retailer to underserved rural communities and urban neighborhood markets in Canada, US and other North-American countries. It focuses on operating small convenience stores with an average size of 700 sq. m and offers food, family apparel, housewares, appliances, and outdoor products, which is very similar to Magnit's business profile.

There are no public European convenience stores operators that would be closer to Magnit business model than its selected Russian peers. Asian and African companies were not

researched as the business conditions of Russia are closer to European and American and less comparable with Asian or African ones.

3.2.2 Multiples applied

The main peer group is made of companies with slightly different business profile. They have smaller focus on the convenience stores and more on the supermarkets and hypermarket segments. The natural difference in these parameters does not allow to appropriately use industry-specific multiples such as Value/number of tickets, sales density, value/total selling space, value/number of shops etc. Convenience stores, supermarkets and hypermarkets have different operational metrics by their nature. Enterprise value multiples are applicable because for the main peer group they have comparable growth rates. EV/EBIT is highly representative in this case. Similar debt/equity structure allows the usage of P/E ratio, while some companies do have negative earnings. EV/Sales seems to be less relevant as companies' margins sometimes critically differ from each other.

Forward multiples will better represent the value of the firm due to the current COVID situation. Forward P/E and EV/EBIT ratios will take into account the current instability and the valuation will be based on values closer to the long-term stable expectations.

3.2.3 Relative valuation results

								FV/EBIT			P/E			
	Values in USD mn	Market Cap	Firm Value	Revenue CAGR '20E - 22E	EBIT CAGR '20E - 22E	EBIT Margin '21E	Current D/E	2019	2020E	2021E	2019	2020E	2021E	weight
Russian grocery retailers	Magnit	6 690	13 819	3,40%	8,70%	6,22%	1,1	17,7	12,8	12,6	53,1	18,0	16,7	N/A
	X5 Retail Group	10 156	19 899	9,98%	8,17%	4,80%	1,0	16,9	15,1	12,8	18,7	15,7	13,7	30%
	Lenta	1 414	2 852	2,91%	-3,83%	4,87%	1,2	23,5	8,8	9,5	N/A	8,6	8,7	30%
	OKEY Group	226	972	2,88%	3,10%	3,38%	3,4	15,0	13,1	13,7	23,0	40,1	63,0	10%
	Average			**5,26%**	**2,48%**	**4,35%**	**1,9**	**18,5**	**12,3**	**12,0**	**20,9**	**21,5**	**28,5**	
	Median			**2,91%**	**3,10%**	**4,80%**	**1,2**	**16,9**	**13,1**	**12,8**	**20,9**	**15,7**	**13,7**	
	Average without OKEY			**6,45%**	**2,17%**	**4,83%**	**1,1**	**20,2**	**11,9**	**11,2**	**18,7**	**12,2**	**11,2**	
	Detskiy Mir	1 377	2 066	12,76%	10,08%	9,55%	0,5	12,9	11,4	10,3	13,0	15,1	11,1	10%
International peers	Dollar General	54 434	55 563	3,99%	-0,25%	9,42%	0,1	23,8	16,3	17,5	31,3	21,4	23,1	4%
	Dollar Tree	25 692	28 099	3,47%	7,41%	7,63%	0,1	17,6	15,1	14,0	22,7	19,3	17,8	4%
	Alimentation Couche-Tard	36 944	42 495	10,57%	-1,13%	5,46%	0,2	14,0	12,2	14,7	16,6	14,7	17,5	4%
	Seven&I Holding	28 482	25 880	12,95%	3,66%	5,97%	0,0	6,4	7,7	6,3	13,6	19,8	12,1	4%
	North West Company	1 262	1 597	-0,94%	-19,27%	7,27%	0,3	18,0	10,8	13,4	21,9	13,0	16,7	4%
	Average			**6,01%**	**-1,92%**	**7,15%**	**0,2**	**16,0**	**12,4**	**13,2**	**21,2**	**17,6**	**17,4**	
	Median			**3,99%**	**-0,25%**	**7,27%**	**0,1**	**17,6**	**12,2**	**14,0**	**21,9**	**19,3**	**17,5**	
	Weighted average							**18,1**	**12,1**	**11,7**	**N/A**	**16,3**	**17,6**	

Figure 25- Relative valuation inputs. Source: Thomson Reuters Eikon, own estimations

Figure 25 shows the financial metrics of the peer group as well as historical and forward multiples. Magnit's forward multiples were derived from own estimations of the revenue, EBIT and Earnings. Peers estimations are based on the Thomson Reuters Eikon database which gives analysts' consensus with the average financial expectations.

Based on the analysis of the peers, it may be concluded that Magnit is expected to have the biggest EBIT growth rate in the next 2 years and highest marginality due to its strategic shift with the relatively slow revenue growth rate. As EBIT margin and CAGR of Magnit are strongly above the competitors, its forward multiples come closer to the international peers which have higher margins as well.

Weighted average calculation was implemented. Russian grocery retail peer group should have the biggest impact on the valuation also taking into account its business and financial profile. Detskiy mir and international peer group should have less weights in the valuation results. Current analysis suggests 60% weights for the similar Russian retailers (30% X5 retail group and 30% Lenta), 10% for each less comparable Russian retailer (OKEY Group and Detskiy Mir), and 20% weights for the international peer group (4% for each company).

RUB bn	2020E	2021E
FV/EBIT	447,7	438,2
P/E	461,8	537,0
Average	**471,2**	

Figure 26- Relative valuation results. Source: own estimations

As a result, relative valuation gives equity value of 471 RUB bn that gives 2% downside to the current market capitalization of 481 RUB bn.

As it was mentioned in the first chapter, one of the main disadvantages of the relative valuation is the assumption that all the peers are valued by the market correctly. As Russian companies create the main peer group, it is important to see how fairly they are valued by the market. Based on the Thomson Reuter Eikon as of 20th November, X5 Retail Group has 7 "strong buy", 9 "buy", 2 "hold" and 0 "sell" recommendation. In addition, forward multiples were used based on the average analysts' consensus. In this case, X5 retail group forecast is created by the same analysts that issue "strong buy" / "buy" recommendations. Lenta has more "buy" / "strong buy" recommendations than "sell" recommendations (4 "strong buy", 2 "buy", 3 "hold" and 2 "sell"). In other words, relative valuation with undervalued peer group would lead to the undervaluation of Magnit. If we look at the international peers, all of them

have more "buy" recommendations than "sell". This makes overall relative valuation less fundamental than the DCF valuation.

4. Comparison to the brokers report.

Based on the analysis, DCF valuation is the most reliable methodology to value Magnit. As it was mentioned above, the fair value of Magnit share is estimated at 6693 RUB/share, which gives 36% upside.

The only report with DCF model available is UBS global research report as of 3rd of August and its target price is 6000 RUB/ share, which gives 22% upside.

RUB mn	2020E	2021E	2022E	2023E	2024E
Estimated revenue	1 509 541	1 496 700	1 614 696	1 636 676	1 677 584
UBS Revenue	1 546 819	1 692 556	1 858 458	2 029 653	2 207 700
Estimated EBIT	81 104	80 474	91 009	95 064	99 020
UBS EBIT	78 500	86 515	90 914	98 639	105 896
Estimated Capex	-89 599	-88 641	-93 885	-102 050	-98 259
UBS CAPEX	-52 855	-64 064	-66 636	-69 862	-73 174
Estimated FCF		48 431	65 250	65 358	52 412
UBS FCF		27 470	72 870	80 477	87 211

Estimated WACC	9,41%
UBS WACC	10,80%
Estimated TGR	4,50%
UBS TGR	4%

Figure 27- Main financials comparison with the broker's report. Source: UBS Global Research, own estimations

The key differences in the share price estimation are in the interpretation of the strategy stated by Magnit. My analysis assumes executing Magnit's strategy in 5 years with decreasing revenue growth and increasing margins, while UBS model assumes continued expansion and revenue increase. Since the report was issued in August, the analysts had not had the latest available information that was available to me, especially the monthly operational data regarding new stores net openings.

Estimated operating efficiency increase, lower WC requirements offset the difference in assumptions. However, there are crucial DCF assumptions that create 14% difference in valuation – WACC and terminal growth rate. UBS does not disclose its complete WACC calculation, but the risk-free rate and the cost of debt are mentioned, and they are very similar to my estimates. The difference can be in beta or market risk premium.

The terminal growth rate I suggest is based on the forecasted inflation and small growth of the economy in general, UBS does not disclose its terminal growth rate explanation in the report. Implementation of the 4% terminal growth rate from UBS would give 16% upside and 5736 RUB/share target price, which is very close to the UBS results.

5. Conclusion

The purpose of this thesis is to make a valuation of a public company with an investment recommendation to investors. Based on the literature review, DCF and relative valuation methods were selected. However, further analysis showed, that relative valuation is less applicable for the valuation, and the DCF valuation number was taken as the main result. The paper was completed in the time of uncertainty for the company, and for Russian and global economies in general. Global COVID-19 pandemic creates a high level of uncertainty at both macro and microeconomic levels. In combination with the new Magnit's strategy introduced in 2019, Magnit's business forecast is more uncertain than it would have been two years ago. The main assumption of the valuation is in line with global economic consensus which implies COVID-19 pandemic decrease in the second half of 2021.

The current analysis is based on the past years' performance and the latest quarters' results that were obtained during the pandemic. The outlook for Magnit is positive. The company showed that the current COVID-19 situation has a positive effect on its financial performance and that its current strategy assumes further limited growth with a focus on operational efficiency.

Discounted Cash Flow model gives 6693 RUB/share as the target price as of 1st January 2021, which has a 36% upside comparing to the share price as of the date of the analysis. "Buy" recommendation is in line with the brokers' consensus and selected equity report from UBS.

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7. Appendices

Appendix 1 – valuation methods by Fernandez (2002).

1) Balance sheet methods
   a) Book value method

      This method incorporates information from the balance sheet of the company to understand the value of the company based on the assets and liabilities of the company derived from the balance sheet.

      $$Book\ Value = Net\ worth = Total\ Assets - Total\ Liabilities$$

   b) Adjusted book value method

      In this case, some assets or liabilities values should be adjusted based on the fair value as accounting standards can value some balance sheet items differently from what the market is ready to pay.

   c) Liquidation value

      This method values the company as the amount of money the owner of the business would receive if the business would be liquidated immediately. This method usually applies discount coefficient to the tangible assets and is used for the minimum threshold estimation of the business value or when the business is acquired for the further liquidation.

   d) Substantial Value

      This method is also called assets' replacement value and is based on the estimation of how much money it would take to create an identical company to the valued one. In most cases, this method tries to estimate only core business assets.

   e) Book Value and Market Value

      This approach looks at the average difference between the book value of the company according to the balance sheet and the market value of the listed companies. Equity value, in that case, is calculated by the book value of the firm multiplied by the P/B ratio which is taken from the public companies

2) Income statement methods
   a) Value of Earnings, P/E

      According to this method, the value of the company is defined by its net profit as a main value creation measurement. In order to quantify the value of the equity, net

profit must be multiplied by the P/E ratio. P/E ratio can be derived from the other companies by comparing their EPS and share price.

b) Value of Dividends

Value of Dividends methods uses dividends as the main value creator for the investor. As future dividends create the value of the share, based on the time value of money, future dividends must be discounted at an appropriate discount rate.

$$Equity\ Value = DPS/K_e$$

Where

DPS = dividend per share

K_e = required return on equity on the valuing company.

c) Sales Multiples

In some industries value of the company can be calculated through the sales of the company. This method is very similar to the Value of Earnings method but gives the firm value instead of the equity value and does not take into account many factors such as Net Income margin, leverage etc. Advantage of this method is that it can be used even if the net income of the company is negative.

d) Other multiples

Similar to Sales Multiples and P/E other income metrics can be used with the appropriate coefficient to determine the value of the firm – EBIT, EBITDA, etc.

3) Goodwill-based method

a) The "Classic" valuation method

Based on this method the value of the company is the sum of the net assets and its goodwill. Accounting goodwill is created only after the M&A transaction, so under this method goodwill is different from what can be found in the balance sheet and is calculated as n times net income or as a certain percentage of the revenue.

$$Value = Net\ Assets + n * Net\ Income$$

Or

$$Value = Net\ Assets + z * Revenue$$

Where

n = net income goodwill coefficient

z = revenue goodwill coefficient

b) The Simplified "Abbreviated Goodwill Income" Method or the Simplified UEC[9] Method.

Based on this method, the value of the equity can be calculated by the following formula:

$$Value = NA_{adj} + A_n * (Net\ Income - I * NA_{adj})$$

NA_{adj} = corrected net assets or net substantial value

A_n = present value, at rate of t, of n annuities, with n between 5 and 8 years

I = interest rate obtained by an alternative placement, which could be debentures, the return on equities, or the return on real estate investments (after taxes)

$$A_n * \left(Net\ Income - I * NA_{adj}\right) = Goodwill$$

This method values goodwill as a "superprofit" or an excess net profit over the normalized net income based on the alternative investments net income rate.

c) UEC method

UEC approach is very similar to what was explained above, but the goodwill is calculated not based on the net assets but the value of the company.

$$Value = NA_{adj} + A_n * (Net\ Income - I * Value)$$

Giving

$$Value = \left[NA_{adj} + (A_n * Net\ Income)\right]/(1 + iA_n)$$

d) Indirect method

This method uses the same financial metrics as the previous ones but the value is determined by the following formula:

$$Value = (NA_{adj} + Net\ Income/I)/2$$

e) Anglo-Saxon Direct Method

$$Value = NA_{adj} + (Net\ Income - I * NA_{adj})/T_m$$

Where

T_m = the interest rate on fixed income securities multiplied by a coefficient from 1,25 to 1,5 as a risk adjustment coefficient

This method uses "superprofit" of the company and assumes a long-term value creation from it.

f) Annual Profit Purchase Method

[9] Union of European Accounting Experts

This approach is similar to the one above but in order to determine the value of the goodwill it assumes that it is equal to a certain number of years of "superprofits" *m*. The m metric usually would range from 3 to 5 years and the formula would be:

$$Value = NA_{adj} + m(Net\ Income - I * NA_{adj})$$

g) Risk- Bearing and Risk-Free Rate Method

$$Value = NA_{adj} + (Net\ Income - I * Value)/t$$

Giving

$$Value = (NA_{adj} + Net\ Income/t)/(1 + I/t)$$

Where

t = the risk-bearing rate used to restate the "superprofit" and is equal to the rate I increased by a risk ratio.

This method is a variation of the UEC's method

4) Cash Flow Discounting-based Method

This method is based on the future cash flows that are attributed to the investors and create value for them. Future cash flows must be estimated and discounted to the present value according to the time value of the money concept.

The general formula for the Cash Flow Discounting-based Method is the following:

$$V = \frac{CF_1}{1+k} + \frac{CF_2}{(1+k)^2} + \frac{CF_3}{(1+k)^3} + \cdots + \frac{CF_n + RV_n}{(1+k)^n}$$

Where

CF_i = cash flow generated by the company in the period i

RV_n = residual (terminal) value of the company in the year n

k = appropriate discount rate for the cash flows' risk

The residual value can be determined as cash flows perpetuity with the k discount rate and g growth rate.

$$RV_n = CF_n(1+g)/(k-g)$$

As there are different types of free cash flows, they all can be used to determine the equity value of the firm.

Free Cash Flows must be discounted by the WACC that would give unlevered value of the firm. Subtracting the market value of debt would give the equity value of the company.

$$E + D = present\ value\ [FCF; WACC]$$

Where

$$WACC = \frac{EK_e + DK_d(1-T)}{E+D}$$

D = market value of the debt

E = market value of the equity

K_d = cost of the debt before tax = required return to debt

T = tax rate

K_e = required return to equity, which reflects the equity's risk

Equity Cash Flows must be discounted by the cost of equity. Discounting these cash flows would directly give the equity value of the company.

Another way of finding the unlevered value of the firm is the APV method, which assumes discounting unlevered free cash flows by the unlevered cost of equity (cost of equity if the company was financed without the debt). After that the discounted value of the tax shield must be added to the firm value and the present value of the bankruptcy cost must be subtracted. According to Damodaran, calculation of the distress costs is the biggest disadvantage of this method. It also includes a lot of general and sometimes inaccurate assumptions (Korteweg 2007). Because of these factors APV method is less reliable if the company has stable debt structure. Furthermore, most of the investment managers find standard DCF model as the most accurate and flexible method (Marc Goedhart, Timothy Koller, and David Wessels 2005).

5) Value creation

Value creation methods allow to understand if the company's returns create value for the company.

a) Economic Value Added (EVA)

EVA allows determining which part of the operating profit exceeds the required rate of return and, at some point, is similar to the "superprofits" mentioned above.

$$EVA = NOPAT - (IC * WACC)$$

Where

NOPAT = Net Operating Profit After Tax

IC = Debt and Equity invested

WACC = Weighted Average Cost of Capital

b) Cash Value added (CVA)

In general terms, CVA is a variation of the EVA but it focuses on the cash flow instead of the NOPAT which is an income metric.

$$CVA = (CFROI - Cost\ of\ Capital) * Net\ Assets$$

Where

CFROI = Cash Flow Return on Investment

6) Option methods

Option methods use the Black and Scholes option valuation formula and apply it to the value of the firm. Equity can be interpreted as a call option. Value of the firm has a role of the underlying asset in the pricing model, while the face value of outstanding debt is an exercise price of the call option. Life of the European option is the maturity of debt and the variance is the variance of the firm value. It assumes that even if the firm value is below the face value of the debt, the volatility of the firm creates a chance to exceed the face value of the debt and put the call option (equity value) at the in-the-money position. This method is considered to be not highly applicable for most of the companies but can be useful for the valuation in some cases, mostly for oil and gas companies (Leslie, Michaels 1997).

Appendix 2 – Number of stores

Number of stores, eop	1H 2018	2H 2018	1H 2019	2H 2019	1H 2020	2H 2020E	1H 2021E	2H 2021E	1H 2022E	2H 2022E	1H 2023E	2H 2023E	1H 2024E	2H 2024E	1H 2025E	2H 2025E
Convenience stores	12 503	13 427	14 231	14 622	14 581	14 725	14 777	14 782	14 811	14 828	14 851	14 871	14 893	14 914	14 935	14 956
Supermarkets	457	467	466	473	472	468	465	463	461	459	457	455	453	451	449	447
Drogerie stores	3 950	4 454	5 187	5 630	5 841	6 110	6 365	6 617	6 886	7 163	7 452	7 752	8 065	8 390	8 729	9 081

Figure 28- Number of stores, semi-annually. Source: Magnit, own estimations

Number of stores, eop	20-Jan	20-Feb	20-Mar	20-Apr	20-May	20-Jun	20-Jul	20-Aug	20-Sep
Convenience stores	14 621	14 618	14 594	14 599	14 593	14 581	14 579	14 620	14 699
Supermarkets	472	472	472	472	471	472	469	470	469
Drogerie stores	5 671	5 703	5 794	5 820	5 840	5 841	5 852	5 881	5 986

Figure 29- Number of stores, monthly. Source: Magnit

Appendix 3 – Number of tickets

Number of tickets, mln	1H 2018	2H 2018	1H 2019	2H 2019	1H 2020	2H 2020E	1H 2021E	2H 2021E	1H 2022E	2H 2022E	1H 2023E	2H 2023E	1H 2024E	2H 2024E	1H 2025E	2H 2025E
Convenience stores	1794	1895	1912	2050	1922	1992	1955	2000	2057	2028	1987	1990	1993	2044	2058	2023
Supermarkets	192	203	187	191	168	170	166	168	185	175	165	164	163	173	175	165
Drogerie stores	133	149	154	185	182	186	194	201	215	229	230	236	246	258	276	285

Figure 30- Number of tickets, semi-annually. Source: Magnit, own estimations

Appendix 4 – Average ticket

Average ticket, RUB	1H 2018	2H 2018	1H 2019	2H 2019	1H 2020	2H 2020E	1H 2021E	2H 2021E	1H 2022E	2H 2022E	1H 2023E	2H 2023E	1H 2024E	2H 2024E	1H 2025E	2H 2025E
Convenience stores	248	250	260	256	301	281	281	287	292	298	304	310	316	323	329	336
Supermarkets	516	534	517	540	605	566	566	577	589	601	613	625	637	650	663	676
Drogerie stores	315	328	324	324	344	346	346	335	324	333	343	355	367	380	393	406

Figure 31- Average ticket, semi-annually. Source: Magnit, own estimations

Appendix 5 – Revenue and gross profit

RUB mn	1H 2018	2H 2018	1H 2019	2H 2019	1H 2020	2H 2020E	1H 2021E	2H 2021E	1H 2022E	2H 2022E	1H 2023E	2H 2023E	1H 2024E	2H 2024E	1H 2025E	2H 2025E
Revenue	**595 263**	**641 753**	**657 917**	**710 789**	**763 361**	**746 179**	**734 341**	**762 358**	**804 222**	**810 473**	**808 543**	**828 134**	**849 450**	**895 050**	**927 193**	**932 163**
Retail sales	584 746	632 106	643 012	689 917	743 959	726 042	714 572	742 405	784 361	790 566	788 658	808 238	829 560	875 156	907 301	912 270
Convenience stores	443 648	474 205	495 777	524 623	575 591	559 802	549 300	573 224	601 320	604 676	604 359	617 281	630 542	659 902	677 642	679 415
Supermarkets	99 066	108 368	96 999	103 097	100 955	96 275	93 886	97 269	108 997	104 844	100 842	102 403	103 983	112 155	116 350	111 909
Drogerie stores	41 773	49 227	49 759	59 912	62 282	64 356	67 043	67 483	69 525	76 437	78 757	83 759	90 144	98 111	108 221	115 757
Other formats	258	306	477	2 286	5 131	5 609	4 342	4 429	4 518	4 608	4 700	4 794	4 890	4 988	5 088	5 190
Wholesale revenue	10 517	9 647	14 905	20 872	19 403	20 137	19 770	19 953	19 862	19 908	19 885	19 896	19 890	19 893	19 892	19 892
Cost of sales	-448 298	-492 643	-502 594	-554 112	-583 840	-569 824	-559 923	-580 393	-611 322	-615 124	-612 711	-626 587	-641 720	-675 119	-698 278	-702 021
Gross profit	**146 964**	**149 109**	**155 323**	**156 677**	**179 522**	**176 355**	**174 418**	**181 966**	**192 900**	**195 349**	**195 832**	**201 547**	**207 730**	**219 930**	**228 915**	**230 142**

Figure 32- Revenue and gross profit, semi-annually. Source: Magnit, own estimations

Appendix 6 – Dividend payment history

	Total Dividends Announced, RUB	Total Dividends Paid, RUB	Dividends per Share, RUB	Dividend yield, %
2019 Total	**31 000 415 077**	**31 000 373 708**	**304**	**9%**
9M 2019	15 000 332 342	15 000 312 325	147	
2019	16 000 082 735	16 000 061 383	157	
2018 Total	**30 997 357 737**	**30 997 322 454**	**304**	**9%**
9M 2018	14 000 581 950	14 000 566 014	137	
2018	16 996 775 787	16 996 756 440	167	
2017 Total	**24 731 770 719**	**24 731 741 601**	**251**	**4%**
1H 2017	10 922 782 116	10 922 768 716	116	
2017	13 808 988 603	13 808 972 885	136	
2016 Total	**26 300 349 666**	**26 300 261 615**	**278**	**3%**
1H 2016	7 999 890 633	7 999 849 771	85	
9M 2016	11 926 078 093	11 926 063 463	126	
2016	6 374 380 941	6 374 348 382	67	
2015 Total	**29 358 463 887**	**29 358 427 872**	**310**	**3%**
1H 2015	8 359 223 782	8 359 213 528	88	
9M 2015	16 999 294 788	16 999 273 935	180	
2015	3 999 945 317	3 999 940 410	42	
2014 Total	**34 320 098 184**	**34 320 058 386**	**363**	**4%**
1H 2014	7 404 154 097	7 404 145 797	78	
9M 2014	14 379 945 255	14 379 929 135	152	
2014	12 535 998 832	12 535 983 454	133	
2013 Total	**12 785 640 810**	**12 785 623 529**	**135**	**2%**
1H 2013	4 355 496 011	4 355 488 181	46	
2013	8 430 144 798	8 430 135 348	89	
2012 Total	**7 701 566 229**	**7 701 556 221**	**81**	**2%**
1Q 2012	498 827 819	2 498 797 291	5	
1H 2012	1 999 972 658		21	
2012	5 202 765 752	5 202 758 930	55	
2011 Total	**2 142 203 933**		**23**	**1%**
2011	1 726 690 342	1 726 688 133	18	
1Q 2011	415 513 591	997 638 369	5	
2010 Total	**584 566 230**		**7**	**0%**
2009 Total	**1 291 338 576**	**1 291 336 271**	**15**	**1%**
1Q 2009	396 249 342	396 248 114	5	
2009	895 089 234	895 088 158	10	
2008 Total	**121 538 664**	**121 538 287**	**1**	**0%**

Figure 33- Magnit's dividend payment history. Source: Magnit

Appendix 7 – Standardized income statement

RUB mn	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E
Revenue	**1 237 015**	**1 368 705**	**1 509 541**	**1 496 700**	**1 614 696**	**1 636 676**	**1 677 584**	**1 744 500**
Retail sales	1 216 851	1 332 929	1 470 001	1 456 976	1 574 926	1 596 896	1 637 798	1 704 717
Convenience stores	917 853	1 020 400	1 135 393	1 122 524	1 205 996	1 221 640	1 247 823	1 290 444
Supermarkets	207 434	200 096	197 230	191 155	213 842	203 245	206 387	216 139
Drogerie stores	91 000	109 670	126 638	134 526	145 962	162 515	173 903	188 256
Other formats	564	2 763	10 741	8 772	9 126	9 495	9 685	9 878
Wholesale revenue	20 164	35 777	39 540	39 723	39 769	39 781	39 786	39 783
Cost of sales	-940 942	-1 056 706	-1 153 664	-1 140 316	-1 226 446	-1 239 298	-1 268 307	-1 316 840
Gross profit	**296 074**	**311 999**	**355 877**	**356 384**	**388 250**	**397 379**	**409 277**	**427 660**
Selling expenses	-16 070	-15 686	-15 144	-17 220	-18 577	-18 830	-19 301	-20 071
General and administrative expenses	-220 745	-254 962	-275 159	-274 577	-294 927	-299 469	-307 071	-319 175
D&A	-69 216	-83 339	-85 623	-80 282	-83 983	-84 653	-84 869	-87 599
Other income	10 515	16 396	13 504	14 063	14 435	14 156	14 292	14 338
Other expenses	-908	-1 676	-1 051	-1 272	-1 268	-1 263	-1 273	-1 274
Lease & sublease income	2 943	3 144	3 078	3 097	3 097	3 092	3 096	3 096
Operating profit	**71 809**	**59 216**	**81 104**	**80 474**	**91 009**	**95 064**	**99 020**	**104 575**
Foreign exchange (loss) / gain	-1 523	873	-920	0	0	0	0	0
Investment income	210	273	661	661	661	661	661	661
Finance costs	-39 542	-47 782	-45 857	-47 043	-47 720	-48 991	-48 991	-48 991
Profit before income tax	30 954	12 579	35 462	35 127	45 682	49 938	53 723	59 288
Income tax expense	-6 784	-3 015	-7 680	-7 025	-9 136	-9 988	-10 745	-11 858
Net profit	**24 170**	**9 564**	**27 783**	**28 101**	**36 546**	**39 950**	**42 979**	**47 431**

Figure 34- Magnit's standardized income statement. Source: Magnit, own estimations

Appendix 8 – Standardized balance sheet

RUB mn	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E
Assets								
Non-current assets								
PP&E	632 692	670 467	664 198	673 515	678 172	687 404	704 585	715 245
Goodwill	26 879	26 879	26 879	26 879	26 879	26 879	26 879	26 879
Long-term investments	151	0	0	0	0	0	0	0
Long-term receivables	800	0	0	0	0	0	0	0
Total non-current assets	660 523	697 347	691 078	700 394	705 052	714 284	731 465	742 125
Current assets								
Inventories	182 141	218 874	231 831	239 472	258 351	261 868	276 801	287 843
Trade and other receivables	13 316	23 014	20 816	22 903	24 708	25 044	25 670	26 694
Short-term financial assets	489	554	554	554	554	554	554	554
Operating cash	3 389	3 750	4 136	4 101	4 424	4 484	4 596	4 779
Excess cash	23 359	5 151	7 600	1 087	4 910	18 094	2 590	5 096
Total current assets	222 693	251 343	264 936	268 115	292 947	310 044	310 212	324 966
Total Assets	**883 216**	**948 689**	**956 014**	**968 510**	**997 999**	**1 024 328**	**1 041 677**	**1 067 091**
Equity								
Share capital	1	1	1	1	1	1	1	1
Share premium	87 257	87 379	87 379	87 379	87 379	87 379	87 379	87 379
Treasury shares	-12 051	-16 454	-16 454	-16 454	-16 454	-16 454	-16 454	-16 454
Share based payment reserve	0	1 623	1 623	1 623	1 623	1 623	1 623	1 623
Retained earnings	137 235	115 983	112 766	109 867	115 413	124 363	136 342	152 772
Total equity	**212 442**	**188 533**	**185 315**	**182 417**	**187 962**	**196 913**	**208 891**	**225 322**
Liabilities								
Non-current liabilities								
Long-term borrowings, loans and lease	384 317	440 233	440 233	449 567	454 900	464 900	464 900	464 900
Deferred tax liability	15 292	16 074	16 074	16 074	16 074	16 074	16 074	16 074
Other non-current liabilities	3 384	3 451	3 451	3 451	3 451	3 451	3 451	3 451
Total non-current liabilities	402 994	459 758	459 758	469 091	474 424	484 424	484 424	484 424
Current liabilities								
Trade and other payables	164 720	199 148	209 690	211 085	227 028	229 407	234 777	243 761
Government grants	62	63	63	63	63	63	63	63
Short-term borrowings, loans and lease	102 997	101 188	101 188	105 854	108 521	113 521	113 521	113 521
Total current liabilities	267 780	300 399	310 941	317 002	335 612	342 991	348 361	357 345
Total liabilities	**670 774**	**760 157**	**770 698**	**786 093**	**810 036**	**827 416**	**832 785**	**841 769**
Total liabilities and equity	**883 216**	**948 689**	**956 014**	**968 510**	**997 999**	**1 024 328**	**1 041 677**	**1 067 091**

Figure 35- Magnit's standardized balance sheet. Source: Magnit, own estimations

Appendix 9 – Standardized cash flow statement

RUB mn	2020E	2021E	2022E	2023E	2024E	2025E
CF from operating activities						
Net Income	27 783	28 101	36 546	39 950	42 979	47 431
D&A	85 623	80 282	83 983	84 653	84 869	87 599
Change in inventory	-12 958	-7 641	-18 879	-3 517	-14 933	-11 041
Change in receivables	2 198	-2 087	-1 806	-336	-626	-1 024
Change in payables	10 542	1 395	15 943	2 379	5 370	8 984
Change in operating cash	-386	35	-323	-60	-112	-183
CFO	**112 803**	**100 086**	**115 464**	**123 069**	**117 546**	**131 765**
CF from investing activities						
CAPEX	-79 354	-89 599	-88 641	-93 885	-102 050	-98 259
CFI	**-79 354**	**-89 599**	**-88 641**	**-93 885**	**-102 050**	**-98 259**
CF from financing activities	0	0	0	0	0	0
Net proceeds from the borrowings	0	14 000	8 000	15 000	0	0
Dividends paid	-31 000	-31 000	-31 000	-31 000	-31 000	-31 000
CFF	**-31 000**	**-17 000**	**-23 000**	**-16 000**	**-31 000**	**-31 000**
Change in cash (excess)	**2 448**	**-6 513**	**3 824**	**13 184**	**-15 504**	**2 506**

Figure 36- Magnit's standardized cash flow statement. Source: own estimations

Appendix 10 – Magnit outstanding bonds

Bonds								
Maturity	**Outstanding (RUB)**	**Issued (RUB)**						
2020	**10 000 000 000**	**10 000 000 000**						
Description	**Maturity Date**	**Amount Outstanding**	**Issued Amount**	**Coupon**	**Coupon Class**	**Country of Issue**	**Currency**	**ISIN**
MGNT 7.850 24-Dec-2020	24-Dec-2020	10 000 000 000	10 000 000 000	7,85	Fixed Coupon	Russian Federation	Russian Ruble	RU000A100H02
2021	**10 000 000 000**	**10 000 000 000**						
Description	**Maturity Date**	**Amount Outstanding**	**Issued Amount**	**Coupon**	**Coupon Class**	**Country of Issue**	**Currency**	**ISIN**
MGNT 8.500 23-Feb-2021	23-Feb-2021	10 000 000 000	10 000 000 000	8,5	Fixed Coupon	Russian Federation	Russian Ruble	RU000A1004G9
2022	**30 000 000 000**	**30 000 000 000**						
Description	**Maturity Date**	**Amount Outstanding**	**Issued Amount**	**Coupon**	**Coupon Class**	**Country of Issue**	**Currency**	**ISIN**
MGNT 8.700 01-Feb-2022	01-Feb-2022	10 000 000 000	10 000 000 000	8,7	Fixed Coupon	Russian Federation	Russian Ruble	RU000A1002U4
MGNT 6.900 03-May-2022	03-May-2022	10 000 000 000	10 000 000 000	6,9	Fixed Coupon	Russian Federation	Russian Ruble	RU000A100ZS3
MGNT 6.600 22-Dec-2022	22-Dec-2022	10 000 000 000	10 000 000 000	6,6	Fixed Coupon	Russian Federation	Russian Ruble	RU000A1018X4
2023	**40 000 000 000**	**40 000 000 000**						
Description	**Maturity Date**	**Amount Outstanding**	**Issued Amount**	**Coupon**	**Coupon Class**	**Country of Issue**	**Currency**	**ISIN**
MGNT 6.200 02-Mar-2023	02-Mar-2023	15 000 000 000	15 000 000 000	6,2	Fixed Coupon	Russian Federation	Russian Ruble	RU000A101HJ8
MGNT 4.650 26-Apr-2023	26-Apr-2023	10 000 000 000	10 000 000 000	4,65	Fixed Coupon	Russian Federation	Russian Ruble	RU000A101MC3
MGNT 5.900 19-May-2023	19-May-2023	15 000 000 000	15 000 000 000	5,9	Fixed Coupon	Russian Federation	Russian Ruble	RU000A101PJ1

Figure 37- Magnit's outstanding bonds. Source: Thomson Reuters Eikon (20/11/2020)

Appendix 11 – Magnit shares outstanding

Primary Exchange	Free Float	Free Float %	Shares Outstanding
MOSCOW EXCHANGE - ALL MARKETS	70 834 273	72,58%	97 550 000

Figure 38- Magnit's shares outstanding. Source: Thomson Reuters Eikon (20/11/2020)

Appendix 12 – Magnit's top 10 shareholders

Investor Name	% O/S
VTB Bank OJSC	26,15%
Dodge & Cox	4,23%
APG Asset Management N.V.	1,24%
Schroder Investment Management Ltd. (SIM)	1,03%
The Vanguard Group, Inc.	0,80%
BNP Paribas Asset Management UK Limited	0,60%
Genesis Investment Management, LLP	0,48%
Pictet Asset Management Ltd.	0,44%
HSBC Global Asset Management (UK) Limited	0,41%
Baring Asset Management Ltd.	0,37%

Figure 39- Magnit's top 10 shareholders. Source: Thomson Reuters Eikon (20/11/2020)