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## COMPARATIVE ANALYSIS OF THE UKRAINIAN AND POLISH STOCK MARKETS AMID GEOPOLITICAL TURBULENCE

# ПОРІВНЯЛЬНИЙ АНАЛІЗ УКРАЇНСЬКОГО ТА ПОЛЬСЬКОГО ФОНДОВОГО РИНКУ В УМОВАХ ГЕОПОЛІТИЧНОЇ ТУРБУЛЕНТНОСТІ

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The full-scale invasion of Ukraine in February 2022 triggered a geopolitical shockwave that sent vastly different ripples through the capital markets of Ukraine and its immediate western neighbor, Poland. This paper presents a comparative analysis of the responses and subsequent performance of the Ukrainian and Polish stock markets, arguing that their divergent trajectories were dictated by two fundamental factors: existential threat and institutional anchoring. The Ukrainian market, represented by the PFTS Stock Exchange, executed a strategy of preservation through hibernation, with regulators immediately halting all trading and imposing strict capital controls to ensure state financial survival. This transformed the domestic capital market from a vehicle for private capital allocation into a direct instrument for sovereign financing via war bonds. In stark contrast, the Warsaw Stock Exchange (WSE) demonstrated resilience through adaptation. Despite initial volatility, its deep integration within the security and economic frameworks of NATO and the European Union provided a powerful institutional anchor, mitigating perceived risk and sustaining investor confidence. This stability allowed the Polish market not only to recover but to emerge as a strategic gateway for international investment and a proxy for speculation on Ukraine's eventual reconstruction. By examining market indices, regulatory actions, capital flows, and sectoral performance, this analysis challenges simplistic notions of geopolitical risk, revealing how institutional frameworks and strategic state intervention can fundamentally reshape market outcomes in times of profound crisis.

**Keywords:** stock markets, WIG20, PFTS, geopolitical risk, war bonds, institutional anchoring.

Повномасштабне вторгнення в Україну в лютому 2022 року спричинило геополітичний шок, що по-різному вплинув на фінансові ринки України та її західного сусіда - Польщі. У цій роботі представлено порівняльний аналіз реакції та подальшої динаміки українського та польського фондових ринків, який демонструє, що їхні різні траєкторії були зумовлені двома фундаментальними факторами: екзистенційною загрозою та інституційним анкерингом. Український ринок, представлений фондовою біржею ПФТС, реалізував стратегію збереження, коли регулятори негайно зупинили всі торги та запровадили суворий контроль за рухом капіталу, щоб забезпечити фінансове виживання держави. Це перетворило внутрішній ринок капіталу з інструменту для розміщення приватного капіталу на прямий інструмент державного фінансування через військові облігації. На противагу цьому, Варшавська фондова біржа (ВФБ) продемонструвала стійкість завдяки адаптації. Незважаючи на початкову нестабільність, її глибока інтеграція в безпекові та економічні рамки НАТО і Європейського Союзу забезпечила потужний інституційний якір, зменшивши сприйнятий ризик і підтримавши довіру інвесторів. Ця стабільність дозволила польському ринку не лише відновитися, але й перетворитися на стратегічні ворота для міжнародних інвестицій та інструмент для спекуляцій щодо можливого відновлення України. Вивчаючи ринкові індекси, регуляторні заходи, потоки капіталу та результати діяльності секторів, цей аналіз спрощує розуміння того, що відбувається в Україні. Вивчаючи ринкові індекси, регуляторні заходи, потоки капіталу та галузеві показники, цей аналіз пропонує до розгляду спрощені уявлення про геополітичний ризик, показуючи, як інституційні рамки та стратегічне державне втручання можуть докорінно змінити ринкові результати під час глибокої кризи.

**Ключові слова:** фондовий ринок, WIG20, ПФТС, геополітичний ризик, військові облігації, інституційний анкоринг.

Staging problems. The full-scale invasion of Ukraine on February 24, 2022, was not merely a military conflict but a profound economic and financial cataclysm with global consequences. For Europe, it represented the most significant security crisis since World War II, immediately testing the resilience of financial systems across the continent [1]. It's very unfortunate, but this event provided a unique natural experiment for examining the impact of extreme geopolitical stress on capital markets. This work undertakes a comparative analysis of the market directly under attack. Ukraine, and that of its most critical European Union (EU) and North Atlantic Treaty Organization (NATO) neighbor, Poland. Sharing a border and deep historical ties, yet possessing vastly different institutional structures and levels of market development, their divergent responses offer critical insights into financial resilience, regulatory strategy, and investor behavior in the face of modern warfare.

Prior to the invasion, the Ukrainian and Polish stock markets occupied distinct positions within the European finance landscape.

Ukraine (PFTS): The Ukrainian stock market, with the PFTS Stock Exchange as one of its primary trading venues, was characteristic of a nascent emerging market. It was historically marked by low liquidity, a limited number of actively traded instruments, and significant vulnerability to both domestic political instability and external economic shocks [1]. The PFTS was established as an interregional system for real-time electronic securities trading, but its scale and capitalization remained modest in comparison to its regional peers [3]. Its development was an ongoing project, focused on attracting investment and integrating with global financial systems, a process that was abruptly halted by the conflict [1].

Poland (WSE): In contrast, the Warsaw Stock Exchange (WSE) stood as one of Central and Eastern Europe's most developed and largest national exchanges by capitalization [24]. With a history of operational excellence, the WSE offered a diversified range of products, including a main market for equities, a robust derivatives market, and platforms for bond trading [24]. As a member of the EU, Poland's market was deeply integrated into the European regulatory and financial framework, making the WSE a recognized and trusted institution for international investors [24].

Analysis of the latest research and publications. The theoretical foundation for analyzing market reactions to such shocks

involves moving beyond classical economic theories. The Efficient Market Hypothesis (EMH), formalized by Eugene Fama, posits that asset prices fully reflect all available information, making it impossible to consistently gain an edge [3]. However, the limitations of the EMH become apparent during extreme crises, which introduce radical uncertainty and powerful emotional responses that drive market behavior.

This leads to the relevance of behavioral finance, which acknowledges that investor sentiment – fear, panic, patriotism – can overwhelm rational calculations and become a dominant driver of market dynamics. This work shows that political instability and geopolitical risk consistently drive volatility and capital flight, particularly from emerging economies, as investors adopt a "risk-off" approach [17].

Furthermore, the role of state institutions, especially central banks, transforms during wartime. Standard monetary policy aimed at price stability gives way to direct intervention to ensure the financial system's integrity and to facilitate sovereign financing. Central banks often become the primary purchasers of government debt, enhancing the state's ability to borrow at a time when its very survival may be in question. This shift from market management to direct control and state financing is a well-documented feature of wartime economies.

Highlighting previously unresolved parts of the general problem. Despite considerable research on stock market reactions to geopolitical events, the full-scale invasion of Ukraine presents a unique case. While the general impact of geopolitical risk is understood, a direct comparative analysis of two neighboring markets with such different institutional standings - one under direct existential attack and the other a frontline NATO and EU member state - remains an under-researched area. This work addresses the specific, divergent strategies employed by each market: Ukraine's deliberate preservation through hibernation versus Poland's resilience through adaptation. Understanding the specific mechanisms and institutional factors that enabled these contrasting responses in the face of a modern, high-intensity conventional war is a key unresolved part of the broader problem of how capital markets function under extreme geopolitical stress.

Formulation of the Goals of the Article. This work posits that the profoundly different reactions of the Ukrainian and Polish markets were dictated by two critical, intertwined factors: existential threat and institutional

anchoring. Ukraine's response was a strategy of preservation through a deliberate pause, a set of drastic measures driven by the existential need for state survival. Poland's response was one of resilience through adaptation, a path made possible by its deep integration into the security and economic frameworks of the EU and NATO, which fundamentally de-risked the country in the eyes of international investors despite its geographic proximity to the conflict. The analysis is grounded in the principles of behavioral finance, which challenge the classical Efficient Market Hypothesis (EMH) by acknowledging that extreme geopolitical events introduce radical uncertainty and powerful emotional responses that overwhelm rational calculations and become dominant drivers of market dynamics [3].

Presentation of the main material of the research. Faced with a full-scale invasion aimed at dismantling the state itself, Ukrainian financial authorities executed a rapid and decisive strategy. These actions were not designed to manage market volatility but to neutralize the market as a potential vector of economic collapse and repurpose its core functions for national defense.

Within hours of the invasion, at 11:00 AM on February 24, 2022, Ukraine's National Securities and Stock Market Commission (NSSMC) implemented its most drastic possible measure: the complete suspension of the placement, circulation, and redemption of all securities [13]. This decision effectively froze the country's capital markets. The explicit rationale was to preempt panic-driven selloffs that would have annihilated asset values, and to preserve the integrity of ownership data and property rights amid the chaos [13].

This immediate halt was a clear and unambiguous sianal that the peacetime functions of the market-price discovery and capital allocation for private enterprise were suspended indefinitely. The priority had shifted entirely to institutional survival. The main stock market index, the PFTS, which had already shown signs of decline in the tense days leading up to the invasion, became a flat line, its trading volume dropping to zero [18]. Concurrently, the National Depository of Ukraine was instructed to create secure backups of all information related to securities accounts, a move that underscored the focus on preserving the market's foundational infrastructure for a potential post-war future [19].

Working in concert with the NSSMC, the National Bank of Ukraine (NBU) constructed a financial fortress around the country's economy.

The cornerstone of this defense was NBU Board Resolution No. 18, "On the Operation of the Banking System Under Martial Law," also enacted on February 24, 2022 [12]. This resolution and its subsequent amendments represented a textbook pivot to wartime monetary and currency policy.

The NBU immediately suspended the foreign exchange market, fixed the official exchange rate of the hryvnia, and imposed a sweeping set of restrictions on cross-border currency payments. These hard capital controls were designed achieve one primary objective: prevent the massive capital outflow that would have otherwise drained the country's foreign reserves and triggered a complete currency collapse. While these measures effectively sealed Ukraine off from international financial flows, they were instrumental in maintaining macroeconomic stability under the most extreme pressure. Over the subsequent years, the NBU has managed a gradual and cautious easing of these restrictions conditions permitted, demonstrating a strategic approach to liberalization.

With the equity market dormant and foreign capital markets inaccessible, the Ukrainian government repurposed the domestic capital market for a single, critical function: financing the state's soaring budget deficit. On March 1, 2022, the Ministry of Finance began issuing "war bonds," a special class of domestic government debt securities (OVDPs) aimed at tapping domestic sources of funding [11].

The program proved remarkably successful. According to data from the NBU Depository, from the start of the full-scale invasion through May 2025, the government raised the equivalent of almost UAH 1,661 billion through these auctions. The composition of the buyers of these bonds is particularly revealing. While primary dealer banks hold the largest portfolio, the secondlargest share is held directly by Ukrainian businesses and individual citizens. As of June 2025, this group held 36.2% of all hryvniadenominated war bonds. The total portfolio of war bonds owned by domestic individuals and legal entities grew by over 1.6 times between June 2024 and June 2025, reaching an equivalent of UAH 204.2 billion [11].

This demonstrates a powerful domestic mobilization of capital. In this newly repurposed market, "investor sentiment" was driven less by traditional calculations of risk and return and more by a behavioral cocktail of patriotism, social solidarity, and a collective will to fund the nation's defense. The state successfully created

a closed-loop system where domestic savings were channeled directly to the treasury, providing a financial bedrock at a time when foreign portfolio investment had evaporated. The long-term challenge, which is the subject of ongoing discussions between the NSSMC and the IMF, will be how to eventually dismantle this financial fortress and reopen the market to international capital without triggering the very capital flight it was designed to prevent [13].

Poland's experience presents a compelling counter-narrative to that of Ukraine. As a frontline state, it faced immense direct and indirect spillovers from the war. Yet, its capital market demonstrated not fragility, but a remarkable degree of resilience and adaptation, ultimately transforming its geographic proximity from a liability into a strategic asset.

The Warsaw Stock Exchange (WSE) was immediately impacted by the invasion, with its main blue-chip index, the WIG20, experiencing a sharp increase in volatility. However, detailed analysis of market movements reveals a nuanced reaction. The most significant initial declines on the WSE did not occur on the day of the invasion itself, but rather with a slight delay, correlating more closely with the announcement of comprehensive EU sanctions against Russia [8]. This suggests that investors were reacting less to the immediate military action and more to the broader economic implications of a protracted conflict and the West's response. To have a better understanding of its reaction, I suggest reviewing the WIG20 index chart, representing the reaction on the day of the invasion. We can see a tangible gap, and the price has slumped over 13% on a single day.

Despite the initial shock, which saw European bank stocks hit particularly hard, the Polish market demonstrated impressive resilience. The WIG20 not only recovered its losses but also embarked on a strong upward trend. By early 2025, some analysts noted the WIG20 as one of

the best-performing major global equity indices, with Ukrainian companies listed on the WSE also surging on prospects of an eventual peace [8]. This robust performance stands in stark contrast to the frozen Ukrainian market and highlights a deep-seated investor confidence in Poland's underlying stability.

The war unleashed significant economic headwinds for Poland. The country absorbed the largest share of Ukrainian refugees, placing immense strain on public services and housing [22]. The conflict also triggered severe commodity price shocks, particularly for energy, which, combined with supply chain disruptions, fueled rampant inflation. Consumer price inflation in Poland soared, peaking at an annual rate of over 19% in February 2023 [2].

response, Polish the government implemented countermeasures, including an "Anti-Inflation Shield" that temporarily reduced taxes on fuel, food, and energy to cushion the blow to consumers [22]. The National Bank of Poland engaged in monetary tightening, raising its policy interest rate to 6.75% by September 2022 [22]. Despite these challenges and a downward revision of GDP growth forecasts by the World Bank for 2022 and 2023, the Polish economy proved its resilience. Aided by a well-diversified economic structure, strong domestic demand, and its deep integration with EU markets, Poland avoided a recession and returned to a path of robust growth [22].

The flow of international capital into Poland in the wake of the invasion presents a compelling paradox. Conventional financial theory would suggest that extreme geopolitical risk in a neighboring country should trigger significant capital flight. Instead, after an initial shock, Poland remained a top destination for foreign investment.

Foreign Direct Investment (FDI) inflows into Poland remained robust despite regional geopolitical tensions, reaching USD 29.5 billion

Ukrainian War Bond Issuance and Holdings (March 2022 – May 2025)

Period	Total Raised (UAH bln equiv.)	% Held by Banks	% Held by Legal/ Individual	% Held by Non- Residents	
Mar 2022 – May 2024	1,175.6 (UAH) / 9.0 (USD) / 2.7 (EUR)	~70%	~29%	<1%	
Jan 2025 – May 2025	157.7 (UAH) / 0.65 (USD) / 0.39 (EUR)	~60%	~39%	<1%	
As of June 1, 2025	Total since invasion: ~1,661	~60%	36.2%	<1%	

Source: data - NBU official website [11], created by the author

Table 1

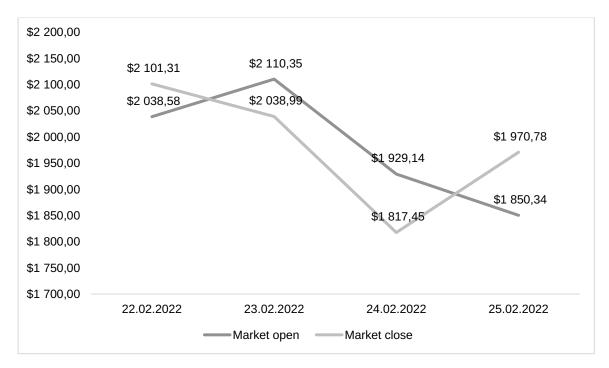


Figure 1. WIG20 price range from 22.02.2022 to 25.02.2022

Source: data – investing.com – WIG20 historical data [6], created by the author

in 2022 according to data from the Narodowy Bank Polski. This substantial annual figure underscores Poland's position as one of the most attractive FDI destinations in Europe. Investors consistently cited the country's stable macroeconomic fundamentals, skilled labor force, and EU membership as key advantages [20].

Foreign Portfolio Investment (FPI) followed a broadly similar pattern. While there was an initial outflow during the early phase of regional instability, data for 2023 and 2024 indicate a strong rebound in FPI, signaling renewed confidence among international investors [22]. This resilience can be attributed to "institutional anchoring": Poland's membership in NATO offered a credible security umbrella, while its integration into the EU provided a stable regulatory environment and access to the single market. These institutional guarantees reassured investors and allowed them to look

beyond the immediate risks and focus on longterm economic prospects.

The war created clear winners and losers within the Polish stock market. The most significant development was the dramatic reassessment of Poland's security posture. The government passed legislation to increase defense spending to 3% of GDP, with actual spending projected to exceed 4% [10]. This created a boom for the Polish defense industry. The state-owned Polish Armaments Group (PGZ) and its subsidiaries, along with publicly listed companies like Creotech Instruments, became central to a massive military modernization plan, signing major procurement deals with international partners.

Conversely, sectors perceived as more vulnerable to the immediate economic fallout, such as banking, were among the most negatively impacted at the outset of the conflict. Analysis shows that global bank equities, particularly in

Annual FDI Net Inflows into Poland (2020–2023)

Table 2

Year	FDI Net Inflow (PLN bn)	FDI Net Inflow (USD bn)
2020	~54.0 PLN bn	~20.1 USD bn
2021	~114.2 PLN bn	~37.5 USD bn
2022	~158.3 PLN bn	~41.8 USD bn
2023	~120.6 PLN bn	~34.3 USD bn

Source: data – based on Narodowy Bank Polski report [10], created by the author

Europe, experienced a significant decline in returns on the date of the invasion, reflecting heightened perceptions of systemic risk and potential credit losses [19].

The policy choices made by Ukrainian and Polish authorities in the immediate aftermath of the invasion were fundamentally different, reflecting their distinct circumstances. Ukraine's regulators chose control, implementing measures to completely override market forces. Poland's regulators chose management, using existing tools to handle volatility within a functioning market framework.

**Conclusions.** The war in Ukraine has permanently changed the economy of Eastern Europe. Ukraine and Poland now face long-term challenges like rebuilding, shifting regional relationships, and modernizing Ukraine's financial markets.

The scale of Ukraine's post-war reconstruction needs is staggering. The World Bank's most recent Rapid Damage and Needs Assessment estimates that Ukraine will require at least USD 524 billion over the next decade to repair and rebuild.

This colossal sum, approximately 2.8 times Ukraine's pre-war nominal GDP, will necessitate massive capital inflows from international partners, multilateral institutions, and, crucially, the private sector.

Poland is strategically positioned to be a primary partner and beneficiary in this monumental effort. Its shared border, established industrial base in construction and materials. and role as a key logistical hub for aid and commerce make it a natural staging ground for reconstruction activities. Long-term economic forecasts from the IMF and World Bank project a stable growth path for Poland, close to 3% over the medium term, supported by strong domestic demand and the absorption of EU funds [2]. For Ukraine, the outlook is fraught with uncertainty but holds immense potential. Economic growth is projected to be slow in the immediate future due to ongoing infrastructure damage, but the process of rebuilding, coupled with deeper integration with the EU, could unlock significant long-term growth.

The future of Ukraine's domestic capital market hinges on a carefully managed reopening and a comprehensive modernization program. The NSSMC, in close cooperation with the IMF and other international partners, has developed a strategy for this process. The key pillars of this reform agenda are designed to build investor confidence and align the market with international standards [14].

These pillars include:

Adoption of International Standards:
 Fully aligning Ukraine's regulatory framework with EU directives and the principles of the International Organization of Securities Commissions (IOSCO) to enhance transparency and investor protection.

Table 3 Comparative Performance of PFTS and WIG20 Indices (Jan 2022 – Dec 2022)

Time Period	PFTS Index (Ukraine)	WIG20 Index (Poland)
Time Periou	PF15 illuex (Ukraille)	wigzo index (Poland)
Pre-Invasion (Jan – 23 Feb 2022)	Showed signs of decline with extremely low trading volumes amid rising geopolitical tensions.	Remained operational, experiencing general market volatility reflective of regional uncertainty.
Invasion Day (24 Feb 2022)	Trading was completely suspended at 11:00 AM by the National Securities and Stock Market Commission (NSSMC) to prevent market collapse. The index value was effectively frozen.	Experienced a sharp initial dip and heightened volatility as investors reacted to the invasion. European bank stocks were particularly affected.
Immediate Aftermath (Late Feb – Mar 2022)	The market remained closed. The domestic capital market was repurposed to finance the state's defense through the issuance of "war bonds," which began on March 1, 2022.	Began a V-shaped recovery, demonstrating significant resilience. Investor confidence was sustained by Poland's institutional anchoring in the EU and NATO, which mitigated long-term risk perception.
Mid- to Late 2022 (Apr – Dec 2022)	Trading remained suspended until August 8, 2022, when it resumed on a limited basis.	Embarked on a strong upward trend, becoming one of the best-performing global indices for the year.

Source: data - based on historical data from Investing.com [6; 7], created by the author

- Infrastructure Reform: Modernizing and consolidating the exchange, settlement, and clearing infrastructure to improve efficiency and reduce systemic risk.
- Enhanced Corporate Governance:
   Strengthening corporate governance requirements for listed companies to build trust among domestic and international investors.
- **Development of New Instruments:** Introducing new financial instruments, such as mechanisms for securitization, to deepen the market and provide new avenues for investment and financing [14].

A critical and highly sensitive component of this roadmap is the sequencing of the market reopening with the gradual lifting of the NBU's capital controls. A premature or poorly managed removal of these controls could trigger a massive wave of capital outflow, undoing the very stability they were created to protect. This process will be a major test of Ukraine's post-war institutional capacity and policy coordination.

The comparative analysis of the Ukrainian and Polish stock markets since February 2022 yields several crucial conclusions. The starkly divergent paths they followed were not accidental; they were the direct result of their differing levels of institutional integration and the nature of the threat each nation faced.

The key lesson from this story about two markets is that, for policymakers and investors today, especially with increased competition among big powers, a country's financial strength depends not just on its internal rules and stability but also on the strength and trustworthiness of its international partnerships. In uncertain times, these global alliances are the safest and most reliable support.

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