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Global Labour Resilience Index 2022

Stagnating resilience

IN COLLABORATION WITH

CEMS
THE GLOBAL ALLIANCE IN MANAGEMENT EDUCATION

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The analysis and drafting of the Global Labour Resilience Index 2022 (hereafter: "Report") was conducted by Whiteshield Partners based on a methodology integrating statistics from international organisations and interviews with the Advisory Board members, with the support from its main partner CEMS, the Global Alliance in Management Education, comprising leading business schools, multinational companies and NGOs that together offer the CEMS Masters in International Management.

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FOREWORD

By Sir Christopher A. Pissarides, Regius Professor of Economics at the London School of Economics, Director at Whiteshield Partners, Global Labour Resilience Index Advisor and recipient of the 2010 Nobel Prize in Economics

COVID-19 remains a challenge for economies, labour markets and health systems across the world, and therefore it continues to make its presence felt within the results of the Index.

How do we know which countries are able to recover most quickly from shocks, such as COVID-19, and transform in the face of longer-term technological disruption? The Whiteshield Partners' "Global Labour Resilience Index 2022" aims to address this significant issue: how well prepared are labour markets to take on both short- and longer-term shocks for the benefit of all?

The Index is an invaluable tool grounded in a large set of relevant indicators that can help guide us to evaluating labour market preparedness. The 2022 version of the Index considers three stages of resilience capabilities needed for countries facing shocks to their labour markets. These capabilities are required to absorb the shock in the short term, adapt in the medium term, and transform in the longer term to prepare labour markets to boost resilience and be ready to face future shocks.

Last year's edition of the GLRI focused on how countries can "absorb" the shock from COVID-19 or even adapt in the face of new challenges. Now, in 2022, it is important to recognise not just the need for countries to adapt and return to the status quo, but to look into the future and understand their ability to transform.

The future of work is uncertain, and with all uncertainty, there is a necessity for preparation. From technology to climate change, the need to align labour markets with the trends of the future is essential. Technological disruption has accelerated over the last two years and will continue to make its presence known through the automation of work and the increased digitalisation of government services.

Governments across the globe face a plethora of challenges over the following months and years ahead – this report identifies the challenges and solutions.

ADVISORY BOARD TO GLOBAL LABOUR RESILIENCE INDEX

The GLRI Advisory Board was formed to provide guidance on the methodology and research applied to the Global Labour Resilience Index, ensure consistency of the findings and support in the dissemination of results. The Advisory Board is a select group of leading international practitioners and experts with unique knowledge and skills in the areas of economic and labour policy and technological disruption. Its members, while coming from diverse geographical and institutional backgrounds (international organisations, the public sector, non-governmental organisations, business and academia), participate in their personal capacity. Whiteshield Partners is grateful for the time and support provided by the Advisory Board members.

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The report was developed by Whiteshield Partners. Several Whiteshield Partners Directors and staff were involved in the project including Anthony O'Sullivan, Partner and Director; Fadi Farra, Co-Founder, Partner and Director; Kathryn Petrie, Senior Associate; Elena Balter, Senior Economist and Amira Bensebaa, Manager. The Report benefited from Whiteshield Partners proprietary Global Labour Resilience Index model and Knowledge Mapping intellectual property.

Whiteshield Partners would like to extend a special thank you to GLRI 2022 Partner, CEMS, for their outstanding support to the Global Labour Resilience Index 2022.

We would also like to thank the members of the GLRI Advisory Board for their invaluable inputs into the GLRI 2022, including Sir Christopher A. Pissarides, Regius Professor of Labour Economics at the London School of Economics (LSE), and recipient of the Nobel Prize in Economics; Rolf Alter, Former Director of Governance Affairs, OECD and Whiteshield Partners Expert; Jennifer Blanke, Former VP African Development Bank and Whiteshield Partners Advisor; Stephen Groff, Governor of the National Development Fund of Saudi Arabia; Professor Sergei Guriev, Whiteshield Expert; Professor Bernard Hugonnier Director, Whiteshield Partners; John Martin, Former Director of Employment, Labour and Social Affairs, OECD and Whiteshield Partners Expert; Professor Pawel Wojciechowski, Director, Whiteshield Partners.

KEY FINDINGS

Resilience is stalling, leaving too many countries vulnerable to shocks

KEY GLRI 2022 INSIGHTS

Three key findings from the GLRI 2022

1. Resilience is stalling

There has been very little movement in the GLRI rankings over the last five years predominately due to the fact that labour market resilience has become stagnant.

Almost half of countries have either experienced a decline in labour market resilience or have increased their score by less than 1 point.

2. Too many countries are being left behind

Over one third of countries within the Index score less than 50 out of 100 on labour market resilience

70% of countries in Sub-Saharan African rank below 100. There is a major gap between resilience leaders and laggards and without change in policy this will continue.

3. Having the right capabilities supports recovery

The USA has the highest adaptive capabilities, this means that it will be able to recover from a shock with relative ease and speed. Business registrations in the USA were 53% higher in 2021 than in 2019.

Over the last twelve months our world has continued to deal with the aftereffects of an unprecedented crisis with considerable long-term ramifications for which it was not prepared. The 2022 edition of the Global Labour Resilience Index (GLRI) continues to build upon its resilience capabilities framework (Figure 1). The framework places an emphasis on the key capabilities required for countries to better prepare for both shorter-term shocks such as COVID-19 and longer-term stresses such as technological disruptions and green transitions.

Structural resilience measures intrinsic vulnerabilities

The Index is divided into two pillars: the structural and the cyclical pillar.

The **structural pillar** assesses intrinsic country vulnerabilities, or protective factors, which can interact with disruptions to further amplify or reduce their intensity. These factors are harder to change in the short-term - such as demographics, the level of economic development and macroeconomic stability, country capabilities, trade vulnerability and inequality.

The cyclical pillar focuses more on how the policies in place can alter the level of disruption experienced by a labour market. The pillar is divided into four sub capabilities categories.

The first three are:

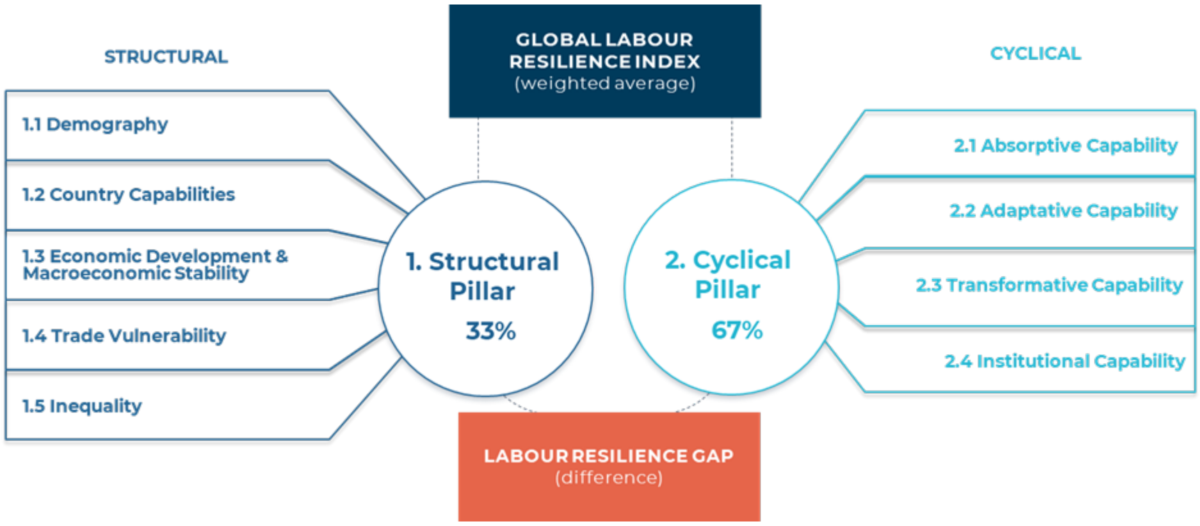
- **Absorptive capability** defined as the ability to contain the shock and minimise the damage on jobs and workers.
- **Adaptive capability** defined as the ability to recover quickly and rapidly create new jobs to replace the destroyed ones.
- **Transformative capability** defined as the ability to align with major future trends and turn long-term stresses into opportunities.

Cyclical resilience capabilities respond to the stages of a crisis

Each of these three sub-pillars includes indicators from different policy fields, such as education, entrepreneurship, technology, and labour. Highlight the importance of cross-cutting policy making which breaks down traditional silos.

The fourth sub-pillar, institutional capability, acts as a cross-cutting enabler to a resilient response throughout all phases of the crisis and all types of disruptions.

Figure 1: Global Labour Resilience Index Framework



Source: Whiteshield Partners, Global Labour Resilience Index

The key findings summarise the most important results of the GLRI 2022.

Nine of the GLRI 2022 top 10 countries are European

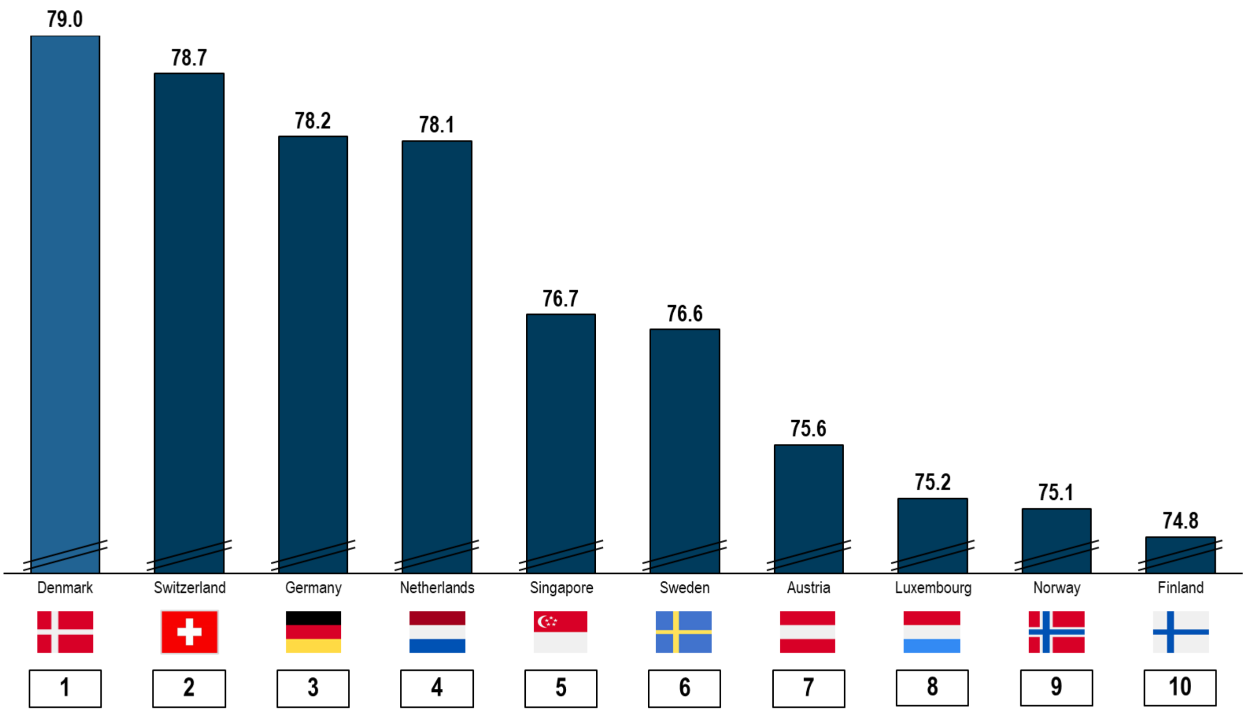
European countries dominate the GLRI top 10

The top 10 have a diverse set of characteristics, however, on average they perform better on the cyclical rather than structural pillar – in part due to the ageing demographics of European nations.

The ageing population means they face intrinsic vulnerabilities due to their lower structural resilience. An ageing population poses numerous challenges for developed nations including a smaller and older workforce. In these countries there is a need to keep the workforce active for a longer period and in productive roles and sectors which must be reflected by government policy through options such as lifelong learning.

Denmark tops the GLRI 2022 rankings (Figure 2) based on its strong and balanced performance across all dimensions of the labour market resilience framework. It has a balanced performance across the cyclical resilience capabilities, supported by its first-place ranking on institutional capabilities. Denmark belongs to the set of countries which were able to perform better during the initial stage of the COVID-19 crisis due to their high performance in absorptive capabilities (4th). The country has a strong support system.

Figure 2: Global Labour Resilience Index 2022 Top 10



Source: Whiteshield Partners, Global Labour Resilience Index

Global Labour Market Resilience is stalling...

There has been very little movement in the GLRI rankings over the last five years predominately due to the fact that labour market resilience has become stagnant. Almost half of countries have either experienced a decline in labour market resilience or have increased their score by less than 1 point.

Countries must address their structural or cyclical weaknesses if they are to boost labour market resilience.

… too many labour markets are failing to close the gap to the resilience leaders

Over one third of countries within the GLRI have a resilience score of less than 50 out of 100 and 70% of countries in Sub-Saharan African rank below 100th. There is a major gap between these nations and the resilience leaders and without change in policy this will continue.

Failing to close the resilience gap is a cause for concern. Many nations did not have the tools or capabilities in place to cope with COVID-19. Shocks are inventible but without change many countries will again find themselves prone to significant changes in their macroeconomic position.

Resilient labour markets display a high quantity and quality of jobs

The crisis has shown that a low unemployment rate is not always indicative of a resilient labour market. Persistently high levels of unemployment are explained in part by challenges related to high numbers of low skilled, expendable workers in roles that are highly vulnerable to economic shocks. Countries who have higher levels of absorptive capabilities were better placed to weather the economic shock of COVID-19.

There is a strong correlation between performance in absorptive capabilities from the GLRI 2022 and the initial growth rate in unemployment experienced by many OECD nations.

High performing countries already had systems in place which put the wellbeing of people at the centre of their economic policy and continued to do so throughout the pandemic. High absorptive capability indicates a better-quality labour market as it encapsulates the quality of earnings, inclusivity by gender and age and informal employment.

Social security system provides Belgium with high absorptive capability

The highest performer on absorptive capabilities is Belgium, this means it should be the most able to mitigate the initial impact of a crisis. Despite Belgium's top performance it failed to reach the top 10 in the GLRI 2022. Belgium is a small country and benefits from a well-established redistributive welfare system. The system contributes to its low and stable inequality rates. Amongst OECD nations Belgium has the third highest social expenditure as a share of GDP (28.9%) and demonstrates the importance of policies which protect the incomes of citizens not just in times of crisis.

The entrepreneurial environment of the USA supports economic recovery

The USA has the highest adaptive capabilities, this means that it will be able to recover from a shock with relative ease and speed.

Adaptive capabilities are aided by a supportive entrepreneurial environment, including a high performance on the ease of getting credit and time to start a business.

New business registrations in the USA were 53% higher in 2021 than in 2019

The USA's imbalance in capabilities has been evident over the last two years. The USA's unemployment rate rose drastically during the early stages of the COVID-19 crisis but has since been able to recover and almost return to pre-crisis levels.

New business registrations in the USA dropped drastically during the initial months of the crisis, however, they have since rebounded and continue to grow at pace. Business registrations in the USA were 53% higher in 2021 than in 2019. The US labour market is experiencing new challenges through the 'great resignation' and rising inflation.

Switzerland is moving ahead with the green transition

The country with the highest transformative capabilities and therefore the most aligned with future trends is Switzerland. The country already has a strong environmental position, ranking 4th on the Co2 intensity of GDP and 7th on its (lack of) dependence on natural resources.

An alignment with the green transition is essential to ensure that the labour market will be able to adapt to new and greener ways of working.

However, progress is not always easy to achieve, and changes need to continue to be made. Switzerland is unique among democratic nations in that it practices both direct and representative democracy. In the summer of 2021 Swiss were asked to vote on curbing emissions via a referendum on amending the Federal Act on the Reduction of Greenhouse Gas Emissions (CO2

Act). The referendum aimed to reduce greenhouse gas emission by at least 50% by 2030, in line with the Paris agreement, but voters rejected the notion. Many countries will need to work hard to bring voters onside as the climate challenge continues to grow.

Inequalities in labour market resilience between income groups remain high

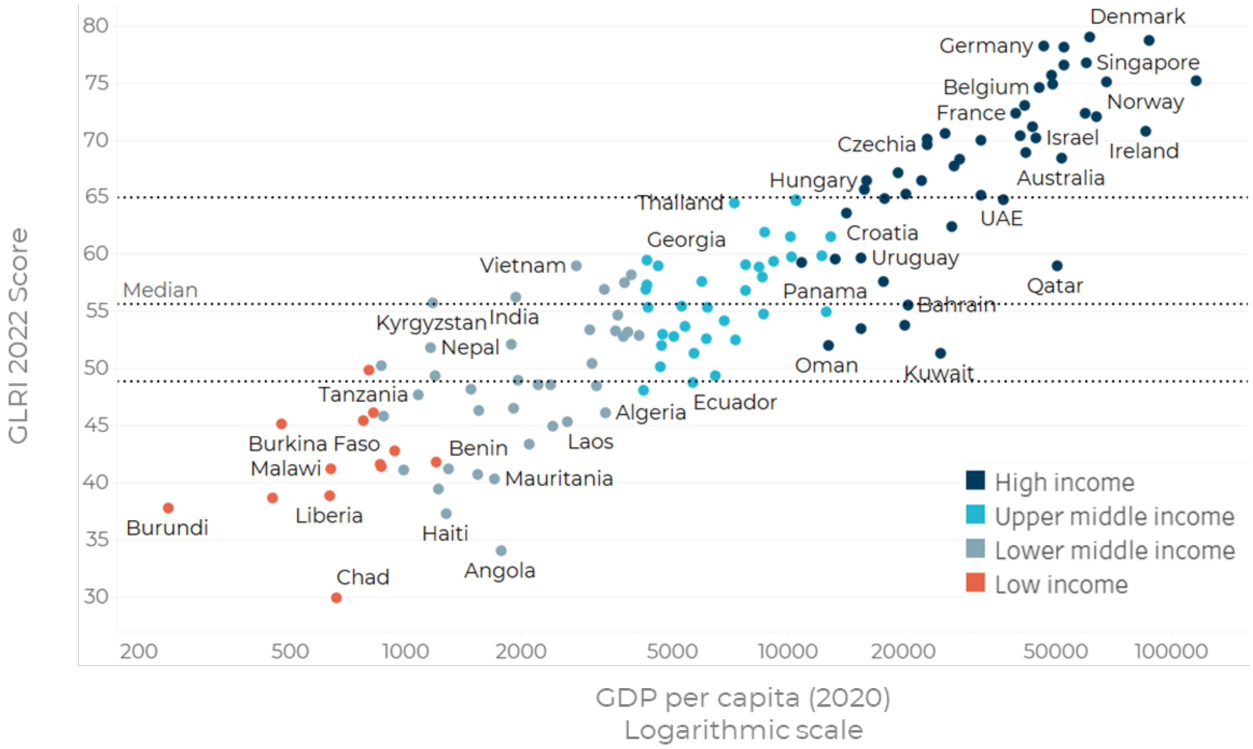
Income groups remain a good overall predictor of labour market resilience with a strong correlation between GLRI scores and GDP per capita (Figure 3). Countries performing above the upper quartile in the GLRI 2022 are all high-income countries. A small number of high-income countries have scores below the global median, these are: Saudi Arabia, Kuwait, Oman and Trinidad & Tobago. The stagnations in labour market resilience means inequalities between income levels are failing to dissipate.

The small country advantage

The top 10 ranking of the GLRI is dominated by smaller countries, with the exception of Germany. Smaller countries seem to enjoy a number of cyclical resilience advantages, this can be explained by several factors ranging from lower spatial disparities, greater government closeness to the population, a stronger community bond and the relative speed and ease of regulation and policy implementation. Smaller countries in the GLRI 2022 top 10 perform particularly well on their transformation capabilities demonstrating a strong orientation towards innovation, digital and green transitions.[1]

[1] This is in line with research findings on the competitiveness of innovation ecosystems of advanced small countries.

Figure 3: GLRI 2022 performance vs. GDP per capita



Source: Whiteshield Partners & World Bank

INTRODUCTION

A capabilities-based approach to resilience

The Global Labour Resilience Index (GLRI) is an annual publication launched in Davos, which ranks countries on the resilience of their labour markets and provides policy guidance on how to enhance that resilience.

A resilient labour market is defined as one that generates sustainable demand for a wide range of occupations and supplies quality work. Resilient labour markets are inclusive, sustainable, and able to withstand shocks because of their flexibility and adaptability.

The 2022 edition of the Global Labour Resilience Index is based on a revised methodology, full details of which can be found in the separate methodology document.

A capabilities-based approach to resilience

The GLRI 2022 continues to use the capability-based approach established in the GLRI 2021. The Index assesses labour market resilience to a wide range of disruptions from short and medium-term shocks, such as economic crisis, to long term stresses such as environmental change and technological disruptions.

The resilience as a general principle can be defined as the ability to face disruptions and survive regardless of what they are.

The GLRI is focused on two streams of resilience: structural and cyclical (Figure 4).

Failing to balance resilience capabilities exposes countries to shocks

The structural capabilities pillar measures the risk exposure of a country

The structural pillar assesses intrinsic country vulnerabilities, or protective factors, which can interact with disruptions to further amplify or reduce their intensity. These factors are harder to change in the short-term - such as demographics, the level of economic development and macroeconomic stability, country capabilities, trade vulnerability and inequality.

Country capabilities is measured through the Economic Complexity Index which tries to measure country capabilities indirectly by looking at the mix of products that countries export. The assumption is that the country capabilities will determine the number and quality of products that a country can export; hence export bundles tell us something about the underlying productive capabilities.

The cyclical capabilities pillar measures the strength of a labour markets' response to disruption

The cyclical pillar focuses more on how the policies in place can alter the level of disruption experienced by a labour market. The pillar is divided into four sub capabilities categories.

The first three are:

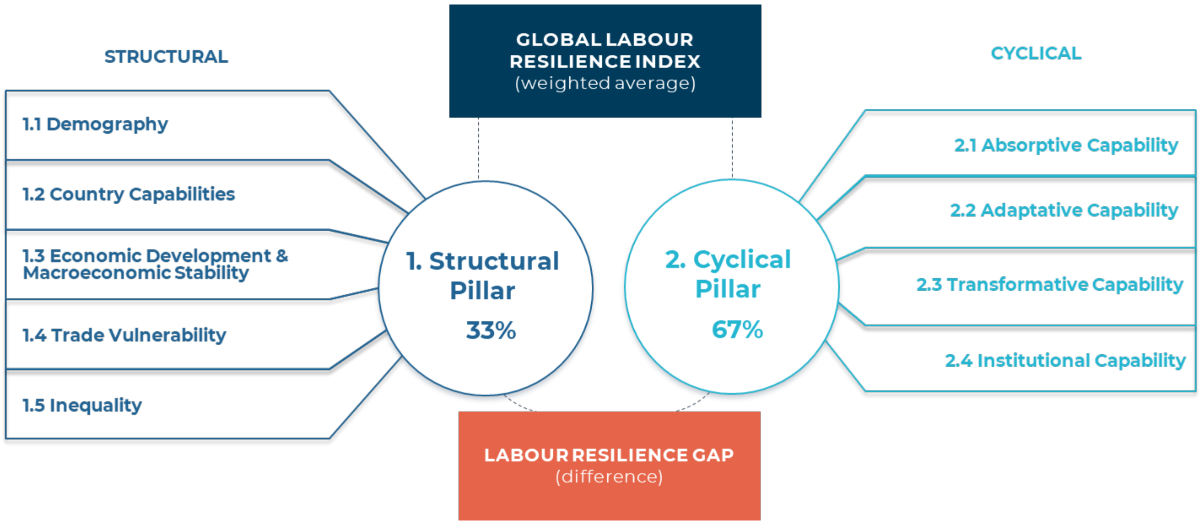
- **Absorptive capability** defined as the ability to contain the shock and minimise the damage on jobs and workers.
- **Adaptive capability** defined as the ability to recover quickly and rapidly create new jobs to replace the destroyed ones.
- **Transformative capability** defined as the ability to align with major future trends and turn long-term stresses into opportunities.

Each of these resilience capabilities will be more important during the different stages of the disruption cycle and depending on the type of disruption (Figure 5). Each of these three sub-pillars includes indicators from different policy fields, such as education, entrepreneurship, technology, and labour. Highlight the importance of cross-cutting policy making which breaks down traditional silos.

The fourth sub-pillar, institutional capability, acts as a cross-cutting enabler to a resilient response throughout all phases of the crisis and all types of disruptions.

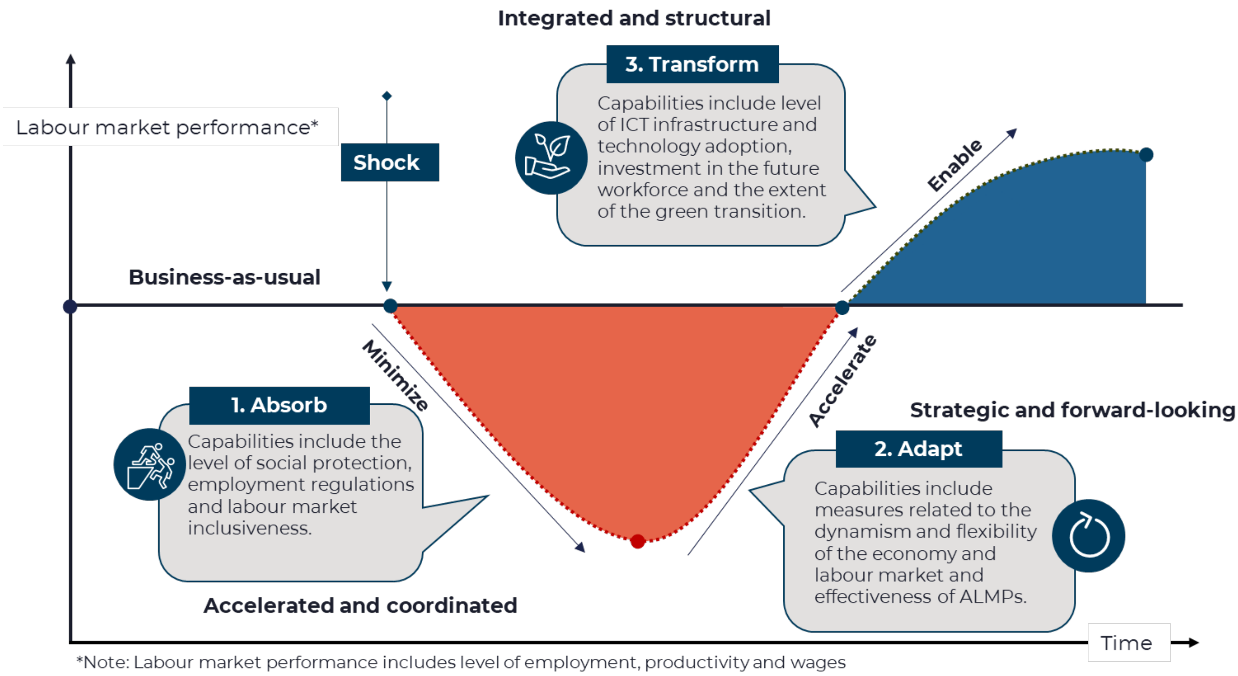
All full list of indicators is provided in Figure 6.

Figure 4: Framework for the Global Labour Resilience Index



Source: Whiteshield Partners, Global Labour Resilience Index 2022

Figure 5: Framework of cyclical resilience



Source: Whiteshield Partners, Global Labour Resilience Index 2022

Figure 6: Global Labour Resilience Index Indicators

1. Structural elements

1.1 Demographics
- Share of older population

1.2 Country capabilities
- Economic complexity (ECI)

1.3 Economic Development of Macroeconomic stability
- GDP/capita
- % services (GDP)
- Dependence on natural resources
- Debt dynamics

1.4 Trade Vulnerability
- Concentration of exports (HHI)
- Economics diversity (RCAs)
- Current account balance

1.5 Inequality
- Income inequality (Gini coefficient)

2. Cyclical elements

	Input	Output	
2.1 Absorptive capacity	**Support and protection of workers** • Workers' rights • Pension coverage • Unemployment coverage • Coverage of basic health services	**Quality of employment** • Quality of earnings • Quality of working environment • Share of informal employment **Youth inclusiveness** • Youth not in EET • Youth unemployment **Labour market polarization and inequality** • Low-skilled labour • Trend in growth of medium-skilled jobs • Labour income share • Labour income inequality	**Gender inclusiveness** • Ratio of female to male labour force participation rate • Gender pay gap: estimated earned income ratio **Health and well-being of population** • Longevity • Physical health • Mental health
2.2 Adaptive capacity	**Flexibility of labour policy** • Hiring and firing practices • Ease of hiring foreign labour • Effect of taxation on incentive to work **Business regulation** • Time dealing with government regulation • Intensity of local competition • Trade openness • Applied tarrifs • Paying taxes • Enforcing contracts • Property rights • Insolvency framework **Starting a business regulation** • Time to start a business • Cost to start a business **Access to finance regulation** • Doing business access to credit **Quality of infrastructure** • Logistics Performance Index	**Reallocation and flexibility mechanisms** • Active labour market policies effectiveness **Skills and adaptability** • Participation rate in formal and non-formal education and training • Extent of staff training • High-skilled labour • Skilled labour supply • Tertiary education attainment • Skillset of graduates	**Entrepreneurship activity** • New corporate registration • GEI attitudes & perceptions subindex **Access to finance** • Venture capital investments • SME access to loans • Microfinance portfolio • Depth of capital markets

2. Cyclical elements			
2.3 Transformative capacity	**Regulation of ICT** • Internet and telephony sector competition **regulation** • Future orientation of government • Global Cybersecurity Index **Support and investment in technology** • Public procurement of advanced technology **Expenditures on R&D** • Gross R&D expenditure (% GDP) **Intellectual property legislation** • IPR score **Innovation incentives** • Other tax incentives **Investment in the future workforce** • Government expenditures on education (% GDP) • Tertiary education expenditure per tertiary student • Pupil teacher ratio • ICT infrastructure per school	**ICT business penetration** • ICT usage by firms • ICT and business model innovation in firms • ICT and organizational model innovation in firms **ICT infrastructure penetration** • ICT access **Innovation environment** • Scientific and technical journal articles • Researchers in R&D • Technicians in R&D • Quality of research institutions • Industry-university collaboration **Innovation trade** • Shares of creative goods exports	**Technology and digital economy** • High-technology net exports • ICT goods exports • ICT services exports • Share of medium-high and high-tech manufacturing in MVA • Share of medium high and high-tech manufacturing exports in manufacturing exports • Robot adoption rate **Green transition** • Environmental goods exports and imports • Green patent applications • Renewable energy consumption • CO_2 intensity of GDP • Energy intensity • Domestic material consumption **Innovation products** • Trademark applications • Patent applications • International co-inventions **Education and skills of the future workforce** • Quality of vocational education • PISA scores • Quality of educational system • Critical thinking • Digital skills • STEM graduates
2.4 Institutional capacity	• WB World Governance Index • Social capital • WB statistical capacity index • GLRI statistical fullness indicator		

TOP 10 COUNTRIES

Structural performance is lagging for many Top 10 nations

WHO ARE THE TOP 10?

The top 10 countries in the GLRI 2022 have the most resilient labour markets in the world.

WHO ARE THEY?

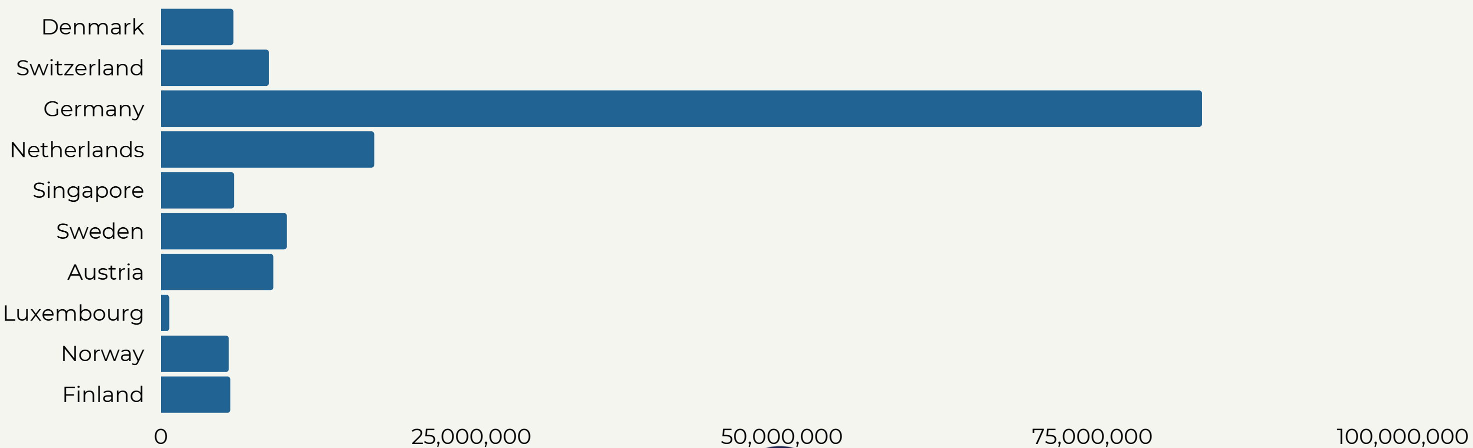
The top 10 are predominantly European nations with the exception of Singapore.

Denmark has the world's most resilient labour market

2. Switzerland
3. Germany
4. Netherlands
5. Singapore
6. Sweden
7. Austria
8. Luxembourg
9. Norway
10. Finland

KEY FACT: POPULATION SIZE

All top performers have small populations with the exception of Germany.



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The following section provides an overview of the 10 countries with the world's most resilient labour markets. Throughout the section some of the best and most innovative practices being used to enhance labour market resilience are shown. A summary of the GLRI 2022 results for the top 10 countries and breakdown of top 10 GLRI results by pillar and sub-pillar are provided in Table 1.

Table 1: Global Labour Resilience Index 2022 Top 10

Country	GLRI 2022 Rank	GLRI 2022 score (0-100)	1. Structural Pillar Rank	Structural pillar score (0-100)	2. Cyclical Pillar Rank	Cyclical pillar score (0-100)	GLRI Rank Trend 2017-2022
Denmark	1	79.0	6	79.2	2	78.9	+3
Switzerland	2	78.7	12	78.0	1	79.0	-1
Germany	3	78.2	1	81.2	4	76.6	-1
Netherlands	4	78.1	5	79.8	3	77.3	-1
Singapore	5	76.7	9	78.3	6	75.9	0
Sweden	6	76.6	10	78.2	7	75.7	0
Austria	7	75.6	4	79.9	10	73.5	1
Luxembourg	8	75.2	11	78.0	9	73.8	+3
Norway	9	75.1	28	73.0	5	76.1	1
Finland	10	74.8	18	74.9	8	74.8	-3

Source: Global Labour Resilience Index 2022, Whiteshield Partners

OVERVIEW OF THE TOP 10

Structural performance is lagging for many top 10 nations

The top 10 have a diverse set of characteristics, however, on average they perform better on the cyclical rather than structural pillar – in part due to the ageing demographics of European nations. The ageing population means they lag behind others on structural resilience. An ageing population poses numerous challenges for developed nations including a smaller and older workforce. There is a need to keep the workforce active for longer and in productive roles and sectors. Policymakers have a series of options at their disposal to tackle these issues including lifelong learning, incentivising older people to stay in the labour market through taxes or pension reform and upskilling / reskilling.

The top 10 countries are also characterised by high institutional capabilities. They all rank high on the World Governance Index and in social capital, indicating their high potential to drive policy reforms in the short and long term.

The top 10 ranking is dominated by countries with open, trade dominant economies

Countries from Northwest Europe hold nine out of the top 10 slots. These countries tend to be characterised by higher economic development and macroeconomic stability, strong educational systems, inclusive labour markets and high levels of innovation.

The top 10 countries are responsible for 22% of global exports

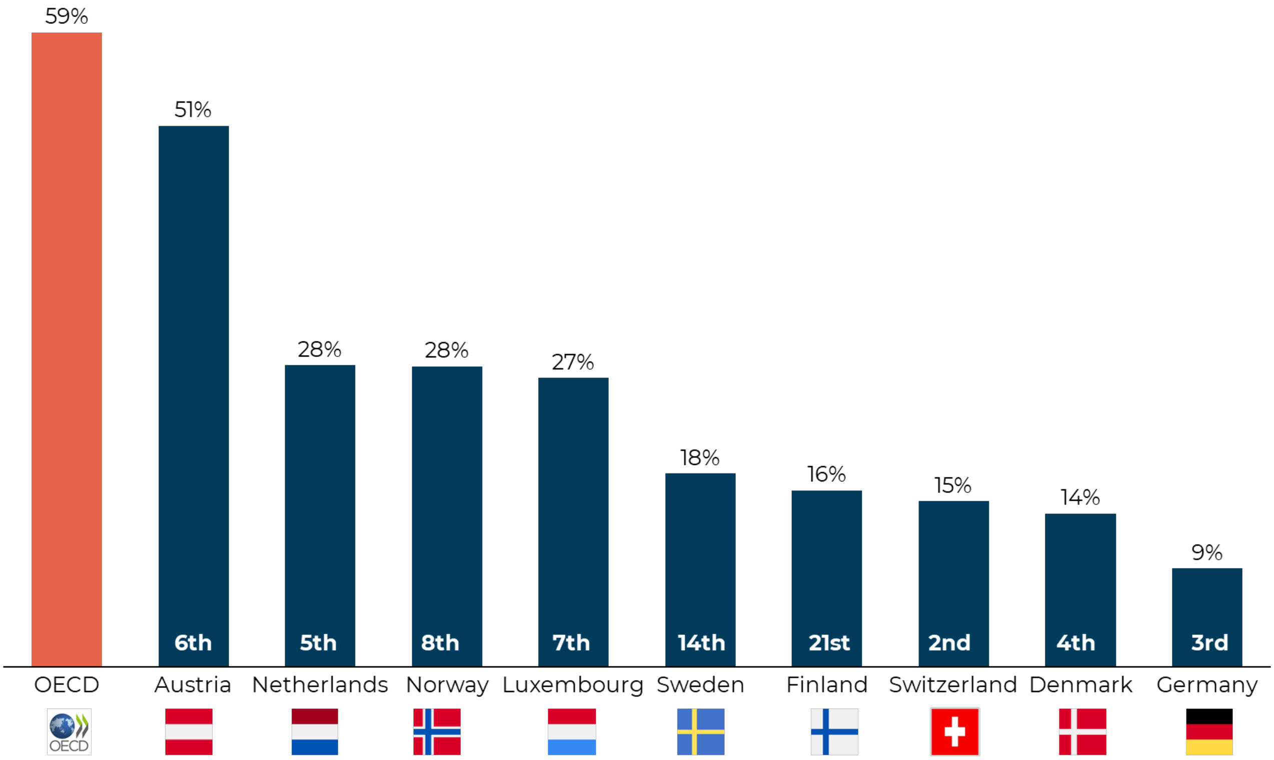
In 2020, the top 10 countries were responsible for 22% of global goods and service exports (in value). They are open economies with high levels of economic complexity and with multiple trading partners. They have an average rank of 15th on the country capabilities sub-pillar of the index and 19th on the trade vulnerability - with Germany leading (1st) and Norway showing room for improvement (41st).

Absorptive capabilities helped reduce the impact of COVID-19 on unemployment

The top 10 in absorptive capabilities includes eight countries from the GLRI top 10.

Only Sweden and Finland do not feature within the absorptive top 10 - they rank 14th and 21st respectively. Countries with high absorptive capabilities will be able to minimise the scale of the initial shock of a crisis due to their existing support mechanism systems and their people first approach to policymaking. During the pandemic, the greatest increase in the unemployment rate for OECD nations was experienced in Q2 2020, with the average OECD unemployment rate increasing from 16.2% to 25.9% from Q1 to Q2, a rise of 59%. The GLRI top 10, who are all members of the OECD, except for Singapore, experienced an average increase in the unemployment rate of only 17% over the same period (Figure 7).

Figure 7: Percentage change in unemployment rate for OECD top 10 GLRI countries, *Q1 to Q2 2020*



Source: Global Labour Resilience Index 2022, Whiteshield Partners, and OECD

Smaller declines in unemployment were helped by unprecedented financial support packages offered by governments across the globe. Many of these support packages included direct measures to mitigate job losses in sectors severely impacted by COVID-19. All countries in the GLRI top 10 used some form of job retention scheme during 2020.[2] There were two support strategies available to most government's protect people or protect businesses and many chose to protect people as job retention schemes became the new normal during the pandemic. Fortunately, many governments managed to balance both.

However, unemployment rates do not tell the whole story and therefore it is also important to consider the rate of economic inactivity, the quality of work, full-time vs part time hours and the extent to which countries have been able to mitigate changes in their employment rate.

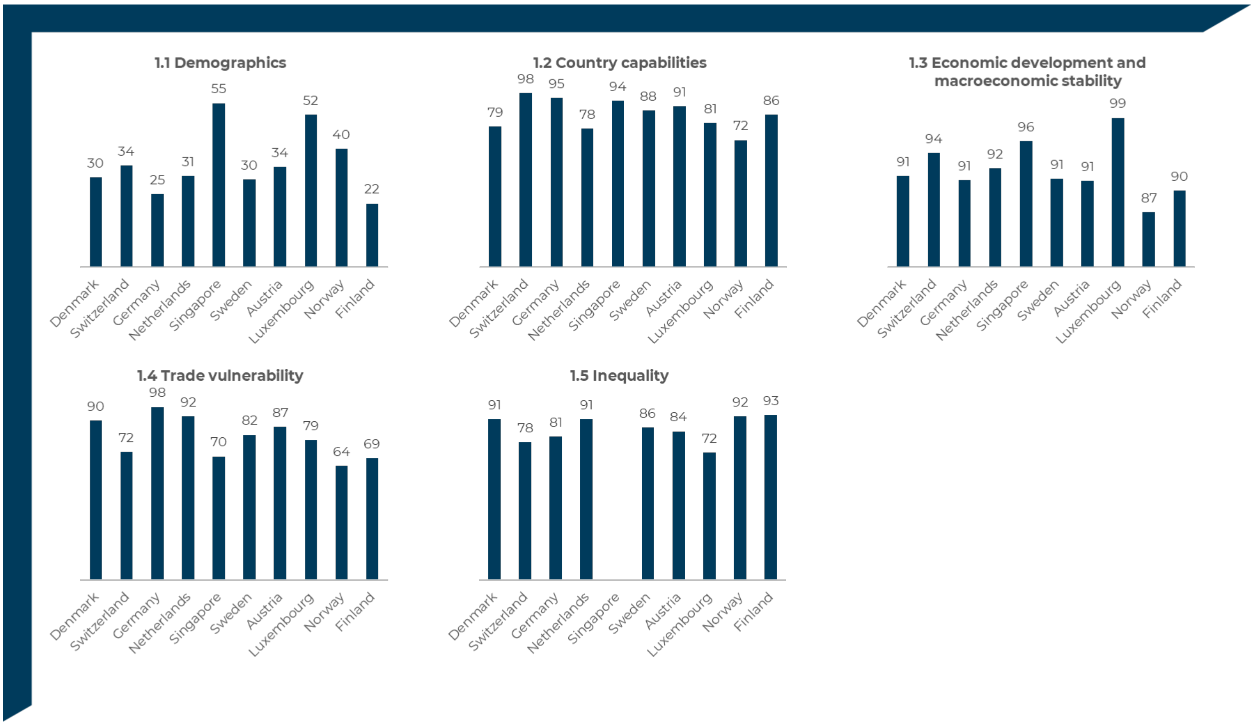
Unemployment rates do not tell the entire story – we must focus on the quality of work

Across the OECD the employment rate fell from 68.6% to 63.5% between Q1 and Q2 2020 representing a 7% reduction. As the economic recovery from COVID-19 continues the employment rate has begun to rise and now stands at 67.4% across the OECD. Being "economically inactive" requires an individual to be out of employment and have not been seeking work within the last 4 weeks and/or are unable to start work within the next 2 weeks. During the crisis the level of economic activity rose as many people were not able to search for alternative employment due to business closures or new caring responsibilities. Previous crises have shown that when job losses occur women are more likely than men to become economically inactive, subsequently they can then find it very difficult to re-enter the labour market. Research by the ILO demonstrates that employment losses during COVID-19 translated into increases in economic inactivity and mainly among young women.[3] However, the employment rate does not reflect the quality of work or the split between part-time and full-time.

[2] J. Drahokoupil & T, Müller, Job retention schemes in Europe: A lifeline during the Covid-19 Pandemic, European Trade Union Institute (2021) & https://www.iras.gov.sg/schemes/disbursement-schemes/jobs-support-scheme-(jss)

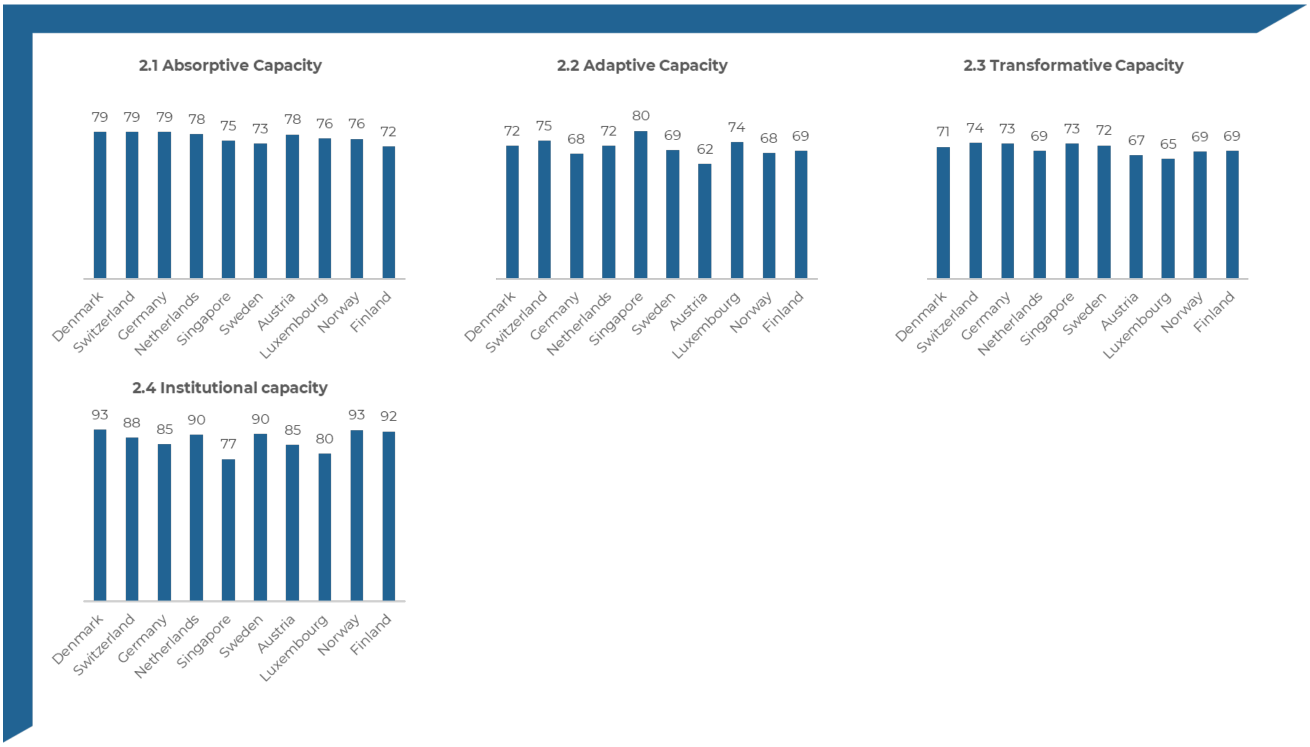
[3] International Labour Organization, An uneven and gender-unequal COVID-19 recovery: update on gender and employment trends in 2021, ILO (2021)

Figure 8: Structural performance of the GLRI 2022 top 10



Source: Global Labour Resilience Index 2022, Whiteshield Partners

Figure 9: Cyclical performance of the GLRI 2022 top 10



Source: Global Labour Resilience Index 2022, Whiteshield Partners

ANALYSIS OF THE TOP 10 COUNTRIES

The composition of the top 10 countries in the GLRI has remained remarkably stable over the last five years. Despite changes in the rankings only Norway has newly entered the top 10 over the last five years, whilst Belgium has fallen out.

Denmark

Denmark ranks first with an improvement of three places

Denmark ranks first in this year's GLRI, an improvement of three places compared to the GLRI 2017. The country has a rank of 6th on the structural pillar and 2nd on cyclical.

Structural reform could further boost resilience

The country has experienced a two-rank improvement on the structural pillar over the last five years, improvements have occurred in GDP and economic complexity. The country performs highly on economic development and macroeconomic stability (10th) and lack of trade vulnerability (4th). Denmark's trading position is helped by its current account balance (1st) and diversity of Exports (13th).

Denmark's balanced cyclical resilience profile reduces vulnerability to shocks

Denmark has a balanced performance across the cyclical resilience capabilities, supported by its first-place ranking on institutional capabilities. The country was able to perform better during the initial stage of the COVID-19 crisis in 2020 due to its high performance in absorptive capabilities (4th). The country has a strong welfare support system and ranks highly on welfare coverage (unemployment and pension).

It shows strong performance on adaptive capability indicators which signal how well a country can adapt to shocks. The country benefits from an environment that supports businesses to grow and flourish, this includes cost to start a business. Additional strengths include the effectiveness of active labour market policies and depth of financial system.

On transformative capabilities, it shows a strong immunity to environmental and technological challenges, with a high score in education and research and development related indicators. The country invests heavily in the future workforce as shown by spending per student but also in outcome metrics such as digital skills, critical thinking and the quality of vocational training.

Policy decisions made early reduced the impact of COVID-19...

Denmark took decisions early in the pandemic to halt the spread of COVID-19 and in response implemented a series of measures to protect jobs and maintain incomes.

...targeted labour market policies have been implemented during recovery

The country recognised the need for policy changes that go beyond the first wave of the crisis. In August 2020 the government implemented "Arbejdsløshedsdagpenge, uddannelsesløf" to boost the education attainment of unemployed citizens, the scheme will run until later this year (Box 1).[4]

Box 1: Unemployment insurance, education upgrading in Denmark

DENMARK

UNEMPLOYMENT INSURANCE & EDUCATIONAL UPGRADING

The Danish government have committed to boosting the education levels of the unemployed through Arbejdsløshedsdagpenge, uddannelsesløft.

OBJECTIVES

1. Arbejdsløshedsdagpenge, uddannelsesløft. Is an unemployment insurance, educational upgrading programme implemented in August 2021 and it will run to the end of 2022.
2. To improve or enhance the qualifications of the unemployed.
3. Boost educational training in areas with labour shortages or green occupations.

KEY INSIGHTS

- Unemployed individuals get a higher benefit if they upgrade their education to a sector with a labour shortage, roles include logistics officer, electrician and carpenter.
- An insured unemployed person who commences occupational education receives 110% of the ordinary unemployment benefit, provided the education is oriented towards understaffed sectors.
- Only 80% is paid in sectors with no shortage.

Source: European Social Policy Network

Switzerland

Switzerland ranks 2nd with a large gap between structural and cyclical resilience

Switzerland ranks second in the GLRI 2022. The country ranks 12th on structural resilience and 1st on cyclical resilience. The country has made progress but there are still major improvements to be made regarding inequality.

A wealth nation who benefits from a strong trading position...

Switzerland is a wealthy nation where services represent over 70% of GDP (ranks 7th), this is reflected

[4] European Social Policy Network, Social protection and inclusion policy responses to the COVID-19 crisis: Denmark, European Commission (2021)

in the trading figures of the country. For such a small nation it has an astonishing ability to trade high value services and goods, Switzerland has the 3rd highest product exports per capita.[5] It is one the leading nations for the export and import of services and gold exports make up a fifth of the country's export value.[6]

… however export concentration is high and could lead to labour market vulnerabilities

However, the labour market is dependent on a select few industries as represented by the concentration of exports, where the country ranks 80th.

Switzerland is a cyclical resilience leader…

Switzerland is a leading performer on the cyclical pillar with top positions across all sub-pillars. The country ranks 2nd on absorptive, 4th on adaptive, 1st on transformative and 6th on institutional capabilities.

… that is aligning its labour market with the green transition

The country already has a strong environmental position, ranking 4th on the Co2 intensity of GDP and 7th on its dependence on natural resources. An alignment with the green transition is essential to ensure the labour markets will be able to adapt to greener ways of working. However, progress is not always easy to achieve, and the need for change is continuous.

Switzerland is unique among democratic nations in that it practices both direct and representative democracy. In the summer of 2021 the Swiss people were asked to vote on curbing emissions via a referendum on amending the Federal Act on the Reduction of Greenhouse Gas Emissions (CO_2 Act). The referendum aimed to reduce greenhouse gas emission by at least 50% by 2030, in line with the Paris agreement, but voters rejected the notion (Box 2).

Reaching net zero will require behavioural changes for businesses and consumers. Many countries will need to work hard to bring voters onside as the climate challenge continues to grow.

[5] Observatory of Economic Complexity (OEC)

[6] https://oec.world/en/profile/country/che

Box 2: A referendum of greenhouse gas emissions

SWITZERLAND

REDUCTION OF GREENHOUSE GAS EMISSIONS

The Swiss government held a referendum on amending the Federal Act on the Reduction of Greenhouse Gas Emissions

OBJECTIVES

1. The amendment to the CO2 Act contained several measures to further reduce CO2 output .
2. The measures included incentivizing climate-friendly behavior and requiring anyone producing large amounts of CO2 to pay more money for the same services, such as through an air ticket levy on frequent flyers.
3. Two-thirds of the revenue from the CO2 levy and half of the proposed air ticket levy would have been redistributed to the public and the rest would have been transferred to the newly established climate fund.

KEY INSIGHTS

- Swiss voters rejected by a vote of 51.59% to 48.41% an amendment to the Federal Act on the Reduction of Greenhouse Gas Emissions (CO2 Act).
- Voter turnout was 59.68%. Voter turnout and rejection were particularly high in rural regions.

Source: Swiss Info

Germany

Germany has fallen down the resilience ranking

In the GLRI 2022, Germany ranks third - falling one position in the last five years.

A complex economy cements Germany's position as a structural resilience leader

The country has the highest structural pillar score (1st place) cemented by a high level of country capabilities and robust trading position. Germany ranks 3rd on the country capabilities sub-pillar. Over the last 10 years Germany's economy has become less complex, falling 1 position in the ECI ranking. Germany's worsening complexity has been driven by a lack of diversification of exports.[7]

Active labour market policies reduce vulnerabilities and support recovery...

As mentioned in the GLRI 2021, high absorptive capabilities allowed Germany to protect jobs during the first few months of the COVID-19 crisis. The country's short-term work scheme, Kurzarbeit, was utilised during the recent pandemic and the Global

7 Atlas of Economic Complexity, Harvard University (2021)

Financial Crisis and has demonstrated its effectiveness in keeping employment stable.[8]

The scheme was adjusted by countries across the globe as they all sought to protect workers and jobs. Whilst other nations have stopped their retention schemes Kurzarbeit has been extended into 2022.

… however new challenges still arise

Unfortunately, the country is facing a new labour market challenge – a shortage of qualified workers. Like many developed nations demographics remain one the main pressures for the labour market (ranks 131st). Over the last year Germany has faced a range of labour shortages, in Q2 2021 the job vacancy rate stood at 2.9% which was 0.9 percentage point higher than in Q2 2020 and higher than the EU average.[9] The government is working to offset this by a more relaxed immigration policy and higher increases in the minimum wage.

Minimum wages are common practice within many European nations, however ensuring they keep pace with the cost of living whilst making sure they do not damage employment can be a fine balance. There are arguments to be made for and against minimum wages however, wage boards can be an important part of labour market regulation as they can make evidence-based decisions on how and when to raise national minimum wage (Box 3).

8 International Monetary Fund, https://www.imf.org/en/News/Articles/2020/06/11/na061120-kurzarbeit-germanys-short-time-work-benefit

9 Eurostat, Job Vacancy Statistics, Eurostat (2021)

Box 3: Minimum wage policy in Germany

GERMANY

INTRODUCTION OF MINIMUM WAGE POLICY

A federal minimum wage was introduced in Germany in 2015 and has risen in recent years due to recommendations from the Minimum Wage Commission.

OBJECTIVES

1. To improve or enhance the wage floor of the labour market.
2. Reduce labour market shortages within specific sectors by improving the attractiveness to workers.

KEY INSIGHTS

- In 2015 the minimum wage was set at € 8.50 . As of 1 January 2022, the minimum wage rose to €9.82.
- Germany has the third highest minimum wage in Europe (behind Luxembourg and France).
- Commission conducts an overall assessment of what is the minimum wage amount suitable to contribute to an appropriate protection for workers, to enable fair and functioning conditions of competition and to avoid jeopardising employment.

Source: Mindestlohn-kommission

Investment in technology and R&D is helping to future proof the labour market

On transformative capabilities, Germany is among the leaders on future trends: this is reflected by high performance in technology, digital economy and green transition, mainly due to huge support and investment in technology and R&D.

Germany is rare amongst the top 10 for its positive resilience gap

Unlike other top 10 nations, Germany has a positive resilience gap (1st on structural resilience vs. 4th on cyclical). Making improvements to the cyclical dimension of resilience can boost labour market performance and requires relatively simple policy changes. In Germany, areas for improvement include the growth of medium jobs[10] (106th), reducing gender imbalances (46th place on women in labour force participation and 32nd on gender pay gap) and improving the time and cost of business creation (45th and 74th respectively).

Supporting the labour market participation of women is an important component of labour market resilience as their labour market position is often impacted

[10] Medium jobs are defined as "middle" skill occupations. Middle-skill jobs are defined as occupations in the middle of the occupation-wage distribution.

during times of economic uncertainty.

Netherlands

The Netherlands has experienced a resilience reduction and ranks fourth in 2022

As is the case with Germany, the Netherlands has fallen by one place over last five years and hence finds itself fourth in the GLRI. The country ranks 5th on the structural pillar of labour market resilience and 3rd on cyclical pillar.

Improvements in economic complexity could strengthen resilience

On the structural front, the country has low levels of income inequality, ranking 14th on the Gini Index. Amongst the top 10 countries it ranks third on inequality after Finland and Norway. The Netherlands needs to consider its level of country capabilities through improvements in its economic complexity where the country ranks 28th. The country should use its existing knowledge and capabilities to diversify its economy and exports.

A low unemployment rate was maintained during the crisis...

Amongst the cyclical resilience capability sub-pillars its top performance is on the absorptive and institutional capabilities. Throughout the crisis the Netherlands was able to maintain a low level of unemployment, peaking at just 4.5% in Q4 2020. Its ability to minimise the initial impact of COVID-19 was expected due to its absorptive capability (5th).

... nevertheless long-term unemployment remains a challenge

However, in 2020, 24% of unemployed individuals in the Netherlands were classified as long term unemployed, this is higher than the OECD average of 18% however it is lower than the EU's long-term unemployment rate of 36%.[11] This suggests that whilst the country is able to minimise the impact of shocks on its labour market, more is needed to improve the status quo.

Singapore

Singapore is the only non-European nation to rank in the top 10

Singapore's ranking of fifth has remained consistent over the last five years. It continues to be the only non-European / non-OECD nation within the top 10.

Singapore illustrates the benefits and drawbacks of very small

[11] OECD, OECD Employment Outlook, OECD (2021)

countries: on the one hand it has a strong performance on the cyclical pillar but on the other, there are structural vulnerabilities.

Resilience is hampered by a dependence on other countries for trade, labour and investment

The country has a negative resilience rank gap, meaning Singapore ranks higher on cyclical resilience than structural and hence the country is less able to utilise short-term policy measures to make rapid improvements in labour market resilience. These vulnerabilities are in part due to high dependence on other countries for trade, workforce, and investment, which is a disadvantage in times crisis.

Just under 30% of Singapore's 5.7 million population are non-residents, up from around 10% in 1990, according to government statistics.

The COVID-19 crisis rocked labour markets and caused concern amongst many workers and governments. Throughout 2021 the government has taken steps to improve the labour market opportunities available to Singaporeans / make it more difficult for foreigners. The salary threshold for foreign worker's has risen in recent years making it more difficult to employ foreign workers.

An unbalanced cyclical profile leaves the country vulnerable to shocks

The country has a relative uneven performance across the cyclical resilience capabilities (10th on absorptive, 2nd on adaptive and 3rd on transformative and 18th on institutional). Its low rank on absorption capability is due to the lack of a state unemployment insurance system and low levels of pension coverage.

Adaptive capabilities have supported the economic recovery

Their highest performance is on the adaptive capabilities, where Singapore ranks 2nd due to its strong trading position including trade openness, applied tariffs and venture capital investments. The country is forecast to have experienced a real increase in GPD of 6% in 2021, which is higher than the average of advanced Asian countries (3.8%).[12] This highlights the importance of adaptive capabilities in helping countries bounce back from the immediate effects of labour market shocks.

[12] International Monetary Fund, World Economic Outlook: Recovery during a pandemic, IMF (2021)

Innovation and investment are helping prepare for the future of work...

On transformative capabilities, the enhanced innovation environment, which contributes to top performance in trademark applications, international co-inventions and continuous leadership in technology, makes the country's labour market more immune to future shocks related to digital disruptions and robotisation.

... but there is a lack of environmentally sustainable growth

However, the country is not fully aligned with the need for a sustainable approach to growth. The country's economy is still reliant on traditional forms of energy (ranks 128th on use of renewable energy), however it has a low energy intensity and ranks 20th on green patents. Ranking highly on green innovation demonstrates the potential for the country to lead the way in designing the sustainable solutions to the world's greatest challenge.

Sweden

Resilience in Sweden has remained stable

Over the last five years Sweden has maintained a stable rank standing at sixth place in the overall GLRI 2022 ranking. The country has a negative resilience rank gap, ranking 10th on the structural pillar and 7th on the cyclical pillar. Countries with negative resilience gaps will find it harder to boost labour market resilience without addressing the long-term structural challenges present within their economy and labour market.

As with many European nations the elderly population is limiting structural resilience

Sweden has the second oldest population of all countries in the top 10, with Finland having the oldest. If the country is to improve its structural resilience and move higher up the rankings then it must consider policy mechanisms to help it attract younger workers, reduce its dependence on natural resources (37th) and boost economic diversity.

Weaknesses include low levels of unemployment assistance and a decline of middle skilled occupations...

Sweden ranks first on worker's rights and pension coverage and has a low share of low-skilled workers. However, it exhibits one of the worst performances in absorptive capabilities (14th) among the labour market resilience leaders, this is due to its low unemployment coverage and a declining rate of medium skilled occupations.

Despite high levels of economic complexity trade volumes are lower than other top 10 nations

Despite relatively low rank on the adaptive capabilities (12th), Sweden is a top performer on applied tariffs (5th as with all other EU member states) and trade openness. Sweden has been a member state of the EU since 1997 but is not a member of the Eurozone. Despite its comparatively high level of economic complexity the country does not trade at the same level of other countries within the top 10. The top imported and exported product in Sweden is cars.[13]

Alignment with future labour market trends is clear to see...

Sweden's best sub-pillar performance is on transformative and institutional capabilities ranking in 4th place on both. This indicates an alignment with future trends and a resilience to changes needed to keep up with technological and sustainable progress.

... especially digital transformation

The country ranks 3rd on digital skills which are a core component of labour market resilience given the transition towards a digital first approach to many aspects of our lives. Careers in digital marketing to programming are in high demand in 2022 and a digital capable workforce is an asset. The country implemented a National Digital Coalition in 2018 to boost the digital skills of the workforce and those in education (Box 4).[14]

[13] OEC, Sweden country profile, OECD (2021)

[14] European Union, Digital Skills and Jobs Platform, EU (2021)

Box 4: Digital skills and jobs coalition in Sweden

SWEDEN

NATIONAL DIGITAL COALITION

The Swedish National Digital Coalition was established in 2018 to boost digital skills and competencies.

OBJECTIVES

1. To improve digital skills and competencies.
2. Facilitate and increase sharing of knowledge and expertise between the network members and promote collaboration and policy development in this area.

KEY INSIGHTS

- The Swedish National Digital Coalition brings relevant actors together through meetings, workshops, round-table discussions and many other formats.
- The scheme has approximately 30 member organisations from a broad range of sectors:
- The collaborative nature of the programme means it is more likely to succeed compared to programmes which ignore the needs of the private sector or higher education institutions.

Source: Whiteshield Partners, European Union

Austria

Austria ranks 7th with resilience remaining stagnant

Austria has not changed its GLRI rank in last five years and remains 7th. The country ranks 4th on the structural pillar and 10th on the cyclical pillar.

Strong trade and country capabilities support structural resilience

The country has two main structural strengths: country capabilities and trade positioning. Austria ranks 7th on country capabilities, highlighting its high levels of economic complexity. Austria is a landlocked country and shares land borders with several countries including its main trading partner Germany. In 2019, 28% of Austrian products (by value) were exported to Germany and 39% of imports came from Germany. Whilst a large proportion of trade occurs between the two countries, Austria benefits from a diverse export profile which improves resilience by reducing dependence on a small number of markets which could be prone to simultaneous shocks.

A positive resilience rank gaps shows room for cyclical improvements...

Austria's best cyclical performance is found on the absorptive capability sub-pillar where the country ranks 6th. The country ranks first on both measurements of welfare coverage (unemployment and pension) and workers' rights.

Austria is one of only two countries in the top 10 to exhibit a positive resilience gap, this means it ranks higher on the structural rather than the cyclical pillar. In reality, this indicates that the country could improve the resilience of its labour market in the short term if it took steps to improve its cyclical resilience.

... equality in participation amongst women and the youth is required

Labour income inequality (41st), female participation in the labour force (49th) and high youth unemployment (44th) remain fundamental weaknesses which are stopping Austria from becoming a leader in absorptive capabilities.

Labour market recovery is clear but boosting business growth can speed up this process

Over the last few months, it is the country's adaptive capability that has played the biggest role in

supporting the labour market back to status quo. Austria ranks 23rd on adaptive capabilities.

The country must improve its performance in adaptive capabilities through mechanisms to support business growth, entrepreneurship and incentives to work. The country's performance on the time and cost to start a business are an area for improvement. Providing the conditions for businesses to grow is especially important as business creation is one of the most vital ways to help a labour market recover and bring sustainable employment opportunities.

Investment in the future of work is needed

Austria should invest more in the future workforce, strengthen innovation incentives, and enhance ICT business penetration to ensure labour market resilience to technological challenges.

Luxembourg

Luxembourg has entered the top 10 and now ranks 8th

Luxembourg has improved its rank over the past five years and has moved from 11th to 8th. Luxembourg has one of the highest levels of GDP per capita in the world and a high-value services export industry.

A large foreign workforce helps reduce demographic pressures

The country ranks just outside of the top 10 on the structural pillar with a ranking of 11th. The country has the second youngest population of those in the top 10, coming second to Singapore, this is likely due to its large foreign workforce. In 2018, 46% of the population was foreign born.[15] However, the country needs to address its high inequality (ranked 61st) if it is to improve its structural labour market resilience.

Population benefits from a high quality of earnings and a low gender pay gap

Luxembourg has a more favourable position of the cyclical pillar of the index where it ranks 9th. It is among the top performers in absorptive capabilities. The labour market demonstrates a range of inclusive qualities including its high levels of pension coverage, high ranking quality of earnings and a low gender pay gap. These are complemented by flexible labour policies which gave the country a buffer during the COVID-19 crisis.

Change is needed to capture the benefits of digitalisation

The country has a high level of trade openness and performs well on applied tariffs. However, the country has not grasped the potential of the digital age on its trade economy. For ICT and high-technology exports there is room for improvement as the country ranks 45th and 42nd respectively.

Particular attention should be given to labour market polarisation, where Luxembourg shows the worst performance among top 10 countries. Luxembourg ranks highly on the future orientation of the government and on the green transition. Luxembourg is a leading country in green patent applications, and it fosters innovation by focusing on clean and sustainable technologies.

Norway

Small overall gains in labour market resilience...

Over the last five years, Norway has improved its rank for 10th to 9th.

... have been driven by structural improvements

On the structural front, Norway has made considerable progress on country capabilities and economic development and macroeconomic stability, improving by five and nine ranks respectively. A 9-rank increase on economic development and macroeconomic stability is a major achievement. The factors that have helped the country achieve this are improvements in economic complexity and the services share of the economy. Norway has a structural rank of 28th which is considerably lower than other nations in the GLRI top 10.

[15] OECD, International Migration Outlook 2019, OECD (2019)

... but there is still a significant gap to the frontier

The country is still highly reliant on natural resources (ranks 115) which makes its labour market more vulnerable to shocks such as a collapse in oil prices and a political need to move to sustainable practices. However, compared to other oil dependent nations Norway finds itself less exposed to risk due to its large sovereign wealth funds (Government Pension Fund of Norway). In November 2019, the fund was given a mandate to invest in unlisted renewable energy infrastructure, i.e. infrastructure for the production, transmission, distribution and storage of energy from renewable sources. In 2021 it was estimated that the 'oil fund' is worth more than $1.4 trillion. The fund holds stakes in more than 9,000 global companies, owning 1.5% of all listed stocks – this diversified portfolio is expected to enable Norway to continue to thrive in a world without oil.[16]

Resilience is driven by cyclical components

Nevertheless, it is the cyclical resilience of Norway that helps the country achieve its status as a top 10 country in the GLRI 2022. Particularly in absorptive and institutional capabilities. In the longer run, the country will need to address its main structural weaknesses through greater economic diversification, moving up the value chain to higher value-added sectors. To future proof the economy it needs to channel further investment into technology, infrastructure and the green economy.

Finland

Finland is falling down the ranks...

Finland has dropped by three places in the last five years and now finds itself at the bottom of the top 10. The country has experienced a two-place increase in its structural rank, now ranking 18th. In contrast, it has seen a decline in its cyclical rank (8th).

A complex picture of resilience

Despite the two-position change in its structural rank due to economic development and macroeconomic stability improvements. The country experienced a decline in the sub-pillars of demographics, country capabilities and inequality, making improvements only on economic development and macroeconomic stability and trade vulnerability.

16 https://www.nbim.no/

An ageing population brings difficult decisions

Finland's population pyramid is older that than the rest of the top 10, with the percentage of the population aged over 65 at 22.1% compared to an average of 18.3% amongst the top 10. The reason for its older population pyramid is due to to historic reasons related to its significantly shorter baby boom compared to peers. These signs of demographic decline suggest that Finland's policymakers should be thinking about ways to boost their working age population and drive skills regeneration.

One area where Finland has been strong for several years is its commitment to life-long learning and adult education. Boosting the skills of older workers is essential to keep them within the labour market. Finland launched a lifelong learning reform called 'continuous learning'. The idea of continuous learning is to ensure reskilling and upskilling occurs throughout an individual's life rather than at period points in time.

Polarisation and youth unemployment bring new labour market challenges

The country has also registered a decline in absorptive capabilities with high youth unemployment and a negative trend in middle-skilled occupation growth (increased polarisation), which is common for most of the developing countries. Finland is among the top countries in transformative capabilities thanks to a favourable innovation environment, legislation and high ICT business penetration.

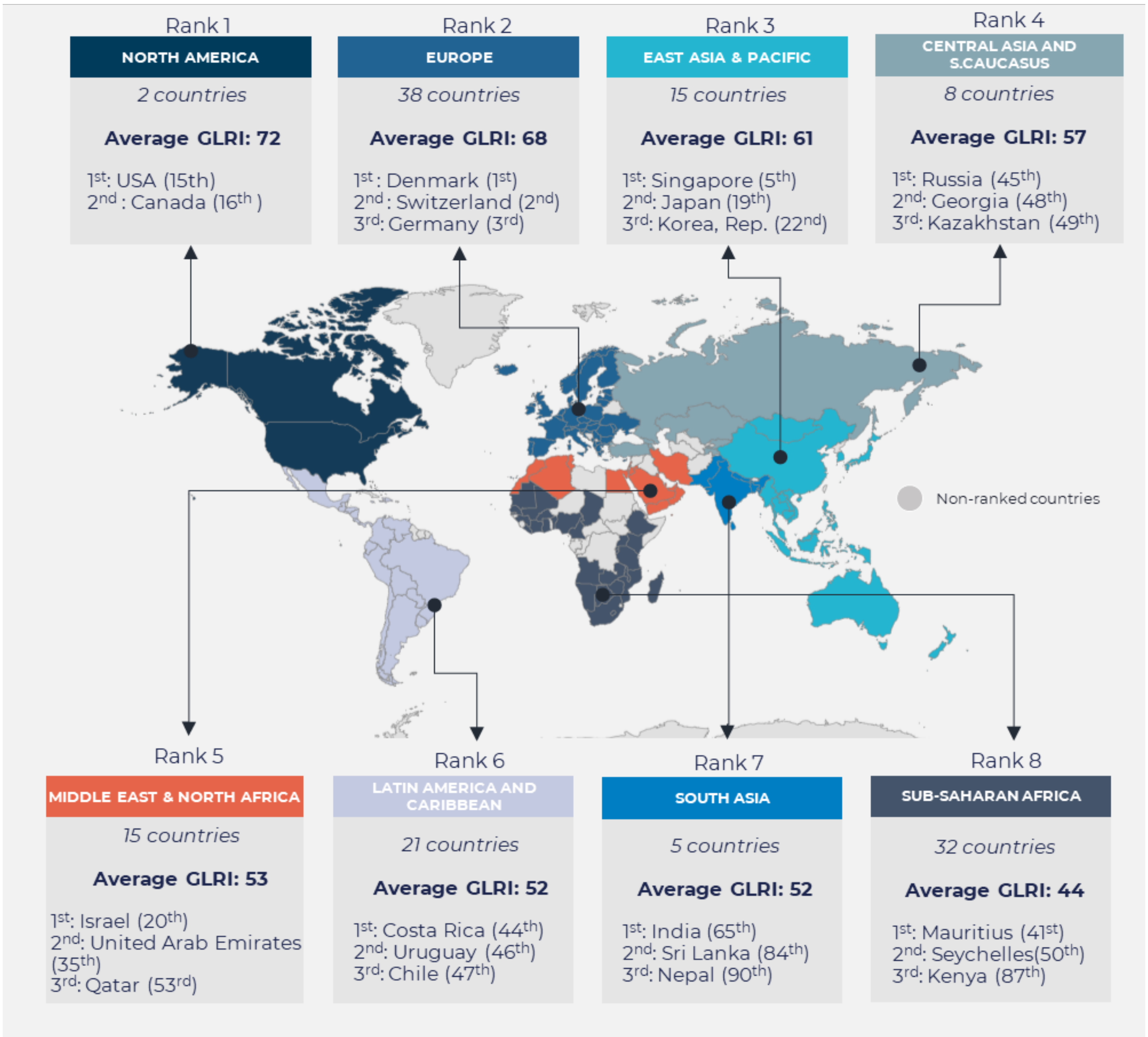
REGIONAL RESULTS

Resilience remains stagnant across the globe

This section of the report assesses the results of the GLRI 2022 by region. The Global Labour Resilience Heat Map highlights the disparities in labour market resilience across the world and shows the top three performing countries in each region in Figure 10.

Table 2 provides a comparative summary of regional results by sub-pillar. Case studies demonstrating the strengths and weaknesses of a country from each region are provided throughout the section.

Figure 10: Regional GLRI 2022 results



Source: Global Labour Resilience Index 2022, Whiteshield Partners

Table 2: Regional GLRI 2022 results

Region	Number of countries	Average GLRI country rank by region	Average GLRI Score (0 to 100)	Average Structural Rank	Average Cyclical Rank	Average Labour Resilience Rank Gap
North America	2	16	72	30	16	-15
Europe	38	29	68	30	30	0
East Asia & Pacific	15	53	61	50	54	4
Central Asia & S. Caucasus	8	60	57	68	62	-6
Middle East & North Africa	15	79	53	71	80	9
Latin America & Caribbean	21	82	52	91	79	-11
South Asia	5	87	52	54	98	44
Sub-Saharan Africa	32	111	44	111	109	-3

Source: Global Labour Resilience Index 2022, Whiteshield Partners

European countries dominate with their balanced labour market performance

Nine of the top 10 countries in the GLRI are in Europe – Singapore is the only country outside of Europe to feature. Despite this, North America remains the best performing region overall, although this is helped by the fact it is made up of only two nations. Unlike North America, who has a negative resilience gap, European countries have an average resilience gap of 0 ranks suggesting a very balanced approach to resilience.

Regional labour market resilience is stagnant

Over the last five-year all regions, except North America, have experienced a growth in their average labour resilience score. However, due to differences in the pace of growth not all regions have seen their average ranks improve. Central Asia & S. Caucasus and South Asia are the only two regions to experience an average increase in their labour resilience scores and average ranks.

Regional averages are impacted by levels of inequality

North America is made up of only two countries and therefore its regional score and rank is not impacted by outliers or countries who are lagging on labour market resilience. Despite the major gap between North American and Sub-Saharan Africa, our analysis shows that often the gaps within regions can be as big, if not bigger, than those between regions.

The largest gap in GLRI scores is seen in the Middle East and North Africa where a 37-point difference is apparent between Yemen (ranked 135th) and Israel (ranked 20th). The MENA is followed closely by Sub-Saharan Africa where there is a 32-point difference between Chad (ranked 136th) and Mauritius (ranked 41st). The developed nations of Europe are not immune to these differences, whilst many European nations are resilience leaders there is still a 26-point difference between the best and worst performing country in the region (Denmark (1st) vs. Bosnia and Herzegovina (85th).

NORTH AMERICA

Structural changes needed in North America to improve labour market resilience

North America is a homogenous region with the two countries ranking next to each other within the Index. In the GLRI 2022 the USA ranks 15th whereas Canada ranks 16th. The region has experienced a fall in its average labour market resilience rank over the last five years, with the USA falling three places in the Index and Canada falling by one.

Both countries have a negative resilience gap, meaning they rank higher on cyclical resilience than structural, hence they are less able to utilise short-term measures to make improvements in labour market resilience. Of the two nations, Canada has the largest resilience gap, ranking 36th on structural and 15th on the cyclical pillar.

Economic complexity improvements can boost resilience in Canada

Canada must focus on structural elements if it is to improve its labour market resilience. To enact change the country must review its structural weaknesses and consider policies which will create long-term change. One area where Canada can improve is with respect to its country capabilities – or economic complexity. Canada ranks 43rd on country capabilities which is considerably lower than its US neighbour (ranks 15th). A boost in economic complexity could help the nation improve its trading position and open it up to new markets and countries.

An unbalanced resilience profile leaves the USA vulnerable

The USA's unbalanced approach to resilience leaves it vulnerable to shocks

The USA's labour market performance over the last two years demonstrates the importance of a balanced resilience profile. In 2019, the average US unemployment rate stood at 3.7%, however in 2020 the average annual unemployment rate more than doubled to 8.1%. The USA has an absorptive capability rank of 45th, which is the lowest performance amongst the GLRI top 20. Therefore, it is not surprising that the country's unemployment rate peaked in

2020 to its highest level since the great depression.

New business registrations were 53% higher in 2021 than in 2019

The country's performance on absorptive capabilities is limited due to its unequal labour market. The country ranks 48th on youth not in employment, education, or training (NEET). The proportion of NEET youth is the second highest amongst top 20 nations (with only Canada scoring lower). The country lacks strong workers' rights (79th) or great unemployment coverage (41st) – the country the lowest score on both indicators amongst resilience leaders.

What the USA lacks in absorptive capabilities it makes up for in adaptive capabilities where it ranks 1st. Put more simply, the USA should have the ability to return to the status quo relative quickly, which is evident given its unemployment rate has managed to cover and stood at 3.9% in December 2021.[17]

Adaptive capabilities are supported by a supportive entrepreneurial environment, including a high performance on the ease of getting credit and time to start a business. New business registrations in the USA dropped drastically during the initial months of the crisis, however, they have since rebounded and continue to grow at pace. Business registrations in the USA were 53% higher in 2021 than in 2019.

The country also benefits from a large supply of highly skilled labour and a good skillset of graduates. However, despite its ability to recover US companies are struggling to retain workers and older workers are retiring in their millions. An area where it could improve its adaptive capabilities it with respect to its trade openness and ease of hiring foreign labour, both of which are highly political decisions for the country.

[17] U.S Bureau of Labour Statistics

EUROPE

Europe continues to dominate the top spots of the Index

Europe continues to demonstrate its position as a leader of labour market resilience. Whilst the average country rank in the region falls below that of North America – nine of the GLRI top 10 countries are in Europe. As a region Europe performs well across both the structural and cyclical pillar.

Nine of the top 10 nations are from Europe

The region has not improved its resilience rank despite some major improvements

Over the last five years the average resilience rank has remained stagnant, but the region is diverse.

The top resilience improvements have been seen in Lithuania and Estonia who have increased by seven and five places respectively. This has been supported by structural improvements. However, the diversity of the region means that whilst some countries have been able to boost resilience others have seen their ranks fall. Both Cyprus and Serbia have experienced a five-place reduction in their resilience which increases their vulnerability to future shocks.

Social security system provides Belgium with high absorptive capability

Belgium is the highest performer on absorptive capabilities, this means it should be the most able to mitigate the initial impact of a crisis. Despite Belgium's top performance it failed to reach the top 10 in the GLRI 2022. Belgium is a small country and benefits from a well-established redistributive welfare system. The system contributes to its low and stable inequality rates. Amongst OECD nations Belgium has the third highest social expenditure as a share of GDP (28.9%) and demonstrates the importance of policies which protect the incomes of citizens not just in times of crisis.

Cyclical improvements are needed across the board

The entire region could improve its performance across the four cyclical capabilities. Countries in Europe have an average rank of 30th on absorptive capabilities, 37th on adaptive capabilities, 35th on transformative capabilities and 32nd on institutional capabilities.

Improving their adaptive and transformative capabilities is essential if they are to align their labour markets with the trends of the future.

Europe is an unequal place and on factors related to the digital transformation some countries in Europe must close the gap to their neighbours and North America. European countries should consider their provision of digital skills, export of high-tech goods and its research environments.

EAST ASIA & PACIFIC

Singapore and Japan feature in the top 20

The average country rank in the region has not improved in the last five years. Whilst the region has an average rank of 53rd, there are countries doing substantially better and worse, suggesting some degree of inequality. Singapore is the only country outside of Europe to feature within the top 10, ranking 5th. Japan is the only one other East Asian country in the top 20. At the opposite end of the spectrum is Laos who ranks 114th.

Singapore and Japan are the only two East Asian nations to feature in the top 20

Japan's labour market faces compounding challenges

Whilst Japan ranks in the top 20, over the last five years Japan has experienced a fall of one position and experienced a five-position decline on structural resilience. This is predominately due to a declining rank on inequality and economic development and macroeconomic stability. Japan's economic growth has been sluggish for several years and declined by 4.6% in 2020. The country's main labour market challenges are its ageing population, low levels of wage growth and several non-regular workers who tend to women and the youth.

Cyclical improvements are apparent amongst East Asian nations

As a region East Asia and the Pacific has a negative labour market resilience gap, therefore it ranks higher on cyclical components of the GLRI than structural. Cyclical gains are often related to policy decisions and can be changed within a relatively short time, suggesting there is a potential for short term gains in resilience. The region shows strong absorptive capabilities which has supported its economic recovery from COVID-19.

Whilst the region has been able to benefit from strong economic growth in recent years their labour markets are not fully aligned with future trends. Countries in the region have an average rank of 60 on the transformative capabilities pillar. They have very low levels of patent applications and international co-inventions which could limit their ability to keep pace with technological progress in the future.

CENTRAL ASIA & S. CAUCASUS

Improvements have been made but progress is still needed

Russia (45th), Georgia (48th), Kazakhstan (49th), are the labour market resilience leaders in the Central Asia and South Caucasus region. Over the last five years countries in the region have on average increased their labour resilience score which has translated to a rank increase of 8 positions.

Russia and Kazakhstan have a low negative labour market resilience gap. They are performing better on their cyclical resilience than structural, and this means that short-term fixes will not help them to boost their resilience. Instead, these countries need to consider the structural design of their labour market. Unlike their European neighbours they benefit from a relatively young workforce, but they must tackle country capabilities and trade vulnerabilities if they are to climb the ranks of the Index and boost their resilience in the long term.

The Kyrgyz Republic and Tajikistan find themselves with the lowest performance within this region, they need to focus on policy improvements across both structural and cyclical. However, labour market resilience could be heightened in the short term via enhancements to their capabilities across the four elements of cyclical resilience. This would help these countries be more resilient during the next crisis and more aligned to future trends.

Azerbaijan has experienced a 31-place rank improvement in labour market resilience

The success story over the last five years has been Azerbaijan who has managed to increase their rank by 31 places due to considerable improvements in the structural pillar through improvements in the country's economic complexity.

MIDDLE EAST & NORTH AFRICA

An unequal region with a diverse profile

The region is made up of a small number of countries who have diverse rankings in the Index. Israel continues to lead the way. Over the last five years, countries in the region have experienced, on average, a fall of four ranks in labour market resilience.

Israel, which has held onto 20^{th} place in the GLRI ranking, remains a highly developed economy with strong education policies and a robust innovation and entrepreneurship ecosystem making it economically vibrant and resistant to external shocks.

The region has a relatively young population, and this should work within its favour as it seeks a large workforce to support its efforts for economic diversification. Many of the countries in the region share several characteristics which are negatively associated with labour market resilience such as a reliance on natural resources, unequal labour market participation and low levels of economic diversity.

Quick wins are more favourable, but core policy change is often what is needed. Long-term changes are needed to truly transform these economies to be more resilient. The environment for innovation should be improved as should the alignment with future trends including the attention given to the workforce of the future through improvements in education, skills, and training.

Amongst MENA nations only Morocco has experienced a rise in its resilience rank

Only Morocco has managed to improve its resilience rank over the last five years

Only one country in the region has been able to improve their GLRI ranking in the last five years: Morocco. The country has experienced a three-place increase and now ranks 78^{th}. However, it still has considerable work to do to join the resilience leaders of the region which in additional to Israel (20^{th}) includes the UAE (35^{th}) and Qatar (53^{rd}).

LATIN AMERICA & CARIBBEAN

Declining levels of resilience

The region of Latin America and the Caribbean has the third lowest average score in the GLRI. The region is distinct and has the second highest number of countries in the analysis. On average countries in the region did not improve their labour market resilience scores in the last five years and subsequently the region has fallen down the ranks as other regions improve and at a faster pace.

The decline in resilience has been driven mainly by cyclical deterioration in areas such as social capital, education outcomes and the innovation environment.

Without tackling inequality labour markets will remain susceptible to shocks

Inequality must be tackled for resilience to be nurtured

Countries in the region have an average labour market resilience rank of 82nd – however several countries perform substantially better than average.

Costa Rica is the regional leader at 44th, followed closely by Uruguay in 46th and Chile in 47th. Like many nations in the Index, these countries exhibit negative resilience rank gaps meaning long-term structural change is needed to boost resilience. Structural reform can help address a range of labour market challenges in these nations such as inequality, youth unemployment and the informal workforce.

Harnessing investments for the future

Government spending on education in Colombia has risen dramatically over the last five years, the country has experienced a 35-rank improvement. This type of forward planning investment can help boost resilience now and in the future with higher levels of employment and entrepreneurship.

A similar story is true for logistics performance, the country has experienced a 32-position increase on the Logistics Performance Index. The government of Colombia have proactively sought ways to boost their performance including the launch of a National Logistics Policy in February 2020. The policy includes a multifaceted plan that aims to improve economic competitiveness and productivity through logistics development, which officials hope will incentivise foreign direct investment, boost exports and create economic opportunities. Average logistics costs are estimated at 13.5% of a good's value, it is hoped that the new plans will reduce this figure to 9.5% within 10 years, which would bring it closer to the OECD average of 9%.[18]

Trade is an area for improvement amongst many nations within the Index, including Brazil. Brazil ranks 74th in the GLRI 2022. Over the last five years, improvements have been made in the time and cost to start a business and the innovation environment with the number of trademarks and university collaboration increasing.

However, economic complexity, trade openness and the use of applied tariffs demonstrate a need to consider how well Brazil is position itself to gain from the growth in global trade.

18 https://oxfordbusinessgroup.com/news/can-multi-modal-approach-improve-colombia%E2%80%99s-logistics-efficiency

SOUTH ASIA

Countries in the region have an average rank of 87th in the GLRI. The region is the second smallest within the GLRI behind North America and consists of only five countries. The regional average is supported considerably by the performance of India who ranks 65th. The remaining five countries all rank below 80th.

Improvements are apparent but real change is needed to close resilience gaps

Over the last five years, countries in the region have experienced an increase of two ranks in the GLRI. This has been helped by the major improvements made by Pakistan, India and Bangladesh. Pakistan has improved its rank from 103rd in 2017 to 97th in 2022 representing a rank increase of six positions, Bangladesh has experienced a two-position improvement, now ranking 99th. However, as is evident from their 2022 ranks these countries have a considerable way to go to close the gap to India, who has experienced a five-place rise over the last five years.

High levels of resilience potential show positive signs for the future

All countries in the region have a large positive labour market resilience gap which means short-term change can make a lasting impact on labour market resilience. In fact, four of the five nations in this region rank in the top 10 for resilience potential. India has the largest resilience potential of all counties.

Four of the countries are amongst the top 10 in resilience potential

India is one of the world's largest countries and this gives it an advantage over similarly developed nations. The labour market of India is characterised by strong performance on a range of transformative capabilities which show the country is pivoting itself towards the growth opportunities of the future. This includes the sizeable share of STEM graduates, the countries performance across high-tech export metrics and the government's procurement of technology.

SUB-SAHARAN AFRICA

This region has the lowest performance across the Index with countries in the region having an average score of 45 and an average rank of 111th. This is 24 ranks lower than the second worst performing region of South Asia. Only two countries in the region rank 50th or higher out of the 136 countries in the Index; this is Mauritius and Seychelles. More than 70% of the countries in the region are ranked below 100th.

More than 70% of the region's countries are ranked below 100

Structural issues must be addressed if the region is to grow

There are unlikely to be many short-term policies which can transform labour market resilience in the region due to several structural issues. Despite the region's young population without improvements in economic complexity, trade and diversification the region will struggle to improve its labour market resilience.

The path to growth should focus on transformation and leapfrogging

Mauritius and the Seychelles have the highest level of GDP per capita ($PPP) and strongest educational performance compared to the other countries in the region. They are outwardly focused countries benefiting from trade openness and a strong tourism focus. Services as a share of the labour force is an important component of labour market resilience and economic development, however the region performs below the world average in this area.

Countries in this region, such as Nigeria and Ghana, show clear potential to harness greener growth opportunities. This can be seen in their performance on investment in renewables and lower than average domestic material consumption compared to the region.

ROAD TO RESILIENCE

Resilience potential is highest in India and Pakistan

This chapter focuses on who has the most to gain and how change has been achieved over the last five years.

RESILIENCE POTENTIAL

Resilience can be curated overtime and progress is highly dependent upon a country's starting position and political will.

Countries which have a high labour market resilience gap – meaning they rank more highly on the structural than cyclical pillar – have the greatest potential to strengthen the resilience of their labour markets in the shorter-term through targeted policy reforms.

Table 3 shows the top 30 countries based on the size of their labour market resilience gap.

High resilience potential occurs when countries rank more highly on structural than cyclical resilience

Table 3: Top 30 countries with the highest Labour Resilience Gap in the Global Labour Resilience Index 2022

Country	Labour Resilience Gap (Cyclical rank – Structural rank)	Labour Resilience Gap Rank
India	64	1
Pakistan	58	2
Lebanon	55	3
Myanmar	55	3
Egypt	52	5
Nepal	52	5
B&H	44	7
Tunisia	40	8
Bangladesh	39	9
Gambia	34	10
Turkey	33	11
China	32	12

Country	Labour Resilience Gap (Cyclical rank – Structural rank)	Labour Resilience Gap Rank
Haiti	31	13
Philippines	30	14
Ethiopia	30	14
Thailand	28	16
Poland	27	17
Mexico	27	17
El Salvador	27	17
Czechia	26	20
Guatemala	26	20
Indonesia	25	22
Ukraine	25	22
Jordan	24	24
Yemen	24	24
Senegal	22	26
Slovenia	21	27
Laos	20	28
Tajikistan	19	29
Mali	19	29

Source: Global Labour Resilience Index 2022, Whiteshield Partners

India has the highest labour market resilience potential

Resilience potential is prevalent across many developing nations

There is potential for improvements in labour market resilience at all levels of overall resilience performance. However, lower middle-income countries make up almost half of the top 30 resilience potentials.

India has the highest level of labour market resilience potential. The country ranks 65th in the GLRI 2022 but has a highly unbalanced resilience profile. The structural performance of the country is something to be celebrated with a rank of 26th but it ranks as a disappointing 90th on cyclical resilience. The areas where improvements must be made are on absorptive and adaptive resilience including improvements in the inclusiveness of the labour market including tackling the share of informal employment, the participation of the youth and the ratio of women to men in the labour market.

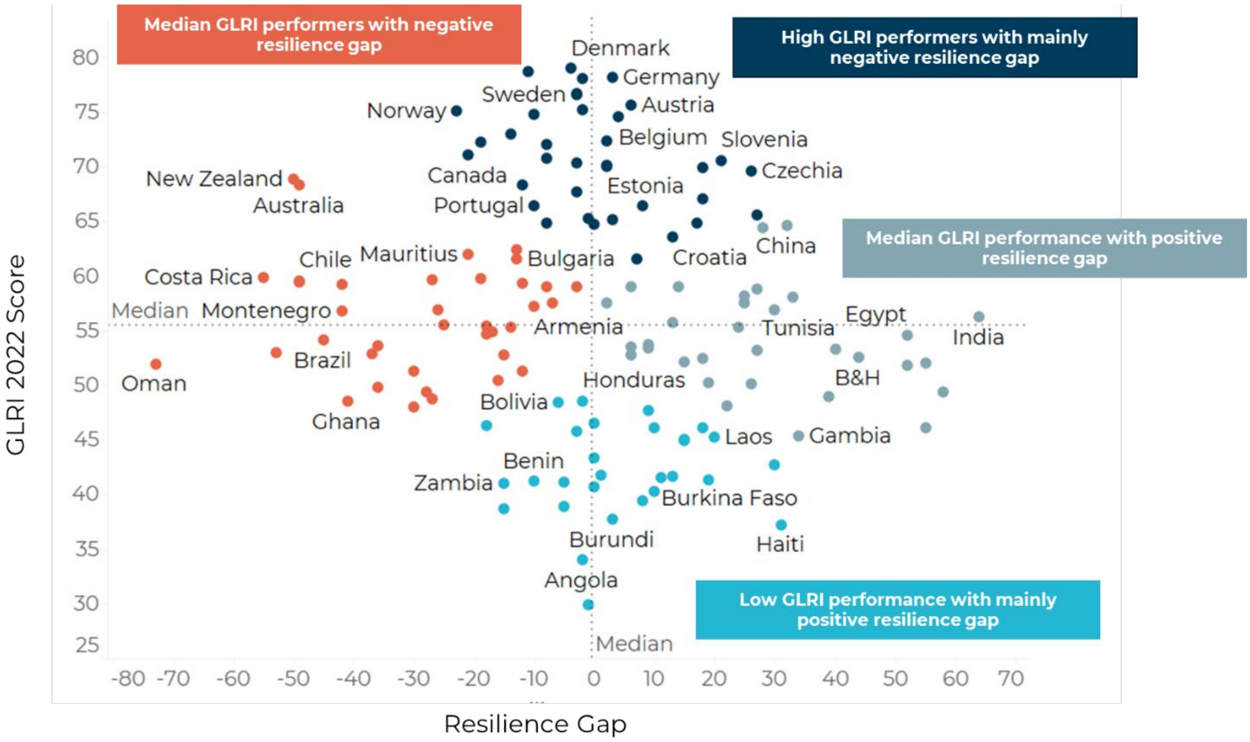
Improving the inclusivity of the labour market is essential if the country is to develop stronger buffers to labour market shocks.

Only three high income countries feature in the top 30 by resilience potential

Strong GLRI performs still have room for improvements

Very few countries have high GLRI scores and positive resilience gaps (Figure 11). In fact, only three high income countries feature amongst the 30 countries with the highest resilience potentials: Poland (17th highest resilience potential), Czechia (20th and Slovenia (28th).

Figure 11: Resilience gap and GLRI score



Source: Global Labour Resilience Index 2022, Whiteshield Partners

PATHWAYS TO RESILIENCE

For many countries, improving their resilience will take time and a serious level of political commitment. However, over the last five years many countries have been able to improve their resilience through either structural or cyclical changes. Labour market resilience progress follows three distinct paths: the structural, cyclical or balanced path (Figure 12).

The structural path: countries following the structural path focus on reducing their inherent vulnerabilities by building an economic foundation based on greater economic diversity and complexity. This is then complemented by investment in specific resilience capabilities related to robustness, flexibility, and alignment with future trends.

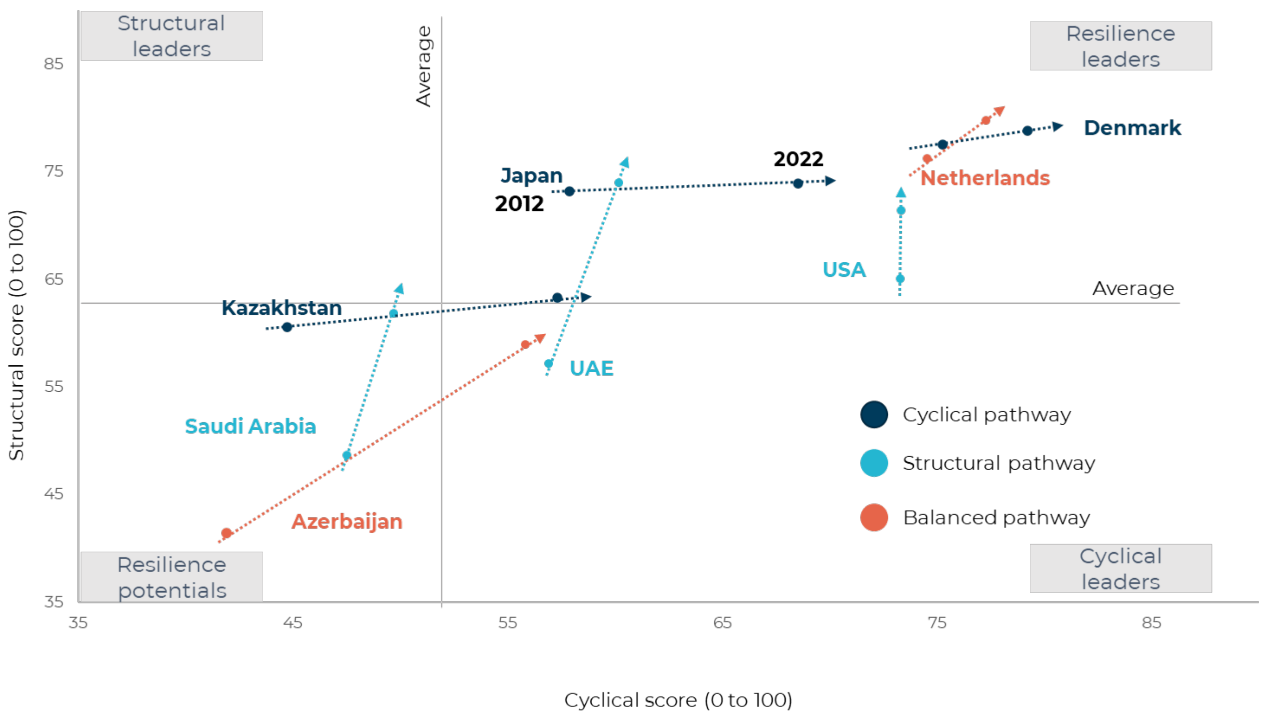
The structural path has been followed over the last decade by the UAE and Saudi Arabia. Whilst the UAE has been able to use this pathway to become a resilience leader KSA still finds itself in the resilience potential category (below average on both pillars). The USA has seen improvements almost exclusively on the structural pillar.

The cyclical path: these countries place an emphasis on shorter-term capabilities to boost labour market resilience before building longer-term assets, such as improving economic diversification and addressing rising inequality. This has been followed by Denmark, Japan and Kazakhstan who have made significant improvements over the last decade.

The equilibrium or balanced path: in this case, countries strike a balance between structural and cyclical improvements to shift progressively towards greater resilience of labour markets. This pathway is used by many resilience leaders including the Netherlands and those with potential to become resilience leaders such as Azerbaijan.

Countries looking to improve their labour market resilience in the future can learn from the above examples in order to chart their own path to labour market resilience. However, each country must define its own direction, one that is most adapted to its structural characteristics and strategic priorities.

Figure 12: Pathways to resilience 2012 to 2022



Source: Global Labour Resilience Index 2022, Whiteshield Partners

CONCLUSION

Change is needed to boost labour market resilience

This year's GLRI continues to demonstrate the importance of resilience in the wake of COVID-19. The last two years have tested labour markets to their limit and without unprecedent government support the global labour force would be in a worse position today.

The GLRI includes as measure of adaptive capabilities, which represents an ability to return to the status quo following a shock. Our insights show countries, such as the USA, who have a high performance on this capability have fared better and find themselves in a strong position today.

Resilience over the last five years has remained stagnant and is causing too many countries to be left behind. Resilience is not just about how labour markets respond and recover to short-term shocks such as COVID-19, it is about your ability to prepare for the future of work.

The digital transformation of labour markets is already clear to see, and this trend will continue and accelerate. Governments and policymakers must respond to this by equipping their labour force with the right skills, capabilities and knowledge to turn this into an opportunity.

Another major challenge facing labour markets over the next decade is the green transition. Climate change targets are part of the UN Sustainable Development Goals and therefore commitments have been made by all countries. Green jobs offer a substantial opportunity for labour markets and must be at the heart of economic growth plans. Failing to align labour markets with these trends will reduce resilience and lead to vulnerabilities.

APPENDIX

Appendix I: Selected data tables

Table 4: Full GLRI 2022 Results by Country

Country	GLRI 2022 Rank	GLRI 2022 Score (0 to 100)	1. Structural Rank	Structural Score (0 to 100)	2. Cyclical Rank	Cyclical Score (0 to 100)	Trend 2017 - 2022
Denmark	1	79.0	6	79	2	79	3
Switzerland	2	78.7	12	78	1	79	-1
Germany	3	78.2	1	81	4	77	-1
Netherlands	4	78.1	5	80	3	77	-1
Singapore	5	76.7	9	78	6	76	0
Sweden	6	76.6	10	78	7	76	0
Austria	7	75.6	4	80	10	73	1
Luxembourg	8	75.2	11	78	9	74	3
Norway	9	75.1	28	73	5	76	1
Finland	10	74.8	18	75	8	75	-3
Belgium	11	74.5	8	78	12	73	-2
UK	12	73.0	25	73	11	73	1
France	13	72.3	16	76	18	71	1
Iceland	14	72.3	32	72	13	72	2
USA	15	72.0	24	73	16	71	-3
Canada	16	71.1	36	70	15	71	-1
Ireland	17	70.8	27	73	19	70	0
Slovenia	18	70.6	3	80	24	66	1
Japan	19	70.3	23	74	20	69	-1
Israel	20	70.2	19	75	21	68	0
Estonia	21	70.1	20	75	22	68	5
Korea	22	69.9	7	79	25	65	-1
Czechia	23	69.6	2	81	28	64	0
New Zealand	24	68.9	64	63	14	72	-2
Australia	25	68.4	66	63	17	71	0
Malta	26	68.3	35	71	23	67	-2
Spain	27	67.7	29	73	26	65	0
Slovakia	28	67.1	13	77	31	62	2
Hungary	29	66.4	21	75	29	62	2
Portugal	30	66.4	37	70	27	65	-2
Poland	31	65.6	14	77	41	60	-2
Lithuania	32	65.2	33	72	32	62	7
Italy	33	65.2	30	73	33	61	-1
Latvia	34	64.8	38	70	30	62	4
UAE	35	64.8	22	74	39	60	-1
Malaysia	36	64.8	34	72	34	61	-3
China	37	64.6	15	77	47	59	0
Thailand	38	64.4	17	76	45	59	-2
Croatia	39	63.6	31	73	44	59	1
Cyprus	40	62.4	50	66	37	61	-5

Mauritius	41	61.9	57	64	36	61	3
Romania	42	61.5	42	69	49	58	-1
Bulgaria	43	61.5	55	65	42	60	0
Costa Rica	44	59.9	90	58	35	61	-2
Russia	45	59.7	67	63	48	58	10
Uruguay	46	59.7	73	62	46	59	1
Chile	47	59.6	87	58	38	60	6
Georgia	48	59.4	89	58	40	60	3
Kazakhstan	49	59.3	62	63	50	57	-1
Seychelles	50	59.3	85	58	43	60	N/A
Serbia	51	59.0	56	64	53	56	-5
Vietnam	52	59.0	44	67	58	55	4
Qatar	53	59.0	59	63	51	57	-4
Moldova	54	59.0	49	66	55	55	-2
Mexico	55	58.8	39	70	66	53	-10
Indonesia	56	58.2	43	68	68	53	10
Turkey	57	58.0	40	70	73	52	-3
North Macedonia	58	57.6	58	64	60	55	1
Greece	59	57.6	63	63	56	55	-1
Ukraine	60	57.5	46	67	71	53	3
Armenia	61	57.2	69	62	59	55	15
Philippines	62	56.9	45	67	75	52	-1
Azerbaijan	63	56.9	80	59	54	56	31
Montenegro	64	56.7	94	57	52	57	0
India	65	56.2	26	73	90	48	5
Kyrgyzstan	66	55.7	61	63	74	52	-9
Bahrain	67	55.6	86	58	61	54	0
Albania	68	55.4	81	59	63	54	0
Peru	69	55.3	79	59	65	53	0
Jordan	70	55.3	53	66	77	50	-8
Panama	71	54.9	84	58	67	53	-21
Argentina	72	54.7	88	58	70	53	-12
Egypt	73	54.6	41	69	93	47	-2
Brazil	74	54.1	107	54	62	54	3
Saudi Arabia	75	53.7	70	62	79	50	-2
Colombia	76	53.6	105	55	69	53	-4
Trinidad & Tobago	77	53.5	74	61	80	49	-3
Morocco	78	53.3	72	62	81	49	3
Tunisia	79	53.3	54	65	94	47	-1
El Salvador	80	53.2	60	63	87	48	-5
Jamaica	81	53.0	117	52	64	53	-1
Mongolia	82	52.9	109	54	72	52	1
Paraguay	83	52.8	91	57	76	50	3
Sri Lanka	84	52.7	77	61	83	49	-2
B&H	85	52.5	52	66	96	46	4

Dominican Republic	86	52.5	71	62	89	48	-2
Kenya	87	52.1	76	61	91	48	6
Lebanon	88	52.0	47	67	102	44	-23
Oman	89	52.0	130	46	57	55	-4
Nepal	90	51.8	48	66	100	45	1
Kuwait	91	51.3	96	57	84	48	-4
South Africa	92	51.3	108	54	78	50	3
Cape Verde	93	50.4	102	55	86	48	-14
Tajikistan	94	50.2	78	60	97	46	8
Guatemala	95	50.1	75	61	101	44	-7
Rwanda	96	49.8	118	51	82	49	0
Pakistan	97	49.3	51	66	109	41	6
Botswana	98	49.3	116	52	88	48	-6
Bangladesh	99	48.9	68	63	107	42	2
Ecuador	100	48.8	119	51	92	47	-10
Ghana	101	48.6	126	49	85	48	3
Honduras	102	48.5	101	56	99	45	-4
Bolivia	103	48.5	104	55	98	45	-6
Senegal	104	48.1	83	59	105	43	-5
Namibia	105	48.0	125	49	95	47	2
Tanzania	106	47.7	95	57	104	43	0
Nicaragua	107	46.5	106	54	106	43	-7
Cambodia	108	46.3	121	51	103	44	0
Myanmar	109	46.1	65	63	120	38	3
Algeria	110	46.0	100	56	110	41	-5
Uganda	111	46.0	93	57	111	40	0
Lesotho	112	45.8	111	54	108	42	2
Gambia	113	45.4	82	59	116	39	0
Laos	114	45.3	92	57	112	39	-5
Madagascar	115	45.1	98	57	113	39	3
Iran	116	44.9	99	57	114	39	-6
Nigeria	117	43.3	115	52	115	39	-2
Ethiopia	118	42.7	97	57	127	36	1
Guinea	119	41.7	122	51	123	37	8
Côte d'Ivoire	120	41.7	113	53	126	36	2
Burkina Faso	121	41.5	114	52	125	36	-1
Mali	122	41.3	110	54	129	35	-6
Malawi	123	41.2	128	47	118	38	3
Benin	124	41.1	127	49	122	37	-7
Zambia	125	41.0	132	46	117	39	3
Cameroon	126	40.7	124	49	124	36	-3
Venezuela	127	40.3	131	46	121	37	-3
Mauritania	128	40.3	120	51	130	35	1
Zimbabwe	129	39.4	123	51	131	34	-8
Liberia	130	38.8	133	46	128	35	-5

Mozambique	131	38.6	134	39	119	38	-1
Burundi	132	37.7	129	47	132	33	-1
Haiti	133	37.2	103	55	134	28	-1
Angola	134	34.0	135	39	133	32	-1
Yemen	135	32.8	112	54	136	22	-1
Chad	136	29.9	136	35	135	27	-1

Table 5: Structural capability sub-pillar scores by country

Country	1. Structural Rank	1. Structural Score (0 to 100)	1.1 Demographics Rank	1.1 Demographics Score	1.2 Country capabilities Rank	1.2 Country Capabilities Score	1.3 Economic development Rank	1.3 Economic development Score	1.4 Trade vulnerability Rank	1.4 Trade vulnerability Score	1.5 Inequality Rank	1.5 Inequality Score
Germany	1	81	131	25	3	95	14	91	1	98	31	81
Czechia	2	81	119	30	6	92	24	88	17	81	2	99
Slovenia	3	80	126	28	9	88	26	88	16	81	1	100
Austria	4	80	114	34	7	91	15	91	7	87	25	84
Netherlands	5	80	118	31	28	78	5	92	3	92	14	91
Denmark	6	79	121	30	24	79	10	91	4	90	15	91
Korea	7	79	101	46	4	95	20	88	27	74	26	82
Belgium	8	78	116	34	23	80	8	92	21	80	9	93
Singapore	9	78	90	55	5	94	2	96	31	70	N/A	N/A
Sweden	10	78	122	30	8	88	13	91	13	82	21	86
Luxembourg	11	78	91	52	22	81	1	99	24	79	61	72
Switzerland	12	78	113	34	2	98	3	94	29	72	45	78
Slovakia	13	77	105	43	12	86	28	87	48	61	2	99
Poland	14	77	111	36	27	79	30	87	9	86	22	85
China	15	77	84	61	17	84	39	81	6	89	74	64
France	16	76	127	28	19	83	12	91	11	83	33	80
Thailand	17	76	89	57	26	79	50	77	8	86	54	73
Finland	18	75	133	22	13	86	18	90	35	69	10	93
Israel	19	75	86	59	18	84	16	91	28	74	79	63
Estonia	20	75	123	30	30	78	22	88	20	80	23	85
Hungary	21	75	120	30	10	88	40	81	26	75	17	87
UAE	22	74	1	100	81	54	47	79	78	48	5	96
Japan	23	74	136	0	1	100	23	88	14	82	40	78
USA	24	73	104	43	15	85	4	94	22	79	89	56
UK	25	73	110	36	11	86	11	91	34	69	56	73
India	26	73	56	80	47	67	64	69	19	80	62	71
Ireland	27	73	94	51	14	85	6	92	79	47	26	82
Norway	28	73	107	40	40	72	29	87	41	64	11	92
Spain	29	73	117	31	35	73	32	84	5	90	53	74
Italy	30	73	135	19	16	84	37	81	2	93	66	71
Croatia	31	73	128	26	32	75	44	80	15	81	18	87
Iceland	32	72	99	47	48	66	9	92	67	53	6	96
Lithuania	33	72	124	29	31	77	21	88	12	83	62	71
Malaysia	34	72	60	78	25	79	38	81	39	65	86	57
Malta	35	71	129	26	29	78	7	92	52	59	16	89
Canada	36	70	109	38	43	70	17	90	36	68	47	77
Portugal	37	70	134	21	34	74	43	80	10	85	48	77

Latvia	38	70	125	28	38	73	27	87	25	76	56	73
Mexico	39	70	66	77	20	82	36	83	45	63	108	46
Turkey	40	70	75	72	39	72	60	71	23	79	93	55
Egypt	41	69	48	85	65	59	95	60	40	65	28	82
Romania	42	69	115	34	21	82	42	80	38	66	65	71
Indonesia	43	68	54	82	63	59	62	71	32	70	73	65
Vietnam	44	67	67	76	54	63	96	59	33	69	62	71
Philippines	45	67	50	84	33	75	53	74	61	54	96	54
Ukraine	46	67	106	42	50	66	82	63	46	63	7	95
Lebanon	47	67	63	77	49	66	63	69	87	45	30	81
Nepal	48	66	52	83	60	60	98	59	58	55	38	79
Moldova	49	66	87	59	68	59	73	66	81	47	4	97
Cyprus	50	66	92	52	45	68	31	86	101	41	36	79
Pakistan	51	66	38	89	87	52	103	56	53	57	29	82
B&H	52	66	108	39	36	73	71	67	42	64	42	78
Jordan	53	66	35	90	58	61	80	64	88	45	49	76
Tunisia	54	65	74	72	46	68	87	62	82	47	38	79
Bulgaria	55	65	130	26	42	70	45	80	18	81	88	57
Serbia	56	64	112	34	37	73	70	67	37	67	69	70
Mauritius	57	64	88	59	64	59	41	80	72	51	71	68
North Macedonia	58	64	93	51	57	62	68	68	59	55	42	78
Qatar	59	63	2	98	67	59	49	77	84	47	N/A	N/A
El Salvador	60	63	72	73	56	62	84	62	50	60	77	63
Kyrgyzstan	61	63	40	87	61	60	94	60	119	30	18	87
Kazakhstan	62	63	68	76	95	49	69	68	114	37	13	92
Greece	63	63	132	23	51	65	51	74	47	62	40	78
New Zealand	64	63	103	44	53	64	19	89	57	56	N/A	N/A
Myanmar	65	63	53	82	113	42	100	57	64	54	24	84
Australia	66	63	102	45	94	50	25	88	70	52	52	74
Russia	67	63	98	48	62	59	59	71	43	64	72	66
Bangladesh	68	63	47	85	99	48	88	61	86	45	33	80
Armenia	69	62	83	61	77	55	75	65	92	44	20	86
Saudi Arabia	70	62	32	92	41	71	57	72	99	42	N/A	N/A
Dominican Republic	71	62	62	77	73	57	65	69	56	56	93	55
Morocco	72	62	65	77	90	51	61	71	65	53	81	61
Uruguay	73	62	96	49	66	59	48	79	54	57	82	61
Trinidad & Tobago	74	61	82	62	55	62	55	73	60	55	N/A	N/A
Guatemala	75	61	45	86	79	55	74	65	30	70	116	38
Kenya	76	61	10	95	89	51	99	57	68	53	85	58
Sri Lanka	77	61	80	63	76	56	77	65	51	59	80	62
Tajikistan	78	60	29	93	109	43	109	54	96	43	51	76
Peru	79	59	73	73	114	41	46	79	74	50	90	56
Azerbaijan	80	59	57	80	119	39	128	48	105	40	7	95
Albania	81	59	95	50	78	55	85	62	83	47	46	78

Gambia	82	59	12	95	105	45	114	52	104	41	66	71
Senegal	83	59	25	93	91	51	108	54	89	45	83	59
Panama	84	58	71	73	72	57	35	83	75	50	117	34
Seychelles	85	58	70	75	101	47	56	73	130	21	32	80
Bahrain	86	58	15	95	59	60	67	68	108	39	N/A	N/A
Chile	87	58	85	60	86	52	34	83	80	47	104	48
Argentina	88	58	81	63	80	55	76	65	55	57	100	52
Georgia	89	58	97	48	70	58	66	68	98	42	66	71
Costa Rica	90	58	79	67	52	64	58	71	76	49	114	39
Paraguay	91	57	59	80	92	50	78	65	62	54	109	45
Laos	92	57	36	89	103	47	104	56	102	41	77	63
Uganda	93	57	3	97	82	53	124	50	91	45	99	53
Montenegro	94	57	100	47	44	69	72	66	110	37	74	64
Tanzania	95	57	14	95	120	38	112	53	71	52	84	59
Kuwait	96	57	23	93	88	52	91	60	90	45	N/A	N/A
Ethiopia	97	57	33	92	111	43	122	51	111	37	55	73
Madagascar	98	57	24	93	112	43	113	53	66	53	98	53
Iran	99	57	55	80	85	52	119	51	73	51	95	55
Algeria	100	56	58	80	107	44	115	52	131	19	11	92
Honduras	101	56	44	86	98	48	86	62	69	52	114	39
Cape Verde	102	55	41	87	75	56	90	60	121	28	97	54
Haiti	103	55	46	86	106	44	101	57	107	40	86	57
Bolivia	104	55	61	77	108	44	92	60	95	43	92	56
Colombia	105	55	76	71	74	56	52	74	85	46	119	30
Nicaragua	106	54	51	84	115	40	97	59	63	54	111	44
Brazil	107	54	78	69	69	58	81	64	49	60	122	25
South Africa	108	54	49	84	71	57	54	73	44	64	126	0
Mongolia	109	54	37	89	116	40	126	49	126	23	36	79
Mali	110	54	8	96	117	39	116	52	133	17	42	78
Lesotho	111	54	43	86	102	47	107	55	97	42	107	47
Yemen	112	54	20	94	118	39	131	46	117	32	70	68
Côte d'Ivoire	113	53	19	94	131	26	89	61	103	41	90	56
Burkina Faso	114	52	7	96	125	33	120	51	127	23	59	72
Nigeria	115	52	17	95	133	23	110	53	120	30	56	73
Botswana	116	52	39	88	100	48	33	84	124	26	121	25
Jamaica	117	52	77	71	97	48	83	63	100	42	N/A	N/A
Rwanda	118	51	26	93	96	48	117	51	122	26	103	50
Ecuador	119	51	64	77	126	33	93	60	77	49	109	45
Mauritania	120	51	28	93	130	27	127	48	129	21	35	79
Cambodia	121	51	42	87	84	53	105	56	116	35	N/A	N/A
Guinea	122	51	21	94	132	26	123	50	128	21	49	76
Zimbabwe	123	51	22	94	110	43	111	53	94	44	118	33
Cameroon	124	49	16	95	128	28	106	55	106	40	112	43
Namibia	125	49	34	91	93	50	79	64	93	44	125	10
Ghana	126	49	27	93	129	28	121	51	115	36	102	51

Benin	127	49	30	93	127	29	102	57	109	38	113	40
Malawi	128	47	13	95	121	36	118	51	132	18	105	48
Burundi	129	47	6	96	122	36	135	39	135	14	76	64
Oman	130	46	11	95	83	53	129	48	125	24	N/A	N/A
Venezuela	131	46	69	75	124	34	130	46	113	37	106	47
Zambia	132	46	4	97	104	46	125	50	112	37	124	15
Liberia	133	46	31	92	135	17	132	43	134	17	59	72
Mozambique	134	39	18	94	123	34	136	29	118	31	123	23
Angola	135	39	5	97	134	18	133	39	123	26	119	30
Chad	136	35	9	95	136	0	134	39	136	9	101	51

Table 6: Cyclical capability sub-pillar scores by country

Country	2. Cyclical Rank	2. Cyclical Score (0 to 100)	2.1 Absorptive Capability Rank	2.1 Absorptive Capability Score	2.2 Adaptive Capability Rank	2.2 Adaptive Capability Score	2.3 Transformative Capability Rank	2.3 Transformative Capability Score	2.4 Institutional Capability Rank	2.4 Institutional Capability Score
Switzerland	1	79	2	79	4	75	1	74	48	64
Denmark	2	79	4	79	6	72	5	71	123	34
Netherlands	3	77	5	78	7	72	10	69	132	26
Germany	4	77	3	79	16	68	2	73	55	61
Norway	5	76	8	76	15	68	11	69	52	62
Singapore	6	76	10	75	2	80	3	73	11	82
Sweden	7	76	14	73	12	69	4	72	9	85
Finland	8	75	21	72	13	69	9	69	89	48
Luxembourg	9	74	7	76	5	74	17	65	96	46
Austria	10	73	6	78	23	62	12	67	97	46
UK	11	73	22	71	3	75	18	65	106	43
Belgium	12	73	1	80	20	63	15	66	20	77
Iceland	13	72	9	75	17	68	16	65	119	36
New Zealand	14	72	19	72	9	71	22	58	105	43
Canada	15	71	15	73	10	70	21	59	81	52
USA	16	71	45	65	1	80	6	70	49	63
Australia	17	71	13	73	8	71	26	58	42	66
France	18	71	11	74	21	63	13	66	103	44
Ireland	19	70	20	72	19	64	19	61	131	29
Japan	20	69	16	73	28	61	14	66	112	41
Israel	21	68	39	66	14	68	7	69	128	31
Estonia	22	68	43	66	11	69	24	58	10	83
Malta	23	67	12	74	26	62	27	57	70	57
Slovenia	24	66	18	72	39	55	25	58	135	18
Korea	25	65	44	65	24	62	8	69	17	78
Spain	26	65	29	69	29	59	32	56	60	60
Portugal	27	65	38	66	30	59	23	58	59	60
Czechia	28	64	26	70	38	55	31	56	22	75
Hungary	29	62	46	65	47	51	29	57	115	38
Latvia	30	62	58	62	35	57	35	53	40	68
Slovakia	31	62	37	66	45	52	34	54	57	61
Lithuania	32	62	52	64	36	56	37	53	34	71
Italy	33	61	30	69	51	50	28	57	1	93
Malaysia	34	61	73	58	33	58	20	60	77	54
Costa Rica	35	61	35	67	66	47	39	53	87	49
Mauritius	36	61	76	58	22	62	38	53	85	49
Cyprus	37	61	32	67	27	61	42	50	62	59

Chile	38	60	68	59	32	58	60	46	16	79
UAE	39	60	66	61	18	66	30	57	118	37
Georgia	40	60	33	67	40	55	49	47	3	92
Poland	41	60	47	65	56	49	40	51	21	77
Bulgaria	42	60	17	72	55	50	74	44	92	47
Seychelles	43	60	N/A	N/A	49	51	55	46	41	68
Croatia	44	59	25	70	78	45	57	46	8	85
Thailand	45	59	28	69	53	50	72	44	64	59
Uruguay	46	59	41	66	89	42	43	49	50	63
China	47	59	57	63	42	53	33	55	80	52
Russia	48	58	23	71	44	52	48	47	129	30
Romania	49	58	31	69	64	47	75	44	134	20
Kazakhstan	50	57	27	70	46	51	86	40	101	45
Qatar	51	57	75	58	25	62	41	50	23	74
Montenegro	52	57	61	62	34	57	65	45	15	79
Serbia	53	56	53	64	63	47	58	46	53	62
Azerbaijan	54	56	40	66	37	56	52	47	36	70
Moldova	55	55	36	67	75	46	66	45	117	37
Greece	56	55	62	62	68	47	71	44	13	81
Oman	57	55	50	64	43	53	45	49	38	68
Vietnam	58	55	34	67	77	45	73	44	47	64
Armenia	59	55	78	57	50	51	56	46	91	48
North Macedonia	60	55	56	63	57	49	44	49	32	73
Bahrain	61	54	65	61	31	59	50	47	71	57
Brazil	62	54	59	62	108	37	46	49	58	60
Albania	63	54	77	58	74	46	67	45	99	45
Jamaica	64	53	48	65	62	47	54	47	45	65
Peru	65	53	64	62	71	46	77	43	104	44
Mexico	66	53	80	57	72	46	53	47	78	53
Panama	67	53	63	62	85	43	70	45	126	32
Indonesia	68	53	99	51	59	48	68	45	19	77
Colombia	69	53	67	61	83	44	79	42	130	29
Argentina	70	53	42	66	115	35	81	42	113	40
Ukraine	71	53	49	65	67	47	78	43	124	34
Mongolia	72	52	55	63	73	46	125	32	27	74
Turkey	73	52	83	56	58	48	76	43	14	80
Kyrgyzstan	74	52	51	64	79	45	98	38	109	42
Philippines	75	52	90	53	70	46	63	46	107	43
Paraguay	76	50	54	63	87	43	103	36	35	71
Jordan	77	50	105	48	52	50	51	47	120	35
South Africa	78	50	100	50	76	46	110	35	37	70
Saudi Arabia	79	50	104	48	41	54	36	53	116	37
Trinidad & Tobago	80	49	24	70	86	43	122	32	25	74
Morocco	81	49	86	54	81	44	47	48	54	62
Rwanda	82	49	108	47	48	51	80	42	69	57

Sri Lanka	83	49	89	54	95	39	100	38	51	62
Kuwait	84	48	85	55	54	50	83	42	65	59
Ghana	85	48	101	50	91	41	82	42	95	47
Cape Verde	86	48	98	51	82	44	97	38	108	42
El Salvador	87	48	79	57	105	38	127	31	125	33
Botswana	88	48	109	47	60	48	61	46	83	52
Dominican Republic	89	48	92	53	88	42	85	40	88	49
India	90	48	114	42	80	45	64	45	5	90
Kenya	91	48	93	52	69	46	69	45	7	86
Ecuador	92	47	69	59	114	35	90	39	122	34
Egypt	93	47	94	52	94	39	62	46	121	35
Tunisia	94	47	95	52	90	41	59	46	79	53
Namibia	95	47	96	52	84	44	92	39	2	93
B&H	96	46	70	59	110	37	112	34	90	48
Tajikistan	97	46	82	56	61	48	115	33	98	45
Bolivia	98	45	60	62	118	35	128	30	68	57
Honduras	99	45	87	54	96	39	106	36	82	52
Nepal	100	45	91	53	103	38	114	33	66	58
Guatemala	101	44	111	45	92	40	94	39	56	61
Lebanon	102	44	84	55	65	47	87	40	33	72
Cambodia	103	44	72	59	113	36	126	32	26	74
Tanzania	104	43	107	48	107	37	88	40	73	56
Senegal	105	43	118	41	97	39	95	39	43	66
Nicaragua	106	43	74	58	116	35	119	33	74	56
Bangladesh	107	42	97	51	117	35	117	33	67	58
Lesotho	108	42	102	50	93	39	116	33	100	45
Pakistan	109	41	115	42	106	37	91	39	76	54
Algeria	110	41	88	54	119	35	121	32	46	64
Uganda	111	40	120	40	104	38	105	36	84	51
Laos	112	39	106	48	111	36	109	36	18	77
Madagascar	113	39	110	45	123	33	120	32	31	73
Iran	114	39	112	45	120	35	107	36	24	74
Nigeria	115	39	116	42	99	39	93	39	39	68
Gambia	116	39	131	34	101	38	99	38	29	74
Zambia	117	39	121	40	98	39	113	34	61	60
Malawi	118	38	117	41	124	33	111	35	4	90
Mozambique	119	38	103	48	127	29	133	28	6	88
Myanmar	120	38	81	57	132	26	134	24	114	38
Venezuela	121	37	71	59	134	24	124	32	102	45
Benin	122	37	127	36	102	38	89	40	44	65
Guinea	123	37	N/A	N/A	100	39	101	37	110	41
Cameroon	124	36	122	39	121	34	96	38	94	47
Burkina Faso	125	36	129	35	126	30	102	36	63	59
Côte d'Ivoire	126	36	134	31	109	37	84	41	72	56
Ethiopia	127	36	113	44	131	28	130	28	93	47

Liberia	128	35	130	34	112	36	N/A	N/A	12	82
Mali	129	35	123	38	129	29	104	36	86	49
Mauritania	130	35	128	36	128	29	108	36	28	74
Zimbabwe	131	34	126	38	125	30	118	33	30	73
Burundi	132	33	124	38	122	34	129	29	133	22
Angola	133	32	119	41	133	26	131	28	75	55
Haiti	134	28	125	38	136	22	132	28	136	4
Chad	135	27	132	33	135	22	123	32	111	41
Yemen	136	22	133	32	130	29	135	20	127	32