

# Ukraine Supply Wisdom<sup>®</sup> Report

25-March-2022



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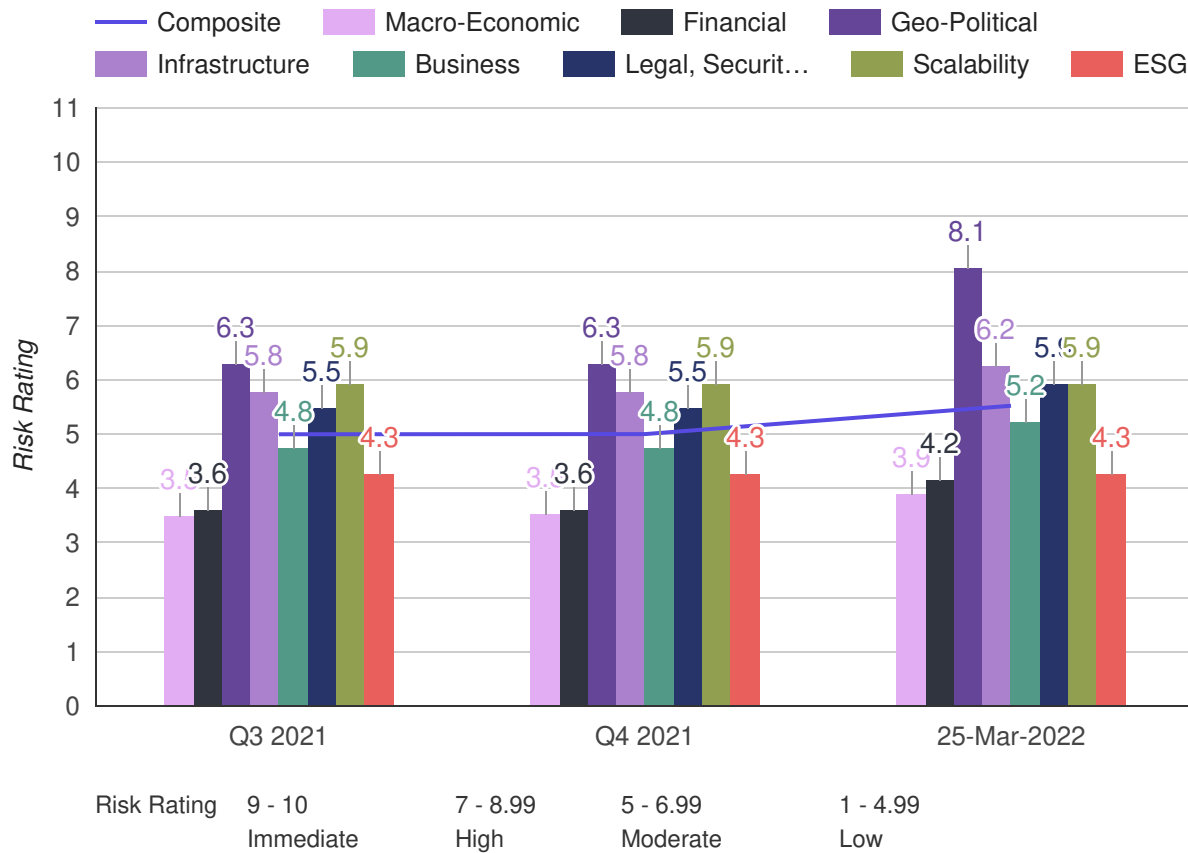
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# Executive Summary

## Risk Snapshot



Target Name	Ukraine
Info Last Updated on	25-Mar-2022
Capital	Kyiv
Population	43.7 million
Cybercrime - Country Rank	12.00
Labor Force	16.03
Corporate Income Tax	18%
Travel Advisory	Avoid All Travel
CO2 emissions (metric tons per capita)	223.00
Cost of Living Index	19.43

Risk Rating	Q3 2021		Q4 2021		25-Mar-2022
Composite	5.00	–	5.00	↑	5.52
By Domain:					
Macro-Economic	3.49	↑	3.52	↑	3.89
Financial	3.60	–	3.60	↑	4.17
Geo-Political	6.29	–	6.29	↑	8.05
Infrastructure	5.79	–	5.79	↑	6.24
Business	4.76	–	4.76	↑	5.21
Legal, Security and Compliance	5.48	–	5.48	↑	5.93
Scalability	5.93	–	5.93	–	5.93
ESG	4.25	–	4.25	–	4.25

Impact Level

■ Immediate

■ High

■ Moderate

■ Low

## Trends - Q4 2021

- Multiple instances related to COVID-19 witnessed
- Multiple instances of strikes/protests/riots witnessed

## Key Highlights

### Key Highlights:

- Ukraine is located in Eastern Europe and shares its boundary with Russia, Belarus, Poland, Slovakia, Hungary, Romania, and Moldova
- The economy of the country is an emerging free-market economy
- Ukraine's economy is predominantly driven by the service sector, which contributes more than 60% of its GDP
- The country's sourcing industry has been growing at a stable rate since the early 2000s, and the IT industry has been the driving force in the country's growing economy
- The country has successfully positioned itself as an all-round provider of IT services in various service areas, particularly in blockchain, FinTech, big data management, gaming, agribusiness, and e-commerce
- Other leading industries of Ukraine include coal, electric power, ferrous and nonferrous metals, machinery and transport equipment, chemicals, and food processing
- Majority of service providers are mainly concentrated in Kyiv, Lviv, Kharkiv, Dnipro, and Odessa
- Kyiv, Kharkiv and Odessa are under attack by Russian Military
- On February 24, 2022, Russian President officially declared war against the country
- It is the poorest country in Europe alongside Moldova, suffering from a very high poverty rate as well as severe corruption

### Macro-Economic

#### Risk Level - Low

- Ukraine's Gross domestic product (GDP) expanded 5.9% YoY in the Q4 2021, easing from a 2.7% growth in the previous period
- Ukraine recorded a trade deficit of US\$1120.10 M in December 2021
- The annual inflation rate in Ukraine edged down to 10% in December 2021 from 10.3% in the previous month, below market expectations of 10.2 %
- The National Bank of Ukraine increased its policy rate by 100bps to 10% on January 20, 2022 meeting, above market expectations of 9.5%, while announcing it expects to further increase the rate to 11% in 2022 before seeing back below 10% in 2023
- Foreign Exchange Reserves in Ukraine increased to US\$30,940 M in December 2021 from US\$30,500 M in November 2021

- Unemployment Rate in Ukraine decreased to 9.20% in Q3 2021 from 9.30% in Q2 2021
- Amid political tensions between Ukraine and Russia, economic stability of the country is at risk

## Financial

Risk Level - Low

- Amid political tensions between Ukraine and Russia, the financial stability of the country is at risk
- Average Annual Labor Cost Growth Rate stood at 13.9%
- No minimum capital requirements to start a business, and the cost to start a business is 0.5%
- Fuel and Power cost stood at US\$1.11 per liter and US\$0.08 Kwh, respectively
- Corporate income tax, social security contributions tax, property tax, and VST/GST stood at 18%, 22%, 12%, and 20%, respectively

## Geo-Political

Risk Level - High

- In February 2022, Geo-Political Risk increased as Russia initiated Ukraine invasion. Following are the recent developments with respect to political tensions between Ukraine and Russia:
  - Military operations were launched by Russia
  - Ukrainian President imposed Martial law for 30 days after Russia declared war
  - Russia's ground forces have crossed Ukraine border
  - Major explosions have occurred near the capital Kyiv, Kharkiv, Odessa, and other cities across Ukraine
  - Evacuation process got difficult as Ukraine shut down its airport operations
  - Approximately 137 civilians and military personnel have been killed and ~316 people wounded
  - More than 1,700 people were detained by Russian troops
  - Russian armed forces have established full control over the Ukrainian city of Melitopol, in the south of the country, and approximately 200 people were killed in the war
  - Russia declared ceasefire in the areas of Kyiv, Mariupol, Kharkiv, and Sumy to allow for evacuations from 7:00 am GMT on March 07, 2022
  - Russia announced a new ceasefire at 10 am (MST) on March 8, 2022
  - On March 11, 2022, Ukraine's President Volodymyr Zelenskyy accused Russia of kidnapping the mayor of the city of Melitopol
  - On March 13, 2022, Ukraine's government accused the Russian military of abducting another mayor in Dniprorudne
  - On March 13, 2022, Russian military launched an air strike targeting a Ukrainian military base in Yavoriv killing 35 and injuring at least 134 people
- Since March 2014, Ukraine has a border dispute with Russia over the status of Crimea and of the city of Sevastopol

- Terror threat is present due to heavy militarized activities by Russia near the Ukrainian borders
- Volodymyr Zelensky sworn in as President of Ukraine on May 19, 2019
- The country follows the Hybrid Regimes as the State of Democracy
- Corruption rank remains at 122
- Travel advisory of 'Avoid All Travel' present
- On October 25, 2021, the Centers for Disease Control and Prevention (CDC) had issued a Level 4 Travel Health Notice for Ukraine due to COVID-19, indicating a high level of COVID-19 in the country
- Multiple protests witnessed over the last six months:
  - Feb 16, 2022: Several thousand Ukrainians rallied in Kyiv to show unity amid fears of a Russian invasion
  - Feb 06, 2022: Thousands rallied over possible military offensive from Russia
  - Nov 24, 2021: More than 1,000 anti-vaccine demonstrators rallied in Kyiv to denounce COVID-19 restrictions
  - Oct 14, 2021: About 5,000 Ukrainian nationalists marched across the capital Kyiv to demand the repudiation of peace agreements for eastern Ukraine that promised a broad autonomy to the separatist regions

## Infrastructure

Risk Level - Moderate

- Infrastructure across the country has been damaged due to the military attacks and explosions by Russia
- Ukraine has a weak infrastructure in terms of software parks and special economic zones (SEZ)
- The privileges of SEZ in the country were withdrawn in the mid-2000s, and the zones were formally closed in 2016
- Electrification rate stood at 100%
- Air transport services and quality of roads remain poor
- Ukraine recorded fewer unscheduled trippings in Q3 2021 as compared to the previous quarter
- Average internet speed is 80.10 Mbps

## Business

Risk Level - Moderate

- Businesses have been severely impacted due to the military operations by Russia
- Procedures to start a business stand at 6, and the time to start a business is 6.5 days
- New building construction permits can be obtained in 10 days
- Time to register a property is 15 days
- Procedures to register a property stand at 7



- Public bureau coverage stands at 2.4%
- Total documentation needed to import are 32

## Legal, Security and Compliance

Risk Level - Moderate

- Ukraine is ranked #12 out of 218 countries on the SAINT Index for cyber security at 2020-01-27 (a higher rank equals worse security)
- In February 2022, a distributed denial-of-service (DDoS) attack was reported on Ukraine's defence ministry and two national banks
- During the same month, a cyberattack on Ukrainian government websites resulted in some websites being inaccessible
- The cyberattack hit the Foreign Ministry, the Cabinet of Ministers, and the Security and Defense Council among others
- Total number of patents issued: 2,469
- Weekly working hours stands at 40 hours

## Scalability

Risk Level - Moderate

- The Ukrainian banking sector is estimated to be around US\$34.23 B
- The Ukrainian healthcare market is estimated at US\$4.9 B, US\$2.4 B of which are patients' medical expenses
- The country's attrition rate in the IT sector stood 10%
- Recorded weak labor force for STEM and technology services
- Literacy rate stands at 99.8%
- English and Spanish proficiency stands low

## ESG

Risk Level - Low

- Per capita, Ukraine emitted 223 metric tons of carbon
- Climate Risk Index stands low
- Weak Pollution and Environmental Performance Index
- Possesses high score for Global Innovation Index indicating development in key dimensions of human development
- Moderate Index for Human Development and Gender Equality along with Index of Economic Freedom
- Good Cost of Living Index: 19.43
- Also, the country adopted a decree to advance the state of emergency and adaptive lockdown

- On December 18, 2021, Ukraine reported its first case of COVID-19 Variant 'Omicron'
- As of February 25, 2022, the country reported 4,809,624 confirmed COVID-19 cases with 105,505 deaths, ~2.19% of total reported cases, and 4,058,020 recoveries, ~84.37% of the total reported cases. In total, 15,221,792 people have received vaccine doses against COVID-19, ~36.3% of the total population

*\*Note - Supply Wisdom's analysis is based on information available from multiple sources in the public domain.*

## Most Recent Alerts

<b>Immediate</b> Mar 24, 2022 Update 60: Pripyat, Ukraine - Destruction of Chernobyl Nuclear Plant's Laboratory	<b>Immediate</b> Mar 23, 2022 Update 59: Mariupol, Ukraine - Bomb Attack Reported	<b>Immediate</b> Mar 23, 2022 Update 31: Russia - US and UK Ban Russian Oil Imports Amid Ukraine Invasion; Firms Continue to Exit	<b>Immediate</b> Mar 22, 2022 Update 57: Kyiv, Ukraine - Curfew Announced	<b>Immediate</b> Mar 21, 2022 Update 56: Ukraine - Shelling on Shopping Mall Reported - Six Dead and Several Injured
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Update 60: Pripyat, Ukraine - Destruction of Chernobyl Nuclear Plant's Laboratory
- Immediate** Mar 23, 2022  
Update 59: Mariupol, Ukraine - Bomb Attack Reported
- Immediate** Mar 23, 2022  
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- Immediate** Mar 22, 2022  
Update 57: Kyiv, Ukraine - Curfew Announced
- Immediate** Mar 21, 2022  
Update 56: Ukraine - Shelling on Shopping Mall Reported - Six Dead and Several Injured

### High - Alerts

- High** Feb 19, 2022  
Update 2: Eastern Ukraine - Evacuation Planned by Pro-Russian Separatists
- High** Feb 17, 2022  
Update 1: Russia - Parliament Votes to Recognize Ukraine's Donetsk and Luhansk Regions as Independent
- High** Feb 04, 2022  
Ukraine - Political Tensions Escalate Between Russia and Ukraine
- High** Jan 17, 2022  
Disruption Risk Early Warning: Update 1: Ukraine - Cyber Attack Warning Issued by Microsoft
- High** Dec 19, 2021  
Update 58: Ukraine - COVID-19 Variant 'Omicron' - First Case Reported

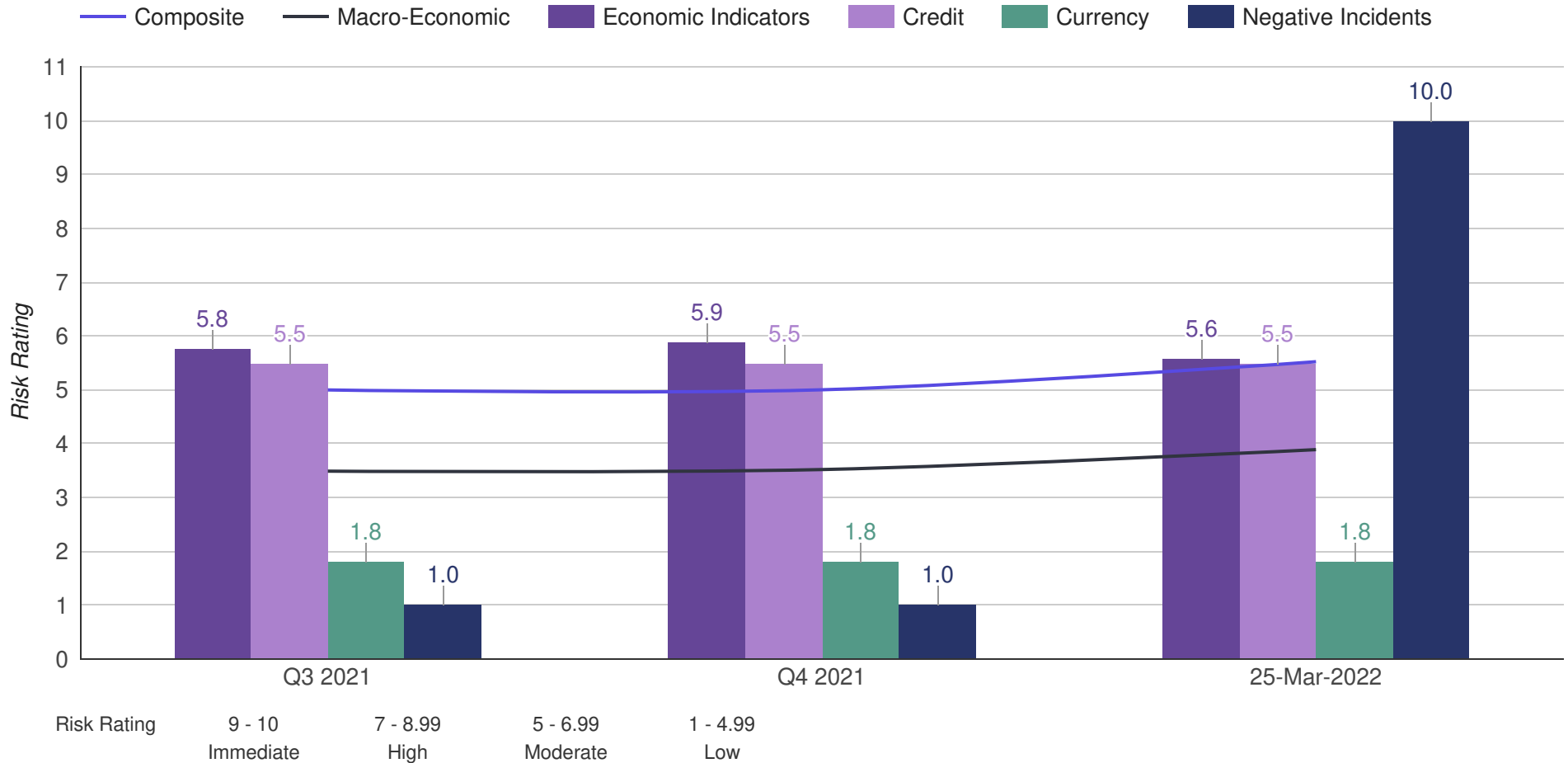
### Moderate - Alerts

- Moderate** Dec 03, 2021  
Update 57: Ukraine - COVID-19 Variant 'Omicron' Concern Results in Entry Restrictions for Eight African Countries
- Moderate** Nov 26, 2021  
Ukraine - Polio Emergency Announced Amid Surge in COVID-19 Cases
- Moderate** Nov 10, 2021  
Update 56: Ukraine - Reports Rise in Daily COVID-19 Deaths
- Moderate** Oct 23, 2021  
Update 55: Ukraine - Reports 23,785 New COVID-19 Cases in Last 24 Hours, National Total Raises to 2,748,614
- Moderate** Sep 23, 2021  
Update 54: Ukraine - Plans to Re-Impose Restrictions Amid Surge in COVID-19 Cases

### Low - Alerts

- Low** Feb 13, 2022  
Kyiv, Ukraine - Thousands Rally over Possible Military Offensive from Russia
- Low** Feb 06, 2022  
Kharkiv, Ukraine - Thousands Rally over Possible Military Offensive from Russia
- Low** Nov 26, 2021  
Kyiv, Ukraine - Protest Against COVID-19 Vaccine Mandate and Restrictions
- Low** Nov 05, 2021  
Ukraine - Protests Against Russian President over Violation of Ukrainian Sovereignty
- Low** Oct 15, 2021  
Ukraine - Thousands Protest over Peace Deal on Separatist Areas

# Macro-Economic Update



## Most Recent Macro-Economic Alerts

<b>Immediate</b> Mar 16, 2022 Update 44: Russia - Rating of Banks Downgraded by Fitch - Additional Sanctions Imposed by US and UK	<b>Immediate</b> Mar 01, 2022 Update 18: Ukraine - Russian Convoy Nears Kyiv - Missile Explosion Reported	<b>Immediate</b> Mar 01, 2022 Update 17: Ukraine - Cyber Attack Reported on Government Website - Blasts Continues in Kyiv	<b>Immediate</b> Feb 28, 2022 Update 16: Ukraine - Russian Forces Seized Two Cities - Rocket Strikes Reported	<b>Immediate</b> Feb 28, 2022 Update 15: Ukraine - 350 Civilians Reported Dead; SWIFT Sanctions Imposed Against Russia
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### Immediate - Alerts

- Immediate **Mar 16, 2022**  
 Update 44: Russia - Rating of Banks Downgraded by Fitch - Additional Sanctions Imposed by US and UK
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- Immediate **Feb 28, 2022**  
 Update 15: Ukraine - 350 Civilians Reported Dead; SWIFT Sanctions Imposed Against Russia

### High - Alerts

No High Macro-Economic alerts issued for the time period covered by this report

### Moderate - Alerts

- Moderate **Aug 18, 2021**  
 Update 53: Ukraine - GDP Contracts by 0.8% QoQ in Q2 2021, Economy Falls Back into Recession Amid COVID-19 Pandemic

### Low - Alerts

- Low **Sep 10, 2021**  
 Ukraine - Central Bank Raises Interest Rate to 8.5% Amid High Inflation

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
<b>Economic Indicators</b>	<b>Risk Rating</b>	5.77	5.89	5.57	-0.32	
GDP Growth Rate	%	5.70%	2.70%	5.90%	+3.20%	
GDP Contribution from the Services Sector	%	60%	60%	60%	0%	
Debt to GDP Ratio for Country	%	60.80%	60.80%	60.80%	0%	High Risk - See Macro-Economic Implications section below
Fiscal Balance (% of GDP)	%	-1.50%	-1.50%	-1.50%	0%	
Trade Balance (Per Capita)	US\$	\$-9.12	\$-7.15	\$-25.60	\$-18.45	High Risk - See Macro-Economic Implications section below
Inflation Rate	%	10.20%	10.30%	10%	-0.30%	
Unemployment Rate	%	10.50%	9.20%	9.20%	0%	
Interest Rates	%	8.50%	9%	10%	+1%	
FDI In-flow (% of GDP)	%	3.80%	3.80%	3.80%	0%	
Stock Market Performance (Within the Month)	%	-0.27%	0.09%	0.16%	+0.07%	High Risk - See Macro-Economic Implications section below
<b>Credit</b>	<b>Risk Rating</b>	5.50	5.50	5.50	0.00	
Credit Exposure	Qualitative	Moderate	Moderate	Moderate	No	

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
OECD Rating	Rating	6.00	6.00	6.00	0.00	
<b>Currency</b>	<b>Risk Rating</b>	<b>1.80</b>	<b>1.80</b>	<b>1.80</b>	<b>0.00</b>	
Forex Rate Fluctuation	%	2.33%	2.19%	2.19%	0%	
Forex Reserves	US\$ B	\$31.60	\$30.50	\$30.50	\$0.00	Immediate Risk - See Macro-Economic Implications section below
<b>Negative Incidents</b>	<b>Risk Rating</b>	<b>1.00</b>	<b>1.00</b>	<b>10.00</b>	<b>+9.00</b>	
Any Other Negative Incidents	Qualitative	No	No	Yes	Yes	Immediate Risk - See Macro-Economic Implications section below

*\*\* Refer latest alerts under "Macro-Economic" category*

## Analysts Comment(s)

Amid political tensions between Ukraine and Russia, economic stability of the country is at risk.

## Macro-Economic Implications

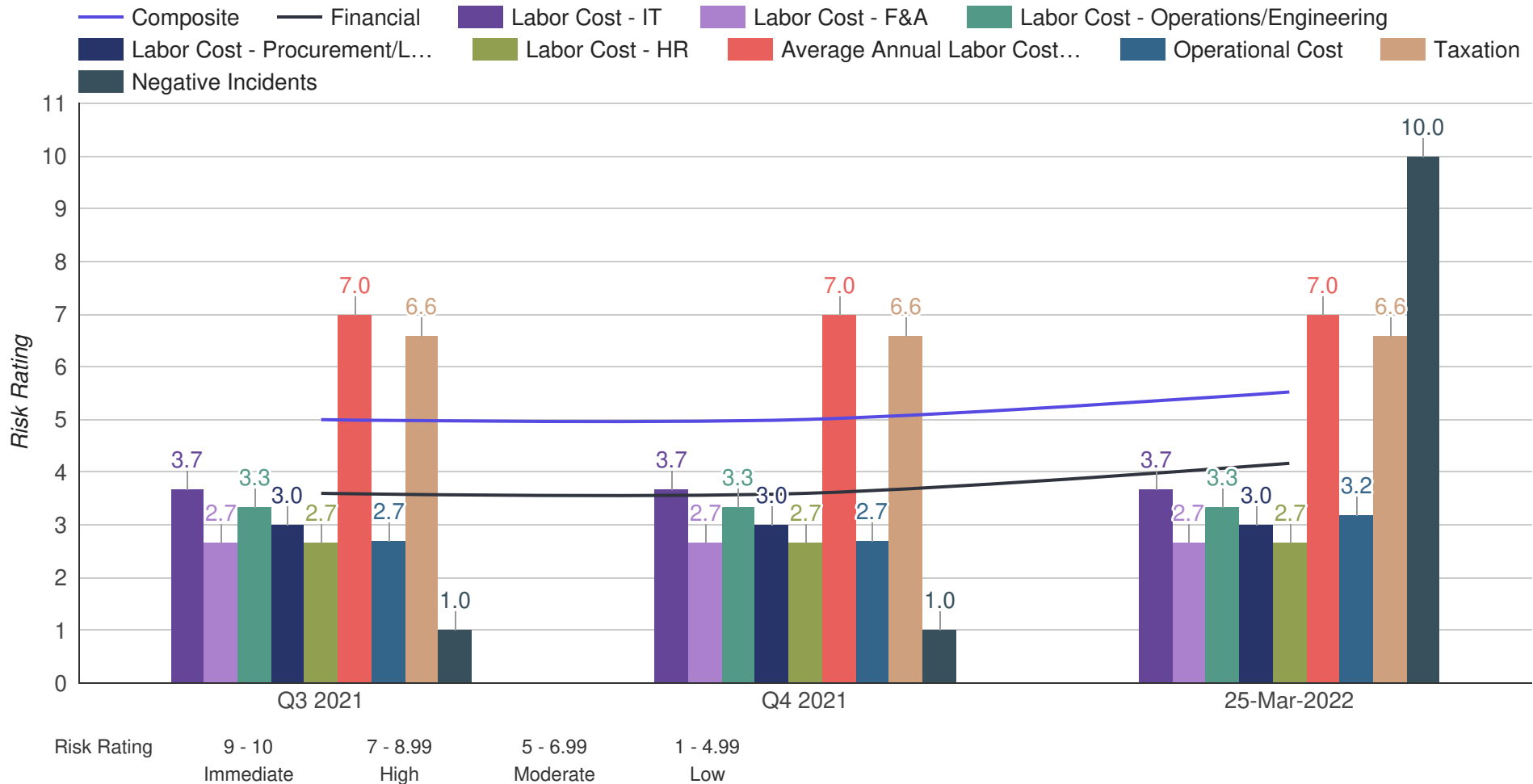
- **Debt to GDP Ratio for Country:** A high debt-to-GDP ratio is undesirable for a country, as a higher ratio indicates a higher risk of default. When a country has a manageable debt-to-GDP ratio, investors are more eager to invest, and it doesn't have to offer as high of yields on its bonds.
- **Trade Balance (Per Capita):** A trade deficit or low trade balance indicates that the country lacks efficient capacity to produce its products, whether due

to lack of skill and resources to create that capacity or due to preference to acquire from another country (such as to specialize in its goods, for lower cost or to acquire luxuries).

- **Stock Market Performance (Within the Month):** Poor stock performance indicates that the economy is not doing as well and spending recedes. Stock market losses cause wealth erosion in both personal and retirement portfolios.
- **Forex Reserves:** Low forex indicates that the country has a problem maintaining adequate liquidity in case of an economic crisis.
- **Any Other Negative Incidents:** Any negative incident can cause some kind of business disruption to the organization from an operational perspective.



# Financial Update



## Most Recent Financial Alerts

### Most Recent - Alerts

No Financial alerts issued for the time period covered by this report

### Immediate - Alerts

No Immediate Financial alerts issued for the time period covered by this report

### High - Alerts

No High Financial alerts issued for the time period covered by this report

### Moderate - Alerts

No Moderate Financial alerts issued for the time period covered by this report

### Low - Alerts

No Low Financial alerts issued for the time period covered by this report

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
<b>Labor Cost - IT</b>	<b>Risk Rating</b>	<b>3.67</b>	<b>3.67</b>	<b>3.67</b>	<b>0.00</b>	
Average Annual IT Entry Level Salary	US\$	\$11,700.00	\$11,700.00	\$11,700.00	\$0.00	
Average Annual IT Team Lead Level Salary	US\$	\$19,500.00	\$19,500.00	\$19,500.00	\$0.00	
Average Annual IT Manager Level Salary	US\$	\$26,000.00	\$26,000.00	\$26,000.00	\$0.00	
<b>Labor Cost - F&amp;A</b>	<b>Risk Rating</b>	<b>2.67</b>	<b>2.67</b>	<b>2.67</b>	<b>0.00</b>	
Average Annual F&A Entry Level Salary	US\$	\$5,200.00	\$5,200.00	\$5,200.00	\$0.00	
Average Annual F&A Team Lead Level Salary	US\$	\$11,100.00	\$11,100.00	\$11,100.00	\$0.00	
Average Annual F&A Manager Level Salary	US\$	\$19,700.00	\$19,700.00	\$19,700.00	\$0.00	
<b>Labor Cost - Operations/Engineering</b>	<b>Risk Rating</b>	<b>3.33</b>	<b>3.33</b>	<b>3.33</b>	<b>0.00</b>	
Average Annual Operations/Engineering Entry Level Salary	US\$	\$7,300.00	\$7,300.00	\$7,300.00	\$0.00	

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
Average Annual Operations/Engineering Team Lead Level Salary	US\$	\$12,500.00	\$12,500.00	\$12,500.00	\$0.00	
Average Annual Operations/Engineering Manager Level Salary	US\$	\$21,800.00	\$21,800.00	\$21,800.00	\$0.00	
<b>Labor Cost - Procurement/Logistics</b>	<b>Risk Rating</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>0.00</b>	
Average Annual Procurement/Logistics Entry Level Salary	US\$	\$4,400.00	\$4,400.00	\$4,400.00	\$0.00	
Average Annual Procurement/Logistics Team Lead Level Salary	US\$	\$10,400.00	\$10,400.00	\$10,400.00	\$0.00	
Average Annual Procurement/Logistics Manager Level Salary	US\$	\$21,200.00	\$21,200.00	\$21,200.00	\$0.00	
<b>Labor Cost - HR</b>	<b>Risk Rating</b>	<b>2.67</b>	<b>2.67</b>	<b>2.67</b>	<b>0.00</b>	
Average Annual HR Entry Level Salary	US\$	\$4,500.00	\$4,500.00	\$4,500.00	\$0.00	

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
Average Annual HR Team Lead Level Salary	US\$	\$9,900.00	\$9,900.00	\$9,900.00	\$0.00	
Average Annual HR Manager Level Salary	US\$	\$19,200.00	\$19,200.00	\$19,200.00	\$0.00	
<b>Average Annual Labor Cost Growth Rate</b>	<b>Risk Rating</b>	<b>7.00</b>	<b>7.00</b>	<b>7.00</b>	<b>0.00</b>	
Average Annual Labor Cost Growth Rate	%	13.90%	13.90%	13.90%	0%	High Risk - See Financial Implications section below
<b>Operational Cost</b>	<b>Risk Rating</b>	<b>2.69</b>	<b>2.69</b>	<b>3.19</b>	<b>+0.50</b>	
Rent (Grade 1 Commercial)	US\$/Sq. ft./Month	\$2.17	\$2.17	\$2.25	+\$0.08	
Rental Growth	%	0%	0%	3.69%	+3.69%	
Cost to Start Business	%	0.50%	0.50%	0.50%	0%	
Minimum Capital Required	%	0%	0%	0%	0%	
Cost of Registering Property	%	1.70%	1.70%	1.70%	0%	
Fuel Prices	US\$/Liter	\$1.12	\$1.11	\$1.11	\$0.00	
Power Cost	US\$/Kwh	\$0.09	\$0.09	\$0.08	\$-0.01	

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
<b>Taxation</b>	<b>Risk Rating</b>	6.60	6.60	6.60	0.00	
Corporate Income Tax	%	18%	18%	18%	0%	
Social Security Contributions Tax	%	22%	22%	22%	0%	High Risk - See Financial Implications section below
Property Tax	%	12%	12%	12%	0%	
VAT / GST	%	20%	20%	20%	0%	Immediate Risk - See Financial Implications section below
<b>Negative Incidents</b>	<b>Risk Rating</b>	1.00	1.00	10.00	+9.00	
Any Other Negative Incidents	Qualitative	No	No	Yes	Yes	Immediate Risk - See Financial Implications section below

*\*\* Refer latest alerts under "Financial" category*

## Analysts Comment(s)

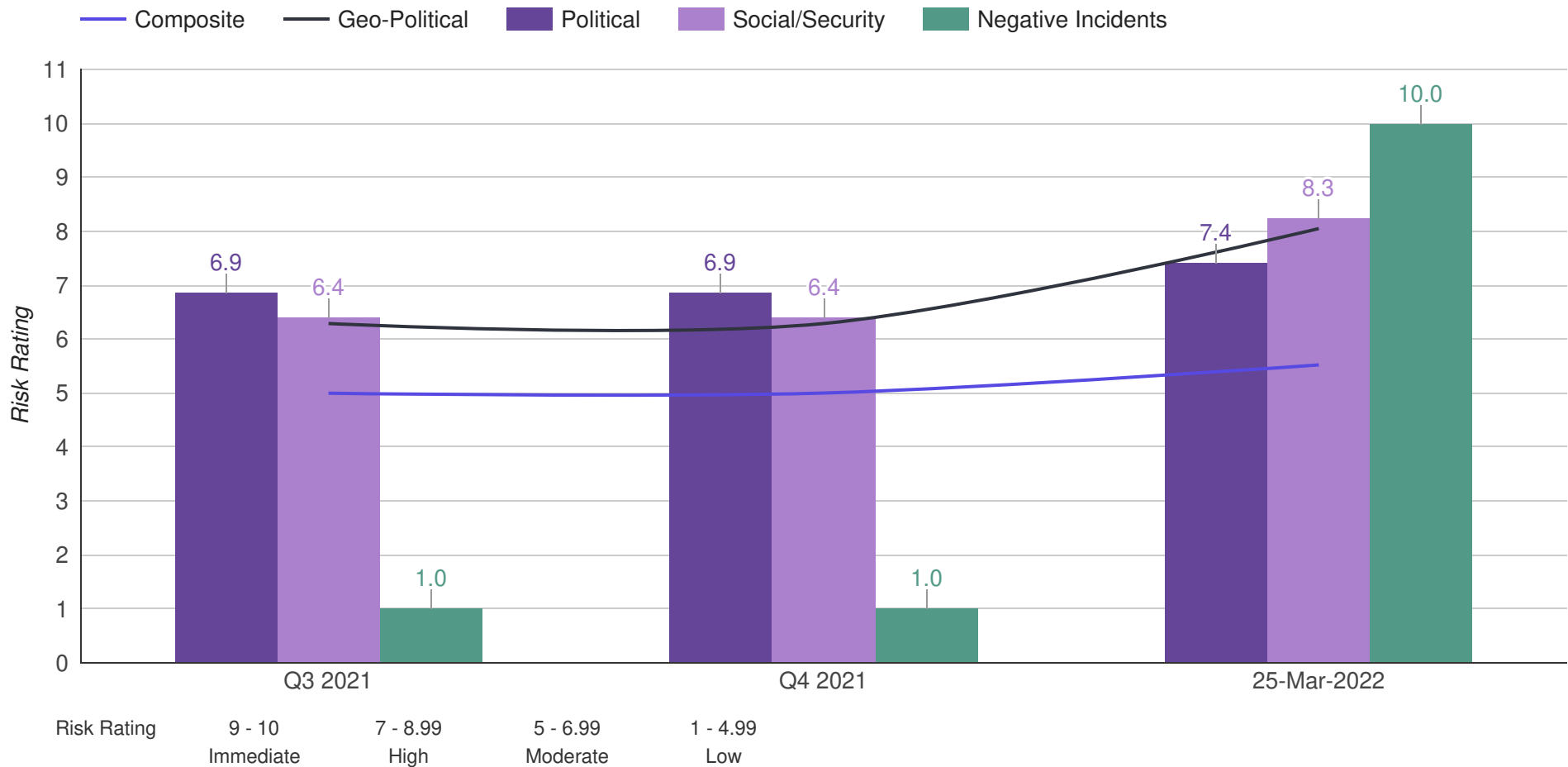
Amid political tensions between Ukraine and Russia, the financial stability of the country is at risk.

## Financial Implications

- **Average Annual Labor Cost Growth Rate:** If the annual labor cost growth rate is low, then it will definitely impact the employee morale working in the location. Lower morale can negatively affect productivity, especially in the short run.

- **Social Security Contributions Tax:** High taxes increase prices within the business and could lead to increase of end product/service prices and affect profits of corporations.
- **VAT / GST:** High taxes increase prices within the business and could lead to increase of end product/service prices and affect profits of corporations.
- **Any Other Negative Incidents:** Any negative incident can cause some kind of business disruption to the organization from an operational perspective.

# Geo-Political Update





## Most Recent Geo-Political Alerts

<b>Immediate</b> Mar 24, 2022 Update 60: Pripyat, Ukraine - Destruction of Chernobyl Nuclear Plant's Laboratory	<b>Immediate</b> Mar 23, 2022 Update 59: Mariupol, Ukraine - Bomb Attack Reported	<b>Immediate</b> Mar 23, 2022 Update 31: Russia - US and UK Ban Russian Oil Imports Amid Ukraine Invasion; Firms Continue to Exit	<b>Immediate</b> Mar 22, 2022 Update 57: Kyiv, Ukraine - Curfew Announced	<b>Immediate</b> Mar 21, 2022 Update 56: Ukraine - Shelling on Shopping Mall Reported - Six Dead and Several Injured
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### Immediate - Alerts

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### High - Alerts

- High** Feb 19, 2022  
Update 2: Eastern Ukraine - Evacuation Planned by Pro-Russian Separatists
- High** Feb 17, 2022  
Update 1: Russia - Parliament Votes to Recognize Ukraine's Donetsk and Luhansk Regions as Independent
- High** Feb 04, 2022  
Ukraine - Political Tensions Escalate Between Russia and Ukraine

### Moderate - Alerts

- Moderate** Aug 18, 2021  
Update 53: Ukraine - GDP Contracts by 0.8% QoQ in Q2 2021, Economy Falls Back into Recession Amid COVID-19 Pandemic
- Moderate** Aug 12, 2021  
Update 52: Ukraine - Extends COVID-19 Restrictions until October 01, 2021 Amid Increase in COVID-19 Delta Variant Cases
- Moderate** Jul 23, 2021  
Update 51: Ukraine - Reports Six Cases of Delta COVID-19 Variant

### Low - Alerts

- Low** Feb 13, 2022  
Kyiv, Ukraine - Thousands Rally over Possible Military Offensive from Russia
- Low** Feb 06, 2022  
Kharkiv, Ukraine - Thousands Rally over Possible Military Offensive from Russia
- Low** Nov 26, 2021  
Kyiv, Ukraine - Protest Against COVID-19 Vaccine Mandate and Restrictions
- Low** Nov 05, 2021  
Ukraine - Protests Against Russian President over Violation of Ukrainian Sovereignty
- Low** Oct 15, 2021  
Ukraine - Thousands Protest over Peace Deal on Separatist Areas

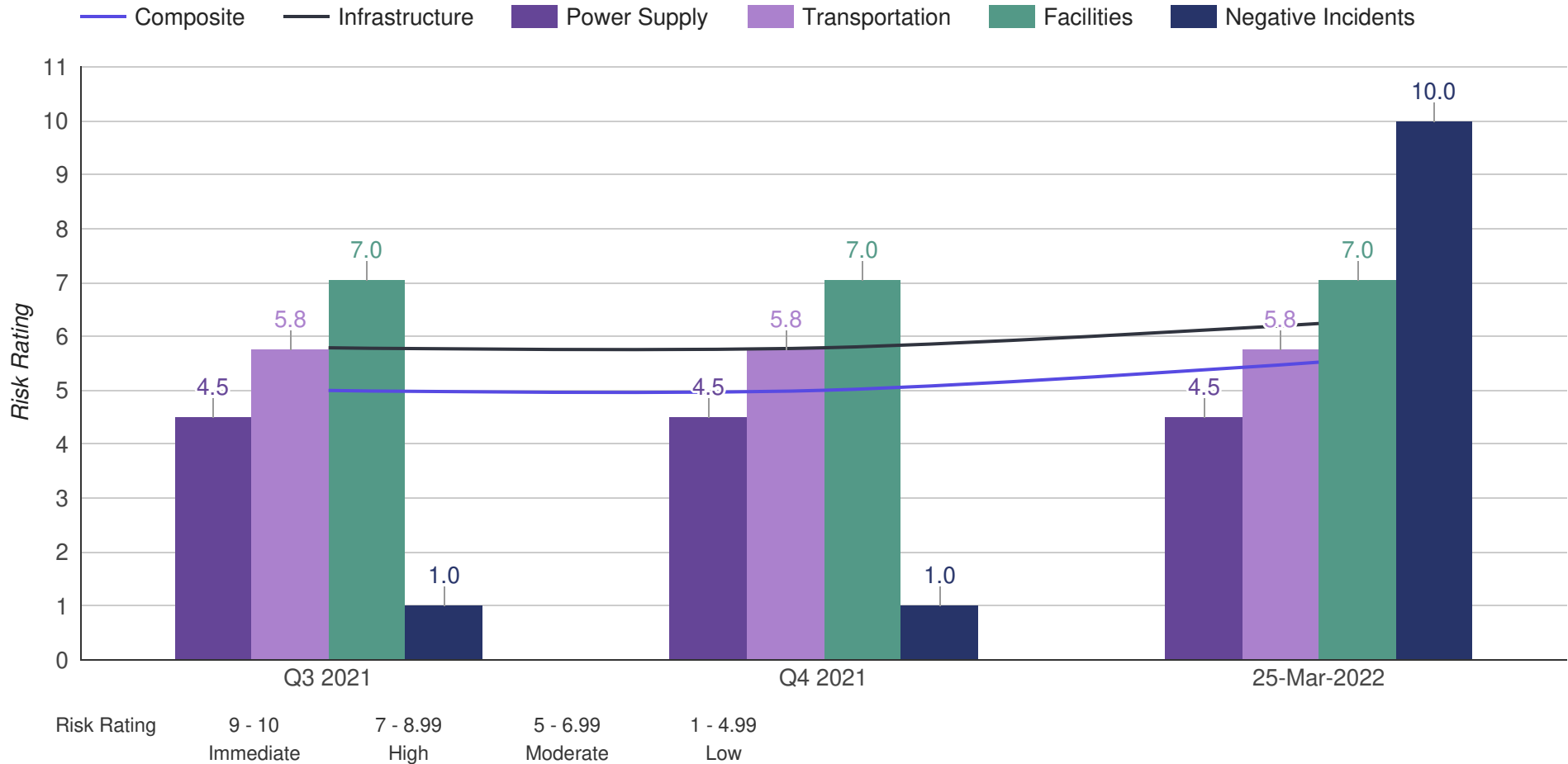
Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
<b>Political</b>	<b>Risk Rating</b>	6.86	6.86	7.43	+0.57	
State of Democracy	Qualitative	Hybrid Regimes	Hybrid Regimes	Hybrid Regimes	No	High Risk - See Geo-Political Implications section below
Corruption Level	CPI Rank	117.00	117.00	122.00	+5.00	High Risk - See Geo-Political Implications section below
<b>Social/Security</b>	<b>Risk Rating</b>	6.40	6.40	8.25	+1.85	
Country Crime Index	Quantitative	45.90	45.90	45.45	-0.4500	
Travel Advisory	Qualitative	Reconsider All Travel	Reconsider All Travel	Avoid All Travel	Yes	Immediate Risk - See Geo-Political Implications section below
Terror Attacks/Threats	Qualitative	No	No	Yes	Yes	Immediate Risk - See Geo-Political Implications section below
Border Disputes	Qualitative	Yes	Yes	Yes	No	Immediate Risk - See Geo-Political Implications section below
Social Unrest/Strikes	Qualitative	Yes	Yes	Yes	No	Immediate Risk - See Geo-Political Implications section below
<b>Negative Incidents</b>	<b>Risk Rating</b>	1.00	1.00	10.00	+9.00	
Any Other Negative Incidents	Qualitative	No	No	Yes	Yes	Immediate Risk - See Geo-Political Implications section below

*\*\* Refer latest alerts under "Geo-Political" category*

## Geo-Political Implications

- **State of Democracy:** Democracy is more than a set of specific government institutions; it encompasses values, attitudes, and practices which may take different forms among cultures and societies around the world. It has taken a number of forms, both in theory and practice. Some varieties of democracy provide better representation and more freedom for their citizens than others. However, if any democracy is not structured to prohibit the government from excluding the people from the legislative process, or any branch of government from altering the separation of powers in its favour, then a branch of the system can accumulate too much power and destroy the democracy.
- **Corruption Level:** Countries that have a high level of corruption are unable to function efficiently or prosper at an economic level, causing suffering for society as a whole. It can lead to an uneven distribution of wealth as small businesses face unfair competition from large companies that have established illegal connections with government officials. In a corrupt economy, resources are inefficiently allocated and companies that otherwise would not be qualified to win government contracts are often awarded projects as a result of bribery or kickbacks. The quality of education and healthcare also deteriorates under a corrupt economy, leading to an overall lower standard of living for the country's citizens.
- **Travel Advisory:** Presence of travel advisory could indicate that there are serious risks to safety and security for travelers. Travel advisories may also note parts of the world where a government does not have the ability to respond to the problems of citizens traveling.
- **Terror Attacks/Threats:** A high degree of social and security risks would lead to political instability in economic development. In such environments of latent ethnic violence, social unrest, or terror threats, business as usual is impossible as all levels of economic activity are impacted.
- **Border Disputes:** Border disputes often result from vague and unclear language in a treaty that set up the original boundary. These disputes are a major cause of wars and terrorism, as countries often try to assert their sovereignty over a territory through invasion, and non-country entities try to influence the actions of politicians through terrorism. International law does not support the use of force by one country to annex the territory of another country. Therefore, the breach of a country's borders or territorial disputes pose a threat to a country's very sovereignty and the right as a person of international law.
- **Social Unrest/Strikes:** A high degree of social and security risks would lead to political instability in economic development. In such environments of latent ethnic violence, social unrest, or terror threats, business as usual is impossible as all levels of economic activity are impacted.
- **Any Other Negative Incidents:** Any negative incident can cause some kind of business disruption to the organization from an operational perspective.

# Infrastructure Update



## Most Recent Infrastructure Alerts

<p><b>Immediate</b> Mar 18, 2022</p> <p>Update 48: Ukraine - Airstrike on School Reported - 21 Dead and Several Injured</p>	<p><b>Immediate</b> Mar 16, 2022</p> <p>Update 44: Russia - Rating of Banks Downgraded by Fitch - Additional Sanctions Imposed by US and UK</p>	<p><b>Immediate</b> Mar 16, 2022</p> <p>Update 43: Ukraine - 500 Killed in Kharkiv - Additional Sanctions Imposed on Russia</p>	<p><b>Immediate</b> Mar 06, 2022</p> <p>Update 26: Ukraine - Russia Warned Against Creating a No-Fly Zone in the Country; Multiple Companies Suspend Business in Russia</p>	<p><b>Immediate</b> Mar 05, 2022</p> <p>Update 25: Ukraine - No-Fly Zone Demand Rejected by NATO; Additional Sanctions Imposed by Canada</p>
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### Immediate - Alerts

**Immediate** Mar 18, 2022

Update 48: Ukraine - Airstrike on School Reported - 21 Dead and Several Injured

**Immediate** Mar 16, 2022

Update 44: Russia - Rating of Banks Downgraded by Fitch - Additional Sanctions Imposed by US and UK

**Immediate** Mar 16, 2022

Update 43: Ukraine - 500 Killed in Kharkiv - Additional Sanctions Imposed on Russia

**Immediate** Mar 06, 2022

Update 26: Ukraine - Russia Warned Against Creating a No-Fly Zone in the Country; Multiple Companies Suspend Business in Russia

**Immediate** Mar 05, 2022

Update 25: Ukraine - No-Fly Zone Demand Rejected by NATO; Additional Sanctions Imposed by Canada

### High - Alerts

No High Infrastructure alerts issued for the time period covered by this report

### Moderate - Alerts

No Moderate Infrastructure alerts issued for the time period covered by this report

### Low - Alerts

No Low Infrastructure alerts issued for the time period covered by this report

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
<b>Power Supply</b>	<b>Risk Rating</b>	4.50	4.50	4.50	0.00	
Surplus/Deficit	Qualitative	Balanced	Balanced	Balanced	No	
Power Cuts	Qualitative	Intermittent Power Cuts	Intermittent Power Cuts	Intermittent Power Cuts	No	High Risk - See Infrastructure Implications section below
Electrification Rate	%	100%	100%	100%	0%	
<b>Transportation</b>	<b>Risk Rating</b>	5.75	5.75	5.75	0.00	
Road Connectivity Index	Quantitative	78.20	78.20	78.20	0.00	
Quality of Roads	Quantitative	3.00	3.00	3.00	0.00	High Risk - See Infrastructure Implications section below
Airport Connectivity Index	Quantitative	56.60	56.60	56.60	0.00	
Efficiency of Air Transport Services	Quantitative	4.00	4.00	4.00	0.00	High Risk - See Infrastructure Implications section below
<b>Facilities</b>	<b>Risk Rating</b>	7.05	7.05	7.05	0.00	
ICT Adoption	Quantitative	51.90	51.90	51.90	0.00	
Average Internet Speed	Mbps	73.89	80.10	80.10	0.00	

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
Number of Software Parks	Quantitative	8.00	8.00	8.00	0.00	Immediate Risk - See Infrastructure Implications section below
Number of Special Economic Zones / Free Trade Zones (Current)	Quantitative	0.00	0.00	0.00	0.00	Immediate Risk - See Infrastructure Implications section below
Office Space Surplus/Deficit	Qualitative	Balanced	Balanced	Balanced	No	
<b>Negative Incidents</b>	<b>Risk Rating</b>	1.00	1.00	10.00	+9.00	
Any Other Negative Incidents	Qualitative	No	No	Yes	Yes	Immediate Risk - See Infrastructure Implications section below

\*\* Refer latest alerts under "Infrastructure" category

## Analysts Comment(s)

Infrastructure across the country has been damaged due to the military attacks and explosions by Russia

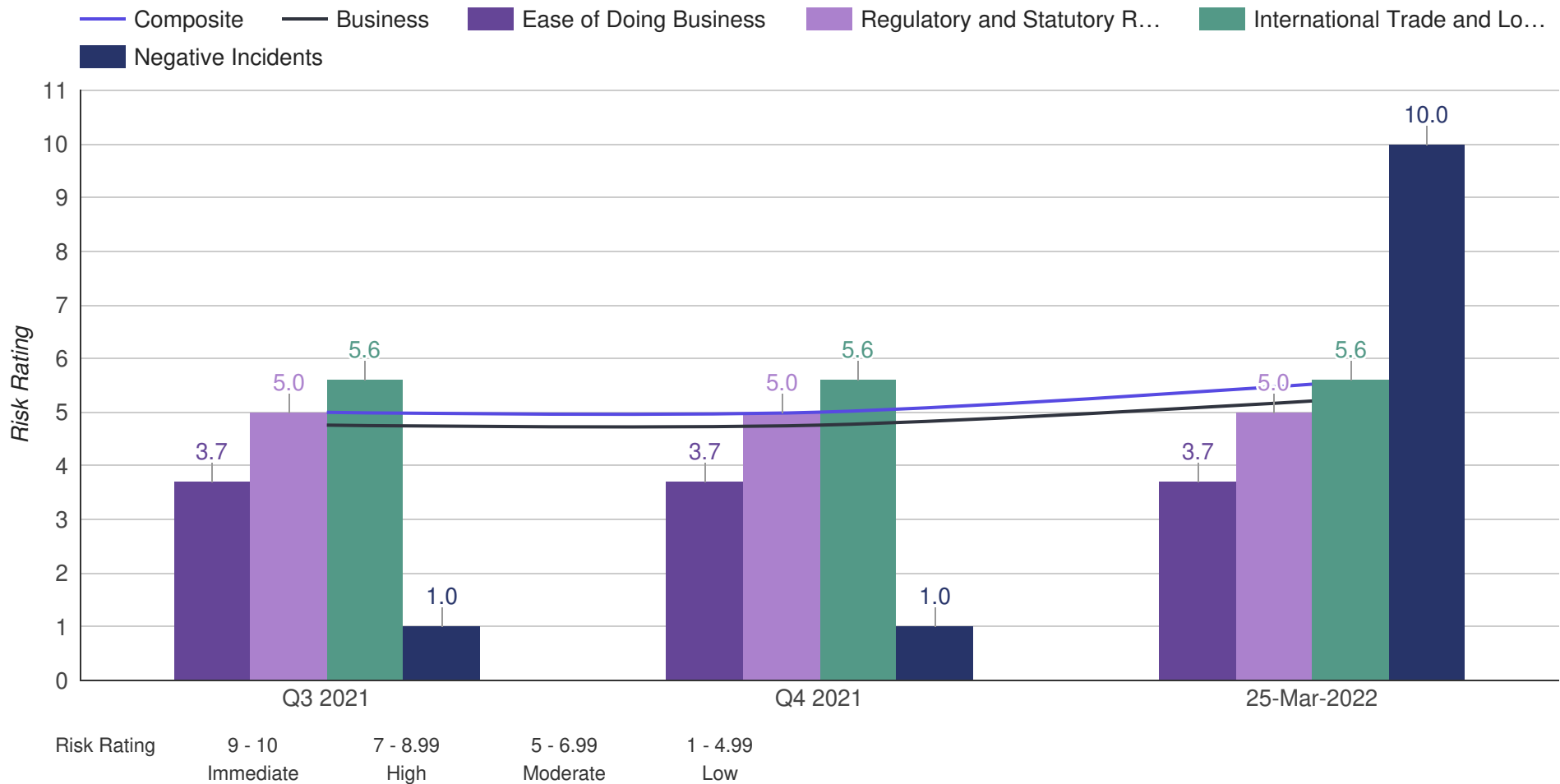
## Infrastructure Implications

- Power Cuts:** Frequent power cuts have repercussions such as loss in employee productivity due to downtime, damaged equipment and inventory and added financial burden on power back-up. Power outages impact business operations at large as all businesses rely on electrical power for every aspect of their operations.

- **Quality of Roads:** If quality of the intra-country road system/network is inadequate, it cannot meet the needs of the efficient and fast-moving transportation of labour, goods and services, thereby causing hindrance to industrial and economic development of the country.
- **Efficiency of Air Transport Services:** Low connectivity of airports within and outside of the location can hinder investment and business development, thereby impacting economic development.
- **Number of Software Parks:** Less number of software parks indicates that there is limited presence of providers of technology services in the country.
- **Number of Special Economic Zones / Free Trade Zones (Current):** Through Special Economic Zones and Free Trade Zones, a company gains a number of benefits, facilities and incentives such as low or no tax trade, producing goods at a lower price etc. Low number of SEZs and FTZs will not encourage or attract foreign investment by traders and third parties, thereby hindering business and economic development in the country.
- **Any Other Negative Incidents:** Any negative incident can cause some kind of business disruption to the organization from an operational perspective.



# Business Update



## Most Recent Business Alerts

### Most Recent - Alerts

No Business alerts issued for the time period covered by this report

### Immediate - Alerts

No Immediate Business alerts issued for the time period covered by this report

### High - Alerts

No High Business alerts issued for the time period covered by this report

### Moderate - Alerts

No Moderate Business alerts issued for the time period covered by this report

### Low - Alerts

No Low Business alerts issued for the time period covered by this report

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
<b>Ease of Doing Business</b>	<b>Risk Rating</b>	3.70	3.70	3.70	0.00	
Procedures to Start a Business	Quantitative	6.00	6.00	6.00	0.00	
Time to Start a Business	Days	6.50	6.50	6.50	0.00	
Procedures for New Building Construction Permits	Quantitative	10.00	10.00	10.00	0.00	
Time for New Building Construction Permits	Days	72.50	72.50	72.50	0.00	
Procedures to Register a Property	Quantitative	7.00	7.00	7.00	0.00	High Risk - See Business Implications section below
Time to Register a Property	Days	15.00	15.00	15.00	0.00	
Business Dynamism	Quantitative	57.20	57.20	57.20	0.00	
Burden of Government Regulation	Quantitative	3.60	3.60	3.60	0.00	High Risk - See Business Implications section below
<b>Regulatory and Statutory Requirements</b>	<b>Risk Rating</b>	5.00	5.00	5.00	0.00	
Strength of Legal Rights Index	Quantitative	8.00	8.00	8.00	0.00	
Depth of Credit Information Index	Quantitative	7.00	7.00	7.00	0.00	

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
Public Registry Coverage	%	2.40%	2.40%	2.40%	0%	Immediate Risk - See Business Implications section below
Private Bureau Coverage	%	56.90%	56.90%	56.90%	0%	
Extent of Disclosure Index	Quantitative	9.00	9.00	9.00	0.00	
Extent of Director Liability Index	Quantitative	2.00	2.00	2.00	0.00	Immediate Risk - See Business Implications section below
Ease of Shareholder Suits Index	Quantitative	6.00	6.00	6.00	0.00	
Strength of Minority Protection Index	Quantitative	68.00	68.00	68.00	0.00	
Taxation Payments	Numbers/Year	5.00	5.00	5.00	0.00	
Taxation Time	Hours/Year	328.00	328.00	328.00	0.00	High Risk - See Business Implications section below
<b>International Trade and Logistics</b>	<b>Risk Rating</b>	<b>5.60</b>	<b>5.60</b>	<b>5.60</b>	<b>0.00</b>	
Documentation Needed to Export	Quantitative	8.00	8.00	8.00	0.00	High Risk - See Business Implications section below
Time to Export (Border Compliance)	Hours	6.00	6.00	6.00	0.00	

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
Documentation Needed to Import	Quantitative	8.00	8.00	8.00	0.00	High Risk - See Business Implications section below
Time to Import (Border Compliance)	Hours	32.00	32.00	32.00	0.00	
Complexity of Tariffs	Rating	5.90	5.90	5.90	0.00	
<b>Negative Incidents</b>	<b>Risk Rating</b>	1.00	1.00	<b>10.00</b>	<b>+9.00</b>	
Any Other Negative Incidents	Qualitative	No	No	Yes	Yes	Immediate Risk - See Business Implications section below

*\*\* Refer latest alerts under "Business" category*

## Analysts Comment(s)

Amid political tensions between Ukraine and Russia, businesses across the country have been severely impacted.

## Business Implications

- **Procedures to Register a Property:** High numbers indicate that there are more steps, time, and cost involved in registering a property, assuming a standardized case of an entrepreneur who wants to purchase land and a building that is already registered and free of title dispute. This would cause a delay in registering the property concerned for the purpose of business.
- **Burden of Government Regulation:** Governments create the rules and frameworks in which businesses are able to compete against each other. From time to time the government changes these rules and frameworks forcing businesses to change the way they operate. Hence, businesses can keenly be affected by changes in government policies.

- **Public Registry Coverage:** Low value indicates low creditworthiness of borrowers (individuals or firms) in the financial system, which may not facilitate the exchange of credit information among banks and other regulated financial institutions.
- **Extent of Director Liability Index:** Low score indicates that there is less ability of board members being held liable for harm caused by related-party transactions.
- **Taxation Time:** High numbers indicate that there is more time taken to prepare, file and pay three major types of taxes and contributions: the corporate income tax, value added or sales tax, and labor taxes, including payroll taxes and social contributions. This will ultimately constrain the government's ability to ignite the economy and hamper development in the nation.
- **Documentation Needed to Export:** High number indicates that there are more documents required per shipment to export goods and required for clearance by government ministries, customs authorities, port and container terminal authorities, health and technical control agencies and banks taken into account. This would cause a delay in the export of goods.
- **Documentation Needed to Import:** High number indicates that there are more documents required per shipment to import goods and required for clearance by government ministries, customs authorities, port and container terminal authorities, health and technical control agencies and banks taken into account. This would cause a delay in the import of goods.
- **Any Other Negative Incidents:** Any negative incident can cause some kind of business disruption to the organization from an operational perspective.

# Legal, Security and Compliance Update



## Most Recent Legal, Security and Compliance Alerts

<p><b>Immediate</b> Mar 18, 2022</p> <p>Update 48: Ukraine - Airstrike on School Reported - 21 Dead and Several Injured</p>	<p><b>Immediate</b> Mar 18, 2022</p> <p>Update 46: Lviv, Ukraine - Multiple Blasts Reported; Additional Sanctions Imposed on Russia</p>	<p><b>Immediate</b> Mar 17, 2022</p> <p>Update 45: Ukraine - Russia Attacks Theatre Sheltering Civilians - ICJ Orders to Suspend Military Operation</p>	<p><b>Immediate</b> Mar 16, 2022</p> <p>Update 44: Russia - Rating of Banks Downgraded by Fitch - Additional Sanctions Imposed by US and UK</p>	<p><b>Immediate</b> Mar 16, 2022</p> <p>Update 43: Ukraine - 500 Killed in Kharkiv - Additional Sanctions Imposed on Russia</p>
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### Immediate - Alerts

**Immediate** Mar 18, 2022  
Update 48: Ukraine - Airstrike on School Reported - 21 Dead and Several Injured

**Immediate** Mar 18, 2022  
Update 46: Lviv, Ukraine - Multiple Blasts Reported; Additional Sanctions Imposed on Russia

**Immediate** Mar 17, 2022  
Update 45: Ukraine - Russia Attacks Theatre Sheltering Civilians - ICJ Orders to Suspend Military Operation

**Immediate** Mar 16, 2022  
Update 44: Russia - Rating of Banks Downgraded by Fitch - Additional Sanctions Imposed by US and UK

**Immediate** Mar 16, 2022  
Update 43: Ukraine - 500 Killed in Kharkiv - Additional Sanctions Imposed on Russia

### High - Alerts

**High** Jan 17, 2022  
Disruption Risk Early Warning: Update 1: Ukraine - Cyber Attack Warning Issued by Microsoft

**High** Jul 10, 2021  
Ukraine - Accuses Russian Hackers of Targeting its Navy Website

### Moderate - Alerts

No Moderate Legal, Security and Compliance alerts issued for the time period covered by this report

### Low - Alerts

**Low** Sep 24, 2021  
Ukraine - Passes Law to Limit Oligarchs' Influence on Politics



Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
<b>Security And Compliance</b>	<b>Risk Rating</b>	6.85	6.85	6.85	0.00	
Data Protection Laws	Qualitative	Moderate Laws	Moderate Laws	Moderate Laws	No	
IP Protection Laws	Quantitative	3.40	3.40	3.40	0.00	High Risk - See Legal, Security and Compliance Implications section below
Cybercrime	Rank	12.00	12.00	12.00	0.00	Immediate Risk - See Legal, Security and Compliance Implications section below
Cyber Attacks	Qualitative	Yes	Yes	Yes	No	Immediate Risk - See Legal, Security and Compliance Implications section below
Software Piracy Rate	%	80%	80%	80%	0%	High Risk - See Legal, Security and Compliance Implications section below
Strength of Auditing and Reporting Standards	Rating	3.90	3.90	3.90	0.00	High Risk - See Legal, Security and Compliance Implications section below
Sanctions Imposed	Qualitative	No	No	No	No	

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
Financial Action Task Force (FATF)	Qualitative	No	No	No	No	Immediate Risk - See Legal, Security and Compliance Implications section below
<b>Legal</b>	<b>Risk Rating</b>	<b>4.47</b>	<b>4.47</b>	<b>4.47</b>	<b>0.00</b>	
Quality of Judicial Processes Index	Quantitative	11.50	11.50	11.50	0.00	
Time to Enforce a Contract	Days	378.00	378.00	378.00	0.00	
Anti-Bribery Laws	Qualitative	Yes	Yes	Yes	No	
Anti-Money Laundering Laws	Qualitative	Yes	Yes	Yes	No	
Patents Issued in the Last One Year	Quantitative	2,469.00	2,469.00	2,469.00	0.00	
Presence of Labor Union	Qualitative	Yes	Yes	Yes	No	Immediate Risk - See Legal, Security and Compliance Implications section below
<b>Labor Laws</b>	<b>Risk Rating</b>	<b>6.00</b>	<b>6.00</b>	<b>6.00</b>	<b>0.00</b>	
Working Hours for Day Shift	Hours	8.00	8.00	8.00	0.00	
Working Hours for Night Shift	Hours	8.00	8.00	8.00	0.00	

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
Weekly Working Hours	Hours	40.00	40.00	40.00	0.00	High Risk - See Legal, Security and Compliance Implications section below
Overtime Pay (% of Hourly Pay)	%	100%	100%	100%	0%	
Public Holidays per Year	Days	11.00	11.00	11.00	0.00	
<b>Negative Incidents</b>	<b>Risk Rating</b>	<b>1.00</b>	<b>1.00</b>	<b>10.00</b>	<b>+9.00</b>	
Any Other Negative Incidents	Qualitative	No	No	Yes	Yes	Immediate Risk - See Legal, Security and Compliance Implications section below

\*\* Refer latest alerts under "Legal, Security and Compliance" category

## Analysts Comment(s)

Multiple cyber attacks has been reported on government websites and banks during ongoing tensions between Ukraine and Russia.

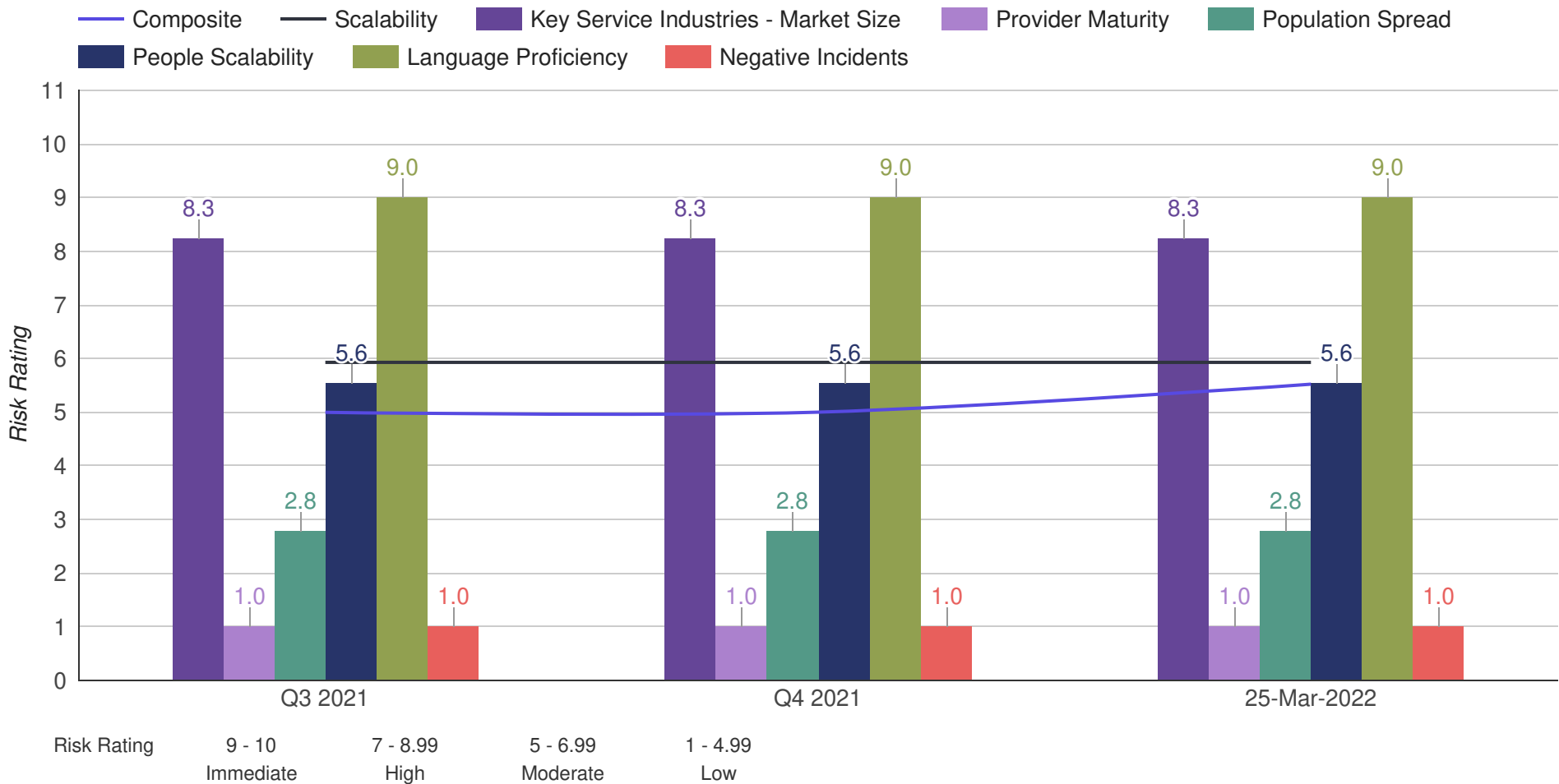
## Legal, Security and Compliance Implications

- **IP Protection Laws:** Poor IP Protection Laws indicate that the country does not facilitate or encourage innovation and adequate protection to intellectual property is not provided.
- **Cybercrime:** Lower cybercrime rank indicates location is highly susceptible to attacks such as malware, spam, exploits, botnet activities, phishing, and cyber-attacks. Adequate monitoring and cyber protection policies are not provided by the government.
- **Cyber Attacks:** Higher score indicates that the asset of a country is exposed to unauthorized access which can often result in substantial financial loss

arising from theft of corporate and information, money, disruption to trading, loss of business or contract, reputational damage, legal consequences of cyber breach. Government organizations and companies could also witness disruption to cellular and computer networks or paralysis of multiple systems.

- **Software Piracy Rate:** Higher software piracy rate could lead to hefty fines by IT regulatory bodies due to copyright infringement issues. Piracy not only causes financial loss but also negatively impacts publicity and private embarrassment.
- **Strength of Auditing and Reporting Standards:** Poor auditing and reporting standards indicates credibility issues, thereby, widening the gap between entrepreneurs who need capital and investors who can provide capital. This could impact long-term capital investment in the country. Poor audit standard impacts trust, and weakens accountability and confidence in financial reporting.
- **Financial Action Task Force (FATF):** Non-member country represents a higher risk of money laundering and terrorism financing. It indicates poor global response to prevent organized crime, corruption and terrorism.
- **Presence of Labor Union:** Strong presence of labor unions could lead to macro-economic problems such as wage inflation and lost productivity due to strikes. Unions focus significantly on the seniority of the workers which can translate into the lack of advancement for new and high performing employees to advance.
- **Weekly Working Hours:** Working hours which are lesser than 35 hours per week render the employees under-utilized and increase the cost to company.
- **Any Other Negative Incidents:** Any negative incident can cause some kind of business disruption to the organization from an operational perspective.

# Scalability Update



## Most Recent Scalability Alerts

### Most Recent - Alerts

No Scalability alerts issued for the time period covered by this report

### Immediate - Alerts

No Immediate Scalability alerts issued for the time period covered by this report

### High - Alerts

No High Scalability alerts issued for the time period covered by this report

### Moderate - Alerts

No Moderate Scalability alerts issued for the time period covered by this report

### Low - Alerts

No Low Scalability alerts issued for the time period covered by this report

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
<b>Key Service Industries - Market Size</b>	<b>Risk Rating</b>	<b>8.25</b>	<b>8.25</b>	<b>8.25</b>	<b>0.00</b>	
Banking and Financial Services	US\$ B	\$34.23	\$34.23	\$34.23	\$0.00	
Healthcare	US\$ B	\$4.90	\$4.90	\$4.90	\$0.00	Immediate Risk - See Scalability Implications section below
Insurance	US\$ B	\$0.89	\$0.89	\$0.89	\$0.00	Immediate Risk - See Scalability Implications section below
Information and Communications Technology	US\$ B	\$5.40	\$5.40	\$5.40	\$0.00	Immediate Risk - See Scalability Implications section below
<b>Provider Maturity</b>	<b>Risk Rating</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>0.00</b>	
Presence of Tier 1 Companies (With Operations Over a Billion Dollars)	Qualitative	Yes	Yes	Yes	No	
Presence of Tier 2 Companies (With Operations Between 500 Million and a Billion)	Qualitative	Yes	Yes	Yes	No	
<b>Population Spread</b>	<b>Risk Rating</b>	<b>2.80</b>	<b>2.80</b>	<b>2.80</b>	<b>0.00</b>	
0-14 Years	%	16.10%	16.10%	16.10%	0%	High Risk - See Scalability Implications section below

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
15-64 Years	%	66.50%	66.50%	66.50%	0%	
65 Years and Above	%	17.40%	17.40%	17.40%	0%	
<b>People Scalability</b>	<b>Risk Rating</b>	<b>5.56</b>	<b>5.56</b>	<b>5.56</b>	<b>0.00</b>	
Labor Force	M	16.03	16.03	16.03	0.00	Immediate Risk - See Scalability Implications section below
Literacy Rate	%	99.80%	99.80%	99.80%	0%	
Skillset of Graduates	Quantitative	4.30	4.30	4.30	0.00	
Ease of Finding Skilled Employees	Quantitative	4.40	4.40	4.40	0.00	
Ease of Hiring Foreign Labor	Quantitative	4.20	4.20	4.20	0.00	
Quality of Research Institutions	Quantitative	11.40	11.40	11.40	0.00	Immediate Risk - See Scalability Implications section below
Innovation Capability	Quantitative	40.10	40.10	40.10	0.00	
Annual Non-STEM Graduate Pool	Quantitative	512,400.00	512,400.00	512,400.00	0.00	
Annual STEM Graduate Pool	Quantitative	130,000.00	130,000.00	130,000.00	0.00	



Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
Labor Pool for Technology Services	Quantitative	185,000.00	185,000.00	185,000.00	0.00	Immediate Risk - See Scalability Implications section below
Attrition Rate in Technology Services	%	10%	10%	10%	0%	
<b>Language Proficiency</b>	<b>Risk Rating</b>	<b>9.00</b>	<b>9.00</b>	<b>9.00</b>	<b>0.00</b>	
English Proficiency	Qualitative	Low	Low	Low	No	Immediate Risk - See Scalability Implications section below
Spanish Proficiency	Qualitative	Low	Low	Low	No	Immediate Risk - See Scalability Implications section below
Multilingual Proficiency	Qualitative	Moderate	Moderate	Moderate	No	
<b>Negative Incidents</b>	<b>Risk Rating</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>0.00</b>	
Any Other Negative Incidents	Qualitative	No	No	No	No	

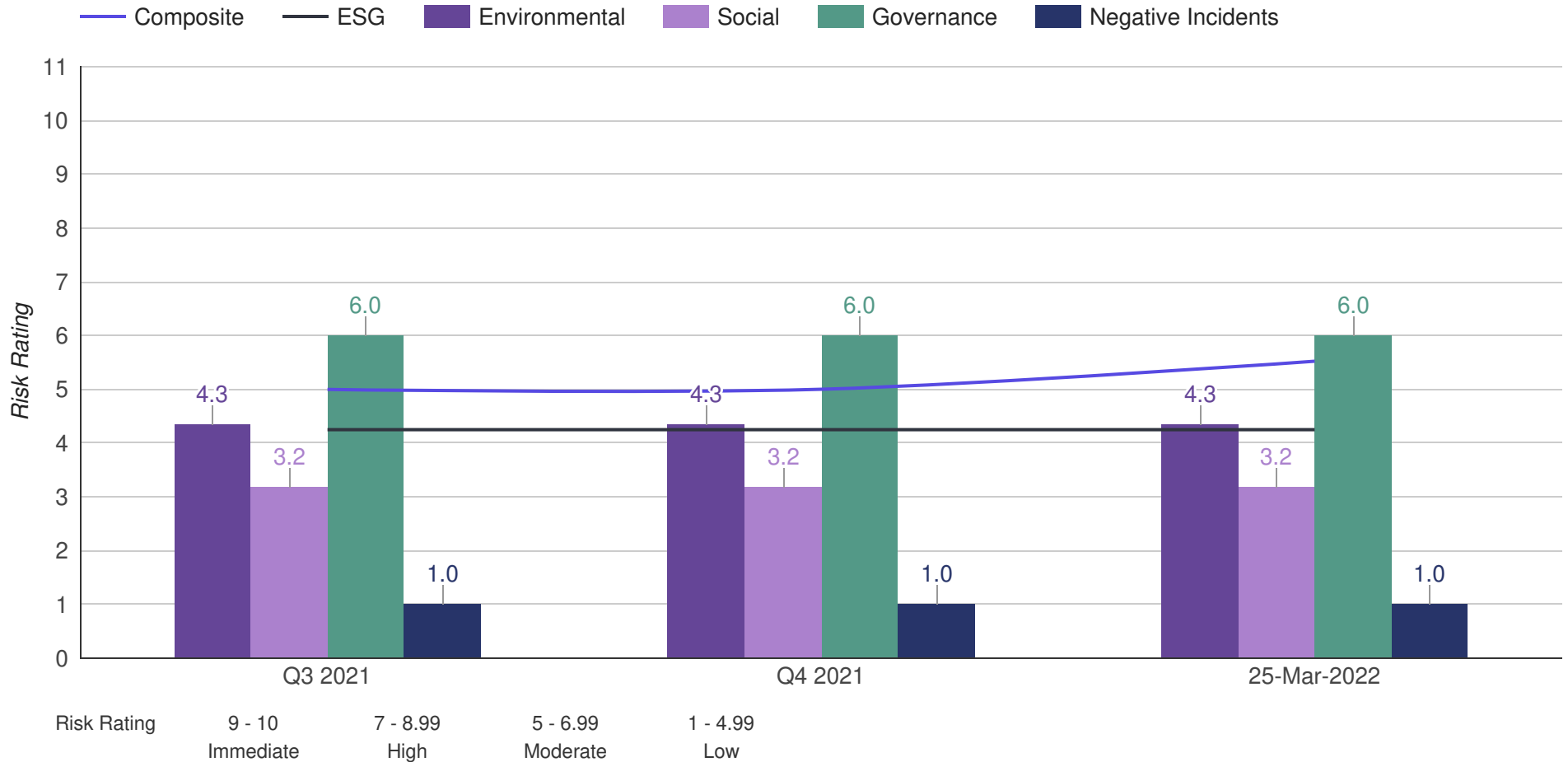
\*\* Refer latest alerts under "Scalability" category

## Scalability Implications

- **Healthcare:** Higher risk score indicates poor healthcare infrastructure in the country which impacts GDP, exports status, employment opportunities, capital investment, among others. Poor quality health services are holding back progress on improving health at all income levels across the country.
- **Insurance:** Higher risk score indicates poor insurance services in the country. This means limited employment, declining GDP, unstable financial system, and weaker balance of payments.

- **Information and Communications Technology:** Higher risk score indicates poor information and communication technology (ICT) services in the country. Limited ICT services impacts the efficiency of a business's output rate, restricting larger quantities of products to be moved or of services to be rendered. This increases the operational cost and slows down innovation.
- **0-14 Years:** Lower percentage of young population poses high risk as it would adversely impact the available workforce.
- **Labor Force:** Lower number of available workforces poses high risk for scaling up of operations.
- **Quality of Research Institutions:** Low rating indicates poor standard of private and public research institutions in the country. This can impact research and indicates slower rate of innovation.
- **Labor Pool for Technology Services:** Lower labor pool indicates shortage of scientists, engineers, and other resources in the country to build a competitive environment, lead innovation, and incentivize excellence in the field of technology.
- **English Proficiency:** A 'Poor' or 'Very Poor' data indicates that hiring local people with adequate english language skills is a major challenge.
- **Spanish Proficiency:** A 'Poor' or 'Very Poor' data indicates that hiring local people with adequate Spanish language skills is a major challenge. This could limit expansion of global client base and impact exports.

# ESG Update



## Most Recent ESG Alerts

<p><b>High</b> Dec 19, 2021</p> <p>Update 58: Ukraine - COVID-19 Variant 'Omicron' - First Case Reported</p>	<p><b>Moderate</b> Dec 03, 2021</p> <p>Update 57: Ukraine - COVID-19 Variant 'Omicron' Concern Results in Entry Restrictions for Eight African Countries</p>	<p><b>Immediate</b> Nov 27, 2021</p> <p>Multiple Countries - Travel Restrictions Imposed on South Africa Amid New COVID-19 Variant 'Omicron'</p>	<p><b>Moderate</b> Nov 26, 2021</p> <p>Ukraine - Polio Emergency Announced Amid Surge in COVID-19 Cases</p>	<p><b>Moderate</b> Nov 10, 2021</p> <p>Update 56: Ukraine - Reports Rise in Daily COVID-19 Deaths</p>
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### Immediate - Alerts

**Immediate** Nov 27, 2021  
 Multiple Countries - Travel Restrictions Imposed on South Africa Amid New COVID-19 Variant 'Omicron'

### High - Alerts

**High** Dec 19, 2021  
 Update 58: Ukraine - COVID-19 Variant 'Omicron' - First Case Reported

### Moderate - Alerts

**Moderate** Dec 03, 2021  
 Update 57: Ukraine - COVID-19 Variant 'Omicron' Concern Results in Entry Restrictions for Eight African Countries

**Moderate** Nov 26, 2021  
 Ukraine - Polio Emergency Announced Amid Surge in COVID-19 Cases

**Moderate** Nov 10, 2021  
 Update 56: Ukraine - Reports Rise in Daily COVID-19 Deaths

**Moderate** Oct 23, 2021  
 Update 55: Ukraine - Reports 23,785 New COVID-19 Cases in Last 24 Hours, National Total Raises to 2,748,614

**Moderate** Sep 23, 2021  
 Update 54: Ukraine - Plans to Re-Impose Restrictions Amid Surge in COVID-19 Cases

### Low - Alerts

No Low ESG alerts issued for the time period covered by this report

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
<b>Environmental</b>	<b>Risk Rating</b>	4.35	4.35	4.35	0.00	
CO2 emissions (metric tons per capita)	Metric Tons	223.00	223.00	223.00	0.00	
Climate Risk Index	Quantitative	105.33	105.33	105.33	0.00	
World Risk Index	Quantitative	2.90	2.90	2.90	0.00	
Pollution Index	Quantitative	63.19	63.04	62.98	-0.0600	
Environmental Performance Index	Quantitative	49.50	49.50	49.50	0.00	
Seismic Zone	Quantitative	1.00	1.00	1.00	0.00	
Earthquake	Quantitative	No Major Earthquake Reported	No Major Earthquake Reported	No Major Earthquake Reported	No	
Presence of Nuclear Power Plants in the Seismic Zone	Qualitative	Yes	Yes	Yes	No	Immediate Risk - See ESG Implications section below
Volcanic Eruptions	Qualitative	No	No	No	No	
Floods	Qualitative	No	No	No	No	
Epidemics	Qualitative	Yes	Yes	Yes	No	Immediate Risk - See ESG Implications section below

Category / Metric	Measurement	Q3 2021	Q4 2021	25-Mar-2022	Change from Q4 2021	Additional Comments
<b>Social</b>	<b>Risk Rating</b>	3.20	3.20	3.20	0.00	
Human Development Index	Quantitative	0.78	0.78	0.78	0.00	
Hospital beds (per 10,000 people)	Quantitative	75.00	75.00	75.00	0.00	
Health Care System Index	Quantitative	53.70	53.70	53.70	0.00	
Cost of Living Index	Quantitative	19.43	19.43	19.43	0.00	
Gender Inequality Index	Quantitative	0.23	0.23	0.23	0.00	
Gini Coefficient	Quantitative	26.10	26.10	26.10	0.00	
<b>Governance</b>	<b>Risk Rating</b>	6.00	6.00	6.00	0.00	
Index of Economic Freedom	Quantitative	56.20	56.20	56.20	0.00	
Global Innovation Index	Quantitative	36.32	36.32	36.32	0.00	High Risk - See ESG Implications section below
Regulatory Quality: Estimate	Quantitative	-0.3000	-0.3000	-0.3000	0.00	
<b>Negative Incidents</b>	<b>Risk Rating</b>	1.00	1.00	1.00	0.00	
Any Other Negative Incidents	Qualitative	No	No	No	No	

\*\* Refer latest alerts under "ESG" category

## ESG Implications

- **Presence of Nuclear Power Plants in the Seismic Zone:** Nuclear reactors that are operating in areas of significant seismic activity (earthquake danger zones) could be prone to major accident sequence.
- **Epidemics:** Epidemics can cause significant, widespread increases in morbidity and mortality and have disproportionately higher mortality impacts on low- and middle-income countries. It can also cause economic damage through multiple channels, including short-term fiscal shocks and longer-term negative shocks to economic growth. In countries with weak institutions and legacies of political instability, epidemics can increase political stresses and tensions.
- **Global Innovation Index:** Higher risk indicates poor innovation across political environment, education, infrastructure and business sectors.

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## About Supply Wisdom®

Supply Wisdom is the leader in full-stack continuous risk intelligence on third parties and locations. Our solutions automate risk management for enterprises and deliver continuous third-party and location risk intelligence, risk monitoring and risk actions across the widest risk aperture to minimize the risks of disruption facing their business, supply chains and third parties.

Leading enterprises partner with Supply Wisdom because our patented, unique solution:

- Provides the broadest risk domain coverage available in the market
- Continuously monitors third parties and locations to provide near real-time risk intelligence
- Validates and prioritizes risk findings
- Eliminates noise to enable focus on the most critical risks mitigation efforts
- Leverages technology to automate risk management from identification to risk action
- Seamlessly integrates into any platform maximizing value of investment

Supply Wisdom enables enterprises to move faster, do more with less, prioritize, and act proactively and confidently.

### Supply Wisdom's Full-Stack Continuous Risk Coverage

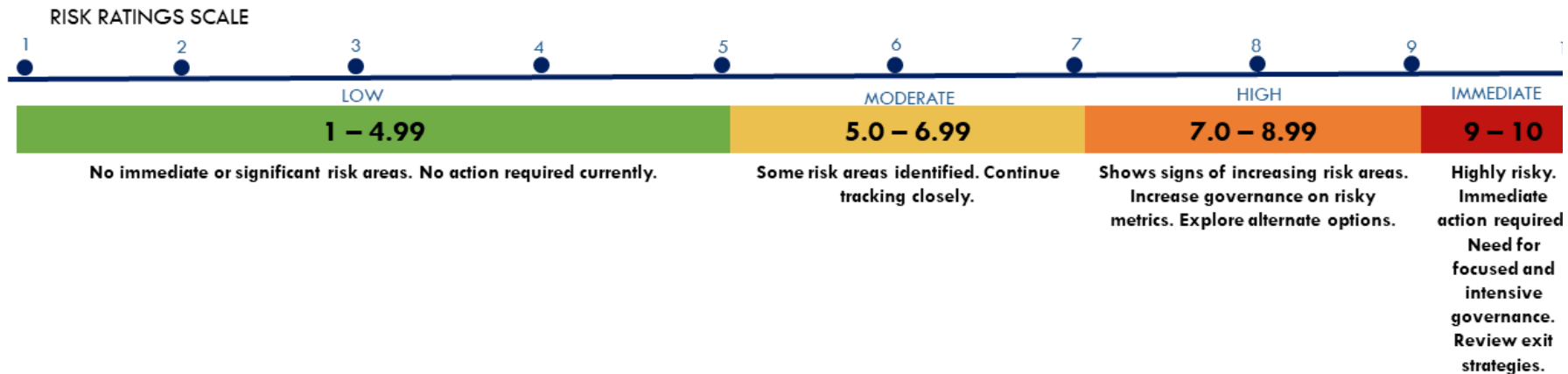


## Risk Reports & Event Alerts

- Our Risk Reports provide a detailed assessment of risks and Supply Wisdom’s analysis of the risk scenario
- Each report offers risk profiling, risk ratings and risk mitigation recommendations
- Quarterly updates continuously highlight the changes to risk scenarios and update the risk rating and recommendations
- Event Alerts provide quick summaries of real-time events that impact risk scenarios,

## Methodology

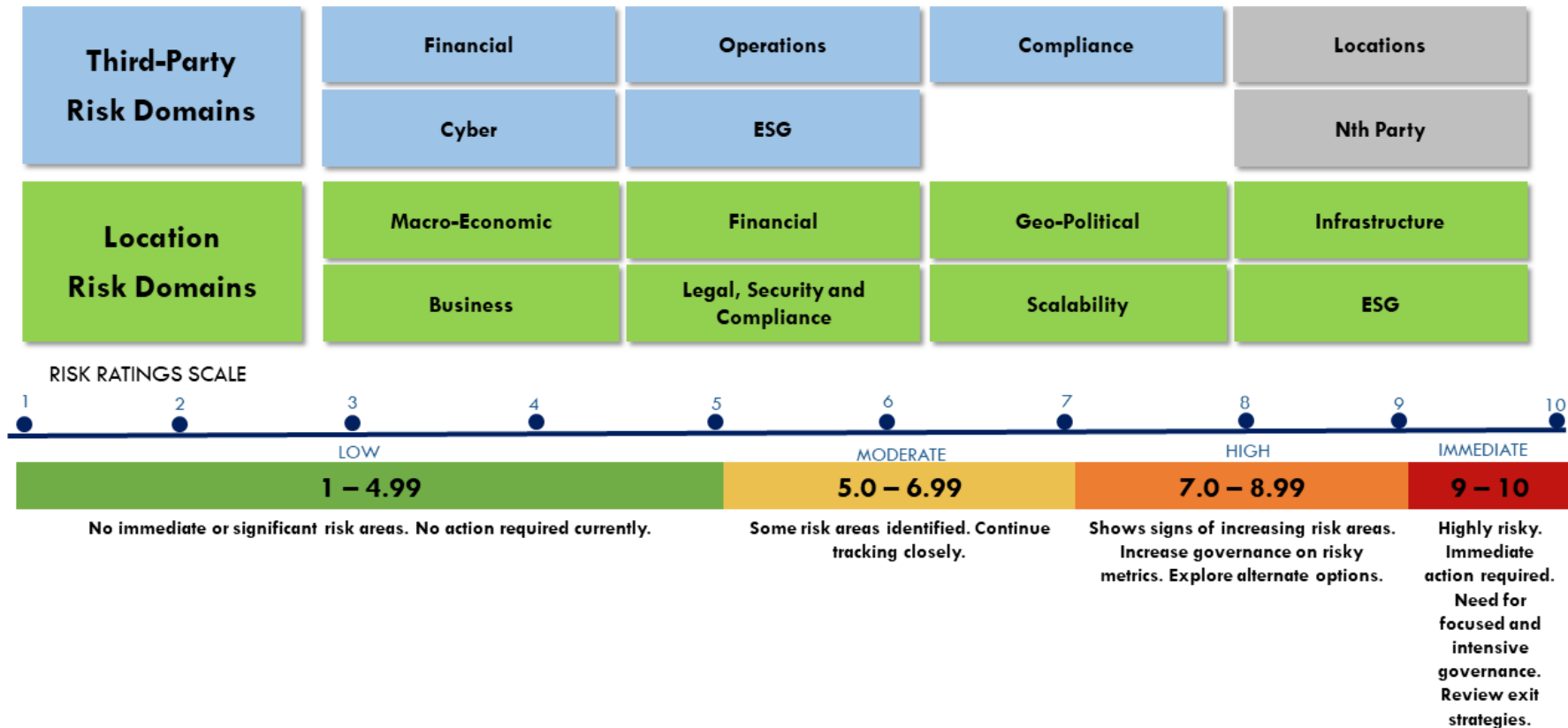
- Risk algorithms are driven by risk thresholds and weightings assigned to individual risk metrics, associated risk domains and their risk categories. Risk thresholds and weightages are based on current market/industry dynamics and trends and are expert reviewed twice a year to ensure they remain topical and relevant. All risk metrics are rolled up first into category ratings, then risk domain ratings and finally comprehensive risk rating for the entity being monitored.
- Each of the individual metrics is quantified into a risk score using pre-defined algorithms. The risk score ranges on a scale of 1 to 10 with 1 being low risk to 10 being immediate risk. Scores are color coded for ease of visualization.



# Methodology

Over 350 data metrics factor into our **Standard Risk Rating** computations, the percentage (%) weighting of each **Category** may vary.

Supply Wisdom® Automating Risk Intelligence  
 TPRM Continuous Risk Framework



## Domain Definitions

Location Domain	Description and Tracked Metrics
Macro-Economic	The Macro-Economic health of a location via metrics covering the risk categories of Economic Indicators, Credit Rating Risk, and Currency Risk.
Financial	The Financial health of a location via metrics covering the risk categories of Labor Cost, Operational Cost, and Taxation.
Geo-Political	The Geo-Political health of a location via metrics covering the risk categories of Political and Social/Social Security.
Infrastructure	The Infrastructure health of a location via metrics covering the risk categories of Power Supply, Transportation, and Facilities.
Business	The Business health of a location via metrics covering the risk categories of Ease of Doing Business, Regulatory & Statutory Requirements, International Trade and Logistics.
Legal, Security and Compliance	The Legal, Security and Compliance health of a location via metrics covering the risk categories of Security & Compliance, Legal, and Labor Laws.
Scalability	The Scalability health of a location via metrics covering the risk categories of Key Service Industries – Market Size, Provider Maturity, Population Spread, People Scalability, and Language Proficiency.
ESG	The ESG health of a location via metrics covering the risk categories of Environmental, Social and Governance.

## Appendix I - Abbreviations

Abbreviation	Stands For
B	Billion
BPO	Business Process Outsourcing
BPS	Basis Points
CAD	Current Account Deficit
CBD	Central Business District
CPI	Consumer Price Index
EIU	The Economist Intelligence Unit
FDI	Foreign Direct Investment
FTA	Free Trade Agreement
FTZ	Free Trade Zone
Gbps	Giga bits per second
GDP	Gross Domestic Product
Kwh	Kilo Watt Per Hour
Ltr	Liter
M	Million

Abbreviation	Stands For
Mbps	Mega bits per second
MW	Mega Watt
PBD	Peripheral Business District
PLR	Prime Lending Rate
QoQ	Quarter on Quarter
Qtr	Quarter
SBD	Secondary Business District
SEZ	Special Economic Zone
Sq ft	Square Foot
Sq M	Square Meter
VAT	Value Added Tax
WPI	Wholesale Price Index
YoY	Year on Year
YTD	Year to Date

