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 global refugee impact 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 global economic impact 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.
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.
AGENDA

War in Ukraine: Refugee Crisis and Global Update

Perspective on Refugee Crisis

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

Global economic impact of the war in Ukraine

Prepared: 27 April 2022
### Summary | Large-scale refugee crisis requires coordinated corporate action

<table>
<thead>
<tr>
<th>Refugee crisis &amp; journey</th>
<th>Flows</th>
</tr>
</thead>
<tbody>
<tr>
<td>~5M Ukrainian refugees already entered Europe, end state uncertain</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>The crisis is characterized by five factors: (1) unique demographics; (2) connected through social media &amp; remote work; (3) culturally close to neighboring countries; (4) traveling short distances; (5) minimum immigration constraints</td>
<td></td>
</tr>
<tr>
<td>Refugee groups affected differently; 55-70% are most vulnerable mothers with children, large families &amp; elders</td>
<td></td>
</tr>
<tr>
<td>As refugees move along their journey, they face structural needs that pose a significant challenge in the medium- and long-term</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Corporate action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporates face another moment of truth with an opportunity to play a role in humanitarian crisis support, actioning their purpose in support of stakeholders and society</td>
</tr>
<tr>
<td>Corporates have taken decisive action to respond to the short-term crisis, now can shift focus to making a difference in addressing long-term structural challenges</td>
</tr>
<tr>
<td>Deep-dives on Healthcare, Housing, Employment and Childcare &amp; Education provide a blueprint for corporate leaders to identify areas of short- and long-term action that align with pressing refugee needs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunities for corporate leaders to maximize support effectiveness through short-term response; structural, long-term action; and communication</td>
</tr>
</tbody>
</table>

Prepared: 27 April 2022
War in Ukraine: Refugee Crisis and Global Update

AGENDA

Perspective on Refugee Crisis

➢ Refugee crisis & journey
  ➢ Detail on corporate action
  ➢ Implications for leaders

Global economic impact of the war in Ukraine
Refugee outward flows
24 February through 22 April (M)

- Additional refugees in week
- Cumulative refugees by the week's start

Flows |

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

Average daily flow\(^1\)

- Week 1: ~150k
- Week 2: ~190k
- Week 3: ~120k
- Week 4: ~70k
- Week 5: ~55k
- Week 6: ~50k
- Week 7: ~60k
- Week 8: ~45k

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

Movement from border to European countries
Indicative view on refugees flows until April 22, 2022

- ~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

Source: UNHCR; interviews with NGOS; survey among refugees, BCG calculation & analysis
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

<table>
<thead>
<tr>
<th>Flows scenarios (M people)</th>
<th>Internally displaced</th>
<th>Refugees</th>
<th>Settled migrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A Rapid occupation of limited territory</td>
<td>8</td>
<td>6</td>
<td>2.5</td>
</tr>
<tr>
<td>1B Occupation of limited territory in longer time</td>
<td>9</td>
<td>6</td>
<td>3.5</td>
</tr>
<tr>
<td>2 Occupation of larger share of Ukrainian territory</td>
<td>11</td>
<td>8</td>
<td>5.5</td>
</tr>
<tr>
<td>3 Major shift in conflict dynamic</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
</tbody>
</table>

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

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.

Prepared: 27 April 2022

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The Ukrainian refugee crisis is characterized by five factors:

### Demographics
- Predominantly women with kids
- Majority of men left at home and might join later
- Proportion of urban population with high education

### Connectivity
- Broad use of social media, especially Telegram
- Remote education and working possible
- Remote access to Ukrainian banking system

### Culture
- Ukraine's close socio-linguistics and cultural ties to Europe
- Minimum language differences with Slavic countries

### Distance
- Short physical journey
- Temporary nature still dominant due to close distance
- Expectation to return

### Immigration
- Minimal irregular immigration, most refugees controlled and registered
- Low number of unaccompanied minors so far
- Low human-traffic-related risks

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

Source: BCG Experience & analysis
Refugee groups affected differently; 55-70% are most vulnerable mothers with children, large families, and elders.

Five major refugee 'personas' identified on the ground

Upper- or middle-class families
- 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

Mothers with children
- 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

Larger families
- 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

Elderly people
- 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

Source: UNHCR; F2F interviews; BCG 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.

Prepared: 27 April 2022
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)

1 Flee danger
- 2-5 days
- Leaving loved ones, possessions, and previous lives behind

2 Seek shelter
- 1-2 weeks
- Reach safety, focus on family’s immediate needs, find shelter

3 Seek access
- 1-3 months
- Ensure a stable position with temp. accommodation, and access to medical and financial support

4 Seek settlement
- 3-24 months
- Secure status and become self-sufficient, become contributing members of their new communities

Travel to 3rd country
- Through connections or hope of opportunities

Return home
- If conditions allow

Border crossing

Housing

Schooling for kids

Learning language

Finding a job

Prepared: 27 April 2022

Source: BCG Experience & analysis
### Needs | Nature & priority of support evolve along the refugee journey

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

<table>
<thead>
<tr>
<th>Priority of support</th>
<th>Shorter-term needs</th>
<th>Structural, longer-term needs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>1. Flee danger</strong></td>
<td><strong>2. Seek shelter</strong></td>
</tr>
<tr>
<td>High</td>
<td>Humanitarian basics, flee information &amp; security</td>
<td>Shelter information, food, monitoring &amp; protection</td>
</tr>
<tr>
<td>Mid</td>
<td>Administration &amp; legal status</td>
<td>Border crossing support</td>
</tr>
<tr>
<td>Low</td>
<td>Financial aid &amp; funding</td>
<td>Funds for free humanitarian aid and needs coverage</td>
</tr>
<tr>
<td></td>
<td>Healthcare</td>
<td>Emergency assistance</td>
</tr>
<tr>
<td></td>
<td>Cultural integration</td>
<td>Minimizing language barriers &amp; translation</td>
</tr>
<tr>
<td></td>
<td>Housing</td>
<td>Shelters</td>
</tr>
<tr>
<td></td>
<td>Employment</td>
<td>Short term or temporary employment</td>
</tr>
<tr>
<td></td>
<td>Childcare &amp; education</td>
<td>Daycare and continuity of home system education</td>
</tr>
</tbody>
</table>

Needs prioritized:

1. Flee danger
2. Seek shelter
3. Seek access
4. Seek settlement

Needs by stage:

- **High**: Humanitarian basics, flee information & security, Shelter information, food, monitoring & protection, Travel and protection guidance, Rights & eligibilities, available support, Access to health system, Social security & insurance, Community integration and perception management, Long-term housing search, Education system access & integration.
- **Mid**: Administration & legal status, Border crossing support, Travel docs. & registration, Seeking protection or asylum, Immigration, Cash support or relief, Upskilling & long-term employment matching, Education system access & integration.
- **Low**: Financial aid & funding, Funds for free humanitarian aid and needs coverage, Minimizing language barriers & translation, Language & ensuring community support, Temporary accommodation search, Long-term housing search, Education system access & integration.

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

**Source:** UNHCR; F2F interviews; BCG Analysis

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War in Ukraine: Refugee Crisis and Global Update

AGENDA

Global economic impact of the war in Ukraine

Perspective on Refugee Crisis

- Refugee crisis & journey
- Detail on corporate action
- Implications for leaders
This crisis is another moment of truth for companies to action their purpose by acting on societal impact.

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

<table>
<thead>
<tr>
<th>Shorter-term needs</th>
<th>Structural, longer-term needs</th>
<th>Corporates' capacity to support alongside NGOs &amp; governments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Flee danger</td>
<td>2 Seek shelter</td>
<td>Low</td>
</tr>
<tr>
<td>3 Seek access</td>
<td>4 Seek settlement</td>
<td>High</td>
</tr>
<tr>
<td>Humanitarian assistance &amp; information</td>
<td>Administration &amp; legal status</td>
<td>High</td>
</tr>
<tr>
<td>Financial aid &amp; funding</td>
<td>Healthcare</td>
<td>High</td>
</tr>
<tr>
<td>Cultural integration</td>
<td>Housing</td>
<td>Medium</td>
</tr>
<tr>
<td>Employment</td>
<td>Childcare &amp; education</td>
<td>High</td>
</tr>
</tbody>
</table>

### Priority areas for corporate support

Source: BCG experience & analysis
Corporates have taken immediate action and can make a difference tackling structural, longer-term challenges through strategic, scalable efforts.

### EXAMPLES – NON-EXHAUSTIVE

<table>
<thead>
<tr>
<th>Financial aid &amp; funding</th>
<th>Healthcare</th>
<th>Housing</th>
<th>Employment</th>
<th>Childcare &amp; education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerous international companies such as Ikea <strong>donated to cover critical humanitarian relief</strong></td>
<td>Pharmaceutical companies such as Pfizer, Merck, Roche and others <strong>donated free medicines</strong></td>
<td>PepsiCo transformed offices and warehouses into <strong>shelters</strong></td>
<td>Vodafone offered flexible working models &amp; relocation support</td>
<td>Polish education company Polylino offers free <strong>digital schoolbooks</strong> in Ukrainian</td>
</tr>
<tr>
<td>Medical providers Medicover and Luxmed offered free <strong>medical assistance</strong></td>
<td>Hilton secured free <strong>short-term housing for 1M hotel nights</strong></td>
<td>Marks &amp; Spencer and Aldi made specific commitments to hire thousands of Ukrainians</td>
<td>Ukrainian media company MEGOGO supported the launch of a <strong>digital kindergarten for refugee children</strong></td>
<td></td>
</tr>
</tbody>
</table>

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

### Challenges overview

<table>
<thead>
<tr>
<th><strong>Healthcare</strong></th>
<th><strong>Shorter-term action</strong></th>
<th><strong>Structural, longer-term action</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Language &amp; admin barriers</strong></td>
<td>Finance and support emergency medical services</td>
<td>Support mental health for employees</td>
</tr>
<tr>
<td>Potential HC capacity constraints</td>
<td>Provide information in Ukrainian</td>
<td>Establish digital health platforms and support telemedicine</td>
</tr>
<tr>
<td><strong>Mental health &amp; immunization challenges</strong></td>
<td>Facilitate access to free medical services, medicines &amp; devices</td>
<td>Support HC professionals training</td>
</tr>
<tr>
<td>Refugees experience mental health issues¹</td>
<td></td>
<td>Support vaccination campaigns</td>
</tr>
<tr>
<td>1/3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36% of Ukrainians fully COVID vaccinated²</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Housing

<table>
<thead>
<tr>
<th><strong>Information asymmetry and housing market capacity constraints</strong></th>
<th><strong>Convert spare corporate or office spaces</strong></th>
<th><strong>Offer subsidized long-term housing for employees</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Potential bias against refugees in the housing market</strong></td>
<td><strong>Include free or subsidized temporary housing with jobs</strong></td>
<td><strong>Promote innovative construction to expand capacity (e.g., modular housing)</strong></td>
</tr>
<tr>
<td><strong>Potential concentration in disconnected/rural areas</strong></td>
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</tbody>
</table>

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

EXEMPLARY – NON-EXHAUSTIVE

<table>
<thead>
<tr>
<th>Employment</th>
<th>Challenges overview</th>
<th>Shorter-term action</th>
<th>Structural, longer-term action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local job market gaps in destination countries</td>
<td>Example Hungary</td>
<td>Gap by education (k), 20211</td>
<td>Support Refugees in securing necessary permissions to work</td>
</tr>
<tr>
<td></td>
<td></td>
<td>74</td>
<td>Direct commitments to hire</td>
</tr>
<tr>
<td></td>
<td></td>
<td>42% Highly-educated</td>
<td>Streamline recruitment processes and provide application support</td>
</tr>
<tr>
<td></td>
<td></td>
<td>37% Vocationally trained</td>
<td>Tailor job offers to refugee skillset</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21% Unskilled</td>
<td></td>
</tr>
<tr>
<td>Need for language learning and long-term reskilling</td>
<td></td>
<td></td>
<td>Complement job offers with long-term housing, childcare &amp; education support</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Childcare &amp; education</th>
<th>Differences &amp; language barriers with destination systems</th>
<th>Structural, longer-term action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential capacity constraints</td>
<td>Example Poland</td>
<td>Foreign students (k)2</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>65</td>
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<td></td>
<td></td>
<td>123</td>
</tr>
<tr>
<td></td>
<td></td>
<td>145</td>
</tr>
<tr>
<td></td>
<td></td>
<td>260</td>
</tr>
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<td></td>
<td></td>
<td>380</td>
</tr>
</tbody>
</table>


15 Mar 2022 30 Mar 2022 15 Apr 2022 Sep 22 base Sep 22 stretch

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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
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**
- **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

Source: BCG experience & analysis
AGENDA

War in Ukraine: Refugee Crisis and Global Update

AGENDA

Perspective on Refugee Crisis

▶ Refugee crisis & journey
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▶ Implications for leaders

Global economic impact of the war in Ukraine

Prepared: 27 April 2022
War in Ukraine evolves along several dimensions – various scenarios possible

Interrelated dimensions

Duration

Geographic scope & materiality

Sectoral scope & materiality

Narrower impact

Duration

Days

Weeks

Months

Years

Russia & Ukraine

Central & Eastern Europe

EU

Global

Energy, Metals, Agrifoods

E.g., Automotive, machinery

Whole economy

Broader impact

Russia intensifies siege of Mariupol and bombs Odessa

~100K refugees are in process to resettle in USA & Canada

Breadth & depth of punitive actions on Russia continue to increase – e.g., Alcohol, Wood, Iron or Steel banned by UK, Japan, etc.


Source: BCG analyses
Summary snapshot | War in Ukraine global economic impact

Global Growth Outlook

<table>
<thead>
<tr>
<th>GDP Forecasts</th>
<th>World Bank</th>
<th>Leading FIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>Actual</td>
<td>4.7%</td>
</tr>
<tr>
<td>Russia</td>
<td>Actual</td>
<td>4.7%</td>
</tr>
<tr>
<td>Euro Zone</td>
<td>Actual</td>
<td>5.3%</td>
</tr>
<tr>
<td>Global</td>
<td>Actual</td>
<td>3.9%</td>
</tr>
<tr>
<td>2022</td>
<td>Jan ‘22 Forecast</td>
<td>2.4%</td>
</tr>
<tr>
<td>2022</td>
<td>Median</td>
<td>-9.85%</td>
</tr>
<tr>
<td>2022</td>
<td>Minimum</td>
<td>-15.0%</td>
</tr>
</tbody>
</table>

Supply Chain Metrics

<table>
<thead>
<tr>
<th>Deep Sea Cargo Bosporus Straits Transits (Avg. #/day)</th>
<th>Deep Sea Cargo Port Calls (Avg. #/day)</th>
<th>Baltic Dry Index (Daily Avg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-War (Nov 21)</td>
<td>Pre-War (Nov 21)</td>
</tr>
<tr>
<td></td>
<td>ΔCW-PreWar</td>
<td>ΔCW-PreWar</td>
</tr>
<tr>
<td>Northbound</td>
<td>8.9</td>
<td>5.4</td>
</tr>
<tr>
<td>Southbound</td>
<td>9.6</td>
<td>7.0</td>
</tr>
<tr>
<td>Ukraine</td>
<td>4.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Russia</td>
<td>21.6</td>
<td>19.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Baltic Dry Index (BDI)</th>
<th>Pre-War (Nov 21)</th>
<th>Pre-War (Nov 21)</th>
<th>Pre-War (Nov 21)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(4/4/14)</td>
<td>(4/20/14)</td>
<td>(4/21/14)</td>
</tr>
<tr>
<td>BDI</td>
<td>2780</td>
<td>2065</td>
<td>2165</td>
</tr>
</tbody>
</table>

Sanctions & Policy Actions

Updates since 14 April
- CA sanctions Russian Central Bank Governor
- JP bans imports of alcohol, wood, key machine parts
- UK bans imports of iron and steel
- Russia declares bankruptcy moratorium to protect companies

Cumulative # WW Sanctions in-place (∆ since previous)

<table>
<thead>
<tr>
<th>Individuals</th>
<th>Companies</th>
<th>Other entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,748</td>
<td>540</td>
<td>393</td>
</tr>
</tbody>
</table>

Corporate Actions in Russia Market

Based on sample of +830 companies

<table>
<thead>
<tr>
<th>Exit</th>
<th>Suspend operations</th>
<th>Hall Shipment /Supply</th>
<th>Curtail Access to Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>772</td>
<td>386</td>
<td>80</td>
<td>21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suspend New Investment / Partnership</th>
<th>Remain in Russia with significant exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>103</td>
<td>174</td>
</tr>
</tbody>
</table>

Commodity Prices

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

1. GDP forecasts from World Bank and FIs per Bloomberg database (+36 FIs per forecast period). 2. Deep Sea Cargo: oil tankers MR & up, bulk carriers Panamax & up, container ships 3,000+ TEU, VLGBs 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 [https://www.clarksons.com/Clarkson Research Services Limited “Clarksons Research”, © Clarksons Research 2021. All rights in to Clarksons Research services, information and data (“Information”) are reserved to and owned by Clarksons Research. 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 Research does not promote, sponsor or endorse the content of this communication. 3. [www.bloomberg.com/quote/BDIY:IND] Baltic Dry Index (BDI) is index of avg price paid for transport of dry bulk mat’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 indicate increase /decrease since last 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

Recent median GDP growth projections remain around -10%
Inflation of key commodities, with recent price correction

- **Crude oil (Brent, $/bbl.)**
  - 2022 peak: $128
  - Current: $108

- **Natural gas – (TTF, €/MWH)**
  - 2022 peak: €227
  - Current: €100

- **Coal (Newcastle, $/Ton)**
  - 2022 peak: $331

- **Wheat (MATIF, €/bu.)**
  - 2022 peak: €352
  - Current: €35

- **Rapeseed (MATIF, €/Ton)**
  - 2022 peak: €855
  - Current: €85

- **Palladium (NYMEX, $/troy oz.)**
  - 2022 peak: $2,980
  - Current: $2,420

- **Nickel (LME, $/Ton)**
  - 2022 peak: $46,528
  - Current: $32,765

*Source: S&P Capital IQ, 21 April 2022; BCG Analysis*
Key sanctions and policy actions currently in place

Current sanctions & policy actions (Key examples)

- Coordinated policy/sanctions programs
  - Limiting SWIFT access, removing "MFN" status, sanctioning gold
  - Imposing/enforcing sanctions and export controls via global task force
  - Expelling diplomats, closing embassies/consulates
  - Limiting or banning energy and coal imports
  - Closing EU border crossings and ports

- Bans "unfriendly" officials, Facebook and Instagram
- Seeks new buyers for oil and gas, demands payment in rubles rather than USD
- Seizes assets and luxury items
- Breaks trademark compliance rules on imports
- Declares bankruptcy moratorium to protect companies
- Have asked for hostilities to cease
- China government statements focus on peacemaking, mediation
- China (& RU) voted against motion to condemn at ICJ in The Hague
- Indonesia in difficult position, as 2022 G20 host

Current sanction actions by country and target

Sanction actions in-place

<table>
<thead>
<tr>
<th>Country</th>
<th>744</th>
<th>1080</th>
<th>884</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sanction targets / Δ since last update

<table>
<thead>
<tr>
<th>Category</th>
<th>+553</th>
<th>+84</th>
<th>+27</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals</td>
<td>3,748</td>
<td>393</td>
<td>540</td>
</tr>
<tr>
<td>Companies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other entities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Intended to prevent selling gold reserves to finance war
2. International Court of Justice
3. Total sanction actions, includes duplication.

Source: Government websites; Media reports; BCG analysis. Note: BCG does not provide legal or regulatory advice
Recent developments beyond imposed sanctions

**"Western" Allies**

- Germany allows **heavy weaponry exports** to Ukraine
- US president announced a new program to welcome **up to 100,000 Ukrainian refugees**
- Finland’s parliament has started the debate on **NATO membership application**
- EU is considering the use of frozen Russian assets to **finance the reconstruction of Ukraine**
- EU is working to secure oil supply from 3rd countries as it considers a **ban on Russian oil**
- US/UK/Canada finance ministers **walk out of G20 and World Bank-IMF meetings** in condemnation of Russia
- G7 in partnership with international community **pledged an additional $24B in aid to Ukraine**

**Russia**

- Russia’s foreign minister claims NATO engaged in the **“essence of a proxy war”**
- Russia warns Poland of **potential gas supply cuts**
- The Russian army is **closing in on Mariupol** as Ukrainian forces are holding out
- Russia begins **bombing of Odessa**
- Russia **refuses ceasefire for Orthodox Easter holidays**
- Russia’s Black Sea flagship sunk after sustaining heavy damage, a first in Europe since WWII
- Russia asked for Brazil’s support to **prevent its expulsion from IMF and World Bank**

**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 Africa
- India **scaled up wheat exports** to make up for war related shortages and avert a global food crisis
- China state-run media criticizes US and NATO for **cheering Ukraine up to fight a 10-year war**
- Brazil’s Economy Minister condemns war in Ukraine but **refuses to take economic sanctions on Russia**

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