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IAS 29 Financial Reporting Standard in High Inflation Economies: A Hypothetical Study

Elif Umut^{1,*}

- 1 Baskent University; esarman@baskent.edu.tr
- * Correspondence: esarman@baskent.edu.tr

Abstract: The research paper addresses how inflation disrupts the unbiased and accurate preparation and presentation of financial reports. During periods of general inflation, the discrepancy between historical costs and reporting period values leads to questioning the consistent reflection of a company's current financial position or recent performance. This study first examines the requirements of the IAS 29 standard for Financial Reporting in High Inflation Economies and then applies these requirements to selected items in a case study. The document concludes that the process of inflation adjustment is complex and challenging for both businesses and auditing firms. Despite the alignment of IFRS (International Financial Reporting Standards) and TFRS (Turkish Financial Reporting Standards) requirements in Turkey, there are aspects where they do not fully coincide in terms of inflation adjustment applications.

Keywords: Inflation, Financial Reporting, IAS 29

1. Introduction

"Inflation" is one of the most familiar terms in the field of economics, notorious for causing politicians who promise to combat it to win elections, only to lose power when they fail. It led countries into prolonged periods of instability and was declared "Public Enemy Number One" by US President Gerald Ford in 1974 (Oner, 2010). Central Banks, in their struggle against inflation, often want to feel like "hawks" (Kennedy, 2020). Although it can be calculated and defined in a narrower scope, inflation is generally a broad measure, typically defined as an overall increase in prices or cost of living in a country.

The cost of living for consumers is tied to the prices of many goods, and government institutions commonly use a set basket to measure this cost, tracking the costs of purchased goods over time through household surveys. The cost of this basket at a given time, compared to a base year, is known as the Consumer Price Index (CPI). The percentage change in the CPI over a certain period is the most commonly used measure of inflation, known as consumer price inflation. To calculate a more comprehensive rate of inflation, a broader index like the GDP deflator is needed.

2. Inflation – Accounting Relationship

Solomons (1978, 1991) argued in his studies that accounting practice is motivated and responds to developments that enhance its ability to represent a certain economic reality in an unbiased manner. This view is close to the theory known in epistemology as the "correspondence theory of truth": there is (computational) knowledge, and it can be judged based on its conformity to the external world (Keat and Urry, 1975; Rorty, 1979, 1991). The relation of this argument to inflation accounting is invaluable: inflation distorts the ability of financial reports to represent accurately and impartially; inflation accounting responds to the needs for undistorted accounting information. Therefore, states are expected to reflect superior judgment on how inflation should be calculated accurately and impartially.

The "Fisher Effect," proposed by Irving Fisher in the field of economics, is a theory that explains the relationship between nominal and real interest rates. Its fundamental prediction is that the real interest rate can be calculated by deducting the expected inflation from the nominal interest rate. In

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Received: 02/12/2023 Accepted: 24/01/2024 Published: 29/02/2024 this context, a positive real interest rate means overcoming inflation for an investor or lender, whereas a negative rate means being defeated by inflation. If the assumption of the Fisher Effect is accepted, "holding money loss" should be considered as a deduction from interest received (as an element compensating the loss in purchasing power of the principal) and "borrowing gain" similarly as a deduction from interest (Whittington et al., 1998). The impact of inflation on balance sheet items will manifest in determining unreal financing costs.

Traditionally, accountants record the items they account for by referring to the monetary value of the financial transaction in which they occur. During general inflation periods, the mismatch between historical costs and their values at the reporting period is questioned as it does not consistently reflect the current financial status or recent performance of the business. As historical costs are determined at different dates, it is possible to speak of a fundamental measurement error when bringing together heterogeneous measurement units, as the currency does not represent the real purchasing power as historical cost does.

Balance sheet items consist of monetary and non-monetary items. The main criterion in determining whether an item is monetary or non-monetary is whether its value changes with purchasing power. In this context, monetary items are assets and liabilities to be received or paid only in current monetary value (e.g., cash in hand and at banks, other receivables to be collected in cash, receivables (including all provision accounts), deferred tax assets, advances given, bond investments, etc.) Monetary liabilities are items expressed in nominal currency that do not change with inflation (e.g., financial and trade debts, received order advances, debt and expense provisions, etc.) In historical cost accounts for monetary items, the consequences of inflation do not result in "borrowing gain" (gain on borrowings) (Bourn, 1976) and "holding money loss" (loss on holding money) (Bourn, 1976). Borrowing gain arises from only repaying the lender in nominal units. For example, if an L loan is taken at time t and repaid at time t+1 when the general price index increases by a factor (1+i), then the gain from borrowing is Li. Holding money loss, on the other hand, is symmetrical to the gain in borrowing: this is because money and other items denominated in money are not adjusted to compensate for real purchasing power losses during inflation. Therefore, during an inflation period, if a company's monetary assets exceed its liabilities (M>L), there will be an unrecorded net loss on these items in historical cost accounts. Conversely, if liabilities exceed monetary assets (M<L), there will be an unrecorded net gain.

Items that cannot be expressed in a fixed monetary value are referred to as non-monetary items. Such items represent assets and liabilities that do not embody specific monetary claims. For example, biological assets, inventories (including all provision accounts), investments in equity instruments (stock purchases), plant, machinery and equipment, intangible fixed assets, and liabilities like advances received, trade debts, deferred revenues, deferred tax liabilities. The main problem encountered in the inflation adjustment of non-monetary assets is that it is not possible to assume that the monetary amounts of these types of assets are fixed. Their monetary prices will fluctuate in response to changing market conditions. In inflation adjustment operations for these assets, historical cost is adjusted by referring to general inflation, using a general price index. This kind of adjustment disregards the effects of relative price changes but reflects the impact of inflation on the non-monetary item. For example, if a non-monetary asset (assuming it's a vacant land or an investment under construction, not subject to depreciation and ignoring depreciation expense) is purchased at a cost of Nt at time t, and if the general price level rises by 1+i at time t+1, the adjusted cost will be expressed as Nt+1 = Nt(1+i). This way, the historical cost of the item maintains its real value, and the adjusted value is considered to have kept pace with inflation.

Many non-monetary assets have a limited useful life. Therefore, their partial use/consumption within a period should be reflected in their recorded value as depreciation. The approach regarding a non-depreciable asset (like land investment) was mentioned in the previous paragraph. When considering the effect of inflation on all depreciable assets, it is possible to say that during price increases, a higher amount of depreciation than historical cost will result in a lower calculated profit (Whittington et al., 1998). The depreciation expense to be calculated based on the relevant index from the period of acquisition of the asset will increase as prices rise.

A similar approach to depreciable assets should also be applied to inventories. A similar adjustment needs to be made for the cost of inventories consumed during a period. Increases in inflation or the prices of products in stock will result in an increase in the value of purchased or used inventories. To eliminate the effects of price changes and produce a real measure, the inflation adjustment for inventories should be deducted from profit. Like in depreciation, the adjustment can be made using either a general index or a specific index. In both cases, the profit figure, after adjusting for the

effects of rising prices, will be lower than the profit figure calculated using historical costs. Upon reviewing the literature related to the topic, a tripartite classification of inflation accounting methods is observed:

- General price level method: This method indicates adjusting the financial statements using a determined general index. This method will also be used in example applications within this study. Detailed explanations about the method will be given in the following sections.
- Replacement (Substitution) cost method: The replacement cost refers to the price that a business would incur to acquire an asset of the same quality and with equivalent productive power or service or operational capacity as of the asset in hand at the time of preparing the financial statement (Uman, 2002). In this method, a specific index (e.g., official price indices announced by official institutions) is used for adjustment instead of a general one.
- Mixed Approach (Combination of general price level and substitution cost): This method can be applied in two different ways: (i) adjusting the financial statements first using a general index and then again according to relative price increases; (ii) first adjusting the financial statements according to relative price increases and then again using a general index. The method requires dual adjustment, making it challenging in practice.

In this study, the method to be addressed is the General Price Level method. The General Price Level Method emerges as the method recommended by the International Accounting Standards Board (IASB) for use in high inflation economies (IAS 29). This mentioned standard was opened for comment as a draft in 1987, published in 1989, and received its last update in 2009 (Singh and Hamid, 1992).

The first step of the method is determining the adjustment factor to be used in the correction. An index is required that shows the changes in the purchasing power of the historical purchase prices to convert them into equivalent current purchase prices as of the balance sheet date; this index is the adjustment factor. The adjustment factor can be calculated as follows:

Adjustment Factor = Price index at the conversion date / Price index at the date of the transaction

Table 1. Calculation of the Adjustment Factor*

Example

A business wants to calculate the inflation-adjusted value of a machine included in its tangible fixed assets in 2020. The asset was purchased in 2015 for 10,000 TL when the price index was 300. The price index in 2020 is 600. To find the new value using the general price level method, the historical cost must be multiplied by the conversion factor.

Adjustment Factor = 600 / 300Inflation-adjusted cost = 10,000 * (600/300)= 20,000 TL

In the business's 2020 inflation-adjusted financial statements, the new value of the asset will be recorded as 20,000 TL.

* Source: Created by the author.

The second stage in the method is the determination of monetary and non-monetary items. At this stage, it is beneficial to focus on some details. For instance, if an advance payment for inventory to be delivered will not be affected by price increases until the delivery date and if the delivery of the goods does not require a payment more than what is specified in the contract, it should be considered monetary; otherwise, if the advance loses its purchasing power, it should be treated as a non-monetary item.

The third stage is the determination of gains and losses occurring in monetary items. A brief example explaining this stage is presented in Table 2.

Table 2. Determination of Gains and Losses in Monetary Items*

| | JANUARY, 2020 | JANUARY, 2021 | |
|------------------------------------|-----------------------------|---------------|--|
| | (TL) | (TL) | |
| Current assets | 125.000 | 137.000 | |
| Current liabilities | 130.000 | 140.000 | |
| Price Index | 200 | 300 | |
| Annual Average Price Index | 240 | | |
| Monetary Liabilities | (130.000*300)/200 = 195.000 | | |
| Increase in Liabilities | (10.000*300)/240 = 12.500 | | |
| Total | 207.500 | | |
| Current Liabilities- End of Period | (130.0 | 000) | |
| Borrowing Gain | 77.5 | 600 | |
| Monetary Assets | (125.000*300)/ | 200 = 187.500 | |
| Increase in Assets | (12.000*300)/ | 240 = 15.000 | |
| Total | 202.500 | | |
| Current Assets - End of Period | (137.000) | | |
| Holding Loss | 65.5 | 600 | |
| Net Gain / Loss | 77.500-65.50 | 00 = 12.000 | |

^{*}Source: Created by the author.

The determination of the Stock Valuation method is the fourth stage. The principle of prudence, a fundamental concept, especially in situations of uncertainty, assumes that losses should be accounted for before gains. As pressure on the sustainability of financial performance increases during high inflation periods, the need for the application of the prudence principle also grows. Using the LIFO (Last In, First Out) method as the stock valuation method during inflationary periods will consistently result in the sale of the highest cost stock, causing unsold stock to be reported on the balance sheet at a lower value. This way, the concept of prudence is reflected in the stock items reported in the period's balance sheet. The purpose of the LIFO method is to protect businesses' equity items during high inflation periods by subjecting them to less tax (Şeker, 2020). Accounting techniques like depreciation are often chosen as a partial solution to excessively declared profits because they temporarily reduce reported profits, depending on the alternative accounting methods that could be selected (Poroy and Gücenme, 2009). This is because businesses cannot replace the stock they sell during inflation periods at the same price, leading to a disruption in their capital structures. The use of the LIFO method in stock valuation demonstrates a kind of ability to match current costs with current revenues for the business.

IAS 2 Inventories standard allows for the valuation of stocks using FIFO (First In, First Out) or Weighted Average Cost Method but has eliminated the application of the LIFO method (IAS 2-25).

The final stage is the preparation and presentation of financial statements in accordance with the general framework mentioned above.

3. IAS 29 Financial Reporting in Hyperinflationary Economies

Theoretically, IAS 29 is based on the general purchasing power approach (IAS 29.37), and therefore, it's possible to say that it also fundamentally relies on its principles. This means that the financial information in the financial statements is reorganized by applying a general price index, provided that these principles and judgments are consistently applied from period to period.

The implementation of IAS 29 can lead to the creation of additional temporary differences under IAS 12 Income Taxes, as the reorganization of an item under IAS 29 will often lead to adjustments in the book values of the items without corresponding changes in tax bases. The effect of such temporary differences must be accounted for in profit or loss under IAS 12 (IAS 29.32).

IAS 29 does not determine an absolute rate of inflation for hyperinflation in an economy. Instead, it considers various characteristics of the economic environment, which are strong indicators of prevailing high inflation. The inflation data is based on the International Monetary Fund (IMF) World Economic Outlook (WEO) published in April 2022 (IMF 2022). The International Accounting Standards Board (IASB) in April 2022, in its publication IFRS Alert 2022-2, listed countries with economic conditions that would require compliance with IAS 29 'Financial Reporting in Hyperinflationary Economies.' Among these countries is Turkey. In this context, businesses operating in Turkey and obligated to arrange their financial statements in full compliance with Turkish Financial Reporting Standards are expected to reflect the Standard in their financial statements for interim or annual reporting obligations after June 30, 2022. According to the requirements of International Financial Reporting Standards, eleven countries globally are required to apply IAS 29: Argentina, Iran, Lebanon, South Sudan, Sudan, Suriname, Syria, Turkey, Venezuela, Yemen, and Zimbabwe. Table 3 presents hyperinflationary economies adopting International Accounting Standards, the cumulative rates for these economies for the last three years, and inflation forecasts for 2022 and 2023.

Table 3. IMF WEO 2022 (International Monetary Fund, World Economic Outlook) Hyperinflationary Economies*

| Countries | Cumulative Inflation Rate for | 2022 Inflation Forecast | 2023 Inflation |
|-----------|-----------------------------------|--------------------------|-------------------|
| | the Last Three Years ¹ | | Forecast |
| Argentina | %216 (December, 2021) | %48 | %42 |
| Iran | %144 (December, 2021) | %30 | %25 |
| Lebanon | %173 (December, 2020) | Forecast not available | Forecast not |
| | | due to high uncertainty. | available due to |
| | | | high uncertainty. |
| Sudan | %2325 (December, 2021) | %244 | %69 |
| Suriname | %169 (December, 2021) | %26 | %18 |
| Syria | Known to exceed 100%, but | Forecast not available | Forecast not |
| | exact figures are unavailable. | due to high uncertainty. | available due to |
| | | | high uncertainty. |
| Turkey | %74 (December, 2021) | %138 | %169 |
| Venezuela | %2,230,000 (December | %500 | %500 |
| | 2021) | | |
| Yemen | %175 (December, 2021) | %265 | %240 |
| Zimbabwe | % 4379 (December, 2021) | %86 | %42 |

¹ Compiled by the author from IMF WEO 2022 April data.

The standard covers consolidated financial statements of groups operating outside Turkey whose functional currency is the Turkish Lira or that operate in economies considered hyperinflationary (for example, subsidiaries, associates, or joint arrangements). Article 3 of the Standard pertains to the definition of a high inflation economy:

• If the cumulative inflation rate over three years is approaching or exceeds 100% 2,

¹ Cumulative inflation represents the decrease in the purchasing power of nominal money over a period longer than annual inflation, similar to the lifespan of an individual.

² Although the 100% criterion is a key factor in determining high inflation, it is not the only factor and should not be considered in isolation. For example, even though Turkey's cumulative inflation rate for the last three years is determined to be 74%, it is defined as "hyperinflationary" under IFRS, and the application of inflation accounting is expected from the beginning of the reporting period in which high inflation is identified (IAS 29.4).

- If a significant portion of the country's population prefers to keep their wealth in non-monetary assets or in a relatively stable foreign currency, and monetary amounts are valued in a foreign currency considered more balanced and stable than the currency,
- If the held local currency is urgently converted into investments to preserve its purchasing power,
- If credit sales and purchases, even with short maturities, are made at prices that can compensate for expected losses in purchasing power over the period, and
- If market wages, prices, and interest rates are indexed to a price index.

Under IAS 29, acceptance of high inflation in this country will occur, supported by these and other indicators. The Public Oversight Authority has announced that companies applying TFRS and BOBİ FRS will not make inflation adjustments for their 2021 financial statements, citing the Turkish Statistical Institute's TÜFE rate reflecting a change in purchasing power over the last three years of 74.41%.

IAS 29 requires that the financial statements of a business reporting in the currency of a hyperinflationary economy be expressed in terms of the current measurement unit at the balance sheet date. Comparative figures for previous period(s) should be restated in the same current measurement unit.

The scope of procedures to be followed in inflation-adjusted financial statements under IAS 29 is as follows:

- Selection of a general price index.
- Separation of monetary and non-monetary items.
- Restatement of non-monetary items (excluding equity).
- Restatement of equity.
- Restatement of comprehensive income.
- Taxation.
- Calculation and proof of monetary gain or loss.
- Cash flow statement.
- Comparisons.
- Group reporting.
- Inflation adjustment in interim financial statements.
- Other matters.

The standard does not permit inflation-adjusted financial statements to be presented as supplementary information to unadjusted financial statements.

3.1. Selection of a general price index

According to the standard, all financial statements should be restated to reflect the effects of inflation using a general price index based on the current measurement unit at the closing date. The standard also prefers that all organizations reporting in the same economy and currency use the same index.

3.2. Separation and restatement of monetary and non-monetary items

All balance sheet items, whether expressed in the current measurement unit at the balance sheet date or not, must be classified as monetary and non-monetary items. Monetary items do not require restatement because they represent money held, received, or paid. Therefore, monetary items are already expressed in terms of the current purchasing power at the reporting date.

All non-monetary assets and liabilities, and all income statement items, including comprehensive income statement items, should be adjusted to reflect their "fair values" as of the closing date. If the restated value of a non-monetary item exceeds its recoverable amount, it should be reduced in accordance with the relevant other standards. Table 4 provides examples of monetary and non-monetary items.

Non-monetary items, except for equity items, are restated according to the current measurement unit at the end of the reporting period. The enterprise should use the increase in the general price index from the date of acquisition to the end of the reporting period (IAS 29.29).

Non-monetary assets and liabilities carried at current amounts at the end of the reporting period, such as net realizable value or fair value, do not require restatement.

Non-monetary items generally appear in the financial statements at their cost or cost less depreciation, in other words, at their historical cost at the date of acquisition. The restated cost or cost less accumulated depreciation of each item is determined by applying the change in the general price index from the date of acquisition to the end of the reporting period to the item's historical cost and accumulated depreciation. If detailed records of the acquisition dates of tangible fixed assets are not available, an independent professional valuation may be required at the first application date of the standard.

Inventories, goodwill, patents, trademarks, and similar assets are also reported in the financial statements at their historical cost values, so they need to be restated from their acquisition dates (IAS 29.15).

Table 4. Examples of Monetary and Non-Monetary Items*

| Monetary Assets | Monetary Liabilities |
|---|--|
| Cash and Cash Equivalents | Lease Liabilities |
| Contract Assets (IFRS 15) | Trade Payables |
| Notes Receivable and other receivables (to | Employee Benefits Obligations (to be paid |
| be collected in cash) | in cash) |
| Doubtful Trade Receivables and Provisions | Accruals and other liabilities |
| Financial Investments (based on debt | Debentures |
| instruments) | |
| Deferred Tax Assets | Liabilities based on financial assets held for |
| | sale |
| | Performance Obligations (IFRS 15) |
| | Current Period Tax Liabilities |
| | Deferred Tax Liabilities |
| Non-Monetary Assets | Non-monetary liabilities and equity |
| Prepaid Expenses for Future Months/Years | Deferred income (e.g., from government |
| | incentives) |
| Inventories and Provision for Decline in | Contract Liabilities (IFRS 15) |
| | |
| Value of Inventories | |
| Value of Inventories Investments in Associates | Equity Items |
| | Equity Items |
| Investments in Associates | Equity Items |
| Investments in Associates Tangible Fixed Assets | Equity Items |
| Investments in Associates Tangible Fixed Assets Intangible Fixed Assets | Equity Items |

^{*} S

Non-monetary assets restated for inflation are subject to impairment assessment under the standard. Even if the recoverable amount of an asset is lower than its restated amount, it is assumed that the asset has decreased in value.

There are two important considerations regarding non-monetary assets and liabilities. Firstly, organizations that have previously tested their assets for impairment in earlier reporting periods should assess whether restating asset book values for inflation affects the outcome of the impairment test. Secondly, non-monetary assets and liabilities that are reported at fair value or revalued amounts, which may be carried at amounts valid on dates other than the acquisition or balance sheet date, need consideration. For example, tangible fixed assets revalued under the revaluation model permitted by IAS 16 should have their inflation-adjusted book values restated to reflect their book values at the end of the reporting period (IAS 29.16).

Restated non-monetary assets are still subject to impairment assessment according to relevant standards (IAS 29.19). All adjustments made should be reflected in net profit or loss under the heading "net monetary position gains and losses" (IAS 29.9).

3.3. Restatement of equity

At the beginning of the first period of applying IAS 29, equity components, excluding undistributed profits and special funds, are restated from the dates the items arose using a general price index. This should include reserves created by amounts recognized in other comprehensive income. Positive revaluation differences formed in previous periods should also be offset.

Capital shown in the balance sheet is expressed in terms of the purchasing power at the end of the reporting period. However, a company may present the capital amount expressed in historical cost and the related IAS 29 adjustment in the statement of changes in equity or in the notes, along with appropriate explanations.

3.4. Restatement of comprehensive income

All items in comprehensive income for the current year are restated from the date when income and expense items were initially recorded by applying the change in the index. Restated net income for the current year should be added to the balance of restated retained earnings in the opening statement.

Interest income and expenses, such as income statement items and exchange differences related to invested or borrowed funds, are adjusted for inflation and presented as separate items in the income statement together with monetary gain or loss.

3.5. Taxation

The enterprise, after restating the nominal book values of non-monetary items in the opening balance sheet using the measurement unit at that date, remeasures deferred tax items according to IAS 12 Income Taxes. Deferred tax items are restated to reflect changes in the measurement unit from the opening balance sheet date to the end of that reporting period.

IAS 29's restatement approach is based on distinguishing between monetary and non-monetary items. However, in practice, there is uncertainty about how a company will first restate its financial statements, especially deferred tax balances and comparative figures.

IFRS Interpretation 7 provides guidance on how an enterprise should restate its financial statements in the first year it identifies the presence of hyperinflation in the economy of the functional currency. According to the interpretation, the amounts of deferred taxes in the opening balance sheet are determined in two steps:

Deferred tax items are remeasured according to IAS 12 Income Taxes after restating the nominal book values of non-monetary items in the opening balance sheet using the measurement unit at that date. These remeasured deferred tax items are then restated to reflect changes in the measurement unit from the opening to the closing balance sheet date.

3.6. Calculation of monetary gain and loss and preparation of the income statement

One of the objectives of IAS 29 is to account for financial gains or losses (monetary gain or loss) arising from holding monetary assets or liabilities during a reporting period. All monetary assets and liabilities held throughout the year (net monetary position) are shown in the financial

statements, either in the balance sheet with non-monetary assets and liabilities or in comprehensive income or directly in equity with transactions recorded therein.

Monetary gain or loss can be defined as the difference between the historical cost amounts and the restated amounts of non-monetary items, equity, comprehensive income statement items, and index-linked items at the end of the year, and the purchasing power between the date of occurrence and the end of the year. Net monetary position gain or loss is included in profit or loss. Adjustments in asset and liability items linked to various agreements (such as index-linked bonds and loans) are offset against gains or losses in the net monetary position (IAS 29.13). Other income and expense items, such as interest income and finance costs, and exchange differences related to invested or borrowed funds, are also related to the net monetary position (IAS 29.28). While these items are explained separately, presenting them together with net monetary position gain or loss in the comprehensive income statement may be useful (IAS 29.28).

The steps to be followed in adjusting the income statement for inflation are as follows (Riordon and Riordon, 2009):

- Adjust items occurring evenly throughout the year, such as sales and purchases, using an adjustment rate (usually current Index/average index for the period).
- Calculate the depreciation expense based on the inflation-adjusted cost of depreciable assets (using the same indexes as for adjusting these items on the balance sheet).
- Calculate the gain or loss in purchasing power from holding monetary items.

3.7. Adjustment of the cash flow statement

All items in the equity group are considered non-monetary and therefore should be restated from the first measurement date to the year-end date. The cash flow statement is created based on restated figures.

Two special considerations for the cash flow statement:

- The pre-tax net profit is adjusted for the period's monetary gain or loss; and
- The monetary gain or loss on cash and cash equivalents is presented separately.

3.8. Group reporting

A parent company reporting in the currency of a high inflation economy may also have subsidiaries reporting in the currencies of hyperinflationary economies. The financial statements of these subsidiaries are restated using the CPI index of the country in which they report before being included in the consolidated financial statements prepared by the parent. The restated financial statements of foreign subsidiaries are translated at closing rates.

Subsidiaries not reporting in the currencies of high inflation economies are first addressed according to IAS 21. This means items included in comprehensive income are translated at the rates at the transaction dates (or average rate) and balance sheet items at the closing rates.

For presenting comparative amounts in a different presentation currency, IAS 21 - The Effects of Changes in Foreign Exchange Rates is applied. Balances should be translated at the closing rate according to IAS 21.42(b) and IAS 21: The effective date of the change in the currency used for the purpose of IAS 29 is in accordance with IAS 21.

When high inflation ends in a country, an enterprise will cease preparing and presenting financial statements under IAS 29. The enterprise should consider the amounts expressed in the current measurement unit at the end of the previous reporting period as the basis of the book values in subsequent financial statements (IAS 29.38).

The standard also specifies the following points that need to be included in the notes to the financial statements during high inflation periods.

3.9. Gain or loss on monetary items (IAS 29.9)

The rationale for having restated the financial statements and other prior period data for changes in the general purchasing power of the reporting currency (IAS 29.39) Whether the cost approach in the financial statements is based on historical cost or current cost (IAS 29.39)

The definition and level of the price index at the balance sheet date, and the movements in the index in the current and preceding reporting periods (IAS 29.39)

4. Sample Application - Inflation Adjustment under IAS 293

The data related to the coefficients to be used in the adjustments are presented in the following tables.

Table 5: CPI Coefficients by Years, Months, and Quarters (2018-2019)

| 2018-2019 | 2018 | | | 2019 | | |
|-----------|-------------|---------------|--------------|-------------|---------------|--------------|
| | Monthly CPI | Monthly Aver- | CPI Index by | Monthly CPI | Monthly Aver- | CPI Index by |
| | Index | age CPI Index | Quarters | Index | age CPI Index | Quarters |
| January | 1,0102 | 1,0224 | | 1,0106 | 1,0172 | |
| February | 1,0073 | 1,0135 | | 1,0016 | 1,0111 | |
| March | 1,0099 | 1,004 | 1,0136 | 1,0103 | 1,0051 | 1,0111 |
| | | | | | | |
| April | 1,0187 | 1,0524 | | 1,0169 | 1,0182 | |
| May | 1,0162 | 1,0343 | | 1,0095 | 1,0050 | |
| June | 1,0261 | 1,0129 | 1,0332 | 1,0003 | 1,00014 | 1,0078 |
| | | | | | | |
| July | 1,0055 | 1,0904 | | 1,0136 | 1,0254 | |
| August | 1,023 | 1,0751 | | 1,0086 | 1,0142 | |
| September | 1,063 | 1,0310 | 1,0655 | 1,0099 | 1,0049 | 1,01488 |
| | | | | | | |
| October | 1,0267 | 0,9946 | | 1,02 | 1,0212 | |
| November | 0,9856 | 0,9888 | | 1,0038 | 1,0093 | |
| December | 0,996 | 0,9979 | 0,9938 | 1,0074 | 1,0036 | 1,01143 |

³ The sample application was created by the author.

Table 6. Purchasing Power Coefficients Calculated Based on the Date of 31 December 2020⁴

| 2019 2020 | 2010 | 2010 | 2020 |
|-----------|--------|--------|--------|
| 2018-2020 | 2018 | 2019 | 2020 |
| January | 1,5257 | 1,2678 | 1,1305 |
| February | 1,5147 | 1,2658 | 1,1265 |
| March | 1,4998 | 1,2529 | 1,1201 |
| April | 1,4723 | 1,2321 | 1,1107 |
| May | 1,4488 | 1,2205 | 1,0958 |
| June | 1,4120 | 1,2201 | 1,0835 |
| July | 1,4042 | 1,2037 | 1,0773 |
| August | 1,3727 | 1,1935 | 1,0681 |
| September | 1,2913 | 1,1818 | 1,0578 |
| October | 1,2577 | 1,1586 | 1,0358 |
| November | 1,2761 | 1,1542 | 1,0125 |
| December | 1,2812 | 1,1457 | 1,0000 |

Table 7. Purchasing Power Coefficients Calculated Based on the Date of 31 December 2021

| 2018-2021 | 2018 | 2019 | 2020 | 2021 |
|-----------|--------|--------|--------|------------|
| January | 2,0762 | 1,7252 | 1,5383 | 1,33828717 |
| February | 2,0611 | 1,7224 | 1,5329 | 1,32621858 |
| March | 2,0409 | 1,7049 | 1,5242 | 1,31204846 |
| April | 2,0035 | 1,6765 | 1,5114 | 1,29037024 |
| May | 1,9715 | 1,6608 | 1,4911 | 1,27898725 |
| June | 1,9214 | 1,6603 | 1,4745 | 1,2546471 |
| July | 1,9109 | 1,6380 | 1,4660 | 1,23246277 |
| August | 1,8679 | 1,6240 | 1,4535 | 1,21881207 |
| September | 1,7572 | 1,6081 | 1,4395 | 1,20376501 |
| October | 1,7115 | 1,5766 | 1,4095 | 1,17566658 |
| November | 1,7365 | 1,5706 | 1,3778 | 1,1358 |
| December | 1,7435 | 1,5591 | 1,3608 | 1 |

4.1. Fixed Assets

As of 31 December 2021, there is no activated interest expense for the period ending on that date and there are no collateral, pledges, or mortgages on tangible fixed assets. Depreciation of tangible fixed assets is calculated using the normal depreciation method based on their economic lives. No depreciation is allocated for land, as it has an indefinite life. Moreover, the economic life of molds and models is determined based on the project life.

September 2020 Purchasing Power Coefficient: October 2020 CPI * November 2020 CPI * December 2020 CPI

⁴ In calculating the purchasing power coefficients, the base years are assumed to be 1.00. For example, if the base year is 2020, the purchasing power coefficient for September is calculated as follows. (If coefficients for earlier months are required, the CPI coefficient for the month following the desired month is multiplied successively with each subsequent month's CPI coefficient until reaching the CPI coefficient for December 2020.)

According to IAS 16 Property, Plant, and Equipment, maintenance and repair expenses, other than those resulting in an expansion or significant improvement of the asset, are expensed on the dates they are incurred.

Table 8. Fixed Assets

| | Historical Cost | Acquisition | Useful Life (years) |
|--------------------------|-----------------|-------------|---------------------|
| | | Date | |
| Buildings | 1.000.623 | Jan.18 | 40 |
| Equipment | 2.863.335 | Jan.18 | 12 |
| Moldings and Models | 2.890.202 | Jan.18 | 7 (project period) |
| Fixtures and Furnishings | 449.351 | Feb.18 | 10 |
| Vehicles | 68.226 | Apr.18 | 5 |

Table 9. Adjustment of costs according to the 2020 purchasing power.

| | Historical | Acquisition | Conversion | Adjusted | _ |
|--------------------------|------------|-------------|-------------|------------|------------|
| | Cost | Date | Coefficient | Value | Difference |
| Buildings | 1.000.623 | Jan.18 | 1,5257 | 1.526.682 | |
| Equipment | 2.863.335 | Jan.18 | 1,5257 | 4.368.680 | |
| Moldings and Models | 2.890.202 | Jan.18 | 1,5257 | 4.409.672 | |
| Fixtures and Furnishings | 449.351 | Feb.18 | 1,5147 | 680.620 | |
| Vehicles | 68.226 | Apr.18 | 1,4723 | 100.449 | |
| Total | 7.271.737 | | | 11.086.102 | 3.814.365 |

Table 10. Adjustment of costs according to the 2021 purchasing power

| | Historical | Acquisition | Conversion | Adjusted | |
|---------------------|------------|-------------|-------------|------------|------------|
| | Cost | Date | Coefficient | Value | Difference |
| Buildings | | | | | |
| | 1.000.623 | Jan.18 | 2,0762 | 2.077.463 | |
| Equipment | | | | | |
| | 2.863.335 | Jan.18 | 2,0762 | 5.944.770 | |
| Moldings and Models | | | | | |
| | 2.890.202 | Jan.18 | 2,0762 | 6.000.551 | |
| Fixtures and | | | | | |
| Furnishings | 449.351 | Feb.18 | 2,0611 | 926.168 | |
| Vehicles | | | | | |
| | 68.226 | Apr.18 | 2,0035 | 136.688 | |
| 31 December 2021 | | | | | |
| Total Cost | 7.271.737 | | | 15.085.640 | 13.903b |

Table 11. Calculation of accumulated depreciation amounts as of 31 December 2020

| | Buildings | Equipment | Moldings | Fixtures and | Vehicles | |
|----------------|-----------|-----------|------------|--------------|----------|-----------|
| | Dunanigs | Equipment | and Models | | Cilicios | |
| | | | and Models | Furnishings | | |
| 2020 Adjusted | 1.526.682 | 4.368.680 | 4.409.672 | 680.620 | 100.449 | |
| Values | | | | | | |
| 2021 Adjusted | 2.077.463 | 5.944.770 | 6.000.551 | 926.168 | 136.688 | |
| Values | | | | | | |
| Acquisition | Jan.18 | Jan.18 | Jan.18 | Feb.18 | Apr.18 | |
| Date | | | | | | |
| Useful Life | 40 | 12 | 7 | 10 | 5 | |
| (years) | | | | | | |
| Useful Life at | 3 | 3 | 3 | 3 | 3 | |
| the end of | | | | | | |
| 2020 | | | | | | |
| Useful Life at | 4 | 4 | 4 | 4 | 4 | |
| the end of | | | | | | |
| 2021 | | | | | | |
| 2020 | 114.501 | 1.092.170 | 1.889.859 | 204.186 | 60.269 | 3.363.006 |
| 2021 | 207.746 | 1.981.590 | 3.428.886 | 370.467 | 109.350 | 6.100.061 |
| Difference | | | | | | 2.737.055 |
| | | | | | | c |

Table 12. Calculation of depreciation expense for the Year 2021

| | Useful | 2021 Adjusted | Current Year | | |
|--------------|--------|---------------|---------------------|--------------------|--|
| | Life | Values | Depreciation Amount | Total | |
| Buildings | 40 | 2.077.463 | 51.937 | | |
| Fixtures and | | | | | |
| Furnishings | 10 | 926.168 | 92.617 | | |
| Vehicles | 5 | 136.688 | 27.338 | 171.891 d | |
| Equipment | 12 | 5.944.770 | 495.398 | | |
| Moldings and | | | | | |
| Models | 7 | 6.000.551 | 857.222 | 1.352.619 e | |
| Total | | | 1.524.510 | | |

Table 13. Reconciliation of accumulated depreciation amounts as of 31 December 2021 (adjusted for 2021 purchasing power)

| Accumulated Depreciation Amount as of 31 December 2020 | 6.100.061 |
|--|-----------|
| Depreciation Expense for the Year 2021 | 1.524.510 |
| Accumulated Depreciation Amount as of 31 December 2021 | 7.642.571 |

2.737.55(c)

Table 14. Consolidated results (adjusted tangible fixed asset items and net monetary gains arising from the items)

4.2. Inventories and Production Expenses

Net Monetary Gain Arising from Accumulated Depreciation

Fixed production costs on finished goods are allocated based on normal production capacity. The cost of inventories is calculated using the monthly moving weighted average cost method. The cost of finished goods includes raw materials, direct labor, other direct expenses, and related general production overheads but does not include borrowing costs.

Expenses for idle capacity, resulting from unplanned production interruptions, are not associated with finished goods inventory and are accounted for in the cost of goods sold in the period they occur.

Table 15. Inventories and production expenses

| Inventory items in the enterprise's balance sheet as of 31.12.2021 | | | |
|--|-----------|-----------|--|
| 31.12.2021 31.12.2020 | | | |
| Raw Materials | 3.339.957 | 962.381 | |
| Finished Goods | 773.904 | 530.107 | |
| Miscellaneous Materials | 385.651 | 277.493 | |
| | 4.499.512 | 1.769.981 | |

During the restatement of inventories for inflation, the production process should be followed. The holding periods of the inventories at the beginning of the period should also be considered. The beginning period inventories should be adjusted with the purchasing power at the end of the previous year. Since the difference arising from the inflation effect pertains to previous years, it should be added to the undistributed profits in the opening balance sheet.

The beginning period stock amount, adjusted according to the previous year's purchasing power, should be readjusted up to the current year-end purchasing power, and the resulting difference should be reflected in the current period's monetary gain.

The adjustment of the end-of-period inventories should follow the same method applied for the beginning-of-period inventories. Inventory items used in the production process can be adjusted using the end-of-year purchasing power (2021). The approach to this adjustment can be as follows:

2021 Beginning Period Stock Amount - 2021 End Period Stock Amount = Cost of Goods Sold

Table 16. Cost of sales for the periods ending 31 December 2021 and 2020

| | 31.12.2021 | Percentage | 31.12.2020 | Percent- |
|-------------------------------|-------------|------------|-------------|------------|
| | | of Total | | age of To- |
| | | | | tal |
| Raw material and supplies ex- | -50.548.947 | 92,36 | -34.624.112 | 92,38 |
| pense | | | | |
| Direct labor expenses | -1.643.365 | 3,00 | -1.146.207 | 3,06 |
| Non-material general produc- | -1.565.734 | 2,86 | -1.158.847 | 3,09 |
| tion expenses | | | | |
| Depreciation expenses | -974.441 | 1,78 | -847.758 | 2,26 |
| Total production cost | -54.732.487 | | -37.478.956 | |
| Total cost of sales | -54.483.216 | | -37.478.956 | |

Table 17. Sales of the enterprise for the Years 2020 and 2021

| | 31.12.2021 | 31.12.2020 |
|-----------------|-------------|-------------|
| Foreign Sales | 34.626.072 | 34.626.072 |
| Domestic Sales | 17.983.616 | 16.153.836 |
| Other Sales | 413.540 | 211.547 |
| Less: Discounts | (1.811.049) | (1.540.048) |
| Total | 71.101.258 | 49.451.407 |

50% of the direct raw material and direct labor expenses occur in the initial stage of production.

Table 18. The inventory holding periods⁵

| (Monthly) | Holding in | Holding in Semi- | Holding in Fin- |
|------------------------|------------|------------------|-----------------|
| | Inventory | Finished Process | ished Form |
| Raw Material | 1,6 | 2 | 3,7 |
| Miscellaneous Material | 3,2 | 3,6 | 5,3 |
| Finished (Product) | 1,7 | - | - |

⁵ To simplify the explanation, average holding periods for inventory have been used. Under IAS 2, it is necessary to know the acquisition dates or acquisition costs of inventories. Therefore, the inventory holding period calculation approach used in this example is not in compliance with the Turkish Accounting Standards.

Table 19. Adjustment of raw materials

| | Beginning | 2021 | 2021 Opening | 2021 Closing |
|-----------------|------------------|------------------|-----------------------------------|-----------------|
| | Period Raw | Inflation | Balance | Balance |
| | Material* | (%36,08) | | |
| Historical Cost | 962.381 c | | | 3.339.957 |
| Time of | October 2020 | | | September 2021 |
| Conversion | CPI | | | CPI |
| Factor | | | | |
| Conversion | 1,0213 | 0, 3608 b | | 1,0125 |
| Factor | | | | |
| Adjusted Value | 982.880 a | | 1.542.138 | |
| for 2020 | | | a +(a * b) | |
| Adjusted Value | | 559.259 | 579.757 | 3.381.706 |
| for 2021 | | (a*b) | (a+(a*b))- c | |
| Difference | 20.499 | | | 41.749 B |
| | A | | | |

^{*} The adjustment coefficient for raw material is calculated considering the inventory holding period of 1.6 months.

Table 20. Adjustment of miscellaneous material

| | Beginning | 2021 | 2021 Opening | 2021 Closing |
|--------------------|----------------|-----------|--------------|-----------------|
| | Period Raw | Inflation | Balance | Balance |
| | Material* | (%36,08) | | |
| Historical Cost | 277.493 | | | 385.651 |
| Time of | September 2020 | | September 2 | |
| Conversion Factor | Purchasing | | | Purchasing |
| | Power | | | Power |
| Conversion Factor | 1,06 | 0, 3608 | | 1,20 |
| Adjusted Value for | 293.546 | | | |
| 2020 | | | | |
| Adjusted Value for | | 105.911 | 399.457 | 464.233 |
| 2021 | | | | |
| Difference | 16.053 | | | 78.582 C |

 $^{^*}$ The adjustment coefficient for miscellaneous material is calculated considering the inventory holding period of 3.2 months.

Table 21. Adjustment of cost of finished goods

| | Labor and Non- | Raw Material | Depreciation | n Beginning |
|--------------------|-------------------------|----------------|--------------|-----------------|
| | Material General | (92.38%) | | Finished |
| | Production Expenses | S | | Goods |
| | (7.5%) | | | |
| Time of | October 2020 | September 2020 | | |
| Conversion Factor | Purchasing Power | Purchasing | | |
| | | Power | | |
| Historical Cost | 39.758 | 489.713 | 636 | 530.107 |
| Conversion Factor | 1,04682* | 1,01820** | ((1)+(2))/2 | |
| Adjusted Value for | 1,0357626 | 1,0578362 | 1,0467994 | |
| 2020 | | | | |
| Adjusted Value for | 41.180 | 518.036 | 666 | 559.882 |
| 2021 | | | | |
| Difference | 1.422 | 28.323 | 30 | 29.775 D |

^{*} The coefficient is the arithmetic average of the purchasing powers for the months of October and November.

 $^{^{**}}$ The coefficient is the arithmetic average of the purchasing powers for the months of September and October.

Table 22. Adjustment of cost of sold finished goods

| - | Historical | Time of | Conversion | Adjusted | Difference |
|------------------------|------------|------------|-----------------|--------------------|------------------------|
| | Cost | Conversion | Factor | Value | |
| | | Factor | | | |
| Beginning | | | | 559.882 | |
| Finished Goods | | | | | |
| (2020) | | | | | |
| 2021 | | | | 202.005 | |
| Conversion | | | | | |
| Factor (1,3608) | | | | | |
| TOTAL | | | | 761.887 (3) | 231.780 (6) |
| Total | 54.732.487 | | 1,36 | 74.479.968 | 19.747.481(7) |
| Production for | | | | (4) | |
| the Period | | | | | |
| Less: Ending | 773.904 | | | | |
| Finished Goods | | | | | |
| Labor and Non- | 45.351 | End of | December | 53.316 | 7.965 |
| Material | | October | 2021 CPI / | | |
| General | | 2021 | October | | |
| Production | | | 2021 CPI | | |
| Expenses | | | 1,18 (1) | | |
| (5.86%) | | | | | |
| Raw Material | 714.778 | Middle of | December | 1.028.932 | 314.154 |
| (92.36%) | | September | 2021 CPI / | | |
| | | 2021 | September | | |
| | | | 2021 CPI | | |
| | | | 1,44 (2) | | |
| Depreciation | 13.775 | | 1,31 | 18.013 | 4.237 |
| | | | ((1)+(2))/2 | | |
| Ending Finished | 773.904 | | | 1.100.261(5) | 326.357 (8) E |
| Goods | | | | | |
| Cost of Sold | 54.483.216 | | | 74.141.595 | 19.658.379 |
| Finished Goods | | | | (4)- (5) + (3) | (7)- (8) + (6) |
| | | | | | \mathbf{F} |

Table 23. Aggregated results - inventory items

| Increase in Inventory | 446.688 (B+C+E) |
|-----------------------|----------------------|
| Increase in COGS | 19.658.379 (F) |
| Net Monetary Gain | 20.105.067 (B+C+E+F) |

4.3. Investments in partnerships (investments in subsidiaries, associates, joint ventures and jointly controlled entities)

ADAMETE Technology Initiatives Inc. which operates in another country for the purpose of operating in research and development, consultancy and engineering industries and investing in other businesses established and initiatives in these fields, was acquired on December 30, 2020.

Table 24. ADAMETE Technology Initiatives Inc.

| Partnership Share | %25 |
|---|---------|
| Fair value of the purchased business | 150.000 |
| Cash Paid | 150.000 |
| Net Assets (belonging to the investor, 31/12/2020) | 151.200 |
| Shares of profit or loss of subsidiaries and joint ventures accounted for | 32.000 |
| using the equity method | |
| Exchange Difference Income | 120.000 |
| Net Assets (owned by the investor, 31/12/2021) | 303.200 |

Table 25. IFRS/IAS compliant ADAMETE Technology Initiatives Inc. financial statements

| | Histori- | Conver- | Adjusted | Differ- |
|--|----------|-------------|----------|---------|
| | cal Cost | sion Factor | Value | ence |
| Net assets as of December 31, 2020 | 151.200 | 1,3608 | 205.748 | 54.548 |
| Shares of profit or loss of subsidiaries and | 32.000 | 1,2306 | 39.379 | 7.379 |
| joint ventures accounted using the Equity | | | | |
| Method | | | | |
| Exchange Difference Income | 120.000 | | 58.073 | -61.927 |
| Net assets as of December 31, 2021 | 303.200 | 1,0000 | 303.200 | 0 |
| IAS 29 Adaptation | | | | |
| Conversion Difference | 61.927 | | | |
| Shares of profit or loss of subsidiaries and | -7.379 | | | |
| joint ventures accounted using the Equity | | | | |
| Method | | | | |
| Net Monetary Gain | -54.548 | | | |

Since the subsidiary is accounted for at current exchange rates at the balance sheet date, no inflation adjustment is required at this December 31, 2021 date. Shares of profit or loss of subsidiaries and joint ventures accounted for using the Equity Method have been adjusted with the conversion factor for the average purchasing power of the same year in 2021.

4.4. Financial investments (short term, accounted at fair value)

The financial assets of the business consist of shares purchased within the scope of BIST 30 Index for the purpose of utilizing idle funds. There is no need to calculate an adjusted value for this item

that will be valid as of December 31, 2021. However, since the fair value changes for the item and the monetary changes for the period must be presented in the income statement, a new adjustment was made according to inflation.

Table 26. Changes in shares during the period-1

| | Inflows | Outflows | Balance |
|--|-----------------|-----------------|---------------------|
| | $(\cos t - TL)$ | $(\cos t - TL)$ | (market value – TL) |
| Financial Asset Investments as of 31/12/2020 | | | 50.000 |
| 1st Quarter | 99.000 | (69.500) | |
| 2nd Quarter | 87.500 | (57.000) | |
| 3rd Quarter | 53.000 | (51.600) | |
| 4th Quarter | 60.000 | (61.400) | |
| | | | 60.000 |
| Income from Financial Investments | | | 40.000 |
| End of Period Balance as of December 31, | | | 150.000 |
| 2021 | | | |

Table 27. Changes in shares during the period-2

| | C 1 | | | | |
|--------------------|-------------------|------------|------------|----------|---------|
| | Time of Conver- | Historical | Conversion | Adjusted | Differ- |
| | sion Factor | Cost | Factor | Value | ence |
| Market Value | 31.Dec.20 | 50.000 | 1,3608 | 68.039 | 18.039 |
| Historical Cost | 1st Quarter Aver- | 99.000 | 1,0164 | 100.627 | |
| | age | | | | |
| Historical Cost | 2nd Quarter Aver- | 87.500 | 1,0236 | 89.561 | |
| | age | | | | |
| Historical Cost | 3rd Quarter Aver- | 53.000 | 1,0191 | 54.014 | |
| | age | | | | |
| Historical Cost | 4th Quarter Aver- | 60.000 | 1,1370 | 68.219 | |
| | age | | | | |
| Cost of Sales | 1st Quarter Aver- | 69.500 | 1,0164 | 70.642 | |
| | age | | | | |
| Cost of Sales | 2nd Quarter Aver- | 57.000 | 1,0236 | 58.342 | |
| | age | | | | |
| Cost of Sales | 3rd Quarter Aver- | 51.600 | 1,0191 | 52.587 | |
| | age | | | | |
| Cost of Sales | 4th Quarter Aver- | 61.400 | 1,1370 | 69.810 | |
| | age | | | | |
| Additions for 2003 | | 60.000 | 1,3120 | 78.723 | 18.723 |
| Total | | 110.000 | | 146.761 | 36.761 |
| IAS adaptation | Net Monetary Gain | | | | 36.761 |
| | | | | | |

4.5. Share Capital

Table 28. Share Capital

| Tubic 201 Sinaire Capitai | | | |
|---------------------------|---------|------------------|----------------------------------|
| Beginning Balance | 300.000 | 15 January 2018 | Half will be paid in cash on the |
| | | | same date and the remaining half |
| | | | will be paid in cash 6 months |
| | | | later. |
| Prepaid part of the com- | 150.000 | 15 January 2018 | Paid in cash. |
| mitment | | | |
| Fulfillment of the sec- | 150.000 | 30 June 2018 | Paid in cash. |
| ond part of the commit- | | | |
| ment | | | |
| Shared Capital | 300.000 | | |
| (31/12/2020) | | | |
| Capital Increase | 100.000 | 15 December 2019 | Paid in cash. |
| Shared Capital | 400.000 | | |
| (31/12/2021) | | | |

Table 29. Adjustment of the opening balance as of 31 December 2020 according to purchasing power

| Capital Investment Dates | Amount | Conver- | Adjusted | Difference |
|---|---------|-------------|----------|------------|
| | (TL) | sion Factor | Value | |
| 15.Jan.18 | 150.000 | 1,5257 | 228.860 | 78.860 |
| 30.Jun.18 | 150.000 | 1,4120 | 211.796 | 61.796 |
| 15.Dec.19 | 100.000 | 1,1457 | 114.572 | 14.572 |
| 31 December 2020 Ending Balance | 400.000 | | 555.227 | 155.227 |
| | | | | (a) |
| (2) 31 December 2021 Adjustment of | | | | |
| Opening Balance in Accordance with Pur- | | | | |
| chasing Power | | | | |
| 15.Jan.18 | 150.000 | 2,0762 | 311.425 | 161.425 |
| 30.Jun.18 | 150.000 | 1,9214 | 288.205 | 138.205 |
| 15.Dec.19 | 100.000 | 1,5591 | 155.906 | 55.906 |
| 31 December 2021 Ending Balance | 400.000 | | 755.537 | 355.537 |
| | | | | (b) |
| IAS 29 Adaptation | | | | |
| Deferred Revenues - Beginning Balance | 155.227 | | | |
| Net Monetary Gain | 355.537 | | | |
| Share Capital | 364.213 | | | |

4.6. Dividends

The company, at its Ordinary General Assembly held on March 17, 2021, decided to distribute a total of 75,000 TL in cash dividends from its 2020 profit and made the announced dividend payment within the month of October 2021.

Table 30. Adjustment of dividends

| | Histori- | Conver- | Adjusted | Differ- |
|--|----------|-------------|----------|---------|
| | cal Cost | sion Factor | Value | ence |
| Accruals March 2021 | 75.000 | 1,3120 | 98.404 | 23.404 |
| Payment October 2021 | 75.000 | 1,1757 | 88.175 | 13.175 |
| Monetary gain resulting from the differ- | | | 10.229 | 10.229 |
| ence between accrual and payment dates | | | | |
| IAS 29 Adaptation | | | | |
| Increase in Dividend Accruals | 23.404 | | | |
| Increase in Net Monetary Gain | 23.404 | | | |

4.7. Deferred Revenues - Government Incentives

In June 2018, the company received a government incentive totaling 150,000 TL for the installation of electric vehicle charging units in the workplace, as part of sustainability initiatives. The incentive is in the form of a grant contingent upon the fulfillment of the obligation to install the charging units. The units are expected to be completed by December 31, 2018, and be operational as of January 1, 2019. Accordingly, starting from January 2019, the depreciation of the charging units will be subject to regular amortization over their economic life of 10 years. Amortization amounts related to the charging units can be deducted from taxable income, beginning from the month in which the units start their operations, until the end of the amortization period or disposal. The received government incentive is not subject to taxation.

Table 31. Net book value of government incentives

| | | | 0 | 0 | |
|--------------------------|------------|-----------------|---------|---------|----------|
| Net Book Value | | | 135.00 | 120.00 | 105.000 |
| TL/year) | | | | | |
| (150.000 / 10 = 15.000 | | |) |) | |
| Accumulated Depreciation | | | (15.000 | (30.000 | (45.000) |
| ment Incentive | | | | | |
| Charging Unit - Govern- | 150.000 | 2019 | | | |
| | Cost (TL) | Depreciation | | | |
| | Historical | Date Subject to | 2019 | 2020 | 2021 |

Table 32. Net book value of government incentives

| | | Conver- | Adjusted | Differ- | Years |
|-------------------------------|---------|-------------|----------|---------|----------------|
| | | sion Factor | Value | ence | |
| 2020 Ending Net Book Value | 120.00 | 1,4119 | 169.436 | 49.436 | 31 December |
| | 0 | | | | 2020 according |
| | | | | | to purchasing |
| | | | | | power |
| | | 1,9213 | 230.564 | 110.564 | 31 December |
| | | | | | 2021 according |
| | | | | | to purchasing |
| | | | | | power |
| Current Depreciation | 15.000 | 1,9213 | 28.821 | 13.821 | |
| 2021 Ending Net Book Value | 105.00 | | 201.744 | 96.744 | 2021 |
| | 0 | | | | |
| IAS 29 Adaptation | | | | | |
| Increase in Retained Earnings | 49.436 | | | | |
| from Previous Years (Begin- | | | | | |
| ning Balance) | | | | | |
| Net Monetary Gain | -61.128 | | | | |
| Depreciation Increase Related | 13.821 | | | | |
| to Government Incentives | | | | | |
| Decrease in Deferred Reve- | 96.744 | | | | |
| nues - Government Incentives | | | | | |

Table 33. Net book value of government incentives

| | Historical Cost | Conversion Factor | Adjusted | Difference |
|-------------------------------|-----------------|-------------------|------------|------------|
| | | | Value | |
| Beginning Cash Balance | 8.073.629 | 1,23058877 | 9.935.317 | 1.861.688 |
| Cash Flows During Pe- | | | | |
| riod | | | | |
| 1st Quarter | 1.118.303 | 1,3255 | 1.482.331 | 364.028 |
| 2nd Quarter | -3.065.140 | 1,2746 | -3.907.037 | -841.896 |
| 3rd Quarter | 5.455.399 | 1,2183 | 6.646.567 | 1.191.168 |
| 4th Quarter | 6.032.611 | 1,1038 | 6.658.930 | 626.319 |
| Total Inflation Effect Relate | ed to Cash | | | 3.201.306 |

4.8. Revenue

 Table 34. Inflation Adjustment for Revenue -1

| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter | Total |
|----------------------|-------------|-------------|-------------|-------------|-------------|
| Revenue | 16.245.000 | 10.532.602 | 18.870.745 | 25.452.911 | 71.101.258 |
| Research and | (121.129) | (144.797) | (141.955) | (272.638) | (680.519) |
| Development | | | | | |
| Expenses | | | | | |
| Marketing, Sales, | (159.382) | (232.435) | (238.918) | (692.865) | (1.323.600) |
| and Distribution | | | | | |
| Expenses | | | | | |
| General | (113.732) | (139.213) | (164.237) | (323.247) | (740.429) |
| Administrative | | | | | |
| Expenses | | | | | |
| Other Income from | 217.058 | 220.536 | 228.707 | 1.444.711 | 2.111.012 |
| Operating Activities | | | | | |
| | | | | | |
| Other Expenses from | (100.676) | (139.715) | (215.056) | (627.434) | (1.082.881) |
| Operating Activities | | | | | |
| | | | | | |
| Foreign Exchange | 469.902 | 295.347 | 842.339 | 3.094.582 | 4.702.170 |
| Gains | | | | | |
| Foreign Exchange | (612.286) | (557.382) | (937.219) | (4.112.313) | (6.219.200) |
| Losses | | | | | |
| Income Tax Expense | (12.901) | (13.028) | (10.213) | (40.808) | (76.950) |
| for the Period | | | | | |

Table 35. Inflation Adjustment for Revenue -2

| | Sales (TL, Billed) | Conversion Factor | Adjusted Value (TL) |
|-------------|--------------------|-------------------|---------------------|
| 1st Quarter | 16.254.142 | 1,3255 | 21.545.159 |
| 2nd Quarter | 10.532.602 | 1,2747 | 13.425.573 |
| 3rd Quarter | 18.870.745 | 1,2183 | 22.991.108 |
| 4th Quarter | 25.443.769 | 1,1038 | 28.085.397 |

4.9. Cash and Cash Equivalents

Table 36. Cash Outflows from Operating Activities

| | <u> </u> | | |
|-----------------|------------|-------------------|----------------|
| Raw Materials | s (TL) | Conversion Factor | Adjusted Value |
| 1st Quarter | 12.335.849 | 1,3255 | 16.351.391 |
| 2nd Quarter | 7.171.921 | 1,2747 | 9.141.820 |
| 3rd Quarter | 14.344.266 | 1,2183 | 17.476.288 |
| 4th Quarter | 16.696.911 | 1,1038 | 18.430.421 |
| | | TOTAL | 61.399.919 |
| Wages and Salar | ies (TL) | Conversion Factor | Adjusted Value |
| 1st Quarter | 108.603 | 1,3255 | 143.955 |
| 2nd Quarter | 134.460 | 1,2747 | 171.392 |
| 3rd Quarter | 162.696 | 1,2183 | 198.220 |
| 4th Quarter | 211.365 | 1,1038 | 233.309 |
| | | TOTAL | 746.877 |
| Rent (TL |) | Conversion Factor | Adjusted Value |
| 1st Quarter | 11.743 | 1,3255 | 15.566 |
| 2nd Quarter | 26.707 | 1,2747 | 34.043 |
| 3rd Quarter | 40.101 | 1,2183 | 48.857 |
| 4th Quarter | 66.134 | 1,1038 | 73.000 |
| | | TOTAL | 171.465 |
| Tax (TL) |) | Conversion Factor | Adjusted Value |
| End of January | 2.195 | 1,34 | 2.938 |
| End of March | 2.875 | 1,3120 | 3.772 |
| End of July | 15.405 | 1,23 | 18.986 |
| End of October | 13.105 | 1,18 | 15.407 |
| | | TOTAL | 41.103 |
| | • | | |

4.10. Allowance for Doubtful Receivables

The allowance for doubtful trade receivables is a monetary item and, as such, generates monetary gains. These monetary gains offset the monetary losses arising from the holding of the respective receivables. The inflation effect on the beginning balance of the allowance for doubtful receivables is a non-cash item that does not impact working capital; therefore, it will also be presented as a reconciling item in the cash flow statement.

Table 37. Adjustment for the Allowance for Doubtful Trade Receivables

| | (TI.) | Conversion | Adjusted |
|---|-----------|------------|--------------|
| | (TL) | Factor | Value |
| Trade Receivables (Beginning Balance) | 2.546.243 | 1,3608 | 3.464.927,47 |
| Allowance for Doubtful Trade Receivables (Beginning Balance) | (229.602) | 1,3608 | 263.124 |
| Current Period Allowance for Doubtful Trade Receivables | (327533) | | 327.533 |
| Allowance for Doubtful Trade Receivables (Ending Balance) | 557.135 | | 557.135 |
| Difference - Inflation Effect on Allowance for Doubtful Trade Receivables | | | 33.522 |

4.11. Retained Earnings

The retained earnings from previous years consist of inflation adjustment differences related to equity and extraordinary reserves. The distribution of retained earnings from previous years is provided in the table below.

Table 38. Inflation Adjustment for Retained Earnings

| 3.467.929 |
|-----------|
| 428.301 |
| 3.039.628 |
| 428.301 |
| |
| 3.896.230 |
| 1.405.760 |
| 5.301.990 |
| |

4.12. Deferred Taxes

Table 39. Inflation Adjustment for Deferred Tax

| Deferred Tax (31 December 2020, Net) | 954.246 |
|---|-----------|
| Adjusted Beginning Balance for the Year 2021 (1,3608) | 1.298.538 |
| Deferred Tax (31 December 2021, Net) | 1.715.971 |
| Deferred Tax During Period | 417.433 |

5. Conclusion

IAS 29 is not a measurement standard, but a presentation standard, and one of its key elements is consistency. Therefore, within the scope of this standard, using a consistent index, in other words, an index that reflects the general purchasing power, is very important. Considering that the CPI index reflects the purchasing power of the individual who would buy the company's shares, it is possible to say that it is a consistent index to be used under IAS 29. It is thought that it would be more appropriate to make corrections according to the indexes calculated every six months in terms of eliminating the effects of inflation on comparative periods.

IAS 29 expects simultaneous implementation for all businesses operating in the country. Otherwise, the comparability of financial statements will be eliminated. When financial statements in our country are examined, it is observed that some companies, especially those traded on the stock exchange, present inflation-adjusted tables even though it is not mandatory. In this case, compliance with IFRS – IFRS is also disrupted.

Regarding IAS 29, there are no specific explanations for adjustments to be made on equity items. In practice, for ease and consistency, it seems appropriate to apply inflation adjustment to equity items that will remain within the company, while items that might leave the company should not be subject to adjustment.

It is possible to mention that there is approximately a tenfold difference between the financial statement values from 2004, the last date of inflation adjustment in Turkey, to 2022. Therefore, it is appropriate to start indexing from 2004. For the item subject to inflation adjustment, if the item is included in the financial statement at cost value, the adjustment coefficient should be calculated from the date of capitalization, or from the date of revaluation if it has been revalued.

Especially for a company with a lot of monetary liabilities, inflation accounting is not an advantage. Also, considering our country, companies are not ready for inflation adjustment. Training of teams that will apply inflation adjustment, the readiness of the business, and the preparation of data are very important and difficult processes.

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