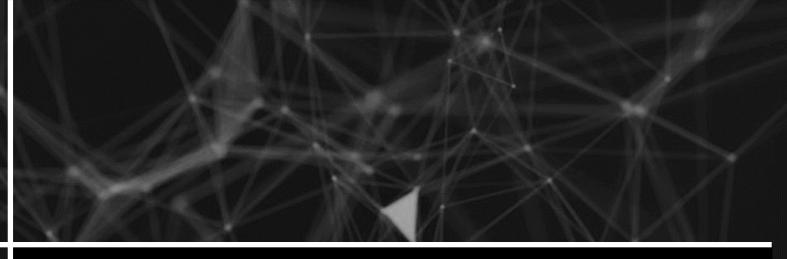
BCG

Executive Perspectives



War in Ukraine: Perspective on Refugee Crisis and Global Update

BCG Global Advantage & Social Impact Practice Areas

Prepared: 27 April 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** on many dimensions, from refugees to global food risks. BCG condemns this war and the violence that is killing, wounding, and disrupting the lives of so many people.

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** <u>global refugee impact</u> of the war in Ukraine.

The top priority in moments like these remains the **safety and security of people**. Corporates have already taken decisive action to respond to the short-term crisis. However, **on-going attention is needed to support displaced Ukrainians and others affected**, as well to address long-term structural challenges.

The situation surrounding Ukraine is dynamic and rapidly evolving - this document also shares the **<u>global</u>** <u>economic impact</u> and reflects information and analysis as of **27 April 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

REFUGEE CRISIS

Russia's invasion of Ukraine is causing one of the largest humanitarian crises since World War II, triggering a mass mobilization of 5 million refugees. Neighboring European countries are straining to provide for this population. Depending on the war's duration, intensity, and geographic scope, the total number of refugees could surpass 8 million.

The majority of Ukrainian refugees are women traveling with children and elders. Many are highly educated, can work and study remotely, have access to Ukrainian banks, and share a cultural and linguistic affinity with Slavic nations. Most refugees are also officially registered.

So far, the humanitarian response is effectively addressing refugees' most pressing needs. But in the coming months, host nations will be challenged to meet refugees' longer-term, structural needs, such as employment, financial assistance, health care and childcare, housing, schooling, and language training.

Companies face a moment of truth in terms of authentically fulfilling their societal purposes. Companies should begin moving decisively to work with governments and NGOs to address refugees' structural needs. Indeed, employees, investors, regulators, and stakeholders are increasingly counting on this corporate engagement.



War in Ukraine: **Refugee Crisis** and Global Update

AGENDA



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Perspective on Refugee Crisis

- > Refugee crisis & journey
- > Detail on corporate action
- > Implications for leaders

Global economic impact of the war in Ukraine

Summary | Large-scale refugee crisis requires coordinated corporate action

Characteristicsmedia & remote work; (3) culturally close to neighboring countries; (4) traveling shore (5) minimum immigration constraintsRefugee groups affected differently; 55-70% are most vulnerable mothers with characteristics		The crisis is characterized by five factors : (1) unique demographics; (2) connected through social media & remote work; (3) culturally close to neighboring countries; (4) traveling short distances;	
Corporate action	-	As refugees move along their journey, they face structural needs that pose a significant challeng in the medium- and long-term rates face another moment of truth with an opportunity to play a role in humanitarian crisis supporting their purpose in support of stakeholders and society	
 Corporates have taken decisive action to respond to the short-term crisis, now can shift focus to a difference in addressing long-term structural challenges Deep-dives on Healthcare, Housing, Employment and Childcare & Education provide a blueprint focus to corporate leaders to identify areas of short- and long-term action that align with pressing refugee in the short of the shor			
Implications	Opportunities for corporate leaders to maximize support effectiveness through short-term response; structural, long-term action; and communication		



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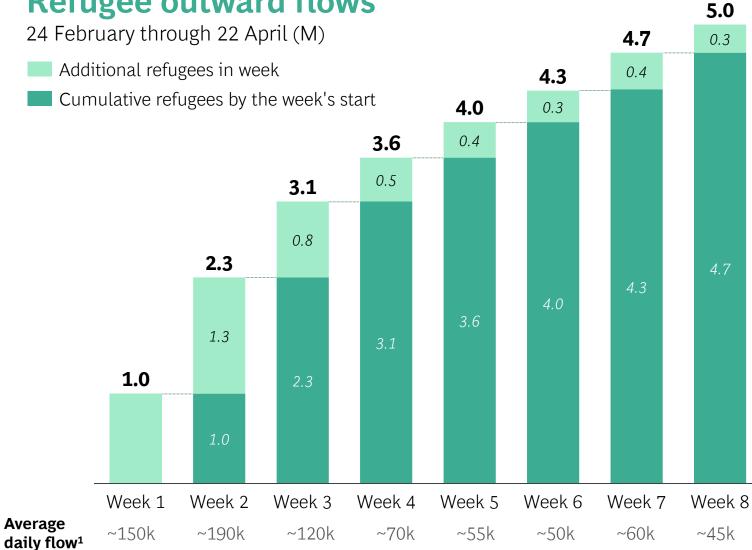
Global economic impact of the war in Ukraine

Flows

~5M Ukrainian refugees already entered Europe, end state uncertain

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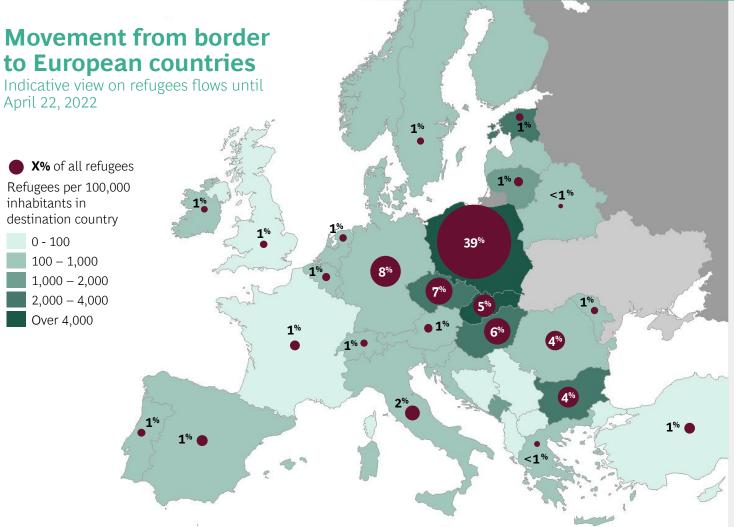
Refugee outward flows



1. Average number of people leaving Ukraine per day in that week. Source: BCG experience & analysis.

Note: These analyses represent only potential scenarios based on discrete data from one point in time. They are not intended as a prediction or forecast, and the situation is changing daily.

Flows | Current capacity constraints in Central Eastern Europe, future flows could mount pressure on Western Europe



Note: Actual number of "unique" refugees might be slightly lower as the crossing are not counted as per "unique" person, however at this point it is uncertain whether the return is permanent or temporary. Note: Indicative view; recent analyses indicate that onward travel from directly neighboring countries (particularly Poland, Hungary, Slovakia) and hence also inflow to not directly neighboring countries (particularly Germany, Italy, France) might be higher than stated. Note: These analyses represent only potential scenarios based on discrete data from one point in time. They are not intended as a prediction or forecast, and the situation is changing daily.Source: UNHCR; interviews with NGOS; survey among refugees, BCG calculation & analysis ~56% entered the Schengen Area through **Poland** and **18%** through **Hungary**

All other bordering countries also facing capacity constraints

~65% settling down in Central Eastern Europe

~35% already flowing to other European countries

Long-term flows could add significant pressure on **Western European countries**

Limited flows to rest of the world, with potential to increase long-term intake

Backward flows taking place, but uncertainty over permanent returns

Flows | Crisis could worsen to +6-8M refugees or even more, depending on conflict escalation, geographic reach, and duration

Flows scenarios (M people)



1B

2

3

Rapid occupation of limited territory

Rapid end of conflict, reducing number of IDPs and settled migrants

Occupation of limited territory in longer time

War extended at least until late 2022 & more IDPs Increase in settled migrants given higher degree of integration in new countries

Occupation of larger share of Ukrainian territory

Longer term military operation & higher intensity Increase in IDPs/refugees' forced displacements

Major shift in conflict dynamic

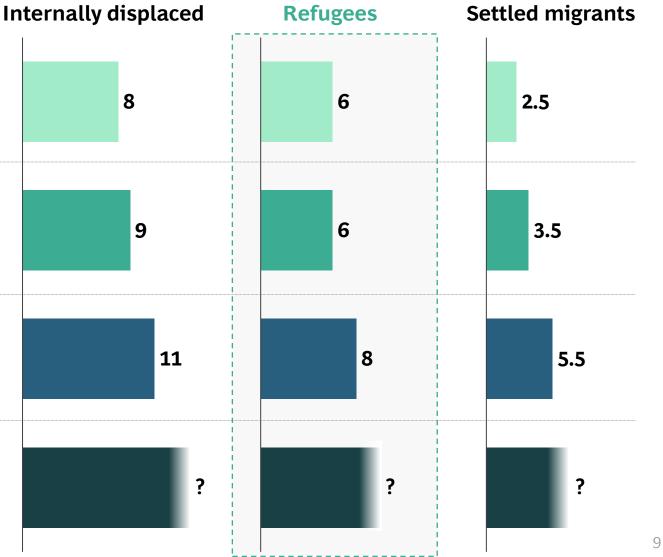
Significantly higher share of occupied territory and/or conflict intensity



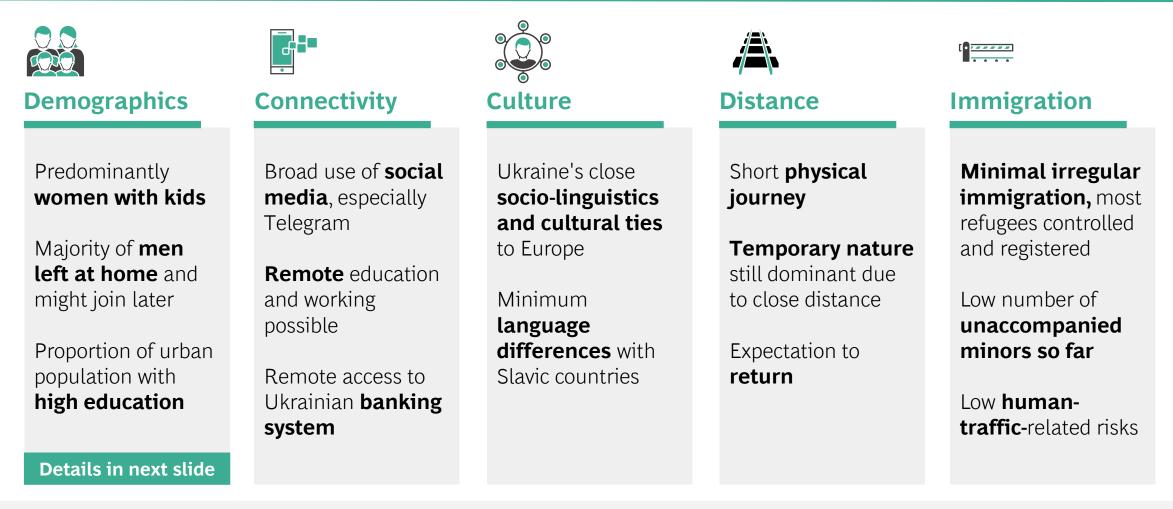
Potential mass displacements



Note: These analyses represent only potential scenarios based on discrete data from one point in time. They are not intended as a prediction or forecast, and the situation is changing daily



Characteristics | The Ukrainian refugee crisis is characterized by five factors



Characteristics reflect the current situation, but may evolve as crisis unfolds further

Source: BCG Experience & analysis

Characteristics | Refugee groups affected differently; 55-70% are most vulnerable mothers with children, large families, and elders

Five major refugee 'personas' identified on the ground



Est. share

	Part	1 VC	
20.	er- or		le
clas	s fami	lies	0

First refugee wave leveraging **family network**

Urban, **educated** & foreign language speaking

Financial buffer available

Family members in host country

Families joining **members** working in host country

Financial buffer available

Strong **local network** and better **language knowledge**

Accommodation likely organized in advance

High probability of **staying longer**

~25-30%



Average time to leave & vulnerability

Urban families in the later waves, **men staying** in UA

Groups of 2-3 mothers with kids & extended family

Looking to work if **childcare needs resolved**

Require **schooling, medical care & assistance**

Depending on war evolution, partners might join

~40-45%



Larger families with 4-5 or more kids

Weaker economic position before the war, reliant on aid

No clear plan, staying longer in transit & in governmental shelters

Might return to UA if situation is not significantly better in host country

~10-15%



Elders, often with special conditions, **last to leave**

Couples or singles travel in **groups** of 2-3

Might leave due to required **medical assistance**

Less stable financial buffer, housing and financial aid required in short term

Limited self-sufficiency, care often required

~5-10%

Source: UNHCR; F2F interviews; BCG Analysis

~5-10%

Note: These analyses represent only potential scenarios based on discrete data from one point in time. They are not intended as a prediction or forecast, and the situation is changing daily.

Needs As refugees move along their journey, they face structural needs that pose a significant challenge in the medium- and long-term

So far, effective mobilization & response to **shorter-term** needs Challenge to address more **structural**, **longer-term needs** (e.g., integration in job market, health & education systems)



Needs | Nature & priority of support evolve along the refugee journey

		Shorter-term needs Structural, longer-term nee		-term needs	
Priority High	of support Mid Low	1 Flee danger	2 Seek shelter	3 Seek access	4 Seek settlement
	Humanitarian assistance & info	Humanitarian basics, flee information & security	Shelter information, food, monitoring & protection	Travel and protection guidance	Rights & eligibilities, available support
()	Administration & legal status	Border crossing support	Travel docs. & registration	Seeking protection or asylum	Immigration
(3)	Financial aid & funding	Funds for free humanitarian aid and needs coverage	Funds for free humanitarian aid and needs coverage	Cash support or relief	Access to financial system
*	Healthcare	Emergency assistance	Emergency assistance	Access to health system	Social security & insurance
	Cultural integration		Minimizing language barriers & translation	Language & ensuring community support	Community integration and perception management
	Housing		Shelters	Temporary accommodation search	Long-term housing search
	Employment			Short term or temporary employment	Upskilling & long-term employment matching
<u> </u>	Childcare & education			Daycare and continuity of home system education	Education system access & integration

By now, most refugees seeking mid-term access and settlement, newcomers will require short-term assistance



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Global economic impact of the war in Ukraine

This crisis is another moment of truth for companies to action their purpose by acting on societal impact Prepared: 27 April 2022



Many impacted stakeholders will remember your actions for decades



Companies have an **ability and opportunity to lead**, contributing authentically as part of **strategic ESG agendas**



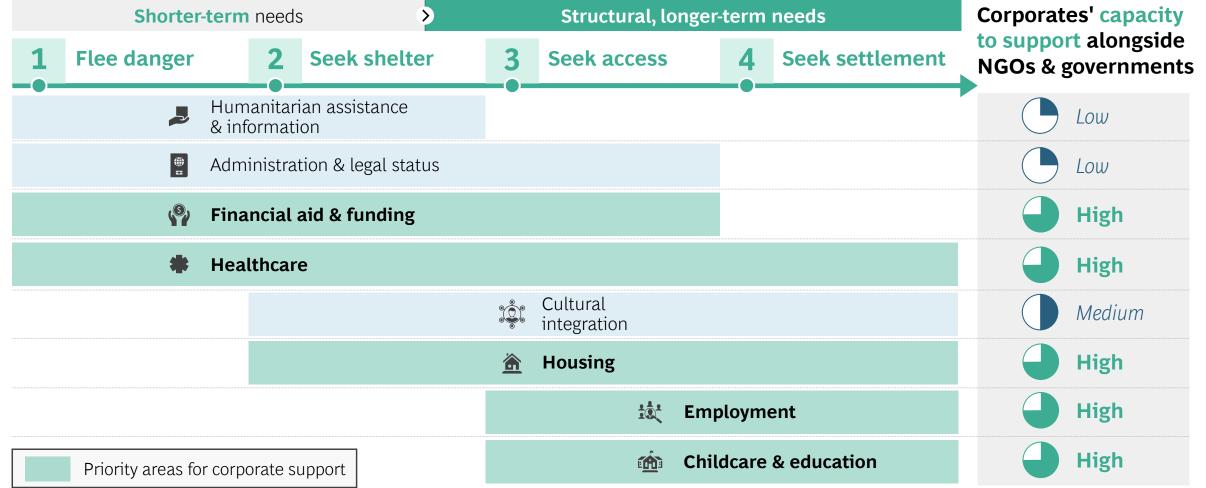
Talent pool, investors, regulators & other stakeholders have **increasing expectations of corporate engagement**



Leaders should **create stability and tap into opportunity** for positive business impact where relevant across markets and needs

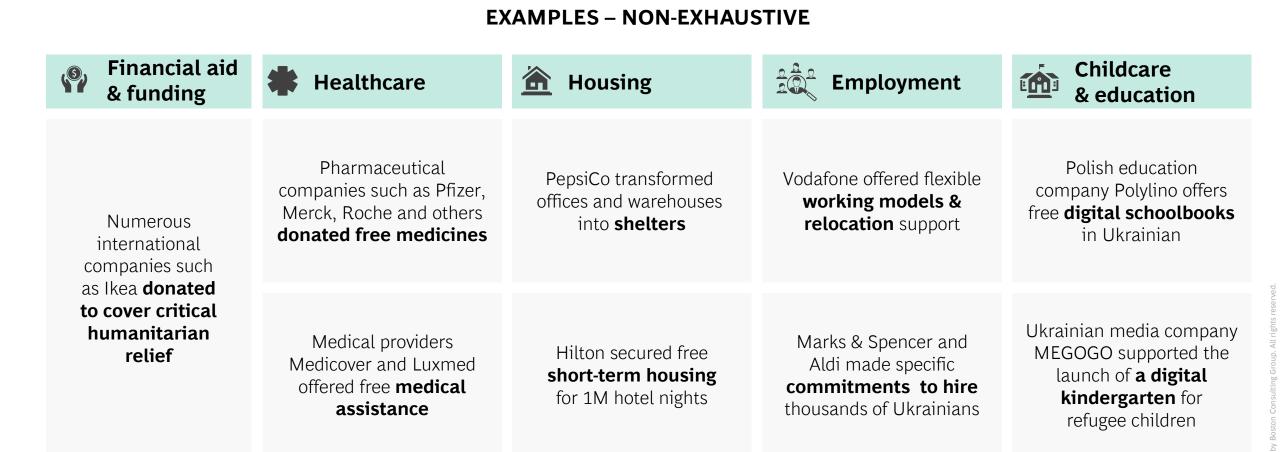
Five main areas for corporate support identified along the refugee journey

Evolution of medium and high priority needs along refugee journey



Source: BCG experience & analysis

Corporates have taken immediate action and can make a difference tackling structural, longer-term challenges through strategic, scalable efforts



Potential areas for action identified as a blueprint for corporate leaders (I/II)

EXAMPLES – NON-EXHAUSTIVE

	Challenges overview	Shorter-term action	Structural, longer-term action	
Healthcare	Language & admin barriers	Finance and support emergency	Support mental health for employees	
	Potential HC capacity constraints	medical services		
	Mental health & immunization challenges	> Provide information in Ukrainian	Establish digital health platforms and support telemedicine	
	1/3 Refugees experience mental health issues ¹	Facilitate access to free medical	Support HC professionals training	
	36% of Ukrainians fully COVID vaccinated ²	services, medicines & devices	Support vaccination campaigns	
	Information asymmetry and housing market capacity constraints	Convert spare corporate or office spaces	Offer subsidized long-term housing for employees	
E Housing	Potential bias against refugees in the housing market	Include free or subsidized temporary housing with jobs	Promote innovative construction	
	Potential concentration in disconnected/rural areas	> Join & consolidate marketplaces	to expand capacity (e.g., modular housing)	

1. American Psychiatric Association. 2. The health needs of refugees from Ukraine BMJ 2022. Source: BCG Analysis & experience

Potential areas for action identified as a blueprint for corporate leaders (II/II)

EXAMPLES – NON-EXHAUSTIVE

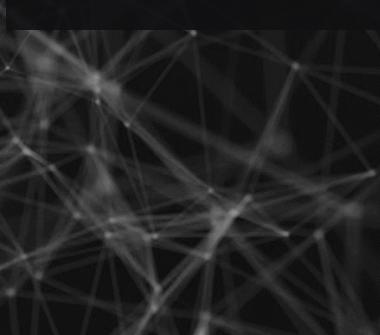
	Challenges overview	Shorter-term action	Structural, longer-term action	
	Local job market gaps in destination countries Example Hungary Gap by education (k), 2021 ¹	Support Refugees in securing necessary permissions to work	Somplement job offers with long-term housing, childcare & education support	
Employment	74 42% Highly-educated	> Direct commitments to hire	Provide equipment & language	
	37%Vocationally trained21%Unskilled	> Streamline recruitment processes and provide application support	courses to close the technology & integration gaps	
	Need for language learning and long-term reskilling	Tailor job offers to refugee skillset	S Implement structural reskilling	
	Differences & language barriers with destination systems	> Support language courses	S Develop remote schooling at scale	
Childcare & education	Potential capacity constraints	> Provide materials in Ukrainian	Provide tuition-free opportunities & support similar NGO efforts	
	Example Poland Foreign students $(k)^2$ 5x2 65 123 145 260 380	> Offer childcare support		
	15 Mar30 Mar15 AprSep 22Sep 22202220222022basestretch	> Repurpose unused facilities	Support professional training	

1. Hungarian Central Statistical Office (2021). 2. 1. NIK report, Ministry of Education and Science of Poland. Source: BCG Analysis & experience



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Key opportunities for corporate leaders to maximize support effectiveness

Short-term response

- Care for your employees by ensuring workplace safety, restructuring for longevity as needed, and reskilling and accelerating hiring where feasible
- Support your broader network, including customers & suppliers as possible & appropriate
- **Prioritize & allocate resources** to immediate response and humanitarian needs relief

Structural, long-term action

- Seek authentic ways to **contribute** that are **aligned with your purpose & capabilities**
- Join existing support ecosystems, partner with relevant NGOs and team with governments in your location(s)
- Support refugee structural needs in Healthcare, Housing, Employment, Childcare & education; broader humanitarian implications; or eventual need to rebuild
 - Where possible, seek & scale solutions that create value for refugees & your business

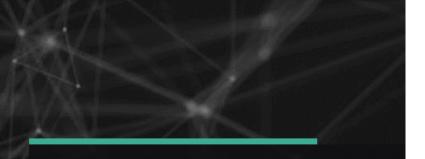
Communicate

 \checkmark

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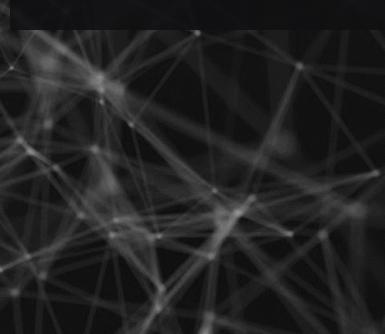
Communicate actions aligned with your purpose to engage your people and strengthen positioning as a social impact leader

Incorporate your approach into your ESG narrative to demonstrate action on material ESG issues, including "S" or humanitarian components, as part of integrated ESG reporting



War in Ukraine: Refugee Crisis and Global Update

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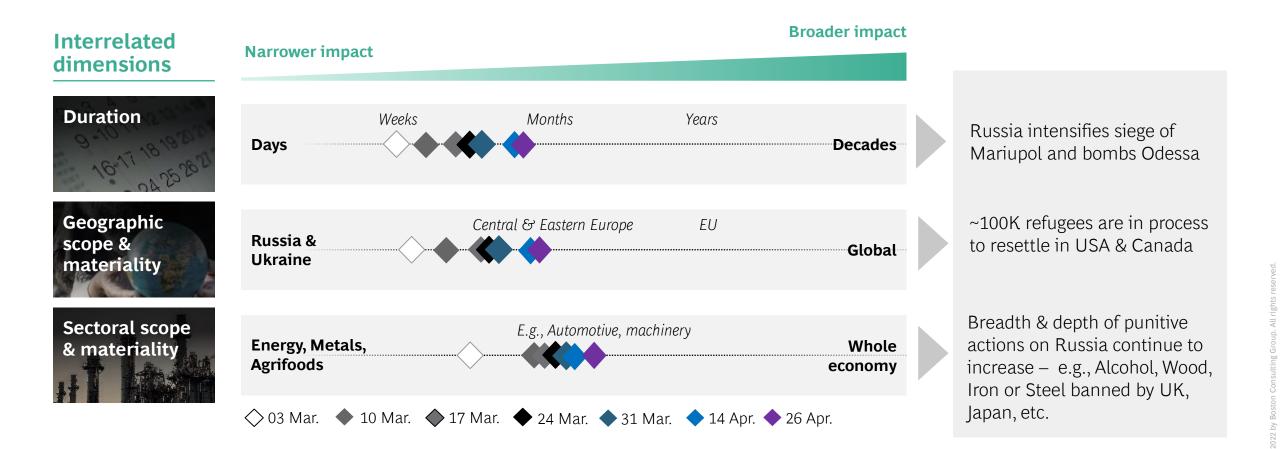
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War in Ukraine evolves along several dimensions – various scenarios possible

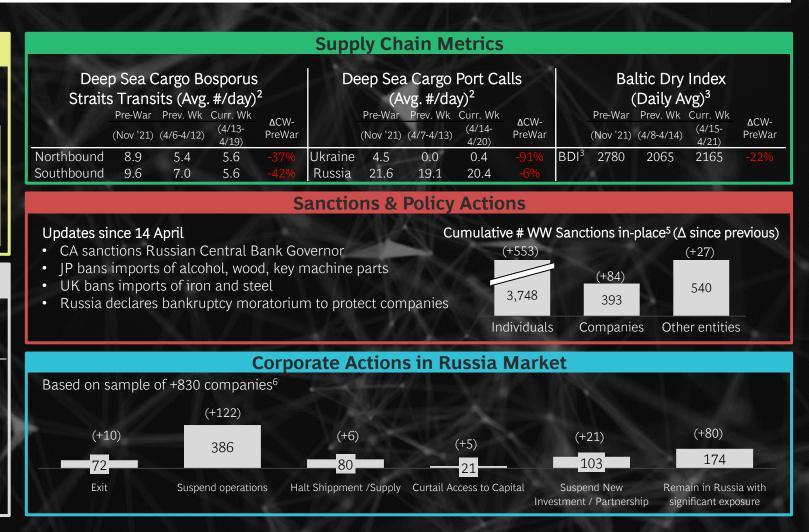


Summary snapshot | War in Ukraine global economic impact

Global Growth Outlook GDP Forecasts ¹				
	Actual	Jan'22 Forecast		22 Apr '22 ecasts Minimum
Russia	4.7%	2.4%	-9.85%	-15.0%
Euro Zone Global	5.3% 3.9%	4.2% 4.1%	2.8% 3.5%	2.4% 3.3%

Commodity Prices⁴

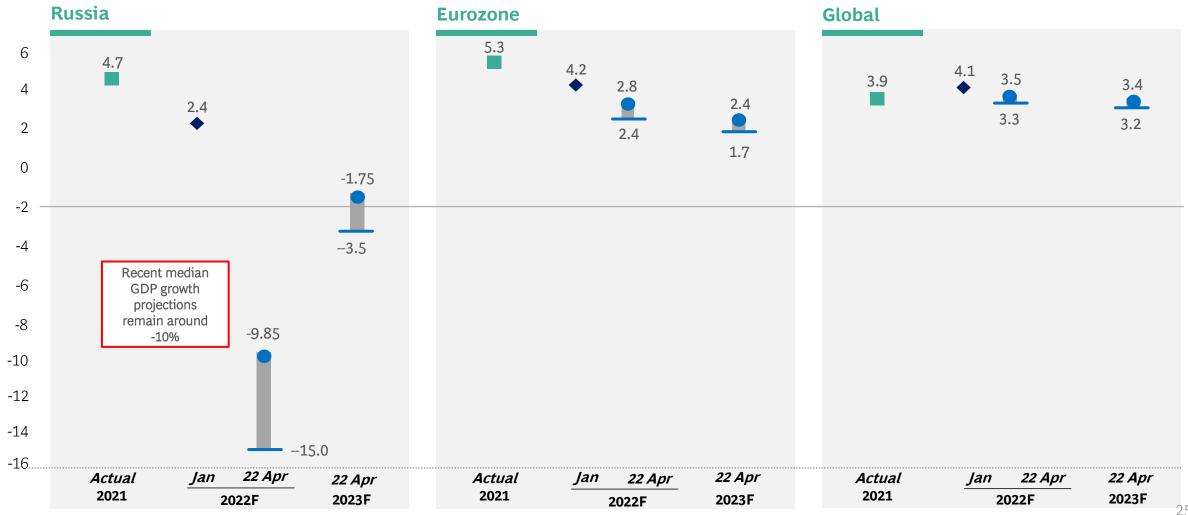
Commodity price (actual, \$)					
Commodity	Jan 3 '22	Apr 21 '22	Change		
Crude Oil (\$/bbl)	79.0	108.0	+37%		
Gas (\$/MWh)	80.4	100.1	+24%		
Coal (\$/t)	157.5	331.1	+110%		
Wheat (€/bu)	240.0	351.8	+47%		
Rapeseed (€/t)	728.5	855.3	+17%		
Nickel (\$/t)	20,430.0	33,765.0	+65%		
Palladium (\$/oz)	1,826.0	2,420.2	+33%		



1. GDP forecasts from World Bank and FIs per Bloomberg database (5-16 FIs per forecast period) 2. Deep Sea Cargo: oil tankers MR & up, bulkcarriers Panamax & up, containerships 3,000+ TEU, VLGCs, LNG carriers 60,000+ cbm & PCTCs 6,000+ ceu. Clarksons Research have retrospectively adjusted the raw data for Deep Sea Cargo Port Calls. Clarksons Research (<u>https://www.clarksons.com/</u>) Clarkson Research Services Limited ("Clarksons Research 2021. All rights in and to Clarksons Research services, information and data ("Information") are reserved to and owned by Clarksons Research. Its group companies and licensors accept no liability for any errors or omissions in any Information or for any loss or damage howsoever arising. No party may rely on any Information contained in this communication. Please also see the disclaimer at https://www.clarksons.net/Portal/disclaimer, which also applies. No further distribution of any Information is permitted without Clarksons Research's prior written consent. Clarksons, incl. dues not provide (BDI) is index of avg price paid for transport of dry bulk mar'ls across 20+ routes 4. S&P Capital IQ 5. Total sanctioned actions, incl. duplication. Source: corrective.org 6. Yale Chief Exec Leadership Inst.. Numbers in parenthesis () indicates increase /decrease incleast update. Where there is a decrease this is because reclassification due to definitions, and company action recategorization from one to another. Note: BCG does not provide legal or regulatory advice

Leading Financial Institutions predicting major decline in Russia GDP vs. World Bank Jan forecast

GDP Growth (%), Selected Regions, 2021A – 2023F



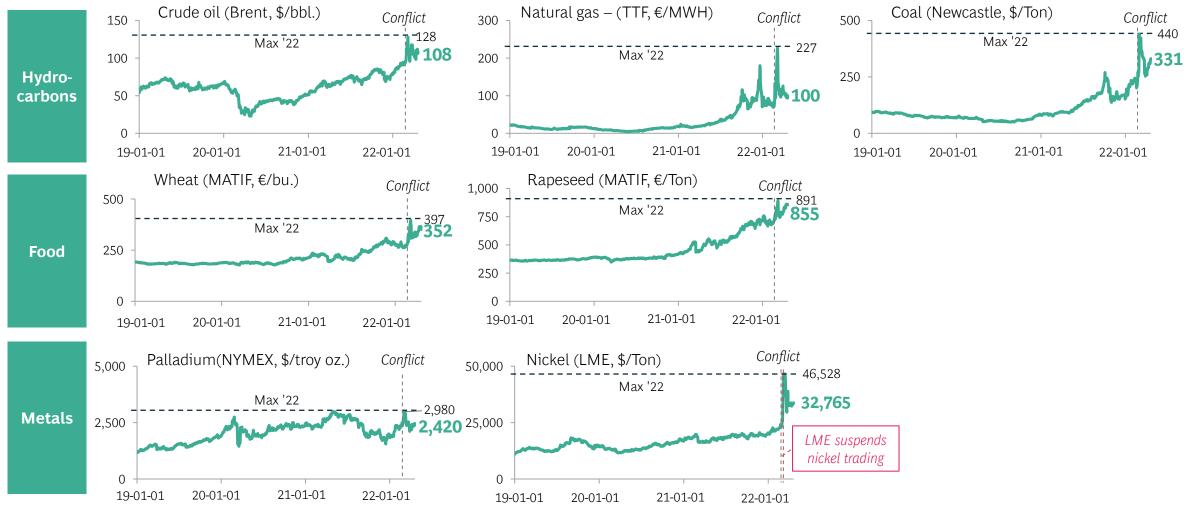
2021 Actual

• World Bank (Jan 2022)

Note: 13 April - 22 April forecast of 11 FIs for Russia, 16 FIs for Eurozone, 5 FIs for Global Sources: World Bank; Bloomberg; BCG Analysis

Median/Min, Leading FIs (Apr 2022)

Inflation of key commodities, with recent price correction



Source: S&P Capital IQ,21 April 22; BCG Analysis

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Key sanctions and policy actions currently in place

Current sanctions & policy actions (Key examples)

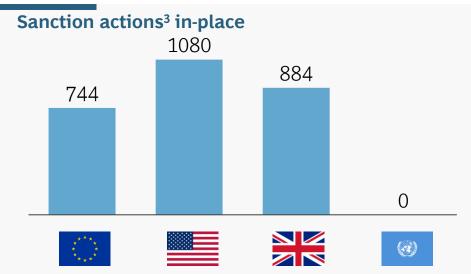
1. Intended to prevent selling gold reserves to finance war 2. International Court of Justice;

New



Source: Government websites; Media reports; BCG analysis. Note: BCG does not provide legal or regulatory advice

Current sanction actions by country and target



Sanction targets³ / Δ since last update



Recent developments beyond imposed sanctions



"Western" Allies

Germany allows heavy weaponry exports to Ukraine¹

US president announced a new program to welcome **up** to 100,000 Ukrainian refugees²

Finland's parliament has started the debate on **NATO membership application**³

EU is considering the use of frozen Russian assets **to finance the reconstruction of Ukraine**⁴

EU is working to secure oil supply from 3rd countries **as it considers a ban on Russian oil**⁵

US/UK/Canada finance ministers **walk out of G20 and World Bank-IMF meetings** in condemnation of Russia⁶

G7 in partnership with international community **pledged an additional \$24B in aid to Ukraine**⁷



Russia

Russia's foreign minister claims NATO engaged in the "**essence of a proxy war**"⁸

Russia warns Poland of **potential gas supply cuts**⁹

The Russian army is **closing in on Mariupol** as Ukrainian forces are holding out¹⁰

Russia begins **bombing of Odessa**¹¹

Russia **refuses ceasefire for Orthodox Easter** holydays¹²

Russia's Black **Sea flagship sunk after sustaining heavy damage**, a first in Europe since WWII¹³

Russia asked for Brazil's support to **prevent its expulsion from IMF and World Bank**¹⁴



Large emerging markets

South-African president **urged for an end to the war, citing concerns over food security** since Ukraine is a major food exporter to Africa¹⁵

India **scaled up wheat exports** to make up for war related shortages and avert a global food crisis¹⁶

China state-run media criticizes US and NATO for **cheering Ukraine up to fight a 10-year war**¹⁷

Brazil's Economy Minister condemns war in Ukraine **but refuses to take economic sanctions on Russia**¹⁸

Teams across BCG are monitoring impact

Global Advantage Practice Area



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