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FINANCIAL RATIOS AND FINANCIAL STATEMENTS ITEMS AT THE SECTOR LEVEL: EVIDENCE FROM TÜRKİYE*

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Abstract

The aim of this study is to examine the change of financial ratios and financial statement items at the sector level between 2009 and 2021. The data for this context has been obtained from the sectoral balance sheets and revenue statements provided by the Central Bank of the Republic of Türkiye (CBRT). Data from a total of 17 sectors have been examined. Liquidity, financial structure, operating efficiency and profitability ratios are used as financial ratios. The main items of balance sheet and income statement are taken into consideration as financial statement items. According to the study, information and communication, real estate activities, and professional, scientific, and technical sectors had the highest liquidity ratios, while agriculture, forestry and fisheries, construction, and education had the lowest. According to financial structure ratio analysis, the professional, scientific, and technical activities sector benefited the least from liabilities, while the transportation and storage, as well as the accommodation and food service activities sectors, benefited most from assets. The highest ratio of equity to total liabilities is observed in the sector of professional, scientific, and technical activities. The Education sector had the highest accounts receivable turnover and accounts payable turnover when turnover rates were examined. The mining and quarrying sector has the highest return on assets in terms of profitability ratios. Professional, scientific, and technical activities and the information and communication sector had the highest cumulative profitability ratio. Finally, it has been discovered that manufacturing, wholesale, and retail trade have the biggest financial statement items. This is because there are the most businesses functioning in these sectors.

Keywords: Financial Statement Items, Financial Ratios, Trend Analysis.

Sektör Düzeyinde Finansal Oranlar ve Mali Tablo Kalemleri: Türkiye'den Kanıtlar

Öz

Bu çalışmanın amacı, sektörlerin finansal oranlarını ve mali tablo kalemlerinin 2009-2021 yılları arasındaki değişimi incelemektir. Bu kapsamda veriler Türkiye Cumhuriyet Merkez Bankası (TCMB) tarafından yayımlanan sektörlerle ilişkin bilanço ve gelir tablolarından elde edilmiştir. Toplam 17 sektörle ait veriler dikkate alınmıştır. Finansal oranlar olarak likidite, finansal yapı, faaliyet etkinliği ve kârlılık oranları kullanılmıştır. Mali tablo

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kalemleri olarak ise bilanço ve gelir tablosu ana kalemleri dikkate alınmıştır. Çalışmanın sonucunda likidite oranları en düşük sektörlerin başında Tarım, Ormancılık ve Balıkçılık, İnşaat ile Eğitim sektörleri gelirken, en yüksek likidite oranlarına sahip sektörler ise Bilgi ve İletişim, Gayrimenkul Faaliyetleri ile Mesleki, Bilimsel ve Teknik Faaliyetler sektörleri olduğu belirlenmiştir. Finansal yapı oranları bakımından incelendiğinde yabancı kaynaklardan en az yaralanan sektör Mesleki, Bilimsel ve Teknik Faaliyetler sektörü olurken, en fazla yabancı kaynaklardan yararlanan sektör Ulaştırma ve Depolama ile Konaklama ve Yiyecek Hizmeti Faaliyetleri sektörleridir. Aynı zamanda Mesleki, Bilimsel ve Teknik Faaliyetler sektörü özkaynakların toplam pasiflerdeki oranı bakımında da en yüksek orana sahip bir sektör konumundadır. Deviz hızı oranları bakımından incelendiğinde ise alacak devir hızı ve borç devir hızının en yüksek olduğu sektör Eğitim sektörüdür. Kârlılık oranları açısından ise aktif kârlılığı en yüksek sektör Madencilik ve Taş Ocakçılığı sektörü, birikimli kârlılık oranı bakımından ise Mesleki, Bilimsel ve Teknik Faaliyetler ile Bilgi ve İletişim sektörü olduğu tespit edilmiştir. Son olarak mali tablo kalemleri en yüksek sektörlerin başında İmalat ile Toptan ve Perakende Ticaret sektörleri geldiği, zira bunun nedenin ise bu alanda faaliyet gösteren firma sayısının en yüksek oluşundan kaynakladığı tespit edilmiştir.

Anahtar Kelimeler: Mali Tablo Kalemleri, Finansal Oranlar, Trend Analizi.

INTRODUCTION

Financial ratios of companies are used for many purposes. These include assessing a company's ability to pay its debts, evaluating business and management success, and even legally regulating a firm's performance. The traditional literature of financial statement analysis often emphasise that a company should use sector averages as a target, and there is evidence that firms adjust their financial ratios according to such targets (Barnes, 1987:449; Lev, 1969: 290).

For investors, if the condition of the economy is at a level where investment can be made, the next stage is about which sector to invest in. Following that, alternative sectors have been identified (Er et al., 2017: 101). Financial statement analysis is definitely essential in the determination of alternative sectors. Financial statement analysis can be used to identify the company's/sector's financial position, profitability rate, and development position. Thus, the current and historical position of the company/sector can be determined (Akdoğan and Tenker, 2007: 549). The aim of this study is to examine at changes in financial ratios and key financial statement items at the sector level in Türkiye for companies who keep books on a balance sheet basis. Trend analysis has been conducted for key financial statement items between 2009 and 2021 using financial ratios from 17 sectors.

Lev (1969) examines whether companies use sector averages in financial ratios. The analysis's findings show that companies make use of sector averages. Gupta and Huefner's (1972) study is one of the first studies to analyse financial ratios at the macro level for sector level. Cowen and Hoffer (1982) discuss the usefulness of using sector financial ratio averages as benchmarks for evaluating each company. Gallizo et al. (2003) analyse the position of financial ratios at the country level in response to internal and external shocks. Cinca et al. (2005) investigate the effects of country and size on financial ratios at the European country level. Baležentis et al. (2012) use a multi-criteria decision-making method to compare sectors based on their financial ratios.

Studies analyzing the financial ratios of the balance sheets of the sectors published by The Central Bank of the Republic of Türkiye (CBRT) can be summarized in terms of sectors: manufacturing sector (Akyüz et al., 2004; Altıok and Tuncer, 2013; Demirci, 2017a; Demirci, 2017b; Şahin, 2019; Beller Dikmen, 2021; Ezin, 2022), energy sector (İskenderoğlu et al, 2015), food, beverage and tobacco sector (Dağlı and Eker, 2016), trade sector (Şahin, 2021), transportation and storage sector (Kurtlar, 2021), health sector (Aydemir, 2018), tourism sector (Karadeniz et al., 2016; Karadeniz et al., 2017; Bilici, 2019), food and textile sectors (Öğünç, 2018), accommodation and food services sector (Koşan and Karadeniz, 2014) and cargo transportation sector in sea and coastal waters (Karadeniz and Kılıç, 2015; Doğan, 2020).

Akaytay et al. (2015), which examines only the year 2012, is one of the leading studies on all sector balance sheets published by the CBRT. Another study is published by Yalçınkaya and Başaran (2022), which analyzes which sector has relatively better financial performance at the macro level using the TOPSIS method by taking into account the balance sheets published by the CBRT between 2009

and 2020. Akaytay et al. (2015), which analyzes only the year 2012, is one of the leading studies on all sector balance sheets published by the CBRT. Another study is conducted by Yalçınkaya and Başaran (2022), which analyzes which sector has relatively better financial performance at the macro level using the TOPSIS method by taking into account the balance sheets published by the CBRT between 2009 and 2020. Unlike the literature, this study analyzes the trends of 17 sectors in terms of liquidity, financial structure, efficiency and profitability ratios over the years by using the sectoral balance sheets published by the CBRT between 2009 and 2021, and also tries to reveal the 12-year trends by using trend analysis of the key financial statement items. The study is expected to contribute to the literature and provide guidance to practitioners and investors. The rest of the paper is structured as follows: methodology, findings, and conclusion.

1. METHODOLOGY

In this study, data have been obtained from the balance sheets and income statements published by the CBRT for the sectors between 2009 and 2021. Data from a total of 17 sectors have been used. Content and trend analysis have been used as the research method. In trend analysis, also known as the trend percentages method, a year in the financial statements is determined as the base year. The values of the items in the financial statements in the base year are accepted as 100. In the following periods, the percentage change in the value of the same type of financial statement items compared to the base year can be analyzed. Trend analysis determines the increasing or decreasing trend of financial statement items prepared at the sector/company level between periods. By revealing the percentages of these trends with respect to the base year, the development trend of the financial statement items in the mentioned financial statements and the company/sector can be analyzed (Akdoğan and Tenker, 2007: 609).

The changes in financial ratios at the sector level are examined over a period in content analysis. In the trend analysis, current assets, non-current assets, short-term liabilities, long-term liabilities, long-term liabilities, shareholders' equity, net sales, cost of sales, net profit/loss have been considered as financial statement items and 2010 has been chosen as the base year. Choosing a base year with normal economic conditions and no extraordinary factors makes it possible to compare the results of the trend analysis and to provide reliable information. Therefore, considering the impact of the Global Financial Crisis in 2008, it has been deemed appropriate to select 2010 as the base year for trend analysis. Information on 17 sectors within the scope of the research is given in Table 1.

Table 1. Sectoral Distribution of Companies (As of 2021)

| Code | Sector Name | Number of Company |
|------|--|-------------------|
| A | "Agriculture, Forestry and Fisheries" | 13862 |
| B | "Mining and Quarrying" | 6256 |
| C | "Manufacturing" | 153223 |
| D | "Electricity, Gas, Steam and Air Conditioning Production and Distribution" | 7937 |
| E | "Water Supply; Sewerage, Waste Management and Improvement Activities" | 2856 |
| F | "Construction" | 135320 |
| G | "Wholesale and Retail Trade" | 304877 |

| | | |
|----------|---|-------|
| H | "Transportation and Warehousing" | 48225 |
| I | "Accommodation and Food Service Activities" | 50397 |
| J | "Information and Communication" | 30824 |
| L | "Real Estate Activities" | 16914 |
| M | "Professional, Scientific and Technical Activities" | 73047 |
| N | "Administrative and Support Service Activities" | 38445 |
| P | "Education" | 16334 |
| Q | "Human Health and Social Service Activities" | 22865 |
| R | "Culture, Arts, Entertainment, Leisure and Sports" | 5492 |
| S | "Other Service Activities" | 7676 |

2. FINDINGS

This section includes the results of the change of financial ratios (current ratio, financial leverage ratio, inventory turnover ratio, economic profitability ratio) of 17 sectors published by the CBRT between 2009 and 2021. Afterwards, information on the sectors in which the highest and lowest values of financial ratios have been realized as of the years in the mentioned period is provided. Lastly, the trend analysis results for the main financial statement items have been reported. Figure 1 shows the change in current ratios of 17 sectors between 2009 and 2021.

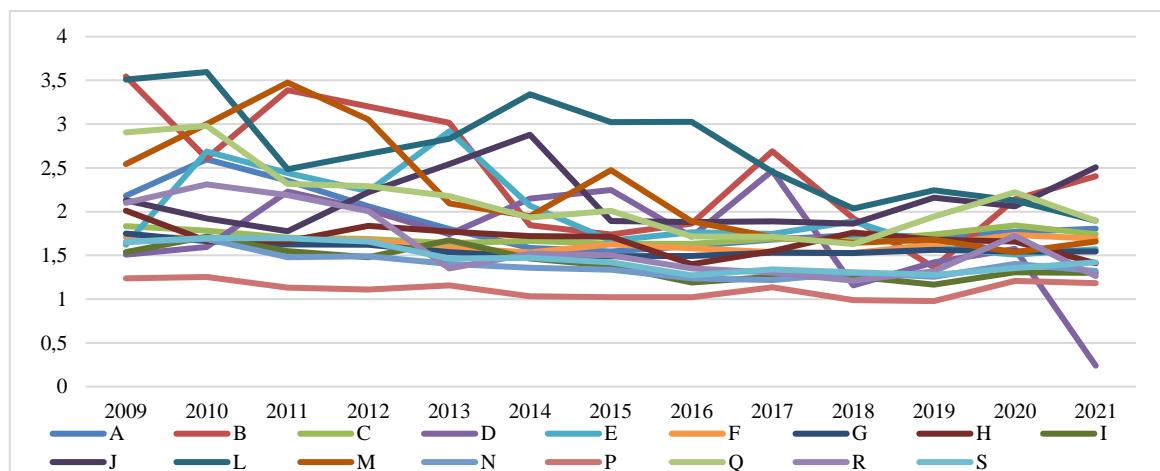
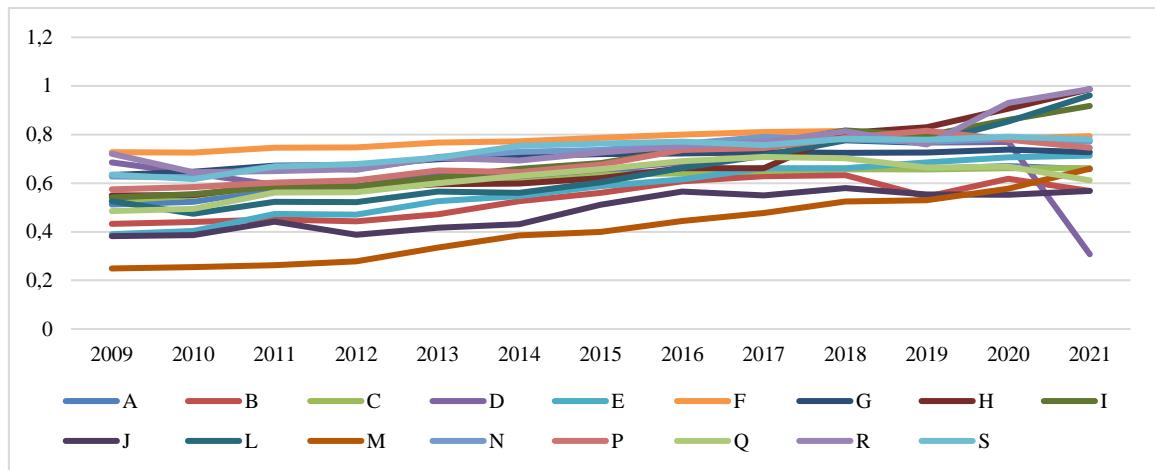
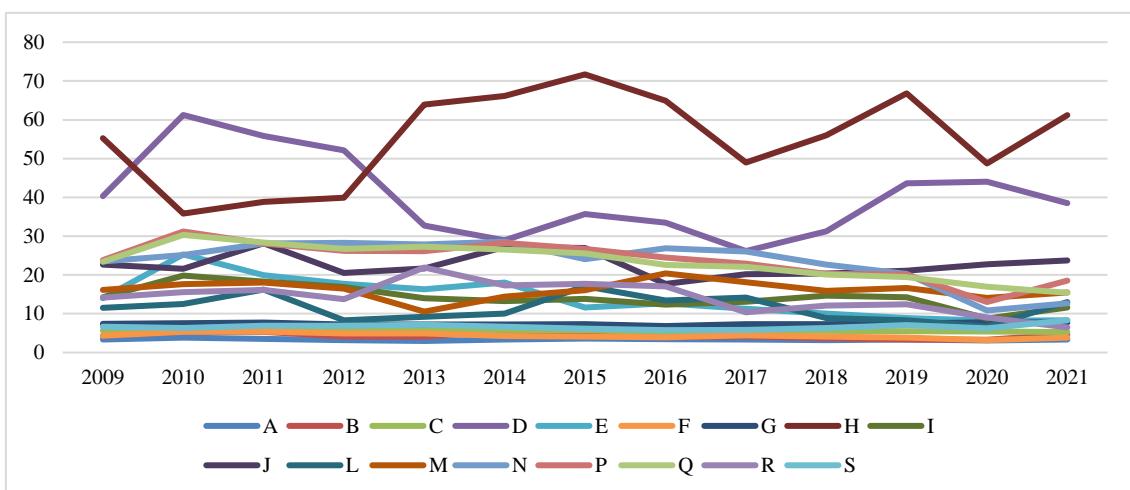


Figure 1. Change in Current Ratio (17 Sectors, 2009-2021)

Figure 1 shows that the Real Estate Activities (L), Mining and Quarrying (B), Culture, Arts, Entertainment, Leisure and Sports (R), and Electricity, Gas, Steam and Air Conditioning Production and Distribution (D) sectors have the highest volatility. Furthermore, it seems that many sectors have a current ratio between 1 and 2. The ideal current ratio, on the other hand, may range from country to country and from sector to sector within a country. The current ratio varies per sector, as shown in the Figure 1. Figure 2 shows the evolution of the financial leverage ratios of 17 sectors over the years.

**Figure 2. Change in Financial Leverage Ratio (17 Sectors, 2009-2021)**

As seen in Figure 2, the highest fluctuation is observed in the Electricity, Gas, Steam and Air Conditioning Production and Distribution (D) sector, while the sectors with steadily increasing financial leverage ratios over the years are the Professional, Scientific and Technical Activities (M), Water Supply; Sewerage, Waste Management and Improvement Activities (E) and Wholesale and Retail Trade (G) sectors. The Financial Leverage Ratio (FLR) is used to determine what percentage of a company's assets is financed by liabilities. The financial leverage ratio is generally expected to be less than 0.50 and higher than 0.50 can be considered risky. As of 2021, 4 sectors (Culture, Arts, Entertainment, Leisure and Sports [R], Real Estate Activities [L], Accommodation and Food Service Activities [I], Transportation and Warehousing [H] sectors) have a financial leverage ratio of almost 100%, in other words, they cannot finance with equity. Figure 3 shows the change in the inventory turnover ratio of 17 sectors over the years.

**Figure 3. Change in Inventory Turnover Ratio (17 Sectors, 2009-2021)**

Inventory turnover rate indicates the number of times the products in inventories are sold and replaced. In principle, a company's inventory turnover rate is expected to be higher than the average when compared to the sector average. As can be seen in Figure 3, the Transportation and Warehousing (H) and Electricity, Gas, Steam and Air Conditioning Production and Distribution (D) sectors are the leading sectors with high variability in inventory turnover. The inventory turnover rate of the Human

Health and Social Service Activities (Q) sector has decreased in all years except 2010. Many sectors with an inventory turnover rate of less than 10 (Agriculture, Forestry and Fisheries [A], Mining and Quarrying [B], Manufacturing [C], Construction [F], Wholesale and Retail Trade [G], Other Service Activities [S]) are notable. Figure 4 shows the change in the economic profitability of 17 sectors over the years.

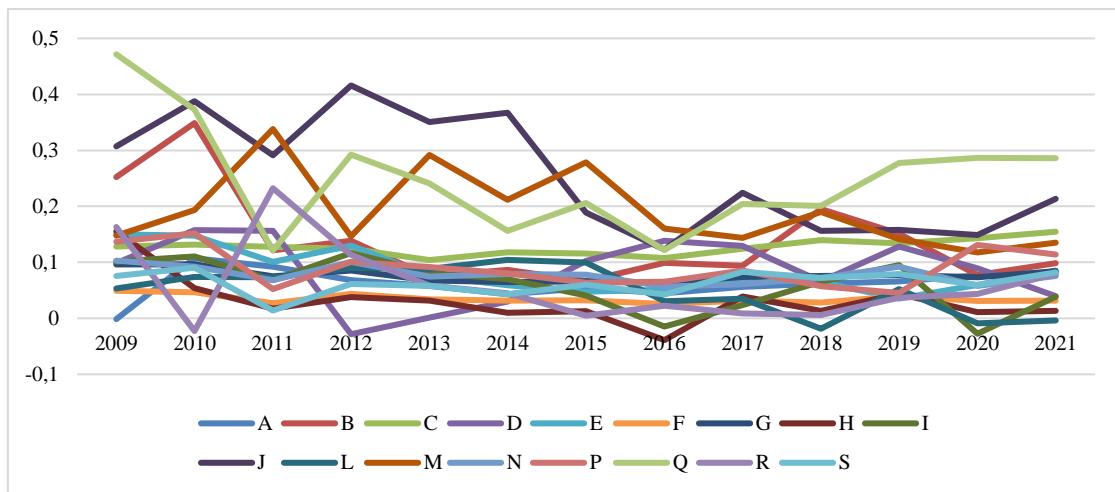


Figure 4. Change in Economic Profitability (17 Sectors, 2009-2021)

The economic profitability ratio indicates whether total liabilities and equity are used profitably or not. According to Figure 4, the sectors whose economic profitability fluctuated the most have been Information and Communication (J), Human Health and Social Service Activities (Q) and Professional, Scientific and Technical Activities (M) sectors. Sectors Agriculture, Forestry and Fisheries (A), Electricity, Gas, Steam and Air Conditioning Production and Distribution (D), Transportation and Warehousing (H), Accommodation and Food Service Activities (I), Real Estate Activities (L) and Culture, Arts, Entertainment, Leisure and Sports (R) have not been found to have economic profitability in a number of years. Table 2 provides information on the sectors with the highest liquidity ratios by years.

Table 2. Sectors with the Highest Liquidity Ratios by Years

| Year | Sector | CR | Sector | ATR | Sector | CashR | Sector | I/TA | Sector | IDR |
|------|--------|------|--------|------|--------|-------|--------|------|--------|------|
| 2009 | B | 3,54 | B | 2,67 | J | 0,73 | A | 0,31 | F | 0,85 |
| 2010 | L | 3,60 | M | 2,79 | M | 1,11 | A | 0,30 | F | 0,73 |
| 2011 | M | 3,47 | M | 2,55 | J | 0,83 | A | 0,30 | F | 0,86 |
| 2012 | B | 3,20 | M | 2,84 | M | 1,00 | G | 0,29 | F | 0,88 |
| 2013 | B | 3,02 | J | 2,33 | J | 1,04 | A | 0,29 | F | 0,87 |
| 2014 | L | 3,34 | J | 2,59 | J | 1,22 | G | 0,28 | F | 0,87 |
| 2015 | L | 3,02 | M | 1,96 | D | 0,54 | S | 0,29 | B | 0,90 |
| 2016 | L | 3,03 | L | 1,69 | J | 0,55 | A | 0,29 | F | 0,89 |
| 2017 | B | 2,69 | B | 1,79 | J | 0,55 | A | 0,30 | F | 0,90 |
| 2018 | L | 2,03 | J | 1,61 | J | 0,51 | A | 0,34 | F | 0,91 |
| 2019 | L | 2,24 | J | 1,89 | J | 0,66 | A | 0,34 | F | 0,90 |
| 2020 | Q | 2,22 | J | 1,78 | J | 0,60 | A | 0,33 | F | 0,88 |
| 2021 | J | 2,51 | J | 2,18 | J | 0,87 | A | 0,36 | A | 0,85 |

"CR: Current Ratio, ATR: Acid-Test Ratio, CashR: Cash Ratio, S/TA: Inventories/Total Asset, Inventory Dependency Ratio"

SBO:

As shown in Table 2, the current ratio of the Real Estate Activities (L) sector has been the highest for 6 years, the liquidity ratio of the Information and Communication (J), sector has been the highest for 6 years, and the cash ratio of the Information and Communication (J), sector has been the highest for 10 years within a period of 13 years. When other ratios related to liquidity ratios are examined, it is discovered that sector Agriculture, Forestry and Fisheries (A) has the highest inventory in total assets, while sector Construction (F) has the highest inventory dependency. Table 3 provides information on the sectors with the lowest liquidity ratios by years.

Table 3. Sectors with the Lowest Liquidity Ratios by Years

| Year | Sector | CR | Sector | ATR | Sector | CashR | Sector | I/TA | Sector | IDR |
|------|--------|------|--------|------|--------|-------|--------|-------|--------|-------|
| 2009 | P | 1,24 | A | 0,77 | F | 0,15 | D | 0,02 | J | 0,28 |
| 2010 | P | 1,25 | S | 0,93 | F | 0,17 | D | 0,01 | M | -0,11 |
| 2011 | P | 1,13 | P | 0,89 | F | 0,14 | D | 0,02 | J | 0,18 |
| 2012 | P | 1,11 | A | 0,79 | F | 0,12 | D | 0,03 | J | 0,09 |
| 2013 | P | 1,16 | A | 0,69 | F | 0,13 | D | 0,03 | J | -0,02 |
| 2014 | P | 1,03 | A | 0,69 | F | 0,13 | M | 0,03 | J | -0,21 |
| 2015 | P | 1,02 | A | 0,64 | B | 0,11 | D | 0,03 | D | 0,51 |
| 2016 | P | 1,02 | A | 0,61 | F | 0,11 | M | 0,03 | J | 0,46 |
| 2017 | P | 1,14 | A | 0,62 | F | 0,10 | D | 0,03 | J | 0,46 |
| 2018 | P | 0,99 | A | 0,67 | F | 0,09 | M | 0,04 | J | 0,50 |
| 2019 | P | 0,98 | A | 0,61 | F | 0,11 | M | 0,03 | J | 0,35 |
| 2020 | P | 1,21 | A | 0,71 | F | 0,13 | H | 0,04 | J | 0,41 |
| 2021 | D | 0,24 | D | 0,08 | D | 0,01 | D | 0,003 | J | 0,14 |

"CR: Current Ratio, ATR: Acid-Test Ratio, CashR: Cash Ratio, S/TA: Inventories/Total Asset, Inventory Dependency Ratio"

SBO:

As seen in Table 3, the inventory dependency of the Information and Communication (J) sector, which has the highest liquidity ratios, has the lowest value. The liquidity ratios (ATR, CashR) of sectors Agriculture, Forestry and Fisheries (A) and Construction (F), which have the highest stock dependency and the highest inventory in total assets, have the lowest values. In terms of the current ratio, the lowest value belongs to the Education (P) sector. Table 4 provides information on the sectors with the highest values in terms of financial structure ratios.

Table 4. Sectors with the Highest Financial Structure Ratios by Years

| Year | SR | L/TA | SR | E/TA | SK | E/L | SR | STL/TLE | SR | LTL/TLE | SR | CA/TA | SR | TFA/TA |
|------|----|------|----|------|----|------|----|---------|----|---------|----|-------|----|--------|
| 2009 | F | 0,73 | M | 0,75 | M | 4,28 | F | 0,58 | L | 0,42 | G | 0,76 | L | 0,55 |
| 2010 | F | 0,73 | M | 0,75 | M | 4,57 | F | 0,57 | L | 0,39 | G | 0,78 | L | 0,56 |
| 2011 | F | 0,75 | M | 0,74 | M | 3,52 | S | 0,57 | L | 0,42 | G | 0,78 | L | 0,55 |
| 2012 | F | 0,75 | M | 0,72 | M | 3,25 | G | 0,57 | L | 0,37 | G | 0,79 | L | 0,54 |
| 2013 | F | 0,77 | M | 0,67 | J | 2,73 | G | 0,58 | L | 0,41 | G | 0,80 | L | 0,57 |
| 2014 | F | 0,77 | M | 0,62 | J | 2,90 | S | 0,63 | L | 0,46 | G | 0,80 | L | 0,54 |
| 2015 | F | 0,79 | M | 0,60 | D | 3,51 | S | 0,63 | L | 0,50 | G | 0,80 | L | 0,55 |
| 2016 | F | 0,80 | M | 0,56 | M | 1,49 | S | 0,63 | L | 0,55 | G | 0,79 | L | 0,55 |
| 2017 | F | 0,81 | M | 0,52 | M | 1,47 | S | 0,61 | L | 0,59 | G | 0,80 | L | 0,53 |
| 2018 | I | 0,82 | M | 0,48 | Q | 1,24 | S | 0,65 | L | 0,64 | G | 0,80 | L | 0,51 |
| 2019 | H | 0,83 | M | 0,47 | Q | 1,49 | S | 0,65 | L | 0,62 | G | 0,81 | L | 0,49 |
| 2020 | R | 0,93 | J | 0,45 | Q | 1,37 | S | 0,65 | R | 0,68 | G | 0,83 | I | 0,45 |
| 2021 | R | 0,99 | J | 0,43 | Q | 1,41 | S | 0,66 | L | 0,73 | G | 0,84 | L | 0,44 |

"SR: Sector, L/TA: Liabilities/Total Asset, E/TA: Equity/Total Asset, E/L: Equity/ Liabilities

STL/TLE: Short-Term Liabilities/Total Liabilities and Equity, LTL/TLE: Long-Term Liabilities/Total Liabilities and Equity

CA/TA: Current Asset/Total Asset, TFA/TA: Tangible Fixed Assets /Total Asset"

As shown in Table 4, the sector that used the highest level of liabilities over the 13 years has been Construction (F), while the sectors with the strongest shareholders' equity have been Professional,

Scientific and Technical Activities (M) and Human Health and Social Service Activities (Q). The sector with the highest level of short-term liabilities has been Other Service Activities (S), while long-term liabilities have been the highest in Real Estate Activities (L). While sector Wholesale and Retail Trade (G) has the highest percentage of current assets in total assets, sector Real Estate Activities (L) has the highest percentage of tangible fixed assets in total assets. Table 5 provides information on the sectors with the lowest values in terms of financial structure ratios.

Table 5. Sectors with the Lowest Financial Structure Ratios by Years

| Year | SR | L/TA | SR | E/TA | SK | E/L | SR | STL/TLE | SR | LTL/TLE | SR | CA/TA | SR | TFA/TA |
|------|----|------|----|-------|----|-------|----|---------|----|---------|----|-------|----|--------|
| 2009 | M | 0,25 | F | 0,27 | F | 0,63 | M | 0,15 | E | 0,10 | M | 0,21 | M | 0,05 |
| 2010 | M | 0,25 | F | 0,28 | F | 0,65 | M | 0,15 | E | 0,12 | L | 0,21 | M | 0,05 |
| 2011 | M | 0,26 | F | 0,26 | F | 0,55 | M | 0,16 | E | 0,14 | L | 0,24 | M | 0,05 |
| 2012 | M | 0,28 | F | 0,26 | F | 0,45 | M | 0,17 | E | 0,12 | L | 0,23 | M | 0,05 |
| 2013 | M | 0,34 | F | 0,23 | F | 0,40 | M | 0,18 | E | 0,18 | L | 0,24 | M | 0,05 |
| 2014 | M | 0,38 | F | 0,23 | F | 0,39 | L | 0,22 | J | 0,20 | M | 0,26 | M | 0,05 |
| 2015 | M | 0,40 | F | 0,22 | F | 0,34 | L | 0,22 | G | 0,20 | D | 0,26 | M | 0,05 |
| 2016 | M | 0,44 | F | 0,20 | F | 0,31 | L | 0,23 | G | 0,20 | M | 0,27 | M | 0,06 |
| 2017 | M | 0,48 | F | 0,19 | F | 0,29 | L | 0,24 | G | 0,21 | D | 0,26 | M | 0,06 |
| 2018 | M | 0,52 | I | 0,18 | F | 0,28 | L | 0,24 | G | 0,21 | L | 0,28 | M | 0,06 |
| 2019 | M | 0,53 | H | 0,17 | F | 0,33 | L | 0,25 | G | 0,21 | L | 0,27 | M | 0,06 |
| 2020 | J | 0,55 | R | 0,07 | R | 0,20 | B | 0,28 | G | 0,22 | L | 0,27 | M | 0,06 |
| 2021 | D | 0,31 | D | -0,16 | D | -0,38 | D | 0,07 | G | 0,17 | D | 0,17 | M | 0,07 |

"**SR:** Sector, **L/TA:** Liabilities/Total Asset, **E/TA:** Equity/Total Asset, **E/L:** Equity/ Liabilities

STL/TLE: Short-Term Liabilities/Total Liabilities and Equity, **LTL/TLE:** Long-Term Liabilities/Total Liabilities and Equity

CA/TA: Current Asset/Total Asset, **TFA/TA:** Tangible Fixed Assets /Total Asset"

As shown in Table 5, the sector that has the least use of liabilities is the Professional, Scientific and Technical Activities (M) sector. The sectors with the lowest equity are Construction (F) sector and the equity of this sector cannot meet its liabilities. The sectors with the lowest short-term liabilities are Professional, Scientific and Technical Activities (M) and Real Estate Activities (L) sectors, while the sectors with the lowest long-term liabilities are Water Supply; Sewerage, Waste Management and Improvement Activities (E) and Wholesale and Retail Trade (G) sectors. The sector with the lowest current asset ratio in total assets is Real Estate Activities (L) and Professional, Scientific and Technical Activities (M) sectors. In terms of fixed asset ratio, the lowest is Professional, Scientific and Technical Activities (M) sector. Table 6 shows the sectors with the highest efficiency ratios by years.

Table 6. Sectors with the Highest Efficiency Ratios by Years

| Year | SR | ITR | SR | RT | SR | WCTR | SR | NWC TR | SR | TFAT | SR | PT | SR | AT |
|------|----|------|----|------|----|------|----|--------|----|------|----|------|----|------|
| 2009 | H | 55,2 | P | 26,5 | P | 2,74 | G | 4,65 | G | 27,0 | E | 34,6 | G | 1,57 |
| 2010 | D | 61,2 | P | 25,4 | P | 2,54 | G | 4,94 | G | 27,8 | P | 14,1 | G | 1,66 |
| 2011 | D | 55,7 | P | 19,8 | H | 2,86 | G | 5,46 | G | 28,8 | P | 14,2 | G | 1,75 |
| 2012 | D | 52,1 | P | 19,6 | H | 2,72 | G | 5,56 | G | 29,3 | P | 13,2 | G | 1,70 |
| 2013 | H | 63,9 | P | 19,7 | H | 2,61 | G | 5,04 | G | 29,1 | P | 13,0 | G | 1,61 |
| 2014 | H | 66,1 | P | 17,7 | H | 2,56 | G | 5,20 | G | 29,7 | P | 12,7 | G | 1,61 |
| 2015 | H | 71,7 | I | 16,9 | H | 2,44 | G | 4,95 | G | 28,3 | P | 13,1 | G | 1,55 |
| 2016 | H | 64,8 | P | 17,9 | N | 2,32 | G | 4,20 | G | 27,6 | P | 14,1 | G | 1,48 |
| 2017 | H | 49,0 | P | 19,8 | N | 2,28 | G | 4,72 | G | 29,6 | P | 13,2 | G | 1,54 |
| 2018 | H | 56,0 | I | 18,0 | N | 2,44 | G | 4,73 | G | 31,4 | H | 13,6 | G | 1,61 |
| 2019 | H | 66,7 | I | 20,9 | N | 2,41 | G | 4,31 | G | 31,0 | P | 12,4 | G | 1,56 |
| 2020 | H | 48,7 | I | 15,1 | D | 2,30 | G | 4,96 | G | 32,0 | P | 11,4 | G | 1,56 |
| 2021 | H | 61,2 | I | 18,0 | Q | 2,10 | G | 5,41 | G | 35,0 | H | 15,0 | G | 1,64 |

"**SR:** Sector, **ITR:** Inventory Turnover Rate, **RT:** Receivables Turnover, **WCTR:** Working Capital Turnover Rate, **NWC TR:** Net Working Capital Turnover Rate, **TFAT:** Tangible Fixed Asset Turnover, **PT:** Payables Turnover **AT:** Asset Turnover"

As seen in Table 6, the sector with the fastest inventory turnover is the Transportation and Warehousing (H) sector. Accordingly, Transportation and Warehousing (H) sector also has the highest working capital turnover rate. The highest value in terms of receivables turnover and payables turnover is in the Education (P) sector. The highest values in terms of net working capital turnover, tangible fixed asset turnover and asset turnover are in the Wholesale and Retail Trade (G) sector. Table 7 shows information on the sectors that have the lowest values in terms of efficiency ratios between 2009 and 2021.

Table 7. Sectors with the Lowest Efficiency Ratio by Years

| Year | SR | ITR | SR | RT | SR | WCTR | SR | NWCTR | SR | TFAT | SR | PT | SK | AT |
|------|----|------|----|------|----|------|----|-------|----|------|----|------|----|------|
| 2009 | A | 3,35 | D | 3,89 | F | 0,62 | P | -0,12 | L | 1,34 | D | 6,53 | M | 0,17 |
| 2010 | A | 3,84 | F | 4,86 | F | 0,58 | J | -0,99 | L | 1,29 | D | 3,37 | L | 0,14 |
| 2011 | A | 3,49 | F | 4,43 | M | 0,58 | J | -0,20 | L | 1,82 | F | 4,89 | L | 0,16 |
| 2012 | A | 3,18 | M | 3,90 | M | 0,60 | P | -0,77 | L | 0,84 | L | 4,29 | L | 0,17 |
| 2013 | A | 2,99 | M | 4,50 | F | 0,56 | P | -1,01 | L | 1,38 | M | 4,19 | L | 0,16 |
| 2014 | A | 3,38 | M | 3,72 | F | 0,57 | P | -0,89 | L | 0,92 | M | 3,96 | M | 0,18 |
| 2015 | A | 3,62 | F | 4,00 | F | 0,53 | P | -0,40 | L | 0,98 | R | 3,99 | L | 0,18 |
| 2016 | A | 3,42 | J | 3,98 | M | 0,46 | P | -0,34 | L | 0,82 | J | 3,38 | L | 0,18 |
| 2017 | A | 3,32 | J | 3,87 | M | 0,49 | P | -0,27 | L | 0,88 | J | 3,64 | L | 0,17 |
| 2018 | A | 3,18 | M | 3,71 | M | 0,46 | J | -1,05 | L | 0,90 | M | 3,26 | L | 0,16 |
| 2019 | A | 3,32 | M | 3,94 | M | 0,46 | B | -2,14 | D | 1,06 | M | 3,80 | L | 0,17 |
| 2020 | A | 3,14 | M | 3,76 | M | 0,44 | H | -0,12 | D | 0,95 | R | 3,01 | L | 0,16 |
| 2021 | A | 3,37 | M | 4,53 | M | 0,50 | R | -0,29 | D | 1,18 | R | 3,82 | L | 0,18 |

"**SR:** Sector, **ITR:** Inventory Turnover Rate, **RT:** Receivables Turnover, **WCTR:** Working Capital Turnover Rate, **NWCTR:** Net Working Capital Turnover Rate, **TFAT:** Tangible Fixed Asset Turnover, **PT:** Payables Turnover **AT:** Asset Turnover"

According to Table 7, the sector with the lowest inventory turnover rate for all years is sector Agriculture, Forestry and Fisheries (A), while the lowest values for receivables turnover and payables turnover rate are in sector Professional, Scientific and Technical Activities (M). Likewise, in terms of working capital turnover, the lowest value has been observed in sector Professional, Scientific and Technical Activities (M) in 8 out of 13 years. In terms of net working capital, the lowest values have been observed in the Education (P) sector, such that these values have been negative in all the years concerned. Lastly, the lowest values in terms of asset turnover and tangible fixed asset turnover have been seen in the Real Estate Activities (L) sector. Table 8 provides information on the sectors with the lowest profitability ratios by years.

Table 8. Sectors with the Highest Profitability Ratios by Years

| Year | Sector | EP | Sector | AP | Sector | CPR | Sector | OPM | Sector | NPM |
|------|--------|------|--------|------|--------|------|--------|------|--------|------|
| 2009 | Q | 0,47 | B | 0,06 | M | 0,16 | E | 0,25 | B | 0,17 |
| 2010 | J | 0,39 | B | 0,10 | J | 0,13 | M | 0,24 | M | 0,15 |
| 2011 | S | 0,01 | B | 0,12 | M | 0,11 | L | 0,21 | B | 0,27 |
| 2012 | J | 0,42 | B | 0,11 | M | 0,11 | M | 0,21 | B | 0,22 |
| 2013 | J | 0,35 | B | 0,08 | J | 0,11 | L | 0,19 | B | 0,17 |
| 2014 | J | 0,37 | J | 0,04 | J | 0,10 | L | 0,24 | L | 0,11 |
| 2015 | M | 0,28 | M | 0,05 | M | 0,08 | L | 0,23 | B | 0,16 |
| 2016 | M | 0,16 | C | 0,03 | M | 0,08 | L | 0,21 | M | 0,24 |
| 2017 | J | 0,22 | C | 0,04 | M | 0,07 | L | 0,20 | B | 0,23 |
| 2018 | Q | 0,20 | B | 0,08 | M | 0,08 | B | 0,22 | B | 0,16 |
| 2019 | Q | 0,28 | R | 0,09 | J | 0,06 | D | 0,21 | B | 0,17 |
| 2020 | Q | 0,29 | B | 0,08 | R | 0,10 | D | 0,24 | B | 0,26 |
| 2021 | Q | 0,29 | B | 0,13 | R | 0,07 | L | 0,28 | B | 0,22 |

"**EP:** Economic Profitability, **AP:** Asset Profitability, **CPR:** Cumulative Profitability Ratio, **OPM:** Operating Profit Margin, **NPM:** Net Profit Margin"

Table 8 shows that the economic profitability of the Information and Communication (J) and Human Health and Social Service Activities (Q) sectors has been highest in 5 of the last 13 years. In terms of asset profitability, the Mining and Quarrying (B) sector generated the most value in 8 of the 13 years, and the Mining and Quarrying (B) sector had the largest net profit margin. The Real Estate Activities (L) sector has the largest operating profit margin, and the Professional, Scientific and Technical Activities (M) sector has the highest cumulative profitability ratio. Table 9 shows the sectors with the lowest profitability ratios by year.

Table 9. Sectors with the Lowest Profitability Ratios by Years

| Year | Sector | EP | Sector | AP | Sector | CPR | Sector | OPM | Sector | NPM |
|------|--------|--------|--------|-------|--------|------|--------|-------|--------|-------|
| 2009 | A | -0,001 | R | -0,01 | L | 0,03 | R | -0,18 | L | -0,27 |
| 2010 | R | -0,02 | R | -0,01 | F | 0,02 | R | -0,40 | R | -0,34 |
| 2011 | S | 0,01 | Q | -0,04 | F | 0,02 | R | -0,02 | L | -0,08 |
| 2012 | D | -0,03 | S | 0,001 | F | 0,02 | R | 0,001 | S | -0,01 |
| 2013 | D | 0,003 | D | -0,03 | F | 0,02 | R | -0,11 | D | -0,30 |
| 2014 | H | 0,01 | D | -0,01 | F | 0,02 | D | -0,03 | D | -0,33 |
| 2015 | R | 0,01 | D | -0,02 | F | 0,02 | R | -0,01 | D | -0,36 |
| 2016 | H | -0,04 | I | -0,05 | F | 0,02 | R | -0,19 | I | -0,25 |
| 2017 | R | 0,01 | I | -0,03 | F | 0,01 | R | -0,16 | L | -0,24 |
| 2018 | L | -0,02 | D | -0,04 | F | 0,01 | R | -0,03 | L | -0,53 |
| 2019 | E | 0,04 | P | -0,03 | F | 0,01 | R | -0,07 | L | -0,26 |
| 2020 | I | -0,03 | I | -0,09 | S | 0,02 | R | -0,08 | R | -0,59 |
| 2021 | L | 0,00 | L | -0,09 | G | 0,01 | R | -0,25 | D | -0,39 |

"EP: Economic Profitability, AP: Asset Profitability, CPR: Cumulative Profitability Ratio, OPM: Operating Profit Margin, NPM: Net Profit Margin"

As seen in Table 9, economic profitability has negative values in 6 different sectors for 6 years. In terms of return on assets, it is realised that it has negative values in all years except 2012, in other words, it is understood that net profit could not be generated in the mentioned years. This is also the case for operating profit margin and net profit margin (the only difference is that net profit for the period also appeared in 2012). Lastly, in terms of cumulative profitability ratio, it can be said that the sector with the lowest values is the Construction (F) sector.

In terms of main financial statement items, the sectors with the highest and lowest values by year have been analysed. Due to the number of companies operating in the two sectors (153,223 companies in the manufacturing sector and 304,877 companies in the wholesale and retail trade sector) and the size of the companies, it has been determined that the financial statement items have been the highest in the related two sectors over the years. For example, while the value of current assets, short-term liabilities, net sales, and cost of sales items in the Wholesale and Retail Trade (G) sector was the highest in the 13-year period, the value of non-current assets, long-term liabilities, shareholders' equity, and financing expenditure items in the Manufacturing (C) sector reached the highest value. The sectors with the lowest values of the aforementioned main financial statement items have also been found to be in the sectors with the lowest number of companies. However, it should be noted that the lowest value of all main financial statement items in general is in the Other Service Activities (S) sector.

The trend analysis for the financial statement items is presented below. As mentioned before, 2010 is used as the base year for trend analysis and the increasing or decreasing trends of other years are presented. Firstly, Table 10 presents the trend of the current assets item by years.

Table 10. Trend Analysis of Current Assets between 2010-2021

| Year | ITEM | A | B | C | D | E | F | G | H | I | J | L | M | N | P | Q | R | S |
|------|------|------|-----|------|-----|------|-----|-----|-----|-----|-----|------|-----|------|-----|-----|------|-----|
| 2010 | CA | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 2011 | CA | 134 | 132 | 123 | 81 | 131 | 121 | 123 | 105 | 134 | 121 | 141 | 122 | 123 | 110 | 108 | 112 | 114 |
| 2012 | CA | 165 | 163 | 135 | 94 | 161 | 142 | 143 | 121 | 156 | 140 | 157 | 135 | 143 | 138 | 124 | 143 | 128 |
| 2013 | CA | 212 | 185 | 163 | 110 | 208 | 180 | 172 | 137 | 210 | 169 | 207 | 171 | 177 | 174 | 147 | 189 | 132 |
| 2014 | CA | 245 | 187 | 187 | 107 | 248 | 208 | 200 | 159 | 246 | 200 | 291 | 211 | 223 | 208 | 172 | 221 | 141 |
| 2015 | CA | 292 | 202 | 220 | 118 | 300 | 257 | 235 | 184 | 287 | 221 | 354 | 254 | 275 | 244 | 205 | 263 | 158 |
| 2016 | CA | 341 | 246 | 258 | 148 | 355 | 310 | 271 | 212 | 317 | 264 | 423 | 287 | 326 | 271 | 228 | 308 | 189 |
| 2017 | CA | 415 | 280 | 323 | 160 | 495 | 378 | 326 | 264 | 381 | 296 | 529 | 343 | 430 | 370 | 281 | 396 | 219 |
| 2018 | CA | 551 | 348 | 406 | 218 | 600 | 449 | 379 | 324 | 439 | 361 | 717 | 385 | 531 | 452 | 339 | 471 | 257 |
| 2019 | CA | 650 | 421 | 473 | 241 | 782 | 473 | 441 | 400 | 537 | 425 | 797 | 456 | 672 | 539 | 354 | 625 | 284 |
| 2020 | CA | 843 | 581 | 639 | 294 | 919 | 534 | 569 | 496 | 618 | 532 | 922 | 523 | 845 | 695 | 471 | 985 | 336 |
| 2021 | CA | 1249 | 964 | 1041 | 460 | 1523 | 707 | 854 | 839 | 951 | 793 | 1252 | 765 | 1125 | 882 | 619 | 1411 | 446 |

As shown in Table 10, the current assets item has been on an upward trend for all sectors over the years. In fact, there are some sectors (Sectors Agriculture, Forestry and Fisheries [A], Manufacturing [C], Water Supply; Sewerage, Waste Management and Improvement Activities [E], Real Estate Activities [L], Administrative and Support Service Activities [N] and Culture, Arts, Entertainment, Leisure and Sports [R]) where the increase in the current assets item has been more than 10 times higher compared to 2010. Table 11 shows the trend analysis results for the fixed assets item.

Table 11. Trend Analysis of Fixed Assets between 2010-2021

| Year | ITEM | A | B | C | D | E | F | G | H | I | J | L | M | N | P | Q | R | S |
|------|------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2010 | FA | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 2011 | FA | 134 | 127 | 112 | 130 | 113 | 121 | 117 | 127 | 119 | 109 | 118 | 111 | 122 | 125 | 123 | 109 | 136 |
| 2012 | FA | 172 | 156 | 126 | 153 | 131 | 142 | 133 | 139 | 139 | 112 | 137 | 125 | 146 | 148 | 142 | 127 | 155 |
| 2013 | FA | 202 | 183 | 148 | 211 | 157 | 173 | 151 | 164 | 171 | 104 | 170 | 155 | 158 | 189 | 168 | 150 | 163 |
| 2014 | FA | 242 | 266 | 169 | 250 | 188 | 208 | 174 | 198 | 204 | 104 | 190 | 171 | 196 | 245 | 192 | 179 | 152 |
| 2015 | FA | 289 | 318 | 201 | 311 | 217 | 265 | 201 | 256 | 241 | 130 | 218 | 192 | 252 | 291 | 220 | 228 | 174 |
| 2016 | FA | 328 | 392 | 232 | 356 | 236 | 326 | 232 | 314 | 275 | 143 | 285 | 225 | 317 | 307 | 256 | 241 | 201 |
| 2017 | FA | 370 | 457 | 264 | 415 | 271 | 366 | 279 | 399 | 300 | 157 | 345 | 251 | 417 | 374 | 289 | 273 | 231 |
| 2018 | FA | 432 | 555 | 316 | 468 | 314 | 440 | 319 | 477 | 335 | 163 | 485 | 288 | 498 | 447 | 328 | 303 | 240 |
| 2019 | FA | 503 | 593 | 353 | 515 | 347 | 490 | 343 | 567 | 386 | 176 | 560 | 334 | 521 | 503 | 372 | 319 | 271 |
| 2020 | FA | 617 | 659 | 427 | 617 | 476 | 576 | 400 | 673 | 443 | 198 | 629 | 363 | 624 | 536 | 420 | 464 | 305 |
| 2021 | FA | 829 | 1008 | 625 | 857 | 654 | 780 | 537 | 926 | 573 | 249 | 814 | 433 | 841 | 617 | 584 | 616 | 380 |

As shown in Table 11, the trends in the fixed assets item have mostly been upward over the years (except for the Information and Communication [J] sector, see 2013-2014). It can be stated that this upward trend in fixed assets is slower than the upward trend in current assets. Table 12 shows the trend analysis results for short-term liabilities.

Table 12. Trend Analysis of Short-Term Liabilities between 2010-2021

| Year | ITEM | A | B | C | D | E | F | G | H | I | J | L | M | N | P | Q | R | S |
|------|------|------|-----|------|-----|------|-----|-----|------|------|-----|------|------|------|-----|-----|------|-----|
| 2010 | STL | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 2011 | STL | 142 | 128 | 127 | 74 | 142 | 121 | 128 | 112 | 124 | 147 | 148 | 128 | 135 | 119 | 125 | 114 | 129 |
| 2012 | STL | 186 | 149 | 140 | 89 | 165 | 142 | 148 | 130 | 152 | 131 | 194 | 149 | 157 | 148 | 153 | 142 | 140 |
| 2013 | STL | 247 | 179 | 172 | 110 | 221 | 179 | 181 | 148 | 184 | 144 | 271 | 202 | 194 | 189 | 180 | 190 | 154 |
| 2014 | STL | 297 | 205 | 195 | 109 | 269 | 206 | 212 | 171 | 230 | 164 | 282 | 277 | 246 | 228 | 223 | 225 | 168 |
| 2015 | STL | 359 | 238 | 233 | 128 | 343 | 254 | 252 | 203 | 281 | 231 | 337 | 321 | 313 | 275 | 264 | 267 | 193 |
| 2016 | STL | 415 | 291 | 271 | 152 | 406 | 306 | 290 | 248 | 337 | 294 | 442 | 402 | 378 | 308 | 319 | 326 | 227 |
| 2017 | STL | 478 | 331 | 332 | 184 | 556 | 376 | 345 | 295 | 396 | 323 | 563 | 494 | 518 | 393 | 389 | 416 | 255 |
| 2018 | STL | 625 | 395 | 411 | 262 | 657 | 451 | 402 | 393 | 479 | 386 | 797 | 590 | 621 | 523 | 495 | 499 | 304 |
| 2019 | STL | 752 | 486 | 473 | 278 | 863 | 462 | 460 | 501 | 594 | 416 | 937 | 721 | 771 | 649 | 479 | 552 | 338 |
| 2020 | STL | 961 | 535 | 608 | 326 | 1065 | 515 | 589 | 651 | 694 | 505 | 1316 | 879 | 949 | 725 | 579 | 693 | 393 |
| 2021 | STL | 1382 | 859 | 1020 | 520 | 1724 | 681 | 891 | 1012 | 1006 | 695 | 1746 | 1214 | 1285 | 912 | 772 | 1207 | 513 |

As seen in Table 12, short-term liabilities have been on an upward trend in all sectors compared to 2010, except for the Electricity, Gas, Steam and Air Conditioning Production and Distribution (D) sector. Moreover, it can be stated that the upward trend in short-term liabilities is parallel to the upward trend in current assets. Table 13 shows the trend analysis results for the long-term liabilities item.

Table 13. Trend Analysis of Long-Term Liabilities between 2010-2021

| Year | ITEM | A | B | C | D | E | F | G | H | I | J | L | M | N | P | Q | R | S |
|------|------|------|------|------|------|------|------|-----|------|------|-----|------|------|------|------|-----|------|-----|
| 2010 | LTL | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 2011 | LTL | 163 | 138 | 128 | 154 | 141 | 135 | 121 | 149 | 139 | 104 | 128 | 103 | 125 | 136 | 142 | 106 | 159 |
| 2012 | LTL | 195 | 183 | 140 | 170 | 171 | 163 | 138 | 148 | 154 | 110 | 134 | 127 | 141 | 164 | 149 | 125 | 228 |
| 2013 | LTL | 239 | 275 | 189 | 275 | 267 | 223 | 178 | 191 | 236 | 111 | 182 | 222 | 177 | 273 | 212 | 164 | 241 |
| 2014 | LTL | 292 | 453 | 225 | 339 | 351 | 279 | 217 | 236 | 294 | 117 | 232 | 271 | 235 | 366 | 247 | 183 | 236 |
| 2015 | LTL | 361 | 590 | 281 | 443 | 415 | 378 | 253 | 333 | 363 | 154 | 301 | 332 | 298 | 496 | 309 | 273 | 285 |
| 2016 | LTL | 385 | 846 | 340 | 552 | 516 | 494 | 296 | 445 | 450 | 185 | 436 | 438 | 410 | 647 | 369 | 280 | 353 |
| 2017 | LTL | 491 | 1065 | 420 | 649 | 714 | 572 | 392 | 587 | 522 | 187 | 584 | 533 | 564 | 872 | 432 | 325 | 444 |
| 2018 | LTL | 609 | 1329 | 542 | 796 | 866 | 692 | 436 | 922 | 638 | 214 | 911 | 710 | 667 | 986 | 424 | 393 | 447 |
| 2019 | LTL | 668 | 1349 | 612 | 874 | 1041 | 765 | 496 | 1121 | 680 | 229 | 1008 | 801 | 646 | 1074 | 509 | 430 | 486 |
| 2020 | LTL | 905 | 1724 | 842 | 1085 | 1457 | 915 | 650 | 1490 | 896 | 256 | 1206 | 947 | 857 | 1194 | 639 | 1283 | 611 |
| 2021 | LTL | 1161 | 2300 | 1160 | 1722 | 2043 | 1319 | 771 | 2468 | 1360 | 370 | 1908 | 1466 | 1066 | 1018 | 697 | 1562 | 696 |

As shown in Table 13, the long-term liabilities item has been on an upward trend in all sectors except Transportation and Warehousing (H), Education (P) and Human Health and Social Service Activities (Q) over the years. This increase is quite high compared to the upward trend in short-term liabilities, such that long-term liabilities increased more than 20 times in Mining and Quarrying (B), Water Supply; Sewerage, Waste Management and Improvement Activities (E) and Transportation and Warehousing (H) sectors compared to 2010. Table 14 shows the trend analysis of the shareholders' equity.

Table 14. Trend Analysis of Shareholders' Equity between 2010-2021

| Year | ITEM | A | B | C | D | E | F | G | H | I | J | L | M | N | P | Q | R | S |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2010 | SE | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 2011 | SE | 120 | 128 | 107 | 121 | 106 | 112 | 112 | 106 | 115 | 102 | 111 | 112 | 105 | 112 | 101 | 108 | 103 |
| 2012 | SE | 146 | 160 | 121 | 143 | 128 | 131 | 129 | 123 | 133 | 122 | 128 | 123 | 131 | 134 | 115 | 126 | 113 |
| 2013 | SE | 165 | 167 | 134 | 166 | 143 | 150 | 141 | 137 | 153 | 121 | 146 | 141 | 132 | 151 | 124 | 132 | 106 |
| 2014 | SE | 186 | 191 | 151 | 186 | 162 | 172 | 158 | 161 | 163 | 127 | 175 | 147 | 152 | 194 | 133 | 163 | 88 |
| 2015 | SE | 214 | 203 | 172 | 209 | 178 | 200 | 178 | 189 | 174 | 129 | 184 | 165 | 185 | 209 | 143 | 183 | 93 |
| 2016 | SE | 254 | 221 | 197 | 224 | 186 | 227 | 204 | 202 | 160 | 130 | 200 | 178 | 203 | 182 | 146 | 178 | 108 |
| 2017 | SE | 297 | 240 | 232 | 234 | 210 | 256 | 240 | 255 | 160 | 152 | 206 | 190 | 230 | 224 | 163 | 187 | 127 |
| 2018 | SE | 356 | 294 | 279 | 212 | 251 | 294 | 280 | 174 | 131 | 159 | 224 | 196 | 300 | 223 | 194 | 170 | 128 |
| 2019 | SE | 416 | 336 | 322 | 247 | 278 | 345 | 320 | 183 | 175 | 194 | 269 | 226 | 364 | 217 | 234 | 263 | 146 |
| 2020 | SE | 506 | 425 | 416 | 292 | 325 | 395 | 385 | 116 | 127 | 233 | 185 | 224 | 418 | 311 | 281 | 95 | 161 |
| 2021 | SE | 751 | 767 | 653 | 273 | 492 | 483 | 589 | 15 | 77 | 315 | 42 | 228 | 584 | 440 | 452 | -2 | 226 |

As seen in Table 14, it can be said that the trend in shareholders' equity is not similar to other financial statement items. From 2010 to 2021, there is a significant downward trend in equity (see sectors Transportation and Warehousing [H], Accommodation and Food Service Activities [I] and Real Estate Activities [L]) and in some sectors this trend has turned negative (see sector Culture, Arts, Entertainment, Leisure and Sports [R]). Table 15 shows the results of the trend analysis on net sales.

Table 15. Trend Analysis of Net Sales between 2010-2021

| Year | ITEM | A | B | C | D | E | F | G | H | I | J | L | M | N | P | Q | R | S |
|------|------|------|-----|-----|-----|------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|
| 2010 | NS | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 2011 | NS | 130 | 134 | 133 | 114 | 157 | 125 | 129 | 131 | 128 | 114 | 146 | 124 | 128 | 114 | 123 | 128 | 133 |
| 2012 | NS | 155 | 145 | 144 | 144 | 185 | 153 | 149 | 156 | 145 | 126 | 164 | 134 | 144 | 139 | 140 | 160 | 137 |
| 2013 | NS | 184 | 159 | 161 | 179 | 206 | 182 | 165 | 170 | 171 | 142 | 216 | 152 | 177 | 170 | 160 | 207 | 142 |
| 2014 | NS | 229 | 162 | 185 | 206 | 248 | 218 | 191 | 198 | 203 | 156 | 285 | 173 | 218 | 203 | 183 | 267 | 124 |
| 2015 | NS | 272 | 161 | 207 | 227 | 262 | 245 | 215 | 218 | 231 | 178 | 299 | 218 | 260 | 234 | 210 | 253 | 151 |
| 2016 | NS | 314 | 169 | 227 | 226 | 297 | 302 | 236 | 224 | 226 | 203 | 355 | 239 | 289 | 245 | 233 | 285 | 174 |
| 2017 | NS | 387 | 234 | 294 | 256 | 453 | 375 | 300 | 289 | 295 | 241 | 435 | 296 | 384 | 308 | 267 | 359 | 204 |
| 2018 | NS | 524 | 306 | 388 | 328 | 517 | 454 | 366 | 381 | 405 | 284 | 607 | 323 | 474 | 375 | 325 | 432 | 233 |
| 2019 | NS | 661 | 370 | 442 | 403 | 542 | 504 | 421 | 462 | 509 | 333 | 727 | 371 | 574 | 454 | 399 | 494 | 265 |
| 2020 | NS | 788 | 464 | 538 | 486 | 667 | 522 | 531 | 465 | 353 | 406 | 808 | 445 | 466 | 459 | 441 | 427 | 287 |
| 2021 | NS | 1278 | 838 | 901 | 745 | 1259 | 644 | 805 | 856 | 669 | 567 | 1156 | 649 | 746 | 566 | 657 | 771 | 427 |

As seen in Table 15, net sales in all sectors except Mining and Quarrying (B), Electricity, Gas, Steam and Air Conditioning Production and Distribution (D), Culture, Arts, Entertainment, Leisure and Sports (R) and Other Service Activities (S) have been on an upward trend over the years. This increase has been more than 10 times higher in sectors Agriculture, Forestry and Fisheries (A), Water Supply; Sewerage, Waste Management and Improvement Activities (E) and Real Estate Activities (L) in 2021 compared to 2010. Table 16 shows the results of the trend analysis on cost of sales.

Table 16. Trend Analysis of Cost of Sales between 2010-2021

| Year | ITEM | A | B | C | D | E | F | G | H | I | J | L | M | N | P | Q | R | S |
|------|------|------|-----|-----|-----|------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|
| 2010 | COS | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| 2011 | COS | 132 | 126 | 133 | 120 | 159 | 125 | 129 | 135 | 124 | 118 | 146 | 129 | 126 | 115 | 123 | 117 | 138 |
| 2012 | COS | 158 | 136 | 146 | 153 | 188 | 155 | 151 | 159 | 145 | 130 | 164 | 138 | 144 | 141 | 143 | 147 | 142 |
| 2013 | COS | 190 | 155 | 160 | 193 | 212 | 184 | 166 | 170 | 171 | 149 | 209 | 158 | 176 | 173 | 165 | 200 | 149 |
| 2014 | COS | 237 | 166 | 185 | 227 | 260 | 225 | 193 | 200 | 204 | 165 | 280 | 182 | 220 | 206 | 190 | 255 | 124 |
| 2015 | COS | 281 | 173 | 204 | 239 | 276 | 248 | 215 | 212 | 236 | 196 | 292 | 217 | 262 | 239 | 219 | 224 | 152 |
| 2016 | COS | 327 | 185 | 222 | 228 | 313 | 309 | 235 | 216 | 245 | 222 | 351 | 257 | 290 | 243 | 247 | 258 | 178 |
| 2017 | COS | 397 | 247 | 287 | 264 | 476 | 384 | 301 | 286 | 304 | 263 | 449 | 322 | 388 | 305 | 281 | 320 | 210 |
| 2018 | COS | 537 | 296 | 376 | 339 | 530 | 464 | 367 | 382 | 383 | 306 | 641 | 344 | 474 | 392 | 339 | 385 | 244 |
| 2019 | COS | 681 | 342 | 437 | 387 | 555 | 512 | 423 | 457 | 492 | 345 | 771 | 401 | 578 | 488 | 412 | 454 | 273 |
| 2020 | COS | 808 | 405 | 520 | 468 | 683 | 533 | 538 | 461 | 381 | 419 | 900 | 481 | 463 | 441 | 446 | 395 | 303 |
| 2021 | COS | 1322 | 742 | 862 | 771 | 1279 | 645 | 812 | 855 | 640 | 580 | 1221 | 690 | 752 | 547 | 654 | 674 | 443 |

When the results of Table 16 are compared with the results of Table 15, it is seen that the upward trend in net sales is less than the upward trend in cost of sales for many sectors and for many years. Table 17 shows the trend analysis results for the net profit/loss item.

Table 17. Trend Analysis of Net Profit/Loss for the Period between 2010-2021

| Year | ITEM | A | B | C | D | E | F | G | H | I | J | L | M | N | P | Q | R | S |
|------|------|-----|------|------|-------|-----|------|-----|-------|-------|-----|-------|-----|-----|------|------|-------|------|
| 2010 | NP/L | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| 2011 | NP/L | 17 | 152 | 75 | -8 | 60 | 34 | 39 | -259 | -203 | 51 | -80 | 66 | -76 | -145 | -242 | 138 | -220 |
| 2012 | NP/L | 86 | 186 | 137 | 101 | 161 | 120 | 115 | 221 | 197 | 175 | 201 | 137 | 157 | 44 | 145 | 6 | -34 |
| 2013 | NP/L | 38 | 77 | 116 | -132 | 88 | 121 | 103 | 68 | -177 | 101 | 56 | 160 | 84 | 63 | 106 | 229 | -70 |
| 2014 | NP/L | 34 | 92 | 199 | -72 | 16 | 109 | 122 | 210 | 148 | 129 | 339 | 108 | 92 | 65 | 18 | 125 | -76 |
| 2015 | NP/L | 39 | 30 | 193 | -120 | 5 | 117 | 135 | 294 | -445 | 114 | 108 | 300 | 110 | 9 | 120 | 271 | -56 |
| 2016 | NP/L | 42 | 31 | 226 | -35 | -58 | 88 | 119 | 101 | -1357 | -13 | -71 | 108 | -19 | -35 | -120 | 273 | -144 |
| 2017 | NP/L | 250 | 102 | 439 | -11 | 189 | 169 | 264 | 396 | -941 | 136 | -285 | 268 | 12 | 225 | 159 | 313 | 40 |
| 2018 | NP/L | 206 | 239 | 489 | -457 | 141 | -1 | 159 | -740 | -1042 | 72 | -1691 | 76 | -61 | -573 | -17 | 479 | -147 |
| 2019 | NP/L | 338 | 324 | 592 | 301 | 107 | 271 | 297 | 271 | 525 | 297 | -270 | 291 | 502 | -980 | 314 | -1531 | -7 |
| 2020 | NP/L | 604 | 539 | 938 | 34 | 403 | 138 | 499 | -2610 | -3934 | 427 | -5005 | 46 | 176 | 999 | 588 | 517 | 44 |
| 2021 | NP/L | 850 | 1613 | 1857 | -1713 | 708 | -112 | 841 | -6879 | -4987 | 697 | -9867 | -42 | 493 | 975 | 904 | 2743 | 112 |

As seen in Table 17, all sectors have net profit in 2010, which is considered as the base year. Accordingly, in the trend analysis, it can be said that the sectors with the highest decrease in net profit and even net loss are the Electricity, Gas, Steam and Air Conditioning Production and Distribution (D), Accommodation and Food Service Activities (I), Real Estate Activities (L) and Other Service Activities (S) sectors. When 2010 and 2021 data are compared, it can be stated that the sector with the highest net loss is the Real Estate Activities (L) sector, while the sector with the highest upward trend in net profit is the E sector.

CONCLUSION

This study examines the CBRT's balance sheet and income statement data for 17 different sectors from 2009 to 2021. The annual change at the sectoral level is examined in financial ratios (liquidity ratios, financial structure ratios, efficiency coefficients, profitability ratios) and significant financial

statement items. Furthermore, in the trend analysis for the main financial statement items (current assets, non-current assets, short-term liabilities, long-term liabilities, shareholders' equity, net sales, cost of sales, net profit/loss), 2010 is the base year, and the trend analysis is performed for the change between 2010 and 2021. As a result of the study, the sectors with the lowest liquidity ratios are Agriculture, Forestry and Fishing, Construction and Education, while the sectors with the highest liquidity ratios are Information and Communication, Real Estate Activities and Professional, Scientific and Technical Activities. When examined in terms of financial structure ratios, it is determined that the sector that uses liabilities the lowest is the Professional, Scientific and Technical Activities sector, while the sectors that uses liabilities the most are the Construction sector. At the same time, it has been determined that the Professional, Scientific and Technical Activities sector has the highest ratio in terms of the ratio of shareholders' equity to total liabilities. It is found out that the sector with the highest percentage of current assets in total assets is the Wholesale and Retail Trade sector, and the sector with the highest percentage of fixed assets in total assets is the Real Estate Activities sector. When the sectors are examined in terms of efficiency ratios, it is determined that the sector with the highest receivable turnover ratio and debt turnover ratio is the Education sector. In terms of profitability ratios, the Mining and Quarrying sector has the highest return on assets, while the Professional, Scientific and Technical Activities and Information and Communication sectors have the highest cumulative profitability ratios. It has been determined that the sectors with the highest financial statement items are Manufacturing and Wholesale and Retail Trade sectors.

Furthermore, the main financial statement items have been trend analysed for the years 2010-2021 by taking 2010 as the base year. As a result of the analysis, it has been determined that the trend of current assets and short-term liabilities and the trend of non-current assets and long-term liabilities move in line with each other. It has been determined that the item showing the highest change trend among the financial statements items is the equity item, and that some sectors (Culture, Arts, Entertainment, Leisure and Sports sector) have negative values in 2021 compared to the base year. Moreover, the decrease is remarkable in Transport and Storage, Accommodation and Food Services Activities and Real Estate Activities sectors. When the trend of income statement items is analysed, it is determined that net sales items increased in all sectors in the years 2010-2021, except for some sectors, and this increase increased more than 10 times from the base year to 2021. However, this increase in net sales has been lower than the increase in cost of sales in some years and in some sectors. On the other hand, when the trend in the net profit/loss for the period is analysed, the sectors with the highest decrease in net profit and even net loss are Electricity, Gas, Steam and Air Conditioning Production and Distribution, Accommodation and Food Services Activities, Real Estate Activities and Other Service Activities sectors, respectively.

In this study, there is no needs to use inflation-adjusted financial accounts for trend analysis. Because there is no requirement to make adjustments in accordance with IAS 29 Financial Reporting in Hyperinflationary Economies based on the inflation rates between 2010 and 2021. If the years 2022-

2023 are included in the trend analysis, the financial statements must be revised in accordance with the provisions of IAS 29, taking inflation rates in these years into account. In future studies, it is recommended to extend the period and make analyses on the adjusted financial statements taking into account inflation adjustments. Lastly, it can be examined whether there is a correlation between sectors in financial ratios. Thus, more comprehensive evidence can be provided regarding the financial ratios of sectors.

STATEMENT OF RESEARCH AND PUBLICATION ETHICS

The method used in the study does not require ethics committee approval.

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CONFLICT OF INTEREST STATEMENT

There is no conflict of interest between the authors.

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