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HOW DOES THE RUSSIA-UKRAINE CONFLICT REFLECT ON FINANCIAL STATEMENTS?

RUSYA-UKRAYNA ÇATIŞMASININ FİNANSAL TABLOLARA NASIL YANSIR?

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Abstract

Russia's military attack on Ukraine and the related sanctions against Russia and Belarus have had a significant impact on businesses. Particularly considering that many financial statements as of December 31, 2021, had not yet been finally audited or prepared for presentation, the question of how this reflects on the accounting and auditing of businesses has emerged. This study examines the expected impacts and changes in financial statements due to the economic and geopolitical effects of the war under International Accounting Standards (IAS), based on examples. As a result, in accordance with the standards, due to the crisis period, the Russia-Ukraine conflict is expected to significantly affect the financial statements. This also includes the determination of fair value, the sustainability of the business, rising inflation, interest rates, and exchange rates, as well as potential disruptions in the supply chain.

Keywords: Russia-Ukraine War, Financial Statements, IAS

Öz

Rusya'nın Ukrayna'ya yönelik askeri saldırısı ve bununla bağlantılı olarak Rusya ve Belarus'a yönelik yaptırımlar, işletmeler üzerinde önemli bir etkiye sahip olmuştur. Özellikle de 31 Aralık 2021 itibarıyla pek çok mali tablonun henüz nihai olarak denetlenmediği veya sunulmak için oluşturulmadığı göz önüne alındığında, bunun işletmelerin muhasebe ve denetimine ne ölçüde yansıdığı sorusunu gündeme gelmiştir. Bu çalışma, Uluslararası Muhasebe Standartları (UMS) kapsamında savaşın ekonomik ve jeopolitik etkileri nedeniyle finansal tablolarda meydana gelmesi beklenen etki ve değişiklikleri örneklere dayandırarak incelemiştir. Sonuç olarak, standartlar kapsamında, gerçeğe uygun değerin belirlenmesi, işletmenin sürdürülebilirliği, artan enflasyon, faiz oranları ve döviz kurları, tedarik zincirinde meydana gelebilecek aksamalar vb. da dahil olmak üzere, bir kriz dönemi olması nedeniyle, Rusya-Ukrayna çatışmasının finansal tablolar üzerinde etkili olması beklenmektedir.

Anahtar Kelimeler: Rusya-Ukrayna Savaşı, Finansal Tablolar, UMS

1. INTRODUCTION

War is a recurring phenomenon in the course of human history. Thus, it has significantly shaped societies, economies, and politics throughout the world. From ancient times to modern-day conflicts, the evolution of war has been driven by changes in technology, strategies, and the pursuit of power.

In the ancient world, wars were primarily conducted for territorial expansion and control over resources (Holland, 2006). The Middle Ages (5th - 15th century AD) led to feudal wars and religious conflicts (Asbridge, 2012). Additionally, in the early modern period (16th - 18th centuries), the rise of nation-states led to larger-scale conflicts, including the Thirty Years' War (1618-1648), largely driven by religious and political power struggles (Croxton, 1991). Later, the 19th and early 20th centuries marked the beginning of global conflicts with the World Wars. World War I (1914–1918) and World War II (1939–1945) brought about large-scale mechanized warfare and significant changes in war tactics (Strachan, 2014). Finally, in the late 20th and early 21st centuries, the nature of war further evolved with the onset of asymmetric conflicts and wars over ideological differences, including the Cold War (1947–1991) and ongoing conflicts in the Middle East (Westad, 2017).

The economic and the financial effects of wars are significant and multifaceted, affecting both macroeconomic structures and individual financial wellbeing. In other words, wars have the potential to radically alter economies, disrupt financial markets, and impose substantial costs on governments and individuals.

From a macroeconomic perspective, wars can have both positive and negative effects. On one hand, wars can stimulate economic activity in the short term. The increased demand for military equipment and supplies can lead to a boom in certain sectors, meaning higher output, employment, and income. This was seen during World War II when the American economy, struggling with the Great Depression, experienced significant growth due to wartime spending (Rockoff, 2012). On the other hand, wars can cause significant economic destruction. Infrastructure, factories, and other productive assets can be damaged or destroyed, disrupting economic activities. Wars can also divert resources from more efficient and effective uses. For example, human resources are shifted from civilian to military efforts, and physical and financial capital is used for war-related purposes instead of productive activities. Moreover, the uncertainty associated with wars can lead to economic instability by adversely affecting investment decisions of investors.

The financial impacts of wars are similarly profound. They can lead to significant increases in public debt as governments heavily borrow to finance war efforts, which can result in inflation and interest rate increases, along with subsequent effects on savings, investment, and economic growth. For instance, the financing of World War II in the United States resulted in a level of public debt exceeding the country's Gross Domestic Product (GDP), a situation that continued for years after the war (Hall and Sargent, 2018). Also, wars can have serious effects on financial markets. They increase uncertainty, leading to higher volatility in stock, bond, and currency markets. Such financial market instability can affect savings and investment decisions, retirement fund values, and wealth distribution.

Furthermore, wars can have significant effects on individuals' financial situations. Those directly involved in the war (soldiers and their families) may experience loss of income, while those indirectly affected may face higher taxes and price inflation. Post-war periods often come with economic and financial recovery challenges, along with potential economic stagnation, high unemployment rates, and increased poverty potential.

2. THE FUNDAMENTAL IMPACTS OF WAR ON BUSINESS ACCOUNTING PRACTICES

The impact of war on accounting practices and financial statements has been extensively studied in accounting literature. The effects of war on accounting practices are profound and multi-dimensional, underscoring the need for adaptability in accounting practices during times of conflict.

Especially, war times significantly alter various aspects of accounting, including revenue recognition, expense calculations, asset and liability valuations, and more. Pieroni (2009) has elaborated in detail how the increased demand for war-related goods and services during the First and Second World Wars led to significant changes in revenue recognition, particularly for companies involved in war production. These companies had to adapt their revenue recognition policies due to changes in contracts and payment schedules. EY (2017), in its guide, expands on the war effects on corporate expenses, examining how wars generally increase business costs through enhanced security requirements, increased insurance premiums, and asset replacement costs due to conflict-related damages. The author asserts that these additional incurred expenses reflect on financial statements and significantly impact business profitability. Moreover, Boyns and Edwards (2006) discuss how the First World War affected cost accounting practices in Britain, offering practical accounting responses that could adapt to the unique conditions of wartime for British companies.

In terms of asset valuations, Zeff (1978) in his study examining the effects of war during World War II, particularly discussed the adoption of "replacement cost accounting" during the war, determining that replacement costs reflecting inflated prices during the war did not allow firms to portray a more realistic financial situation under prevailing economic conditions. On the other hand, Farrand (1942) analyzed how wars lead to an increase in liabilities for legal disputes and potential obligations, noting that war-related liabilities became a significant item in the financial statements, especially for companies directly involved in the conflict or operating in affected regions. Victoria (2014) also investigated how accounting practices were applied and adapted to address the unique challenges posed by war production and contract terminations resulting from the war. Slemrod (2010) offers a comprehensive overview of how the First and Second World Wars transformed tax accounting in the United States. The study particularly highlights how the need to finance war efforts brought legislation expanding the tax base and increasing tax rates, significantly affecting the financial statements of both companies and individuals. Moreover, Lippman (2009) explored the instrumental role of accounting in the administration of the Nazi regime in Germany and highlighted how accounting practices enabled bureaucratic control and economic planning. Archer (2021) provides an intriguing perspective on the development and implementation of cost accounting systems during World War II, particularly focusing on the Manhattan Project, the U.S. research and development project that produced the first atomic bombs. In similar studies, Fleischman and Marquette (2003) focused on World War II and how it shaped management accounting practices, emphasizing the evolution of cost-volume-profit analysis.

In addition, Parker (2004) examined the impact of the First World War on the British accounting profession and its consequences for industrial and financial companies. On the topic of increased risk and uncertainty, Gomariz and Ballesta (2014) demonstrate how geopolitical risks, including war, can lead to increased financial and operational risks for businesses. The authors emphasize that such risks need to be clearly communicated in the risk disclosure section of financial reports to adequately inform stakeholders.

3. THE RUSSIA-UKRAINE WAR

The Russia-Ukraine conflict has been a major geopolitical issue in Eastern Europe for over a decade. Considering the historical, political, and cultural connections between the two countries, the roots of this disagreement run deep. The conflict initially sparked in 2014 with Russia's annexation of Crimea, which had a predominantly Russian-speaking population and was previously under Ukrainian control (BBC News, 2022). Following Crimea's annexation, a separatist movement supported by Russia emerged in Donbas, an industrial region in eastern Ukraine. This movement led to the establishment of self-declared republics in Donetsk and Luhansk, resulting in armed conflict with the Ukrainian government (Kuzio, 2017).

The conflict's human toll has been substantial. The United Nations estimates that over 13,000 people have died since the conflict began in 2014 (OHCHR, 2023). The war has also damaged critical infrastructure in both countries.

Efforts to resolve the conflict have had limited success. Despite several ceasefire negotiations, they later broke down. The Minsk agreements negotiated in 2014 and 2015 provided a framework for a potential peaceful solution, but their implementation has faced significant challenges (Powirska, 2022). Hence, the conflict has implications not only for Russia and Ukraine but also for the broader international community. The dispute has strained Russia's relations with the West and led to significant economic sanctions imposed by the United States and the European Union (European Parliament, 2020).

3.1. Effects of the War on Ukraine

The Russia-Ukraine war, which began in 2014, has had profound effects on Ukrainian businesses. The conflict has not only disrupted the socio-political landscape but also created significant challenges for Ukraine's economic and business environment.

For instance, one direct impact of the war on Ukraine is the disruption of trade between Ukraine and Russia. Before the conflict, Russia was one of Ukraine's main trading partners. The war, affecting various sectors including manufacturing, agriculture, and energy, led to a sharp decline in bilateral trade, forcing Ukrainian businesses, heavily reliant on the Russian market, to seek alternative markets (Chyrkova and Lysá, 2022). The war has also caused significant damage to Ukraine's infrastructure, especially in the eastern regions, leading to many businesses, factories, and warehouses being damaged or destroyed, halting production, causing job losses, and leading to economic losses. The destruction of infrastructure has also disrupted supply chains, making it difficult for businesses to procure raw materials or distribute products (Sysova, 2022). The conflict has necessitated changes in the business strategies of many Ukrainian companies, with a shift towards domestic providers and solutions. For example, there has been a notable shift towards local CRM system providers after the war began (Karpun, Kisera and Soloviova, 2023). The war has also witnessed the emergence of various volunteer organizations aiming to support the Ukrainian army, underscoring the role of resource creation in maintaining business operations during wartime (Chyrkova and Lysá, 2022).

As a result, the long-term economic consequences of the war are still unfolding, and it is likely that the war has slowed Ukraine's economic growth. The combined effects of infrastructure damage, trade disruption, and the need for defence spending have strained the country's economy, and it is estimated that it may take several years for Ukraine to regain the potential lost during the war and the subsequent COVID-19 pandemic (Lytvyn et al., 2023).

3.2. Effects of the War on Russia

The Russia-Ukraine war has had also profound consequences for the Russian business world, altering not only regional geopolitics but also significantly affecting the Russian business environment. Following the conflict, Western countries, including the United States and the European Union, imposed a series of sanctions on Russia, targeting key sectors of the Russian economy such as energy, finance, and defence. Russian businesses faced challenges in accessing global markets, securing foreign investments, and acquiring technology from the West. The sanctions directly led to a decrease in foreign investments, impacting overall economic growth (Mau and Ulyukaev, 2015). Particularly, there has been a notable shift towards China to balance the loss of Western markets. Also, Russia has initiated a shift towards domestic production under the "import substitution" strategy, aiming to reduce dependence on imports (Tarr, 2016). The combined effects of sanctions, falling oil prices, and conflict-related expenditures have led to an economic slowdown in Russia, significant devaluation of the Russian ruble, and increased inflation. Therefore, this economic fluctuation has reduced consumer purchasing power and weakened job security (Korhonen and Ledyaeva, 2015). Moreover, the conflict and the annexation of Crimea have triggered significant migration patterns. Russia has witnessed a large influx of immigrants, providing a workforce for certain sectors while also bringing challenges associated with integration and resource allocation (Pszczel, 2022).

The prolonged nature of the conflict, combined with the potential for increased sanctions or geopolitical shifts, is expected to create an atmosphere of uncertainty for Russian businesses. This uncertainty could hinder long-term planning, investments, and expansion efforts.

Several states and organizations, including Switzerland, have started imposing sanctions on Russia and Belarus in connection with Ukraine's invasion. The sanctions can be categorized into three main types: (1) goods sanctions (import and export bans on specifically identified goods), (2) financial sanctions (asset freezes, bans on lending and/or accepting deposits above a certain limit), (3) other sanctions.

The European Union has implemented eleven packages of sanctions against Russia since the start of the war. These packages cover a broad spectrum, including trade, finance, oil, coal, energy, industry, technology, transportation, luxury goods, and gold. These sanctions aim to raise awareness of some significant effects that the warring parties must consider. As the sanctions are continuously updated, it is important to regularly check that company valuation practices comply with current sanctions.

Paragraph 1 of Article 5 of the sixth sanction package of the European Union, adopted on June 3, 2022, is directly related to the field of accounting finance. The content of the article is as follows:

"The provision of accounting, auditing or business and management consulting services, including legal audit, bookkeeping, or tax consultancy services, directly or indirectly to the Russian Government, or to legal entities and organizations residing in Russia, is prohibited."

In its latest announcement on September 12, 2023, the European Union stated that sanctions involving travel bans, asset freezes, and bans on the transfer of funds or economic resources for about 1800 individuals and organizations have been extended until March 15, 2024 (Bloomberg, 2023).

Furthermore, due to macroeconomic problems such as high inflation and disruptions or breakdowns in the global supply chain, inevitable consequences of the war, organizations and regulatory authorities need to consider the effects of the war on specific accounting and financial reporting issues. The extent to which organizations are or will be affected by these macroeconomic issues largely depends on the nature and duration of unpredictable and uncertain events, such as further military operations, additional sanctions, and responses to ongoing developments in global financial markets (Deloitte, 2022b).

4. IMPACTS OF THE RUSSIA-UKRAINE WAR ON FINANCIAL STATEMENTS UNDER IFRS REGULATIONS

4.1. General Effects

The ongoing Russia-Ukraine conflict significantly affects the financial statements of businesses related to or operating in these regions. The ripple effects of this geopolitical conflict can be analyzed in various aspects of a company's financial reporting. It is important to consider that the primary impact is on revenues. The conflict, especially for companies operating in or based in the conflict regions, causes significant disruptions in business operations (Deloitte, 2022a). Decreased customer demand, supply chain disruptions, and potential physical asset damages will reduce revenues, which will need to be reported in the income statements of companies with substantial assets in both countries.

Similarly, operating expenses may increase due to heightened security requirements, higher insurance premiums, and potential replacement costs for damaged or destroyed assets (Ferrara, 2016). This increase in costs will be reflected in the income statement and could affect profitability. Another significant effect is fluctuations in exchange rates. Given the economic instability and sanctions associated with the conflict, both Russia's and Ukraine's currencies have been volatile (PWC, 2022). This can affect the valuation of foreign currency transactions and balances, potentially leading to significant foreign exchange gains or losses in financial statements.

Considering the applied sanctions and macroeconomic consequences of the war, it is inevitable that these sanctions and outcomes will affect the accounting, reporting, and auditing of financial statements, especially for SMEs, where the effects on businesses will vary. Businesses that (1) trade with entities in Russia, Belarus, or Ukraine, (2) have subsidiaries or assets in Russia, Belarus, or Ukraine, or (3) are connected to entities or individuals under sanctions will be affected. The worsening of war conditions, the unpredictability of the conflict's duration and impact necessitate regular review of these effects. The expected impacts can be summarized under the following headings (Deloitte, 2022b):

- Disruption or halt of production in affected regions and neighbouring countries.
- Damage or loss of inventories and other assets.
- Closure of roads and facilities in affected regions.
- Supply chain and travel disruptions in Eastern Europe.
- Fluctuations in commodity prices and currencies.
- Disruption in banking systems and capital markets.
- Decreases in sales and business earnings in affected regions.
- Increased costs and expenses.
- Cyber-attacks.

4.2. Potential Effects on Financial Statements Under IFRS Regulations

Generally, the war has direct and indirect effects on financial statements. Businesses must carefully consider their unique circumstances and risks they are exposed to while analyzing how the war might affect their financial reporting. Particularly, financial reporting and related financial statement disclosures must convey all material current or potential effects of the war. For example, if the effects of the war in Ukraine raise serious doubts about a company's going concern, this significant uncertainty must be reported in the notes. Also, under additional reporting in IFRS regulations, if the event does not require accounting in the balance sheet and income statement but is a significant event, the nature of the event must be reported in the footnotes. Increasing inflation and interest rates, along with possible accompanying market changes due to the war, will present new challenges in preparing financial statements and may increase the importance of certain disclosures. In this case, it is important to determine and present that the basis for the significant revenue/expense increase or decrease is the war.

This study has grouped the basic expected impacts of the war on financial statements into eleven categories, where Table 1 shows the expected main effects on financial statements and under which standard/standards they are examined.

Table-1: Expected Effects on Financial Statements and Related Accounting Standards*

Possible Effects	Related Standards
Determination of Revenue and Expenses	IAS 1 Presentation of Financial Statements
Potential Valuation Losses in Assets	IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors IAS 16 Property, Plant and Equipment IAS 36 Impairment of Assets IFRS 9 Financial Instruments IFRS 13 Fair Value Measurement
Currency Fluctuations	IAS 1 Presentation of Financial Statements IAS 21 The Effects of Changes in Foreign Exchange Rates IAS 36 Impairment of Assets IFRS 9 Financial Instruments IFRS 12 Disclosure of Interests in Other Entities
Impact of Rising Inflation and Interest Rates	IAS 1 Presentation of Financial Statements IFRS 9 Financial Instruments

	IFRS 13 Fair Value Measurement
Post-Balance Sheet Events	IAS 10 Events after the Reporting Period
Going Concern	IAS 1 Presentation of Financial Statements
Supply Chain Disruptions	IAS 2 Inventories IAS 37 Provisions, Contingent Liabilities and Contingent Assets
Revenue Recognition	IFRS 15 Revenue from Contracts with Customers
Income Taxes	IAS 12 Income Taxes
Insurance Contracts	IAS 37 Provisions, Contingent Liabilities and Contingent Assets
Determination of Fair Value	IFRS 13 Fair Value Measurement

*Source: Created by the author.

4.3. Determination of Revenue and Expenses

In examining the revenue and expenses related to the conflict between Russia and Ukraine, businesses should only consider revenues and expenses that can be directly attributed to the conflict. In other words, these revenues and expenses can be defined as those that would not have been earned or incurred if the war did not occur and are not expected to recur to a large extent once the effects of the war diminish. Judgement is required to determine the amounts of such revenues and expenses.

Revenues and expenses arising from events during the war period do not need to be presented under a separate heading in the income statement, as they cannot be directly linked to the war. Examples of such revenues and expenses include wages paid to non-working employees, depreciation expense for plants that have ceased production, costs of rent and public services during temporary closures, etc. On the other hand, it is possible to mention some revenues and expenses that arise directly from the effects of the war. For instance, hazardous situation payments to employees, debris removal expenses, penalties arising from non-fulfillment of contracts due to production disruptions, etc.

Figure-1: Income Statement Example*

		2022
Revenue		**5000**
Other Income		**1400**
Insurance Recoveries Related to War Demands	200	
Other	1200	
Change in Inventories		**(520)**
Benefits Provided to Employees		**(530)**
Dangerous Situation Payments Due to War	(130)	
Other Benefits	(280)	
Depreciation Expense		**(500)**
Other Expenses		**(1340)**
Debris Removal	(1100)	
Other Expenses	(240)	
Pre-tax Profit		**1490**

*Source: Created by the author.

4.4. Expected Losses in Asset Valuation

Due to the Russia-Ukraine war, taking into account current information sources, it is possible to speak of impairments in assets and cash-generating units. For example, significant changes in the technology, economy, and legal markets where the business operates, which have occurred during the period and are expected to negatively affect the business in the near future, will arise.

Under IAS 36 Impairment of Assets, there are many types of non-financial assets, including intangible assets, goodwill, property, plant and equipment, right-of-use assets, living assets, and investment properties measured at cost. IAS 36 is also applicable to shares in associates and joint ventures accounted for using the equity method. For financial assets, the impairment rules set out in IFRS 9 Financial Instruments apply.

If there is any indication of impairment in an asset at the end of the reporting period, an impairment test must be conducted for all assets under IAS 36. Due to production facilities in Ukraine, the company may be indirectly affected by conflicts, supply chain issues, market declines, etc., increasing the likelihood of one or more indicators of impairment and necessitating an impairment test. If the business has a production facility in Ukraine or Russia, the facility will suffer impairment if its carrying amount exceeds its recoverable amount, as the reporting entity will not be able to reliably determine the carrying value through use or sale. The recoverable amount of the asset is calculated as the higher of its fair value less costs to sell and its value in use. The determination of fair value is under the requirements of IFRS 13 Fair Value Measurement.

In the current war situation in Ukraine, the discount rate used in calculating the asset's value in use is based on long-term analyses of average market returns and a current market risk premium at the upper limit of the historically measurable range of market risk premiums (see FAUB's capital cost recommendation dated October 25, 2019, available at https://www.idw.de/idw/idw-aktuell/neue-kapitalkostenempfehlungen-des-faub/120158). The increased uncertainty in Ukraine due to the war should be reflected in the design and not just through straight rate increases in risk premiums.

Determining the recoverable amount will pose a significant challenge for those preparing and auditing financial statements, as the scope, duration, and outcomes of the war in Ukraine are currently difficult to predict. Therefore, it is even more advisable to extensively disclose management's assumptions and estimates in the notes, and particularly to address the effects of the war in sensitivity analyses. Similar to the Corona pandemic, wider ranges of changes in material parameters are expected in sensitivity analyses (IDW, 2022).

Residual values must be reviewed at least at the end of each year. Residual value reviews should be conducted, for example, taking into account price changes and inflation since the last balance sheet date. If expectations differ from previous estimates, the changes should be accounted for as forward-looking changes in accounting estimates under IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors, similar to changes in useful lives. During times of war, as a result of increased inflation, there may be a significant increase in residual value, leading to a decrease in depreciation expenses. In some cases, the increase in residual values may lead to no depreciation being calculated.

Businesses with assets in war-affected areas will have to reassess the carrying values of their assets. Uncertainty and instability mean that many assets, especially real estate, plant, and equipment, will not realize their book values. Inevitably, losses in book values of assets will lead to the reporting of valuation losses in financial statements (Muzyka-Stefanchuk and Muzyka, 2021-2022).

Assets to be decommissioned or disposed of due to the war and no longer usable should be excluded from the balance sheet in accordance with IAS 16 Property, Plant and Equipment. Similarly, the costs of assets that are renewed, repurchased, or rebuilt due to the war should also be determined in accordance with IAS 16.

Another consequence of the war is that businesses may need to evaluate their investments and loans for impairment. Investments that may be affected include stocks, bonds, and in certain cases, investments in public debt. The war will also impact the fair values of financial instruments, including investments and derivatives, due to fluctuations in global financial markets. The impact of the war on expected credit losses can be particularly challenging for banks, other lending businesses, and even non-financial sector entities. Under IFRS 9, expected credit losses are applicable not only to loans but also to interest-bearing financial assets, trade receivables, contract assets, lease receivables, issued loan commitments, and financial guarantee contracts (Deloitte, 2022b).

4.5. Changes in Foreign Exchange Rates

Fluctuations in the currencies of the conflicting countries, as well as in foreign currencies, are one of the expected financial consequences of the war. This situation, especially for businesses with significant transactions in foreign currencies, could have a substantial impact on reported profits (Blikhar et al., 2021). Additionally, as a result of the sanctions applied to the conflicting countries, restrictions on foreign exchange or the emergence of multiple exchange rates in some countries might occur. Furthermore, if there are sudden increases in inflation in the conflicting and neighbouring countries, organizations may need to assess whether these countries' economies have become hyperinflationary (i.e., whether three-year cumulative inflation rates are approaching 100%). Adverse changes in exchange rates will affect the accounting and measurement of transactions reported in the financial statements.

The war in Ukraine and sanctions and restrictions on Russia have caused significant fluctuations in the Russian ruble, Ukrainian hryvnia, and Belarusian ruble. The European Central Bank (ECB) stopped publishing the Euro-Russian ruble exchange rate from March 1, 2022. While Russian banks' connection to the Society for Worldwide Interbank Financial Telecommunication (SWIFT) has been severed, the Russian Central Bank's assets have been frozen, and its foreign exchange reserves have become unusable (Chortane and Pandey, 2022). Their work discusses how the Russia-Ukraine conflict has negatively affected global currencies. The authors conclude that, particularly the Russian Ruble, but also the Czech Koruna and Polish Zloty due to their proximity to the war zone, have depreciated against the US dollar (Chortane and Pandey, 2022) (Sana Gaied Chortane, Dharen Kumar Pandey, Does the Russia-Ukraine war lead to currency asymmetries? A US dollar tale, The Journal of Economic Asymmetries, Volume 26, 2022). In similar work, Zu et al. (2023) found that currency devaluation was more pronounced during intervention periods during the Russia-Ukraine war.

Under IAS 21 The Effects of Changes in Foreign Exchange Rates, a foreign currency transaction is initially recorded in the reporting entity's functional currency, applying the exchange rate between the functional currency and the foreign currency at the date of the transaction. An average rate representing an approximate actual rate at the transaction date can be used. However, using an average rate is not appropriate in situations where exchange rates are highly volatile. Given the high volatility in the exchange rates of the aforementioned currencies, whether average rates are still permissible needs to be seriously examined.

IAS 21 requires the use of closing rates for translating certain balance sheet items. Under IAS 21, a currency's closing rate is defined as the spot exchange rate at the end of the reporting period, where the spot exchange rate is the exchange rate for immediate delivery. In determining whether a rate is a closing rate, it should be considered whether the currency has an officially quoted rate at the end of the reporting period and whether the quoted rate is available for immediate delivery.

For translating income statement amounts, an entity can use an average rate approximating the actual rate at the transaction date. However, if changes in inflation and interest rates lead to increased volatility in exchange rates, the average rate will no longer be considered an appropriate approximation of the actual rate and thus will no longer be usable. Closing exchange rates should be the spot rates at the balance sheet date, and any movements in these rates post-balance sheet are considered non-adjusting events.

Fluctuations in exchange rates can impact non-monetary items in terms of possible impairments. For instance, IAS 36 requires future cash flows to be estimated in the currency in which they will be generated and discounted at an appropriate interest rate for that currency. An entity then translates the present value using the spot exchange rate at the date of the value-in-use calculation.

IFRS IC, in September 2018 (IFRIC, 2018), decided that disclosures for shares in other entities under long-term foreign exchange restrictions must be made in accordance with IFRS 12 Disclosure of Interests in Other Entities, considering all related restrictions. Entities must also implement significant accounting policies and judgments used in determining exchange rates and the current uncertainties in estimates in accordance with the requirements of IAS 1 Presentation of Financial Statements. Additionally, under IFRS 9 Financial Instruments, entities must disclose their sensitivities to market risks, including exchange rates. Sensitivity analysis will show the effect of changes during the period up to the presentation of these disclosures, typically in the entity's next annual report.

4.6. Impact of Rising Inflation and Interest Rates

The Russian National Statistics Agency (ROSSTAT) announced in 2022 that the country's gross domestic product (GDP) contracted by 2.1% compared to the previous year (Euronews, 2023). Similarly, following Russia's invasion of Ukraine in 2022, the Ukrainian economy contracted by 29.2% in 2022 (World Bank, 2023). Additionally, inflation in the Eurozone peaked at 7.5% due to the war, the highest in the last 25 years.

Gross domestic product (GDP) and the Consumer Price Index (CPI) can be considered as inflation indicators. Özyılmaz (2022), in his study covering 27 EU countries, found a bidirectional causal relationship between economic growth and inflation, and inflation and economic growth when GDP and CPI are considered as inflation indicators. This bidirectional causality suggests that each variable affects the other. There is also a one-way causal relationship from inflation to interest rates (Erarslan, 2020). The one-way causality implies that as inflation increases, the demand for money will increase, and consequently, interest rates will rise.

Rising inflation and interest rates will affect all aspects of businesses' operations, including increasing costs such as raw materials and wages, changes in customer behavior, credit risk, renegotiation of contract terms, and investment and financing decisions. High inflation and interest rates are also expected to have significant impacts on fair value measurements, future expected cash flow estimates, discount rates used in determining the present value of cash flows, indicators of impairment, and impairment tests. For example, estimates of changes in a company's costs due to increases in oil prices and limitations on how much of these cost increases can be passed on to sales prices should be considered (PwC, 2022).

Businesses will inevitably be subject to additional disclosures under IFRS regulations in the face of rising inflation and interest rates. For instance, under IAS 1 Presentation of Financial Statements, it is necessary to determine whether additional disclosures are required concerning the increase in inflation, in addition to the mandatory issues disclosed by IFRS. Similarly, under IAS 1, if a business faces financial difficulties due to rising inflation and interest rates, it may become difficult to meet its commitments. Therefore, reclassification of the entity's liabilities into current and non-current may be required. Rising inflation and interest rates may expose businesses to expected credit losses under IFRS 9 Financial Instruments (Demirkan, 2022). The increases will also affect the reliable measurement of fair value under IFRS 13 Fair Value Measurement. For example, determining the market prices (fair values) of investment properties and fixed-income securities will be challenging due to increases in inflation and interest rates (PwC, 2022).

4.7. Events after the Balance Sheet Date

All events causing economic and geopolitical uncertainties can affect how businesses evaluate and disclose events after the reporting date. Under IAS 10 Events after the Reporting Period, both positive and negative events occurring between the reporting date and the date the financial statements are authorized for issue will require disclosure. These events may also impact the accounting and measurement in the financial statements. Table 2 presents significant dates related to the war for Russia and Ukraine and the financial statement approaches related to these dates.

Table 2. Significant Events Related to the Russia-Ukraine War and Their Reflection on Financial Statements*

Date	Event	Companies with Reporting Periods	Companies with Reporting

		Ending on or Before February 24	**Periods Ending on or After February 24**
February 24, 2022	Russian invasion of Ukraine		
February 25, 2022	International authorities begin imposing sanctions on Russia		
December 31, 2021 - January 31, 2022	As of December 31, 2021, and January 31, 2022, it was a globally known and followed development that Russian troops were particularly preparing for mobilization around the Ukrainian border. Based on reasonably available information, although market participants may have reflected risks in their assumptions due to the increasing tension in the region, they would not have reflected the effects of the invasion and the significant response from the international community that followed.	In the context of preparing the mentioned financial statements, it is expected that the information available at the specified dates would have reflected the uncertainty arising from the increasingly escalating tension in the region in the risk assumptions. However, since the invasion had not yet occurred, it would not have been possible to reflect in the assumptions the effects of the invasion and the significant reactions from international community organizations.	
February 28 - March 31, 2022	The invasion of Ukraine by Russia has occurred and is known by countries around the World.	Although market participants may have reflected the risks arising from the increased tension in the region due to uncertainty in their	The invasion of Ukraine by Russia is a current event that requires continuous

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		assumptions, they would not have been able to reflect the effects of the invasion and the subsequent serious response from the international community. This is because, as of the mentioned dates, even though the event qualifies as a post-balance sheet event, it was impossible to fully anticipate the risks at that time.	assessment in terms of financial statements from this point forward. Businesses will need to carefully evaluate their specific situations and circumstances to identify events representing the outcome of a series of conditions existing at or before the reporting date.
April 15, 2022	Publication date of the year-end financial statements as of December 31, 2021		

*Source: Created by the author.

4.8. Issues Related to Going Concern

In cases where businesses are negatively affected by the war in Ukraine and the sanctions on Russia and Belarus, they need to consider issues related to going concern. It will be necessary to conduct sensitivity analyses under various possible standards to determine if there is any material uncertainty regarding the ability to continue as a going concern. As a result of these analyses, especially if there is a significant uncertainty, additional disclosures will be required.

When assessing the going concern in the context of the Russia-Ukraine conflict, businesses should consider the following factors (PwC, 2022):

- Changes in customer purchasing behaviors and the resultant sales volumes;
- Changing operating margins due to increased costs like energy prices and the ability or inability to pass these costs on to customers;
- The renewal costs of the business’s essential operational assets that have been damaged or destroyed due to the war;
- Financing challenges and changing financing alternatives arising from the conflict between the two countries.

IAS 1 requires management to assess the entity's ability to continue as a going concern at each reporting date, considering all available information for at least twelve months from the annual reporting date. When evaluating whether there are significant doubts about the entity's ability to continue as a going concern, all events that occurred during the subsequent events period should be considered. If there are significant uncertainties, or if it is challenging to determine whether the going concern assumption is appropriate, events or conditions that may cast significant doubt on the entity's ability to continue as a going concern should be disclosed.

Russia's invasion of Ukraine is an event that occurred at the beginning of 2022. Therefore, for the entities involved in the conflict, the appropriateness of the going concern assumption should be evaluated considering the events and conditions after the reporting period end, i.e., December 31, 2021. For instance, the current economic uncertainty and market conditions worsened by the war should be carefully evaluated.

If management concludes after evaluating all available evidence that there is no realistic alternative other than to liquidate or cease trading, the basis of preparation of the entity's financial statements should be adjusted and appropriately disclosed.

4.9. Supply Chain Disruptions

As a consequence of the Russia-Ukraine war, disruptions in exports of palladium, oil, natural gas, wheat, and sunflower oil from these countries have led to supply shortages for these products (Deloitte, 2022a). In addition to export disruptions, damage to many cargo routes as a physical consequence of the war is inevitable, leading to significant increases in shipping costs. Consequently, companies' dependency on supply chains passing through conflict zones have faced interruptions, leading to stock shortages in many businesses.

Under IAS 2 Inventories, inventories in financial statements are valued at their net realizable value. The uncertainty of geopolitical and economic conditions inevitably increases the estimated completion and sale costs of inventories. As a result of these increased costs, the book value of inventories may become unrecoverable, leading to a reduction in the net realizable value of inventories. In some cases, businesses may need to remove inventories from financial statements.

Businesses in affected regions might face reductions in production levels due to decreased demand or forced closures. Similarly, some of the business's facilities may become idle due to the conflict. In such cases, the portion of fixed general production overheads from previous periods that have not been allocated in the current period should be recognized as an expense in the period incurred to prevent an increase in costs. Businesses experiencing difficulty in sourcing raw materials due to supply chain disruptions or interruptions will also need to find alternative sources or make changes to production processes. Changes in raw material sourcing or production processes may lead to additional costs and may also affect the remaining life or warranty conditions of inventories.

Similarly, businesses with non-cancellable firm purchase commitments for inventories must consider whether the contracts have become economically disadvantageous under IAS 37 Provisions, Contingent Liabilities and Contingent Assets, and if so, provide for the inevitable net losses arising from the contracts (Deloitte, 2022b).

4.10. Revenue Recognition

The rules for recognizing, measuring, and accounting for revenue are determined under IFRS 15 Revenue from Contracts with Customers. Under IFRS 15, "variable consideration" is defined as the transaction price being variable due to discounts, refunds, rebates, credits, incentives, performance bonuses, penalties, and other similar items. Variable consideration can also arise when it is contingent on the occurrence or non-occurrence of a future event. The geopolitical and economic uncertainties prevailing during wartime make estimating the variable consideration a significant issue under the revenue standard. Particularly, sanctions applied to countries during wartime will significantly affect variable consideration. Therefore, estimates related to variable consideration made at contract inception may need to be updated at each reporting date, considering the current conditions of sanctions. The business must also disclose the methods, inputs, and assumptions used in estimating variable consideration. All practices for estimating variable consideration must be applied to new and ongoing customer contracts.

Under IFRS 15, the transfer of goods and services committed by a business to a customer at the start of the contract is defined as a "performance obligation." If a business transfers the committed goods and services or substantially similar goods and services to the customer under the terms specified in the contract, each of these options represents the fulfilment of a separate performance obligation. Revenue can be recognized only when the performance obligation is fulfilled. For example, if a business can no longer produce in a facility rendered unusable due to the war, it has not fulfilled its performance obligation, and revenue will not be recognized until the capability to perform is restored.

Another issue to be considered in determining revenue is that the uncertainties caused by the war may prompt businesses to modify contracts with customers. The likelihood of customers and/or businesses terminating contracts may be higher during wartime. Termination is a contract modification. In this case, it's necessary to first determine whether a modification has occurred and then reassess the contract duration and criteria.

During wartime, it is common for customers to have payment capability issues and for businesses to face demands to accept partial payments or extend payment terms. In such cases, necessary adjustments should be made to the financial statements to reflect changes in the collectibility of the contract, variable consideration estimates, and expected credit losses. Additionally, during wartime, careful evaluation of a customer's ability and intention to pay is essential for new customer contracts (EY, 2022).

4.11. Income Taxes

The conflict between Russia and Ukraine, especially political instability, economic sanctions, and changes in tax legislation, will inevitably pose challenges for businesses operating in these regions in applying IAS 12. One of the key elements of IAS 12 is the recognition of deferred tax assets and liabilities. Deferred taxes arise from temporary differences between the carrying amounts of assets and liabilities and their tax bases, future unused tax losses, and tax credits and are reported separately from current taxes in financial statements. The deferred tax assets and liabilities of businesses operating in conflict zones are likely to change due to variations in the carrying values of their assets and liabilities, incomes, losses, and tax benefits they utilize (Ergin and Ayanoğlu, 2015). If changes in tax rates become effective before the publication of the financial statements, the business must disclose the significant impact of the current change on its current and deferred tax assets and liabilities.

Moreover, corrections made to income for the purpose of interim financial statement preparation should be included in the entity's annual effective tax rate calculation. Losses incurred in regions affected by the war may require that the accounting profits derived from revenues in those regions be excluded from the entity's annual effective tax rate calculation and considered separately.

4.12. Insurance Contracts:

For businesses operating in the countries experiencing conflict or those having commercial relationships with these countries, the conditions for realizing claims from insurance contracts will impact the financial statements' outcomes (KPMG, 2022). For instance, a business's insurance policies may cover losses related to assets confiscated by the government or destroyed in affected areas, asset impairments related to closed factories, and penalties due to contract terminations (Deloitte, 2022b).

Under IAS 37 Provisions, Contingent Liabilities and Contingent Assets, contingent assets, which are not yet certain to be received, should not be included in the financial statements but only disclosed in the notes. This is because it's inappropriate to include income that has not materialized and may never be realized in the financial statements (Gücenme Gençoğlu, 2007). Compensations received from third parties for impaired, lost, or disposed of property, plant, and equipment should be included in the determination of profit or loss when they become receivable (Deloitte, 2022b). After it is determined that a business will definitely receive compensation under an insurance policy, which means the compensation is no longer a contingent asset, any uncertainty about the amount of compensation should be reflected in its measurement. While assessing whether the compensation will be received or not, factors such as whether losses from the war are specifically excluded from insurance coverage, whether the insurance company contests the coverage, and the insurer's ability to pay should be particularly considered.

4.13. Determination of Fair Value

A business must disclose the fair values of all financial assets and financial liabilities presented in its financial statements, regardless of how those assets or liabilities are measured, in situations where events affecting the entity's operations or economic conditions are expected to have a significant effect on the fair value of the asset or liability. For example, even if a business has an accounting policy choice to measure its investment properties using either the fair value model or the cost model, it must always determine the fair value.

War inevitably causes additional fluctuations in global financial markets. These fluctuations, including broader factors such as widening credit spreads or deterioration in the counterparty's creditworthiness, will impact the determination of the fair value of financial instruments, including investments and derivatives.

IFRS 13 Fair Value Measurement states that fair value is a market-based measurement, not an entity-specific one. In volatile markets, the fair value measurement should still reflect all market observations at the measurement date, even if those observations are irregular. Therefore, even in situations with significant economic and geopolitical uncertainties and fluctuations like war, all irregular market prices must be considered in determining fair value.

In addition to assessing whether observed prices are regular, businesses significantly impacted by the Russia-Ukraine war should consider the following valuation issues (Deloitte, 2022b):

- In assessing inputs used in a valuation technique, current market assessments of both the counterparty's and the entity's own credit risk should be included, particularly for both derivative and non-derivative instruments. This may also involve changing or adapting valuation techniques to suit the relevant transactions.
- An assessment of whether businesses can rely on information obtained from brokers and independent pricing services for valuation.

After Russia's invasion of Ukraine, the Russian stock market closed on February 28, 2022, due to the devaluation of the ruble and remained closed until March 24, 2022 (Bloomberg, 2022). However, the inability to obtain data from a stock exchange does not eliminate the need for fair value measurement at the measurement date. In such a case, using a valuation technique based on information from other institutions or market prices of similar securities traded in over-the-counter markets might be beneficial.

Moreover, businesses might need to assess whether the effects of the Russia-Ukraine war impact the identification of the principal market for determining fair value and/or the fair value hierarchy applied to their financial instruments.

5. CONCLUSION

War and conflict, particularly in the case of the parties involved, do not yield favourable outcomes for international trade (Carrol and Fernandez, 2007; Schultz, 2015). Although not all conflicts affect the global economic system, the conflict between Russia and Ukraine is significant for several reasons. Firstly, there is a global dependency on goods from Russia and Ukraine: For instance, Ukraine is the world's fourth-largest grain exporter, producing 42% of the globally consumed sunflower oil, 16% of corn, and 9% of wheat. Russia is the largest wheat exporter globally. Secondly, many countries and organizations, including the USA and the EU, have imposed financial and economic sanctions on Russia. For example, economic sanctions against Russia have introduced new barriers to global transportation, affected market linkages in trade, and made currencies more volatile (Boubaker et al., 2022). Thirdly, this war has led to the largest refugee crisis since World War II.

The war necessitates accounting professionals to act and address how these causes and consequences affect their fields of activity. At this stage, accounting professionals, especially in terms of professional ethics, need the help of regulatory authorities in accounting, auditing, and reporting to assist them in asking the right questions. In preparing financial statements, the most evident starting point for these professionals will be the International Accounting Standards.

The Russia-Ukraine conflict has highlighted the complexities and challenges in applying IFRS in regions of political and economic instability. Businesses need to carefully examine and apply the interrelations between valuation uncertainties, potential impairments, fluctuating exchange rates, changes in tax legislation, and disclosure requirements. The primary emphasis of implementation should focus on transparently, accurately, and adequately disclosing information so that users of financial statements can understand the impact of the conflict on a business's financial position, performance, and cash flows.

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IAS 10 Raporlama Tarihinden Sonraki Olaylar

IAS 12 Gelir Vergileri

IAS 16 Maddi Duran Varlıklar

IAS 2 Stoklar

IAS 21 Kur Değişiminin Etkileri

IAS 36 Varlıklarda Değer Düşüklüğü

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