



War in Ukraine: View on Financial Institutions Impact

BCG Global Advantage & Financial Institutions Practice Areas

Prepared: 24 March 2022

Introduction to this document

The war in Ukraine is above all a political and humanitarian crisis...

Russia's invasion of Ukraine has led to a serious **humanitarian crisis**. BCG condemns this attack and the violence that is killing, wounding, and displacing so many people.

The top priority in moments like these must be the **safety and security of people**. Corporates, governments, and non-for-profit organizations should focus on supporting the people in Ukraine, Russia, Europe, and globally affected (physically and mentally).

... but it is driving disruption across businesses

It is the duty of political, societal, and business leaders to navigate through this crisis. **The intent of this document is to inform discussions and decisions on the global economic impact as well as the Financial Institutions impact of the war in Ukraine.**

The situation surrounding Ukraine is dynamic and rapidly evolving - this document reflects information and analysis as of **24 March 2022**.

It is not intended as a prediction of future events and is shared only as a resource for BCG and client conversations.



BCG Executive Perspectives

IN THIS DOCUMENT

FINANCIAL INSTITUTIONS IMPACT

Financial sanctions will harshly impact Russia's banks—and could very well force the country to default on its foreign debts. These sanctions are also pushing Russia's economy, which was earlier in the year on track for modest growth, into recession. Yet, because of their limited exposure to Russia, most international financial institutions are likely to experience only minimal impact. For example, at \$170 billion, Russian loans account for less than 0.2% of the \$100 trillion in assets held by all global banks.

Depending on the war's duration and how it unfolds, however, the indirect and medium-term implications for international financial institutions could be quite material. Persistently high interest rates, inflation, and market volatility would slow economic growth worldwide. These forces could hit the top and bottom lines of commercial banks, investment banks, asset managers, payment platforms, and other firms. A more extreme scenario is that the global financial system decouples, with separate cross-border payment systems emerging for Eastern and Western economies. Global institutions should therefore go beyond assessing first- and second-order risks across their value chains. They should also begin to reassess their portfolios, global operations, and growth strategies based on various scenarios.

War in Ukraine: Financial Institutions Impact

AGENDA

Deep-dive: View on Financial Institutions impact

- Direct impact
- Indirect & medium-term impact
- Implications across industries

FI: Direct impact limited; indirect & medium-term impact potentially material

Direct impact for FIs

Russian Financial institutions represent ~1% of global financial institution revenue
Limited direct impact on global FIs and investors, apart from few which are overexposed
No immediate evidence of disruption on global liquidity, or systematic financial shock
High compliance & conduct risks¹ in capital markets & wealth management (arising from complex & evolving sanctions)

Indirect and medium-term impact for FIs

Rising interest rates | High uncertainty – potential short-term benefit; balance sheet & liquidity review required
Recession risk | Risk of material impact on FIs' profitability – similarities to 1970's, yet more room for policy action today
Market volatility | Continued spikes in volatility likely to heighten counterparty risk and defaults
Global financial decoupling | Extreme scenario which would require new portfolio strategy
Cyber-attacks | Heightened risk of cyber-attacks, with FIs being a typical target
Supervisors' scrutiny | Expected stricter controls and acceleration of new regulations (e.g., cryptoassets)

Financial implications for other industries

Hedging strategy | Risk management hedging on rates, FX, commodities
Balance sheet strategy | Review structure, short vs. medium term debt, deposit / financial investment strategy
Cyber-attacks | Prepare for risk of payment disruptions (e.g., FI cyberattacks) and increased compliance scrutiny from banks
Payments | Reassess payment currencies and assess alternatives (e.g., crypto)
M&A, IPO, debt issuance | Potential slow down, expecting clarity on scenarios; specific opportunities with exposed players

1. Risks associated with any activity by a financial institution which could threaten consumer protection or market integrity/stability.
 Sources: BCG analyses and experience

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Deep-dive: View on Financial Institutions impact

- **Direct impact**

- Indirect & medium-term impact

- Implications across industries

Context: Russian Financial institutions represent ~1% of global FI revenue

Russia's FIs are under severe stress...

Russian bank stocks collapsing

(79%)

decline in **Russian bank index** across L6M¹

Potential Russian sovereign debt default

\$4.7B

Outstanding payments for Russia between now & year end despite \$117M repaid Mar 16³

Challenging market conditions

7

Banks delisted from SWIFT (representing ~25% Russia banking sector's revenue²); Sberbank, Gazprom exempt

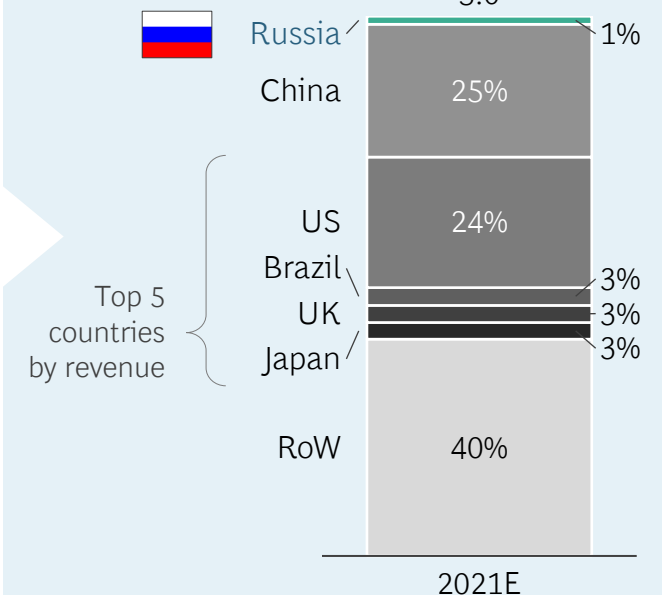
Acceleration of cash withdrawals

58

Fold increase in demand for cash in Russia since first sanctions⁴

... but overall, they represent low share of global sector

Share of global banking revenue (\$ Trillion, %)⁵



1. Russia MSCI Financial Index (Aug – Mar 14 2022) 2. FY20 Revenue; in B for 7 banks: VTB, Otkritie, VEB, Novikombank, Gazprombank, Bank Rossiya, Sovcombank) / FY20 Russia banking revenue (Retail + corporate + other banking revenue); 3. Reuters, March 21 2022; 4. As of February 28 2022, [NYTimes](#); 5. In-country (domestic) revenue (Retail + corporate + other banking revenue)
Source: BCG Banking Pools Model, MSCI, Press; BCG analysis

FIs | Limited direct impact on global FIs, apart from few which are overexposed

BANKING:

Low exposure & limited liquidity risk

<0.2% total exposure¹ of all global banks (~\$170B out of \$100T² total assets)

4 European banks with material exposure³ (i.e., >5% of group profits from Russia)

Low liquidity risk | Pricing of funding between banks (overnight borrowing rate⁴) stable, suggesting **bank's liquidity expectations have not changed**

ASSET MANAGERS:

Limited impact

Russia comprises small share of total Assets under Management for most Asset Managers

0.2% BlackRock exposure to Russian assets⁵

0.5% Fidelity's exposure to Russian assets⁵

Specific strategies and funds more at risk⁶

PAYMENTS:

Minimal global effect from SWIFT ban

~1.4% of cross border transaction flow value attributed to Russia⁷

7 banks currently de-listed from **SWIFT**; largest banks (Sberbank, Gazprombank) exempt⁷

So far, global FIs' stock prices perform in line with or better than other industries
(e.g., 2.3% reduction in Financial index⁸ vs 8.0% reduction in World Index⁹ between Jan 3 & Mar 17 2022)

1. As of Sep '21: ~\$120B in direct exposures & ~\$50B in derivatives, credit guarantees and credit commitments 2. \$100T is total assets across all bank nationalities as of Sept '21 from BIS 3. Material exposure based on Russia as a % of group profit >5% for 2021 per company reports and J.P. Morgan estimates; banks with following exposure as % of profit: 6%, 7%, 7%, 39% 4. Europe overnight borrowing rate 5. Russian Exposure AuM (\$B)/ Global AuM 2020 (P&I) 6. E.g., EM funds of GQG Partners 7. 2019 data; based on outbound global payments only, excluding credit cards; value of Russia x-border payments / value of x-border global payments BCG Trade Finance Model 8. As of Mar 21 2022; exempt banks incl: VTB, Bank Otkritie, Novikombank, Promsvyazbank, Rossiya Bank, Sovcombank, VEB; represent ~25% banking sector 8. MSCI World Financial Index % change YTD Non-normalized Jan 3 '22 to Mar 17 '22; 9. MSCI World Index Non-normalized % change Jan 3 '22 to Mar 17 '22; Source: Press, Bloomberg, BCG Center for Macroeconomics, BIS, GSIB; MSCI; J.P. Morgan; BCG Analysis

Investors | Limited impact for most pension funds, large losses on more heavily exposed sovereign funds

| Type of investor | | First order effects | Second order effects | Case studies |
|------------------|---|---|--|--|
| Institutional | Sovereign wealth funds (SWFs) Mostly Gulf funds are exposed ¹ | Decline of asset value (Ruble & Russian stocks depreciation, asset write-downs) Yet, SWFs willing to hold position through crisis (and maintain government-to-government contacts to limit asset devaluation) Opportunity to buy assets at discount | Likely rebalancing of capital allocation away from higher-risk regions Risks of Russian retaliations through nationalization of foreign-owned assets (less impact for SWFs ⁴) | Qatar Investment Authority (QIA) , the Sovereign fund of Qatar has stakes in Russian entities targeted by sanctions (e.g., VTB). QIA has taken \$6B loss to its Russian holdings valued at \$16B ² |
| | Public Pension funds Mostly in US, EU, UK | Limited exposure (~1% of assets ¹ in Russia) Divesting to avoid reputational and sanctions risk Difficulty in finding counterparts unless large discount | Increased compliance burden to vet investors and partners (and their exposure) - less relevant for SWFs ⁵ | California Public Employees' Retirement owns \$1B in Russian assets. A bill is pending in the State legislature mandating divestment from Russia ³ |
| Private | Private equity firms | If exposed: Asset devaluation, declining revenues Difficulty to repurpose portfolio given lower liquidity – yet secondary market exists | | |

1. Holding 69% of Russian assets owned by state-investors (source: Wall Street Journal); 2. Financial Times, Wall street Journal; 3. Forbes; 4. Less impact for Sovereign Wealth Funds given their Government-to-government contacts & relationships; 5. Which are not compliance-driven; Source: Press search; BCG analyses

War in Ukraine: Financial Institutions Impact

AGENDA

Deep-dive: View on Financial Institutions impact

➤ Direct impact

➤ **Indirect & medium-term impact**

➤ Implications across industries

Greatest risks are indirect and depend on a wide range of scenarios



Rising Interest rates

Increase in interest rates will benefit FIs in the short-term. Yet, when combined with potential economic slowdown (e.g., due to inflationary pressures), it can introduce challenges to balance sheet of banks (especially if used variable rates) and have impact of increased loan defaults



Recession risk

Increased risk of global economic slowdown driven by rising energy and commodity prices and erosion of consumer confidence. In that case, major impact across business areas for FIs



Market volatility

Prolonged volatility and market 'swings' could create multiple default events (e.g., asset gatherers, collaterals)



Global decoupling of financial systems

Extreme scenario of further disentanglement between Western and non-Western financial ecosystems – would require deep review of footprint strategy (clients, front office, operations)



Cyber-security threats

Increased risk of cyberattacks in uncertain geopolitical environment such as the Ukraine war, with FI traditionally being one of the first targets for hackers – increasing level of financial, operational & reputational risks



Supervisors' scrutiny

Heightened scrutiny, increasing compliance mobilization & costs, and conduct risk

More stringent regulations to come (e.g., cryptoassets)

More details on next pages

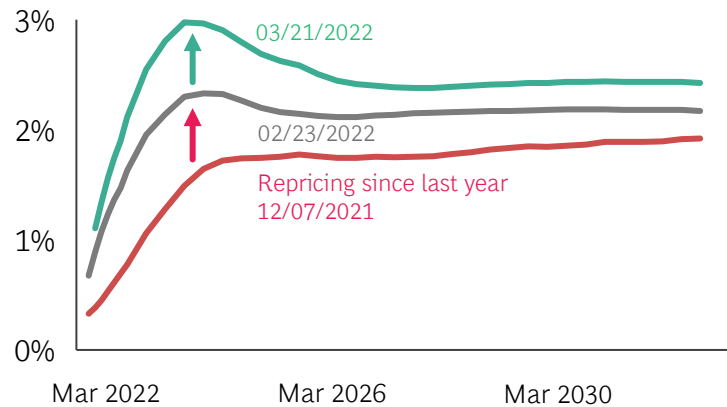
More detail in next edition



Rising interest rates | Potential short-term benefit from increasing interest rates for FIs; balance sheet & liquidity review required

Markets expect interest rates to increase and stabilize at 2-3% by 2024

Implied interest rate¹



Interest rate expectation reflects current market view that **high inflation is transient** and will gradually fall to ~2-4% by end of 2023

FIs will benefit in the short-term, yet risk if economy slows

In the short run, **banks could benefit from increasing interest rates (IR)**

6%

Growth in net interest income from 1% interest rate increase²

Yet, **lower economic activity** would **harm FI profitability & equity performance**

(12.5%)

Decrease in Dow Jones for 1% decrease in GDP³

Second-order impact

Companies to **slow down borrowing and investment** as cost of capital increases

Strong **money flow to large-cap equities** (less susceptible to inflation) as fixed-income investments have lower real returns

Investment in innovation to decline – given higher discount rate of long-term cash flow

Increase in consumers' savings in FIs to **decrease consumer disposable income**

1. Future expected short rate as priced by markets; 2. Averaged. BCG 2020 Treasury Benchmark, as estimated by Europe and North American participants 3. Dodd Frank 2021 stress test. Data is for Dow Jones Total Stock Market Index; Note: Review BCG's Center for Macroeconomics' publications for the latest projection on inflations and interest rates.

Source: Company Disclosures, Press reports; JP Morgan; US FDIC; US FED; BCG Analysis



Recession risk | Risk of material negative impact on FIs' profitability

United States

Risk: US Federal Reserve expected to increase interest rates, but **rate-hike overshoot risks triggering recession**

Europe

Risk: European dependency on Russian energy is a strategic vulnerability – **potential for recession if Russia withholds energy**

Asia

Risk: Low risk of recession, but **potential for economic slowdown** as higher commodity prices compound shutdowns from Covid-19



Retail & Commercial

Reduce volume of credit issued, reducing revenue

Default rate may increase as rates grow & economy slows

Further possible **default cycles**



Capital Markets

Less affordable borrowing given **higher rates, less new debt** issued

Fixed-rate debt devalued and higher probability of **floating rate debt default**

Equity correction likely



Asset Managers

Increased **demand for alternatives**, counter-cyclical investments, including infrastructure and select commodities (e.g., gold)



Wealth Managers

Increased demand for **counter-cyclical investments**

More investments held in government **bonds and cash**



Payment Platforms

Recession to drive **fewer total transactions** and reduce fees for payment platforms



Wider Impact

Higher **unemployment**
Decreased purchasing power

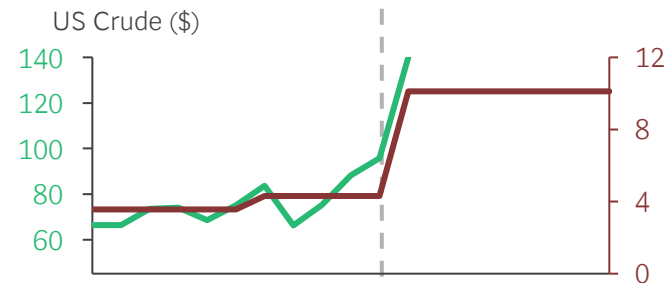
Reduced availability of credit



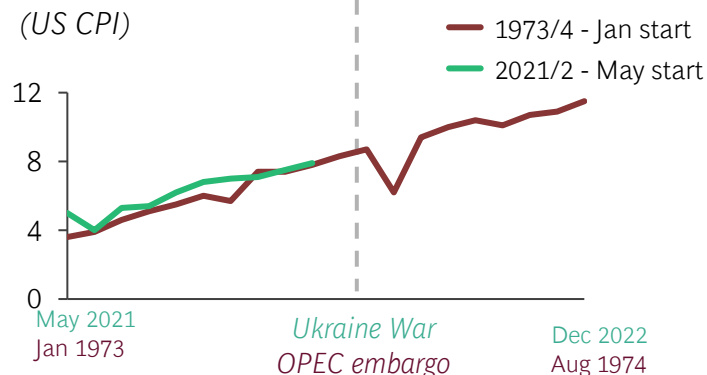
Case study | Parallels to 1970s stagflation

Similarities: Commodities-driven inflation

Similarities in oil spike, but 1973 much worse¹

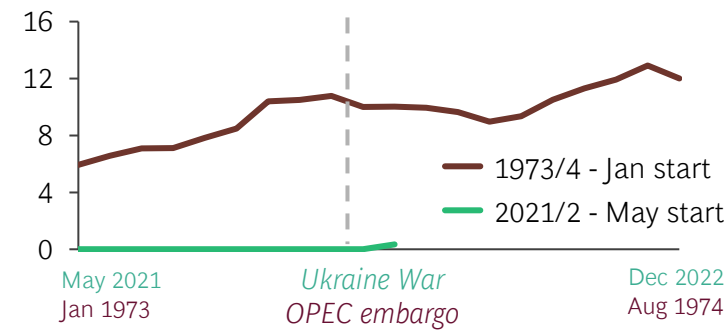


Similar trends in inflation



Differences: Situation and macro-fundamentals

Federal Funds Rate: Extremely low rate now means **more policy flexibility** to tame inflation



6.5% Expected yield on 10Y gov. bond in Jan 1973, (market expected lasting inflation) – vs. 2.35% now (transient inflation expected)

4.8% Global proven crude reserves **impacted now vs. >50% in 1973**

Banks have **strongest capital position on record**, giving flexibility to respond to crisis

1970s insights for banks

Bank stocks lagged recovery from stagflation

Bank index / S&P 500 rebased to 100



In 1970s, inflation **reduced purchasing power** and consumer sentiment

FIs were especially impacted, but the whole economy suffered

1. Oil prices smoothed via averaging. Source: EIA, OPEC, FED data, DataStream, Bloomberg Finance L.P., BEA, & J.P. Morgan; BCG analysis

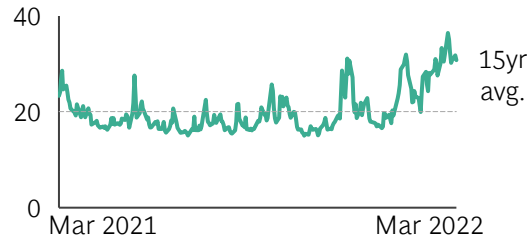


Volatility | Continued spikes likely to heighten counterparty risk & defaults

Volatility indices spiked...

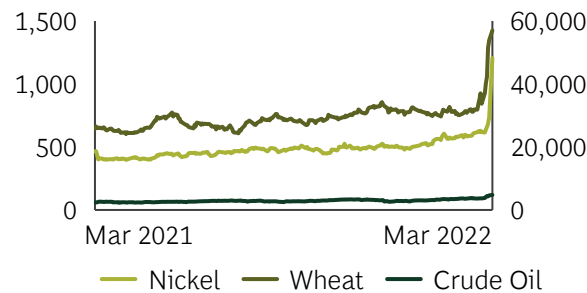
Equities

VIX index
~**2x** since
Jan 2022



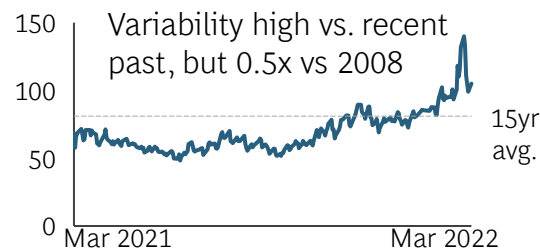
Commodities

Some
commodity
prices ~**2x**
since Jan 2022



Bonds

MOVE index
~**1.5x** since
Jan 2022



... creating FI risks & opportunities

Rapid changes in prices can drive significant counter-party risk

- Asset managers and investment banks **directly exposed** to market risk
- Banks providing margin exposed to **counterparty risk**

Opportunity to **generate higher-returns** (e.g., larger trading volumes)

High bond prices variability creates significant risk for banks, impacting ability to:

- Properly price loan book
- Accurately perform debt origination

Case study: Tsingshan

Tsingshan Holding, a Chinese steel producer, **disrupted global nickel market** with "short" positions

As nickel prices rallied with the war in Ukraine, Tsingshan **financial position was challenged**, requiring banks interventions

LME forced to halt trading and cancelled transactions

+246% In Nickel price over 4 days¹



1. Mar 4 (28,919 end-of day) – trading high on Mar 8 2022 (100,000), LME; Source: Press reports; VIX, MOVE, Commodity market data Mar '21 – Mar 7, '22; BCG Analysis



Decoupling | Limited but increasing signs of global financial decoupling – an extreme scenario would require new portfolio strategy

Today, limited evidence of decoupling between East and West payments systems

Example: Payments still dominated by SWIFT globally

| |  11,000+ ¹ |  1,288 ³ <i>(of which, only 76 direct participants)</i> |
|--------------------------|---|--|
| Participant institutions | | |
| Countries & territories | 200+ ¹ | 103 ⁴ |
| Payments facilitated | \$140T ² | \$13T ⁵ |




Yet some signs of increasing trend

80% reduction in Western Banks' exposure to Russia after 2014⁶




China and Russia **settle their trade in own currencies**, not in USD

Extreme scenario: Risk of significant impact to FIs

Company behavior impacts

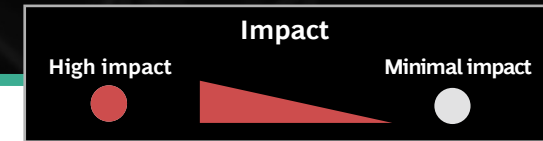
-  **Lending:** Chinese companies could prioritize local banks; Western banks could revisit portfolio allocation considering geo risks
-  **Forex:** Renminbi could become a new reference currency in some trade corridors
-  **High net-worth individuals:** Splitting or moving liquid assets between systems to ensure wealth security

System impacts

-  **Operational model:** FIs likely to create more localized or remote-service models for non-core markets
-  **Payments:** National/regional payment systems likely to emerge/grow
-  **Regulatory burden:** Increased cost of doing business; multiple regulatory and compliance requirements

1. As of Mar 2022, SWIFT 2. Economist, 2021 3 CIPS. 76 Direct and 1201 Indirect institutions 4. CIPS as of Mar 2022 5. Reuters as of Jan 2022 6. Post annexation of Crimea by Russia
Source: FT, Bloomberg, WSJ, Brookings Institute, wider press search, BCG Analysis

Summary | Impact varies across the different FI businesses



| | Direct | Indirect/medium-term |
|---|---|---|
| Retail & commercial | <ul style="list-style-type: none"> Limited impact Low impact in the short-term, mostly related to offshore direct/indirect credit exposure | <ul style="list-style-type: none"> Default risk Increasing lending default risk for individuals and SMEs impacted significantly by commodity and energy prices Counterparty risk Exposed/Russian counterparts in value chain might not be able to operate, reducing repayment ability |
| Capital markets & investment banking | <ul style="list-style-type: none"> High volatility Creating market risk (& trading opportunity) Counterparty risk Increased risk of trading partners' default (directional positions) | <ul style="list-style-type: none"> Liquidity risk Difficult to exit some asset classes (e.g., nickel) Climate Continued financing of fossil fuels to address energy gap vs. Net Zero commitments and banks' roadmap M&A Fewer, more complex deals given risk profiles |
| Asset management (AMs) | <ul style="list-style-type: none"> Exposure Russia is a low share of total AuM¹ for most AMs Portfolio Some AMs to maintain some exposure given difficulty of exit and long-term investment potential Revenue Negative impact from market underperformance | <ul style="list-style-type: none"> Revenue Prolonged impact if continued market losses Contagion risk Reassessing governance² and non-Western markets geopolitical, reputational risk, and contagion risk (e.g., in currencies, equities) |
| Payments | <ul style="list-style-type: none"> Limited impact Low impact as no local player is significant in global value chain or global volume; payers with exposure may be more significantly impacted | <ul style="list-style-type: none"> Alternatives Potential increase in alternatives (including use of renminbi, crypto) Regulations Increasing regulatory scrutiny for alternatives Sovereignty Shift focus from international to domestic systems |
| Wealth management (WMs) | <ul style="list-style-type: none"> HNWI Potential for knock on effects as Russian HNWI³, particularly UHNWI⁴, impacted by sanctions, seek to reduce exposure to western WMs, and other UHNWI clients following | <ul style="list-style-type: none"> Service model Evaluating operating model for clients exposed to Russia (e.g., reallocation of relationship managers) |

1. AuM - Assets under management 2. Governance as part of ESG scoring 3. HNWI – high net worth individuals 4. UHNWI – ultra high net worth individuals

Note: BCG does not provide legal advice; Source: BCG experience and analysis

War in Ukraine: Financial Institutions Impact

AGENDA

Deep-dive: View on Financial Institutions impact

- Direct impact
- Indirect & medium-term impact
- **Implications across industries**

FIs | Potential action plan

Short-term

Mid-to-long-term

Review client portfolio and balance sheet in light of risks and sanctions, including analyzing first- and second-order effects across the supply chain

Review Emerging Markets portfolio and strategy for the medium and long term – identify potential risk profile changes

Implement sanctions and reinforce screening capabilities across business divisions

Reinforce screening controls in Trade Finance and Capital Markets operations to ensure all parties are subject to screening throughout relationship

Enhance stress tests with new scenarios, determine new limits and new business decision criteria

Enhance **operational resilience for cyber attacks**: invest in third party IT outsourcing capabilities, train further incident response teams, enhance IT to improve internal network segregation

Non-FI corporations | Potential finance-related action plan



Hedging strategies

Rethink **hedging strategies** as near-term market volatility (e.g., foreign exchange, bonds) impacts prices

Analyze positions in 'at-risk' areas (i.e., commodities, emerging markets) and **hedge operationally and financially** for price increases



Balance sheet strategy

Re-evaluate allocation of surplus cash on investments by analyzing updated risk and return outcomes

Reduce counterparty and credit exposure: minimize open positions; do not over-expose in new positions

Secure long-term capital now when able, at lower cost



Cyber-attacks

Scenario plan for potential impacts of cyber-attacks on financial operations (e.g., diversify banks used)

Invest in **third party IT sourcing capabilities** to avoid operational disruptions

Enhance IT infrastructure to be able to **quickly segregate impacted infrastructure**



Payment disruptions

Diversify payment methods including new types of currency (e.g., cryptocurrency)

Assess robustness of payment solutions and scenario plan for disruption e.g., back-up alternatives

Re-assess supply chain in light of disruptions in payments and expanding trade compliance requirements



M&A, IPOs, & Debt

Reassess expectations for timing and volume within the business and banking partners – given potential market slowdown as uncertainty and caution continue

Scan for opportunities depending on risk-return profile considerations, accounting for alternatives to pre-war investments

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