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Small countries: The way to resilience

Leading perspectives to navigate the future

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Authors:
Sara Carnazzi Weber
Jan Schüpbach
Cyrill Stoll
Pascal Zumbühl

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For more information, contact:
Nannette Hechler-Fayd'herbe
Chief Investment Officer for the EMEA region and Global Head Economics & Research of Credit Suisse
nannette.hechler-fayd'herbe@credit-suisse.com

Richard Kersley
Managing Director, EMEA Securities Research, and Head of Global Product Management, Credit Suisse
richard.kersley@credit-suisse.com

Editorial

I am delighted to present the latest study from the Credit Suisse Research Institute called "Small countries: The way to resilience," which explores the success of small countries for a third time. In our first issue in 2014, we were able to contradict the common notion that small countries struggle to capitalize on their size limitations after analyzing a sample of 58 countries. In the second issue, we showed that small countries act as leading indicators for trends in larger ones and analyzed the performance of their capital markets. In the present issue, our goal is to gain a deeper understanding of how small countries can prosper in today's ever-changing economic landscape, with new challenges such as pandemics, climate change and the reshaping of international relations. We have updated our theoretical framework to analyze the economic success variables across countries of various sizes and expand our sample size to include all 193 United Nations member states.

A crucial finding is that, for small countries in particular, economic openness is a prerequisite for prosperity. However, this dependence on international trade also renders small countries more vulnerable to economic shocks, underscoring the importance of building strategies to foster economic resilience. Our newly introduced Economic Vulnerability Indicator (EVI) and Economic Resilience Indicator (ERI) show which factors are crucial in a country's susceptibility to shocks, ranging from the concentration of trade flows and the dependence on energy imports to risks related to health and nature, and what characteristics determine a country's ability to withstand shocks and react to new challenges, such as macroeconomic

stability, economic diversification, fiscal policy space, good governance, market efficiency and a highly educated, innovative and healthy workforce. With this framework, we are able to show that many small countries score better than large ones in terms of resilience, precisely because they are more vulnerable.

Even though the current geopolitical tensions are bringing the vulnerabilities of small countries to the fore, they also represent an opportunity to learn and grow stronger together. With this in mind, we hope you find this latest analysis of small countries and their success factors to be highly thought-provoking and wish you an enjoyable read.

Axel P. Lehmann
Chairman of the Board of Directors
Credit Suisse Group AG

Executive summary

Since 1945, there has been a significant increase in the number of countries, resulting in a notable decrease in the average country size. This points to a crucial underlying trend: the rise of small states. This development has been accompanied by changes in the economic environment. The post-World War II period was characterized by the establishment of open markets and free trade. The division of labor became a fundamental pillar of international order, fueling the globalization engine. In this context, small countries were able to offset their size disadvantages through economic openness. This interconnectedness has also made physical dimensions of power, which had been historically linked to territory size and military strength, less important, resulting in a decreased risk of conflict. In such a stable environment, it became easier to be small and successful.

The global political economy has, however, not only changed in a way that enables small countries. It also challenges them in a novel way. First, globalization has strengthened factors that can weaken a country's sovereignty, such as global financial flows, multinational corporations or the presence of global problems that can only be resolved through joint action. Second, since post-World War II times, an increasing number of states have been willing to sacrifice some of their sovereignty by participating in international organizations or supranational alliances for economic gains and increased political weight. A case in point has been the European Union. In fact, this erosion of state sovereignty tends to affect small countries more than larger ones. Not least, the current geopolitical tensions have made it apparent that multilateralism and mutual trust between countries and governments cannot be taken for granted. The Russian-Ukraine war, the simmering Sino-American tensions and the emergence of a non-aligned block of emerging market countries are reshaping the world into a multipolar system where size is again becoming a comparative advantage. The benefit of physical power is thus still a factor in the 21st century. Challenges of a new kind, such as those experienced during the COVID pandemic and ongoing climate change, are raising additional vulnerabilities that small and large countries are differently equipped to overcome and master.

Operating in such an ever-changing environment is a difficult endeavor. Despite their size limitations, however, many small countries have proven that they can not only achieve prosperity, but also demonstrate above-average economic performance as well as resilience. In our view, the recipe for success lies in their economic openness, which allows them to offset size disadvantages. At the same time, this openness means that they must be particularly vigilant with regard to shocks that could threaten their economic well-being, underscoring the importance of sound economic policies and of building strategies to foster economic resilience. In order to gain a deeper understanding of the success factors of small countries, we have developed two indicators. First, the Economic Vulnerability Indicator (EVI) measures an economy's exposure to shocks. Second, the Economic Resilience Indicator (ERI) provides a framework for assessing a country's economic robustness to deal with such shocks, as well as the readiness to adapt to changing economic circumstances.

The results show that the robustness of an economy, as well as its ability to react and adapt, are the determinant success factors for small countries. Switzerland, the small country in our sample with the highest economic resilience for example, has a remarkably robust economy, thanks to its macroeconomic stability, sound social insurance provisions, a high degree of economic diversification and considerable fiscal policy space. Efficient markets, a solid infrastructure, business-friendly regulations and a highly educated, innovative and healthy workforce make the country capable of adapting to new challenges. This stands in contrast to Greece, which is the least well-equipped small country in our sample of 32 countries, which are mainly highly developed states, owing to its heavy economic reliance on essentially two sectors, tourism and shipping, as well as unsustainable fiscal policies.

Notwithstanding the challenges they are experiencing in terms of vulnerability and sovereignty, small countries should be aware that their own authority in law-making and economic decisions has been and will continue to be crucial for them to pursue the strategies that allow them to improve resilience and enjoy economic success.

Athens, Greece by SHansche, Getty Images

How to define smallness

What does it mean to be small? When it comes to countries, there is no clear-cut definition of what is considered as small. Traditional approaches usually equate country size with population. In our analysis, we use a multi-dimensional model based on the list of UN member countries to define smallness in order to capture a more complete size effect and explore how small countries are distributed across regions and development levels in the world.

What is small?

When comparing countries in terms of their size, there is no commonly accepted definition of what is considered as small. In the literature, country size is often conceptualized by a one-dimensional measure such as population, territory area or an indicator of economic weight like gross domestic product (GDP) or national income. The number of inhabitants or GDP can provide a good proxy of the size of the internal market, and the aspect of land can illustrate a country's capacity to produce goods and services as well as the availability of natural resources. Beside these typical size variables, other approaches build on structural variables such as the degree of participation and recognition in international politics, geographic characteristics or the endowment with resources and infrastructure (see Kocher (2002) for an overview)[1].

Multi-dimensional approaches focus on measures of size, which comprise more than one characteristic. This can be implemented as a simple composite measure where the combination of the characteristics may be additive or multiplicative. Various studies have also adopted statistical methods such as principal component analyses, discriminant function analyses or cluster analyses to distinguish between groups of countries with respect to their size.

The main advantage of these methods is that they help to partly overcome one important caveat of one-dimensional measures of size, i.e. the arbitrariness of cut-off points.

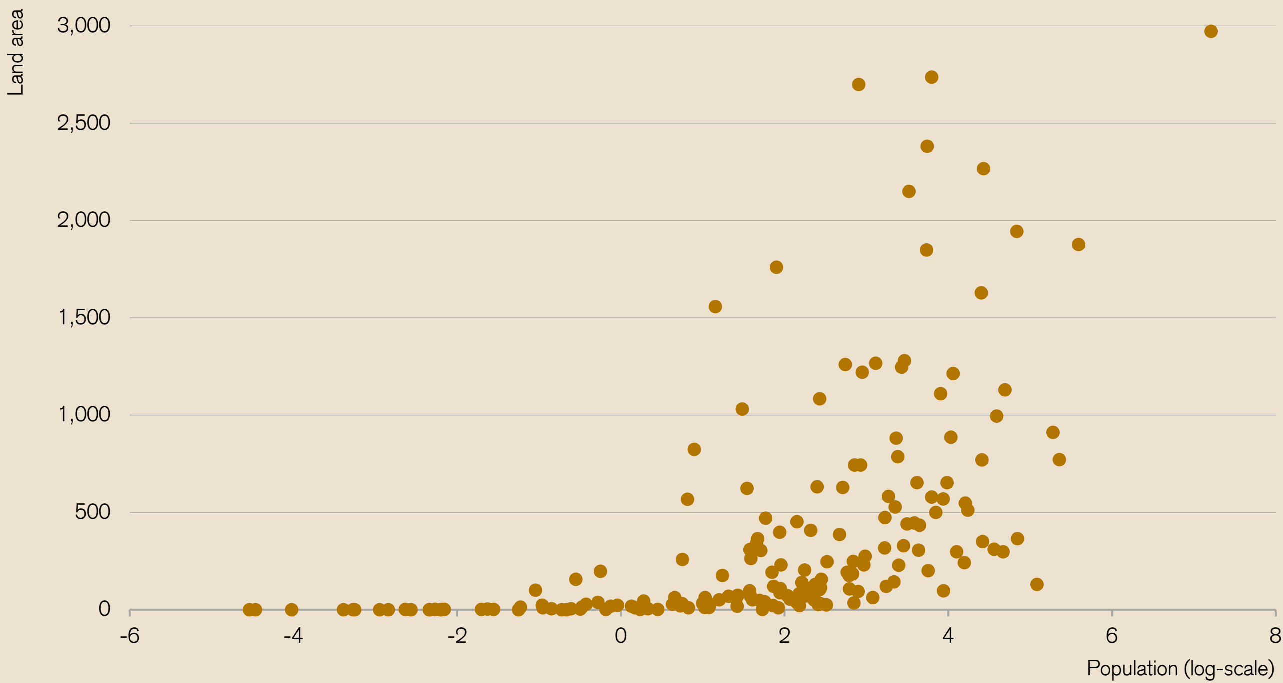
A multi-dimensional approach

For this study, we adopt such a multi-dimensional approach. Following the work of Alouini and Hubert (2019), we overlay territory size with population and calculate a country-size index using principal component analysis. According to this approach, and starting from the 193 sovereign states as per the United Nations' member list, we have 30 very small, 86 small, 39 medium-sized and 38 large countries in the world. The interplay of land area and population in our country-size index is illustrated in **Figure 1**, focusing on countries with land area up to 3,000 km^2 only for sake of readability. A country like Norway, for example, has a similar land area to Germany, but only around 6% of its population. In our approach, Norway is therefore classified as a small country and Germany as a large country. On the other hand, there are countries like Rwanda with limited territory size, but which have similar populations to countries like Tunisia, for example, where the land area is more than sixfold. Using both criteria, we thus capture a more complete size effect in our approach.

1. References are provided on page 42

Figure 1: Population and territory as criteria for determining country size

Population (logarithmic scale) and land area in 1,000 km²; countries with land area up to 3,000 km² only



Source: United Nations, Credit Suisse ; data as of 2021

The focus of our analysis

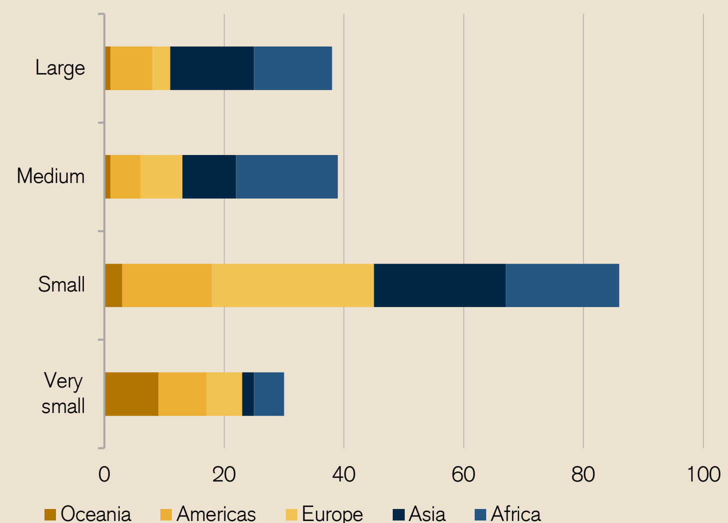
Overall, taking small and very small countries together, 60% of all countries in the world can be considered of limited size. For our analysis, however, we distinguish between small and very small countries. As city-states (e.g. Monaco), island states (e.g. Mauritius) or landlocked microstates (e.g. Andorra), very small countries have a very different starting position than small countries such as Switzerland, and are not the focus of our analysis.

Small countries can be found in each region of the world (see **Figures 2 and 4**). According to our classification, most of them are located in Europe (31%) and Asia (26%). They differ in their geographic characteristics (e.g. Austria compared to Oman) and in their development level (e.g. Singapore compared to Malawi). More than one-third of small states are classified as high-income countries according to the World Bank, which is a much larger share than for medium-sized and large countries (see **Figure 3**). Nevertheless, 14% are classified as low-income countries.

Small countries also differ with regard to cultural values, as well as political and social characteristics. Some have a long history as sovereign countries, while others have only recently attained independence status, like the

Figure 2: Most of the small countries are in Europe

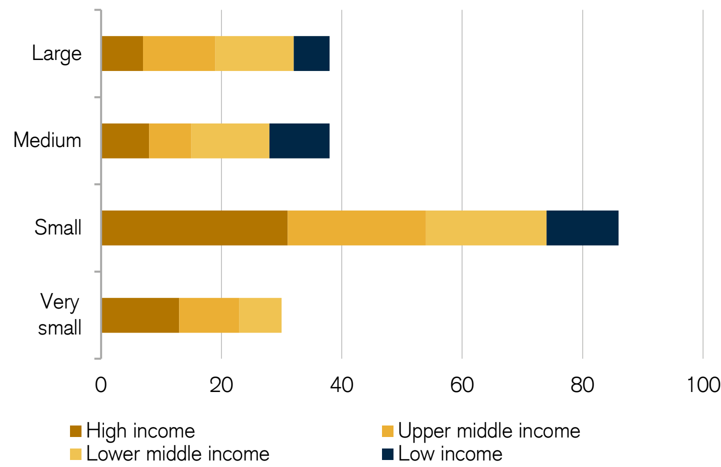
Classification of countries based on population and land area, by region, 2021



Source: United Nations, Credit Suisse

Figure 3: Over one-third of small states are high-income

Classification of countries based on population and land area, by income level, 2021



Source: World Bank, Credit Suisse

states that emerged after the collapse of Yugoslavia or the Soviet Union. Notwithstanding this heterogeneity, small countries share some important similarities, such as the problem of representation and influence in international politics, diseconomies of scale in the provision of public goods and in the diversification of economic activities, as well as a high degree of vulnerability to shocks. They also share the awareness, however, that they must make up for these comparative disadvantages. Although smallness alone is by no means a free ticket to prosperity, our analysis in the following chapters shows that many small countries are quite successful in capitalizing on their size limitations.

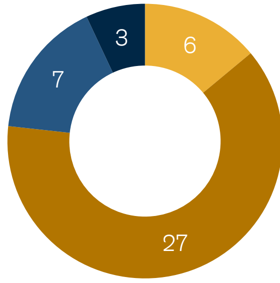
Figure 4: Countries by region according to size

Americas

7
8
5
15

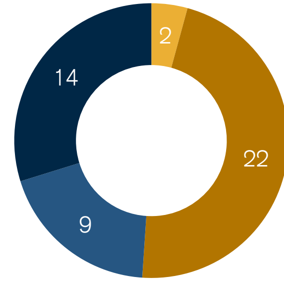
Very small ■ Small ■ Medium ■ Large

Europe



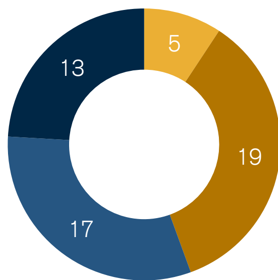
Very small Small Medium Large

Asia



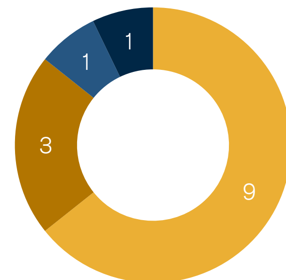
Very small Small Medium Large

Africa



Very small Small Medium Large

Oceania



Very small Small Medium Large

Source: United Nations, Credit Suisse

Amsterdam, Netherlands by Alexander Spatari, Getty Images

The relationship between size and success

Despite diseconomies of scale, a variety of small countries have proven that they can achieve economic prosperity and often excel in areas like competitiveness or income metrics. However, to be successful, small countries need to be economically open. At the same time, this openness means that they must be particularly vigilant against international shocks that could threaten their economic well-being.

Throughout history, borders have been subject to continuous change. Since 1945, the number of United Nations member countries has risen from around 50 to 193, almost a four-fold increase. Nearly 80% of the small states in the world have been formed in the past 70 years. The breakup of Yugoslavia, the Soviet Union and Czechoslovakia in the early 1990s saw larger entities split into smaller countries. A more recent example is the separation of South Sudan from Sudan in 2011. During the past century, a decentralization tendency has dominated size shifts. Moreover, ongoing discussions about regional self-determination in Scotland, Catalonia, Flanders, the Basque Country or Quebec, just to name a few, underscore a widespread belief that a breakup into smaller entities leads to a better outcome.

However, the simultanuous establishment of more or less binding supranational alliances (the EU certainly being one of the deepest forms amid the many alliances that have evolved over time) still shows that size matters on the geopolitical as well as economic front. The bottom line is that the world is moving toward smaller states, but also supranational alliances. In this chapter, we will explore the factors that influence the relationship between size and success. Are smaller states at a disadvantage versus larger ones in an increasingly competitive and multipolar world, or are they quite successful in utilizing and benefiting from their size limitations?

Economies and diseconomies of scale: A theoretical approach

The relation between a country's size and its level of economic success has been the subject of numerous scientific studies. There is now a widespread consensus that economies of scale exist in production. For instance, Yuki and Cen (2018) have identified economies of scale in this context at various levels. First, large countries enjoy size advantages in initiating production in sectors or industries that require substantial initial investments, such as machinery, pharmaceuticals and construction. Second, large countries have an advantage in the production of a wide variety of goods, which not only increases effective income levels, but also bolsters their resilience to crises due to their diversified production structure.

The bottom line is that the world is moving toward smaller states, but also supranational alliances

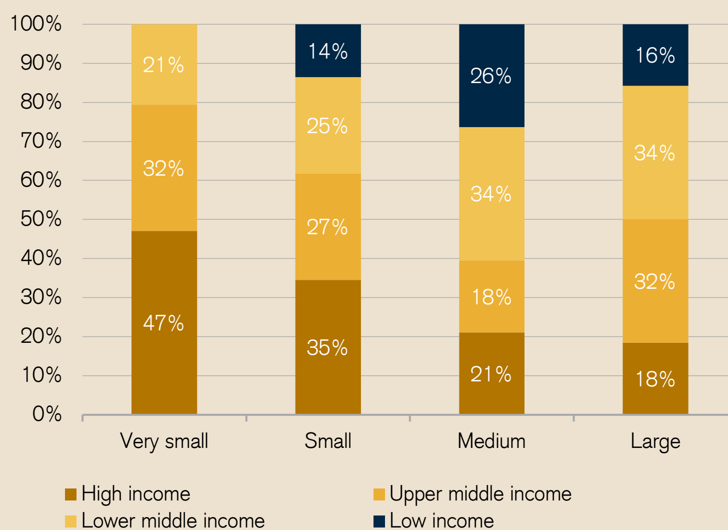
Third, large countries generally have extensive internal markets with a high number of producers, resulting in a heightened degree of competition. The degree of competition within a country, however, is not solely determined by its size. Regardless of their scale, countries can delegate competencies at various levels of government and enhance competition among local and regional entities. Successful practices that emerge from such competition can then be implemented at a national level. As a result, countries with a federalist structure, such as Switzerland or Austria, but also larger countries like Germany and the USA, are better positioned in terms of competition and growth than centrally governed states. This suggests that the benefits of a competitive market structure can be amplified by decentralizing governance structures – regardless of country size.

Economies of scale are not limited to production alone, as they also extend to the provision of public goods. According to Alesina (2003), the per capita cost of many public goods is lower in large countries due to a greater number of taxpayers contributing to their funding. Examples of such public goods include defense, education, healthcare, social systems, infrastructure development and maintenance. However, it is worth noting that policymaking can be more challenging in larger countries due to the greater distance between governments and their people. Moreover, large countries are typically more diverse in terms of population and culture, and therefore more difficult to govern (Yuki and Cen (2018)). In the extreme, these intrinsic challenges can lead to the break-up of larger states into smaller ones when the economic advantages of union can no longer outweigh sources of division and weak statehood.

Theoretically, country size has therefore both positive and negative effects on economic and just simply success through various mechanisms. Thus the question of whether a larger size is advantageous for economic performance can only be answered empirically.

Figure 1: Small countries are often economically strong…

Income level by country size, 2021



Source: World Bank, Credit Suisse

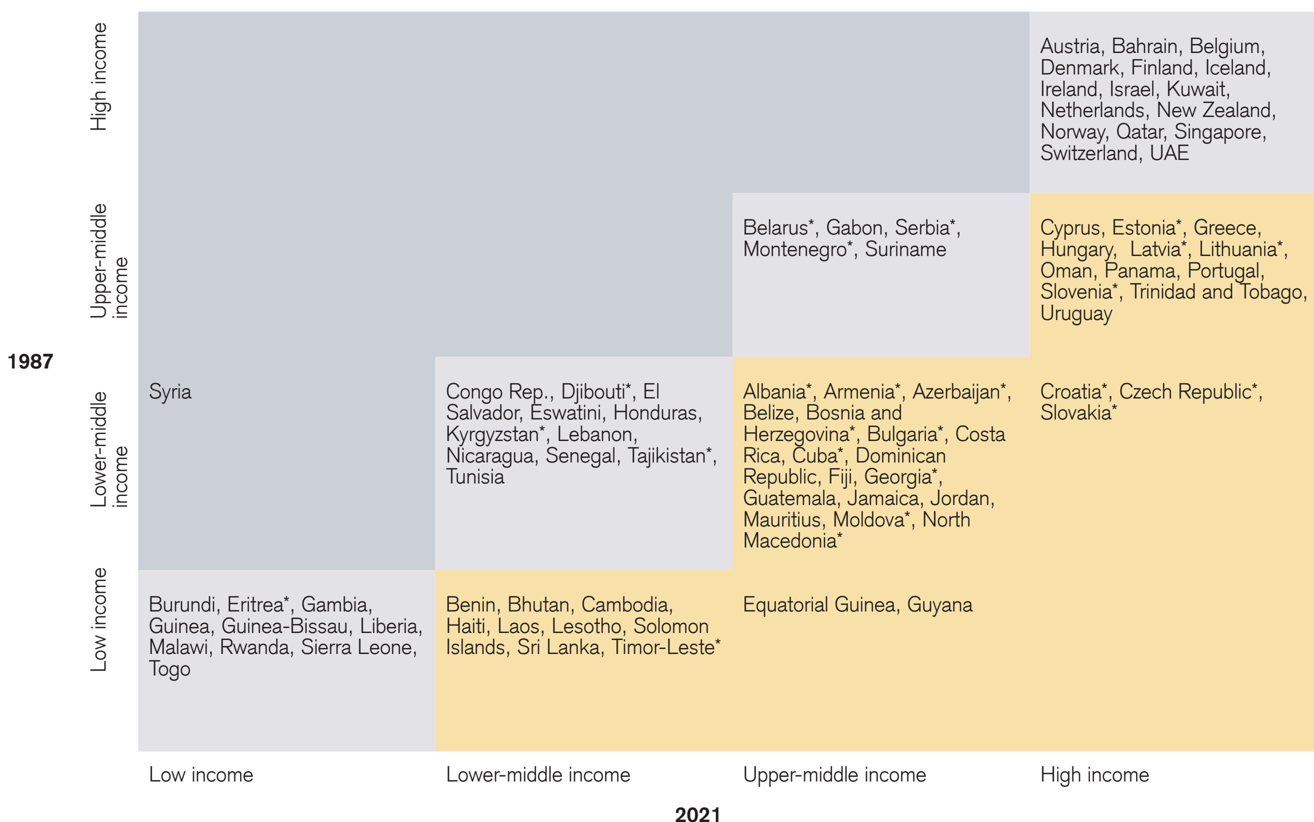
Economies of scale are not limited to production alone

Small countries tend to be economically strong

If small countries truly suffered from diseconomies of scale, and this factor alone determined economic success, then they would be expected to have lower levels of prosperity than larger countries. However, empirical evidence suggests otherwise: despite potential challenges, many small countries have demonstrated above-average economic performance. For example, in the IMD Business School's most recent competitiveness ranking in 2022, three small countries – Denmark, Switzerland, and Singapore – occupied the top three positions. Additionally, 15 of the top 20 places in the United Nations Human Development Index, which combines income per capita, education and health metrics, were held by small countries. However, it is important to note that many countries with low human development scores are also classified as small countries.

Figure 2: … and highly developed over the last 24 years

Income categorization of small countries*, 1987 and 2021



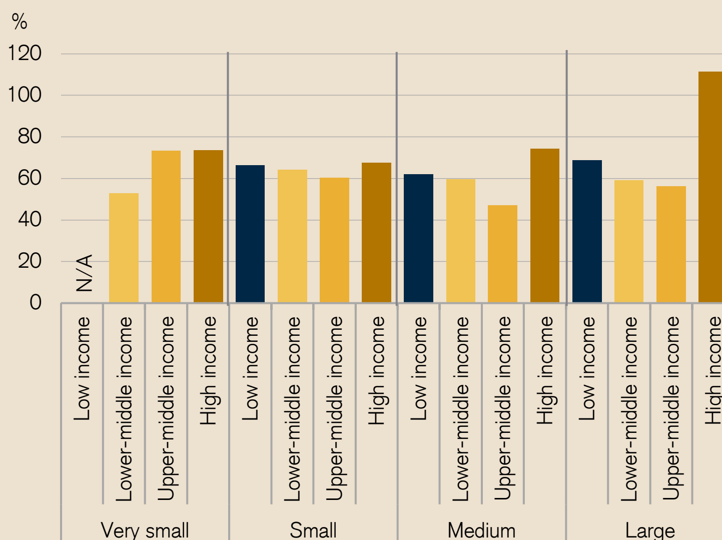
* The country did not exist in this form in 1987 or there was no data available. Therefore, the oldest available data was used (e.g. Latvia and Estonia: 1991).
Source: World Bank, Credit Suisse

If income level is considered an indicator of prosperity, then small countries perform above average yet again. In fact, nearly two-thirds of small countries belong to the upper-middle-income or high-income group, whereas the corresponding shares among medium-sized and large countries are considerably lower (39% and 50%, respectively; see **Figure 1**). This finding is consistent with previous research by Easterly and Kraay (2000), who discovered that small countries typically exhibit higher per capita gross domestic product (GDP) compared to other countries, contradicting the notion that small countries struggle to capitalize on increasing returns to scale.

Small countries not only tend to be more prosperous, but they have also developed remarkably well, according to the World Bank. Between 1987 and 2021, 50% of small countries managed to advance to a higher income group (see **Figure 2**). This share is higher than that of medium-sized (38%) or large countries (39%). For example, Croatia and the Czech Republic, both of which were initially lower-middle-income countries, have now attained high-income status. However, some

Figure 3: If anything, small high-income countries have lower debt levels

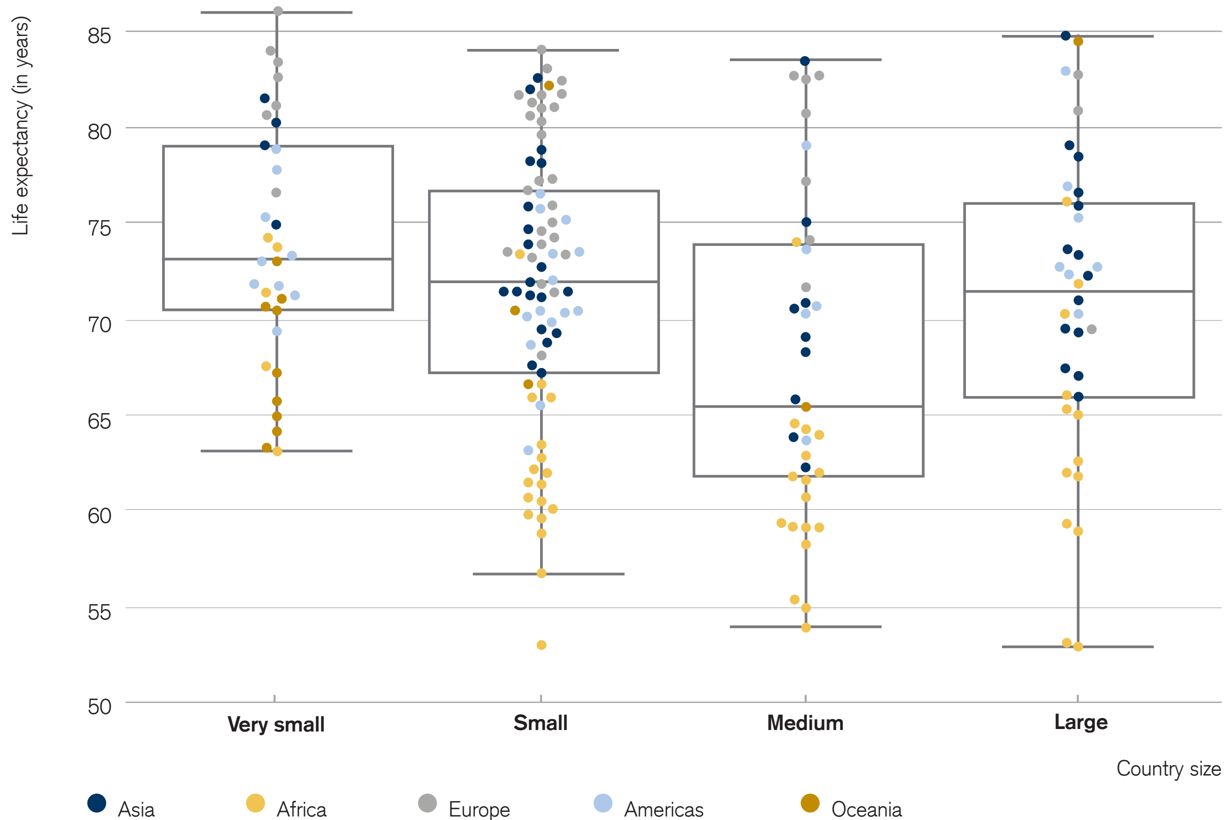
Government debt, in % of GDP, by country size and income group, 2021



Source: Haver: IMF, World Bank, Credit Suisse

Figure 4: There is no clear relationship between country size and life expectancy

Life expectancy (at birth) by country size and region, in years, latest year available for each country



Source: UNDP, Credit Suisse

small sub-Saharan nations have been unable to progress to a higher income group.

Moreover, **Figure 3** reveals that smaller countries do not necessarily have higher debt-to-GDP ratios than large countries – despite diseconomies of scale in the provision of public goods. In fact, small high-income countries tend to exhibit lower debt levels than their larger counterparts. The correlation between country size and success, however, is not always straightforward.

As shown in **Figure 4**, the relationship between country size and life expectancy is far from clear-cut. What becomes apparent is the significant variation in life expectancy across different continents and development levels. Notably, European countries tend to perform particularly well in this regard – Europe is also the continent with the most small countries. This example highlights the difficulty in establishing a direct link between certain economic indicators of success and country size alone. The following paragraphs provide further insight into these patterns, offering a more detailed examination of some of the underlying mechanisms of these results.

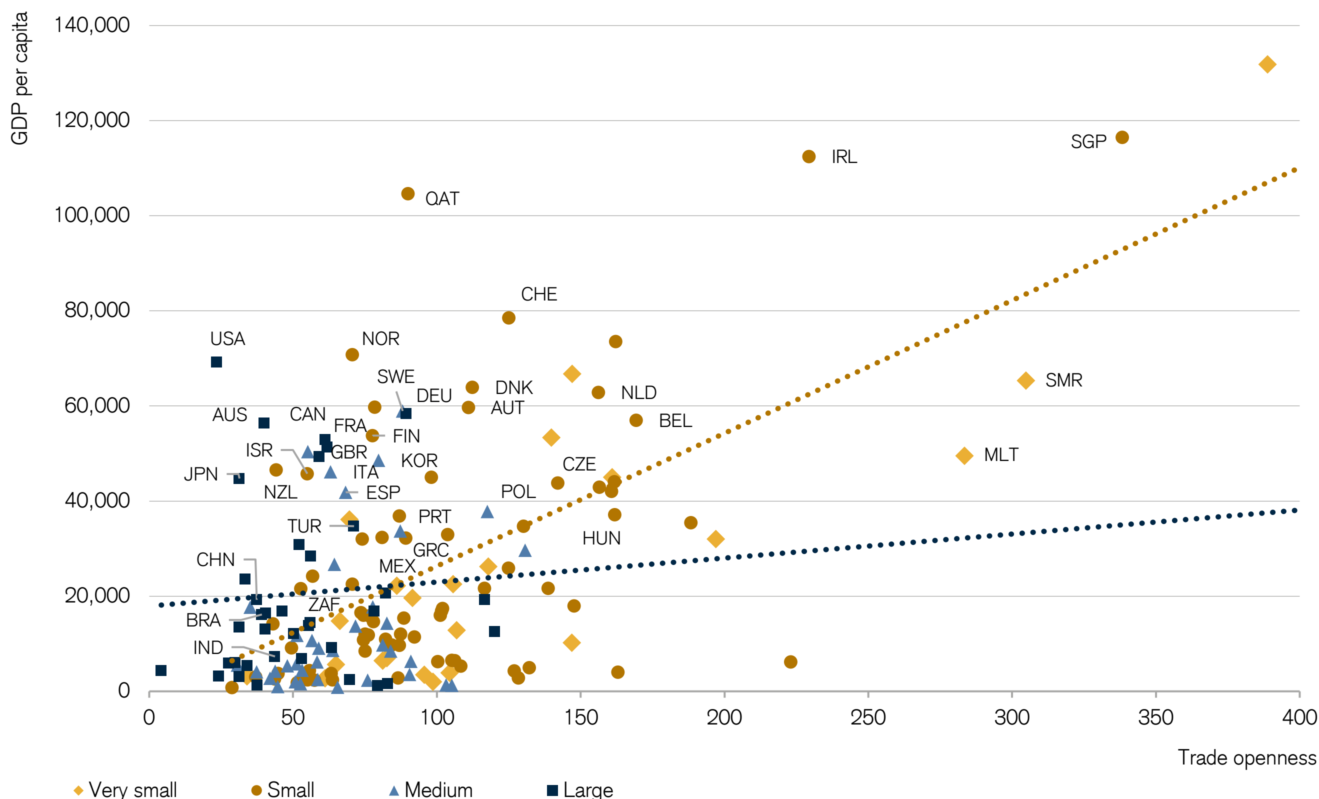
The crucial role of trade openness

In a completely self-sufficient world, small countries would inevitably have smaller markets. However, in reality, countries often participate in global trade to expand their market size. Despite the fact that national borders continue to present barriers to trade, empirical evidence demonstrates that country size no longer hinders economic development as long as borders are open to international trade. Notably, the positive correlation between trade openness and GDP per capita is much more pronounced for smaller countries than for larger ones (**Figure 5**). By integrating into the global economy, smaller countries can thus mitigate the diseconomies of scale stemming from their limited size. Hence, economic openness is a prerequisite for prosperity, particularly for smaller countries.

In this context, trade economists Ricardo (1817), Heckscher and Ohlin (1933) as well as Balassa (1965) argue that economic openness is associated with a greater degree of specialization. This combination of trade openness and specialization not only promotes prosperity for small countries, but also increases their vulnerability to negative shocks, such as

Figure 5: Economic openness is a prerequisite for prosperity – particularly for small countries

X-axis: Trade openness, imports + exports in % of GDP; y-axis: GDP per capita (purchasing power parity (PPP), current international dollars) by country size, 2021



Source: World Bank, International Monetary Fund, Credit Suisse

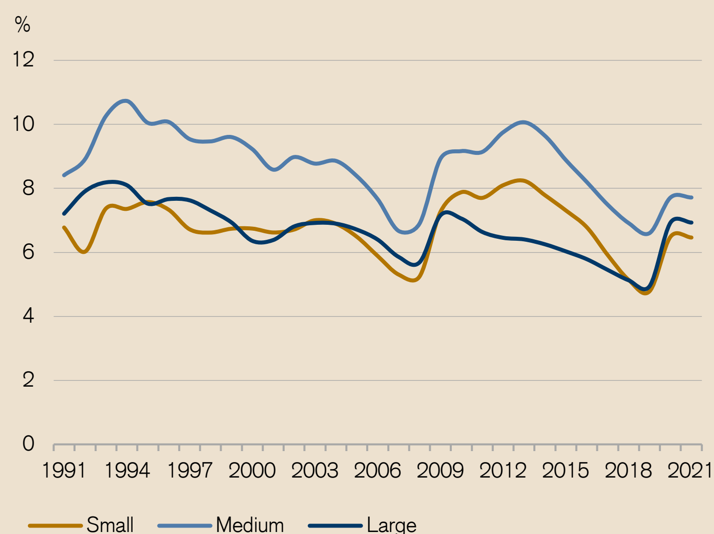
fluctuations in commodity prices. The hypothesis is that, in a more globalized world, small countries have tended to specialize in certain sectors, making them more exposed to the volatility of those specific areas. Nevertheless, economic variables do not necessarily indicate a disadvantage for smaller countries from this perspective. For instance, **Figure 6** demonstrates that the unemployment rates of high-income countries show little variation across country sizes – neither in terms of magnitude nor volatility. As we will see in more detail in the next chapter, it appears that small countries have developed strategies to mitigate the challenges posed by their size disadvantages by implementing measures that address their vulnerabilities.

More unity in a less-fractionalized society

Country size also plays a role in terms of diversity. Yuki and Cen (2018) posit that larger countries tend to have a more diverse population and culture, owing to their greater size and ethnic (or religious) heterogeneity, where diversity is conducive to the creation of new ideas for businesses, products and technologies.

Figure 6: Unemployment rate not higher for small high-income countries

Unemployment rate, in % of total labor force, by country size*



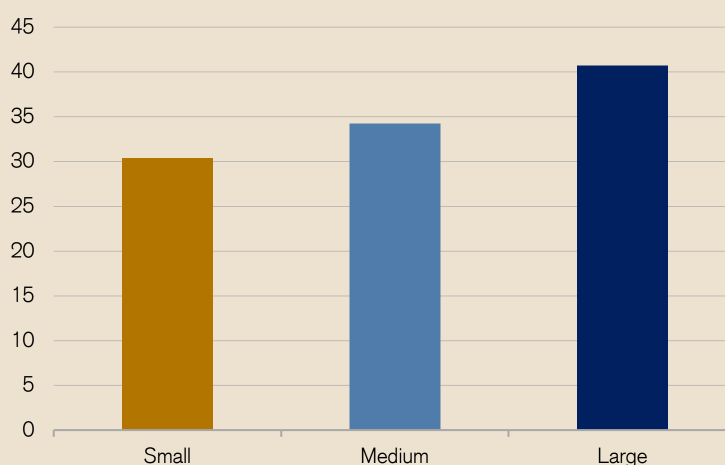
* Only high-income countries are considered
Source: ILO, Credit Suisse

Based solely on this argument, a highly fractionalized society should be more prosperous. However, large countries with diverse populations also face significant challenges. First, achieving a national identity is more difficult in a large country with a highly fractionalized population. Second, governing a highly fractionalized society can prove challenging because of varying needs and benefits of the people with respect to policies. Consequently, a "one-size-fits-all" approach is more likely to face resistance in a more diverse country. Third, the lack of unity in a highly fractionalized society increases the risk of internal conflicts that could ultimately threaten a country's prosperity.

If policymakers in highly fractionalized countries fail to overcome the economic barriers that exist between different ethnic and religious groups, they run the risk of creating a society marked by exclusion. Robinson and Acemoglu (2012) contend that inclusive societies, which offer equal opportunities for all individuals, are more likely to endure and prosper over the long term. In this regard, the authors posit that small and homogeneous countries are less likely to leave anyone behind, particularly in areas like access to education. The diversity argument may be part of the explanation why inequality in small OECD (Organization for Economic Co-operation and Development) countries, meaning mostly high-income countries, is less pronounced than in their larger counterparts (**Figure 7**). Using older inequality data from the World Bank, which also encompass a wide range of developing nations, it becomes apparent that this positive relationship between smallness and equality no longer applies to lower-income countries. Essentially, the key takeaway is that many of the established links between smallness and economic success are more pronounced in countries with higher incomes – but not exclusively. It seems that many small countries have managed to thrive even in hostile environments – despite or precisely because of their size.

Figure 7: Diversity could play a role in inequality in large OECD countries

Gini index* of OECD countries, by country size**, 2021



* 0 represents perfect equality; 100 represents perfect inequality; ** Very small countries were excluded from this analysis due to low sample size.

Source: OECD based on data from Teorell et al. (2022), Credit Suisse

> "Economic openness is a prerequisite for prosperity, particularly for smaller countries

Challenged sovereignty

In political science, sovereignty is basically defined as the most essential attribute of the state, encompassing its complete self-sufficiency, i.e. its supremacy in domestic policy and its independence in foreign policy. A clear definition of sovereignty is difficult, however, ranging from concepts of legal full sovereignty to the idea of economic or de facto sovereignty. Moreover, its content is continuously changing in connection with the transformation of international relations. In particular, the dynamics of interstate relations and state sovereignty have been highly affected by globalization (see Grinin (2012) for a comprehensive discussion on the topic).

On the one hand, globalization strengthens factors that can weaken a country's sovereignty, such as global financial flows, multinational corporations, global media or the presence of global problems that can only be resolved

through joint action. On the other hand, since postwar times, an increasing number of states have been willing to limit their sovereign rights by participating in international organizations or joining supranational alliances. For example, being a member of the European Union (EU) erodes some aspects of state sovereignty, but makes subsidies, investment funds and markets accessible. Or a state accepts the financial controls and guidance of the International Monetary Fund (IMF) in order to receive loan support, which is expected to benefit the state and its population.

What does this evolution mean for the sovereignty of small countries? Overall, the erosion of state sovereignty appears to impact smaller countries more than larger ones. Kurecic (2017) argues that small countries represent the perfect objects of influence for larger countries. Multilateral initiatives can be used by large countries to serve their interests behind a declared common goal (consider the OECD/G20 minimum corporate tax, for example). Also, supranational organizations do not always help small states to confront the influence of dominant states (think of the debate about an extension of qualified majority voting within the EU).

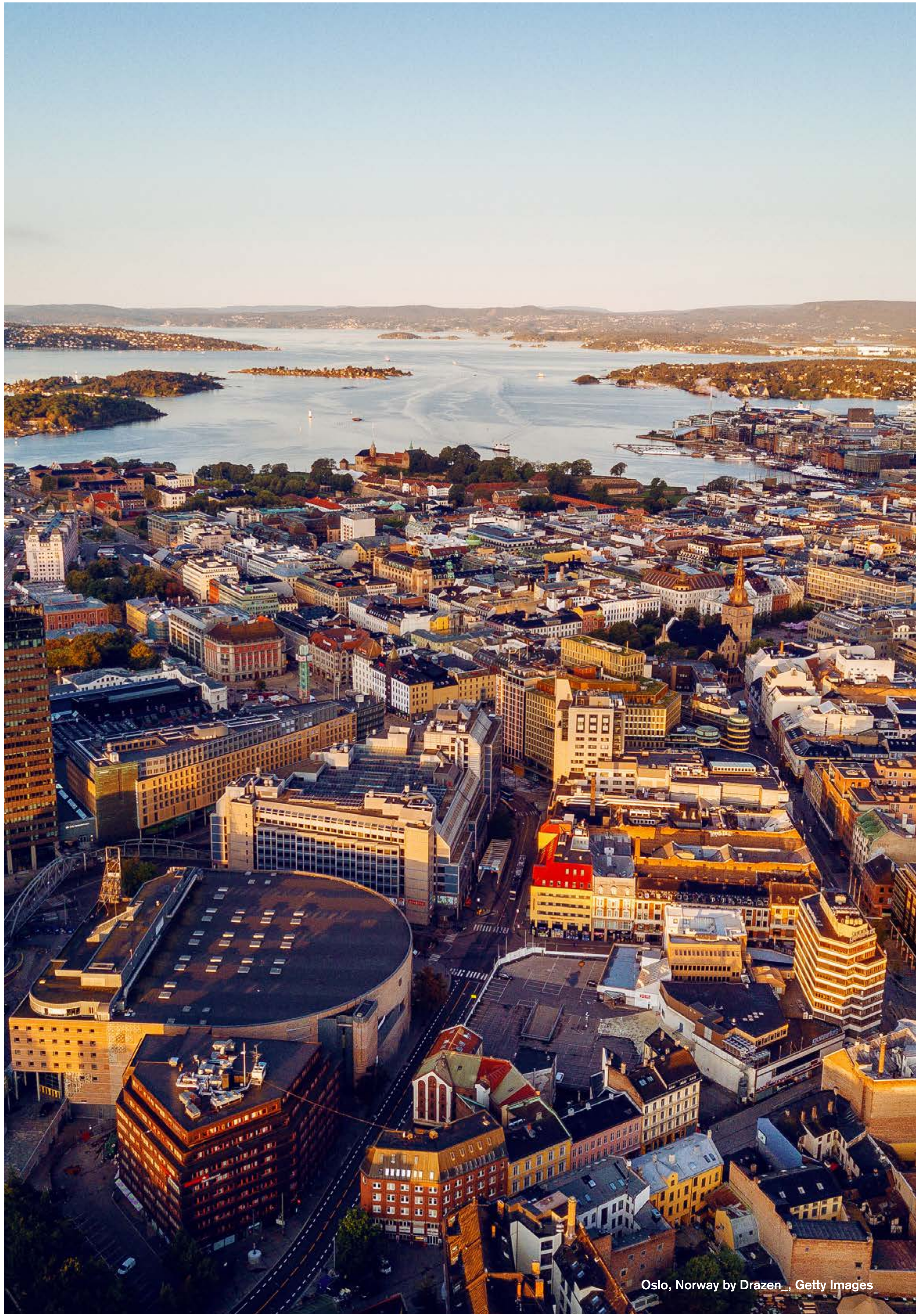
“

Overall, the erosion of state sovereignty appears to impact smaller countries more than larger ones

Today, the transition from a world of multilateralism and strong mutual trust between countries and governments to a more fragmented and multipolar geopolitical order, accelerated by the Russian-Ukraine war, is challenging small countries' sovereignty even more. Although they rely heavily on a rule-based international system, small countries like Switzerland lack the capacity to actively influence the global environment of conflicts and regulations, given their size and limited resources. In a world that is reorganizing in geopolitical blocs and where international trade develops in closer alignment with geopolitical alliances, size is turning out to be a comparative advantage again. The current events are therefore a stark reminder that the advantages of physical dimensions of power, which for centuries have been linked to territory size and military strength, are still a factor in the 21st century. Additional challenges, such as those posed by a pandemic or climate change, leave small and large countries differently equipped to effectively deal with the socioeconomic implications.

Neutrality is one distinct aspect of some small countries' sovereignty that has been intensively discussed lately. For small countries like Switzerland, defending a long tradition of neutrality and maintaining sovereignty in this matter has become a truly difficult balancing act as pressure has been exerted from different sides. Even though the adoption of the EU sanctions against Russia did not represent a breach of Swiss neutrality, it did provoke negative reactions, similar to the decision not to supply arms to conflict zones. In contrast to other countries, however, the balancing act in Switzerland is limited to defending its economic interest. And that is where the geography and location of a small country come into play. Due to its geographical location in the heart of Europe, Switzerland has a natural protection against military acts from other countries: The alpine country is surrounded by NATO members, which serves as a shield against physical hostilities. In contrast, Finland, another small country with a long history of neutrality, joined the North Atlantic Treaty Organization (NATO) military alliance in April 2023 following the Russian invasion of Ukraine.

Notwithstanding the challenges they are experiencing in terms of sovereignty, small countries should be aware that their own authority in law-making and economic decisions has been and will continue to be crucial for them to pursue the strategies that lead to economic success. They should therefore continue to preserve those parts of sovereignty that are a prerequisite for promoting and protecting their economic niches.


Oslo, Norway by Drazen_, Getty Images

Resilience follows vulnerability

On average, small countries perform comparatively well in various aspects of economic development. To gain a deeper understanding of the success factors of small countries, we developed two indicators. Our Economic Vulnerability Indicator measures an economy's exposure to shocks. Our Economic Resilience Indicator, on the other hand, provides a framework for assessing a country's economic robustness to deal with such shocks, as well as the readiness to adapt to changing economic circumstances.

The previous chapter has shown that small states are often among the countries with a high level of economic development. To be successful, small countries, even more than medium-sized and large countries, must integrate into the world economy, which in turn entails being exposed to economic shocks. This underscores the necessity to strengthen the resilience of their economies – on the one hand by improving their economy's robustness, i.e. the ability to withstand and absorb economic shocks and, on the other hand, by strengthening their economic readiness, i.e. their ability to adapt to changing circumstances and to respond to future shocks.

In this chapter, we develop a framework to assess a country's potential vulnerabilities to shocks. We then turn to a set of indicators aimed at assessing the economic resilience of a country (see **Figure 1**). Our framework was inspired by several economic vulnerability and economic resilience indicators, especially the work of Briguglio et al. (2006, 2016), Guillaumont (2008) and the OECD (see Röhn et al. 2015).

In our analysis, we include 32 countries across all five continents. As measured by our country size indicator (see Chapter 1), the sample consists of 12 large countries, including the largest countries in terms of population such as China, India and the United States, six medium-sized and 14 small countries. Together, this set of countries accounted for approximately 56% of the global population in 2021 and we believe it represents a well-balanced sample for the purpose of our analysis. In constructing our indicators of economic vulnerability and resilience, we sought a balance between considering the relevant variables on the one hand, and not obtaining a too small country sample due to missing data on the other. In case of missing data for certain years, (1) the last valid observation was propagated forward, and (2) the next data point was filled backwards.

Economic vulnerability

The Credit Suisse Economic Vulnerability Indicator (EVI) measures how vulnerable a country is to shocks compared to the average country in our sample of 32 countries worldwide. Higher numbers imply above-average vulnerability and lower figures less vulnerability.

The EVI is based on seven components (see Table "Overview of data sources" on page 28 for details of the variables included):

- Economic openness (weight 40%): The degree to which a country is integrated into the global economy is directly linked to its exposure to adverse external shocks. This component is captured by a country's trade openness, measured as the ratio of international trade (imports and exports) to GDP. We deem this component more

Figure 1: Framework for assessing a country's economic vulnerability and economic resilience

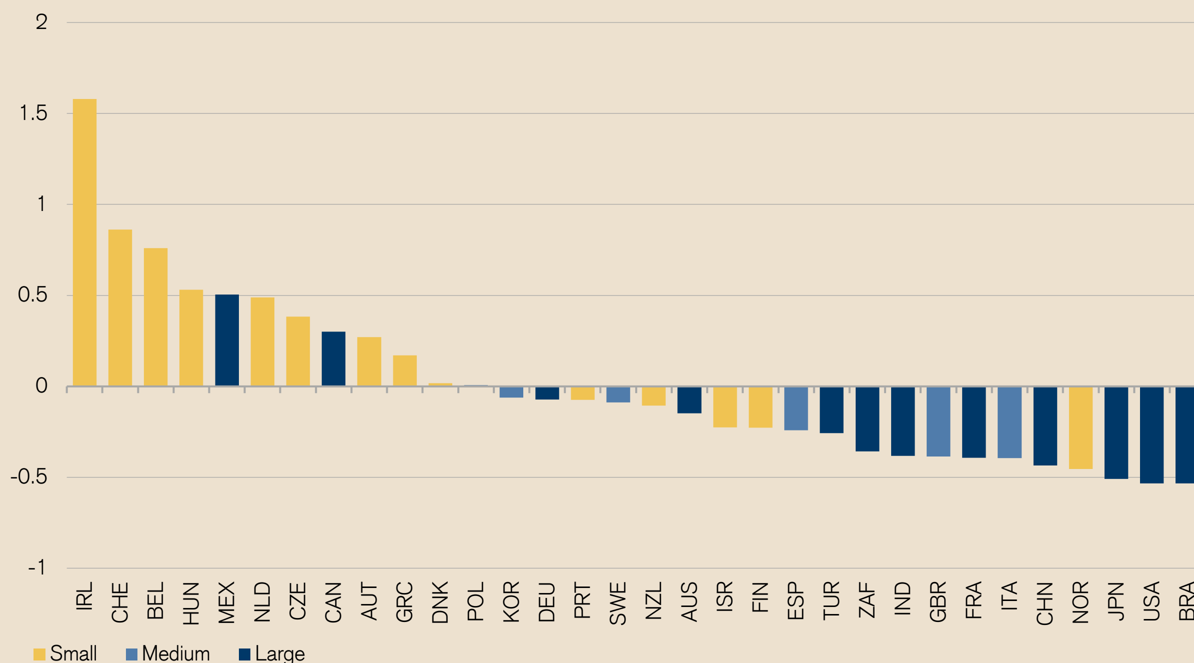
Source: Credit Suisse

important than other components, and thus assign it a higher weight in the EVI.

- Import concentration (weight 15%): If a country's economy is heavily dependent on imports, it can face economic difficulties if imports are not available. We include both a measure of import market concentration and a measure of import product concentration. The former assesses the dispersion of trade value across an importer's partners. To measure this geographical diversification of imports, we calculate a Herfindahl index. A country with a preponderance of imports (trade value) concentrated in very few markets could face difficulties if imports from these markets become more difficult, e.g. if partners increase trade barriers or in case of trade bottlenecks. The import product concentration index from the United Nations Conference on Trade and Development (UNCTAD) assesses the degree of concentration of imports of goods. It measures whether a large share of a country's imports is accounted for by a small number of commodities or whether they are spread over a large variety of products.
- Export concentration (weight 15%): A country highly dependent on exports to specific markets or on specific products is also more exposed to external economic forces. As in the case of import concentration, we capture export concentration by means of two indicators. First, we calculate an export market concentration index, which captures the diversification in the exporter's trading partnerships. Second, we include the UNCTAD's export product concentration index, which measures the degree of concentration of goods exported.
- Energy imports (weight 10%): The war in Ukraine and the resulting spike in global energy prices have raised issues about the relevance of a stable and affordable energy supply, not least as an important pillar for a functioning economy. Demand for energy is highly price and income inelastic, and depending on energy imports, may exacerbate exposure to external shocks due to trade openness. We add the percentage of a country's energy production in relation to total energy consumption to assess a country's dependence on energy imports. The data from the International Energy Agency (IEA) includes petroleum, dry natural gas, coal, net nuclear, hydroelectric, and non-hydroelectric renewable electricity. Given the current energy shortages stemming from the Russia-Ukraine war, one might perceive a 10% weighting as relatively low. Nevertheless, it is worth noting that the reliance on energy imports is partly encompassed within the "import concentration" component, which already incorporates considerations of market and product concentration, including energy-related aspects.
- Foreign human capital (weight 10%): Countries where economies are heavily

Figure 2: Small countries are considerably more vulnerable to shocks

Economic Vulnerability Indicator (EVI) by country, synthetic index (sample average = 0), 2023



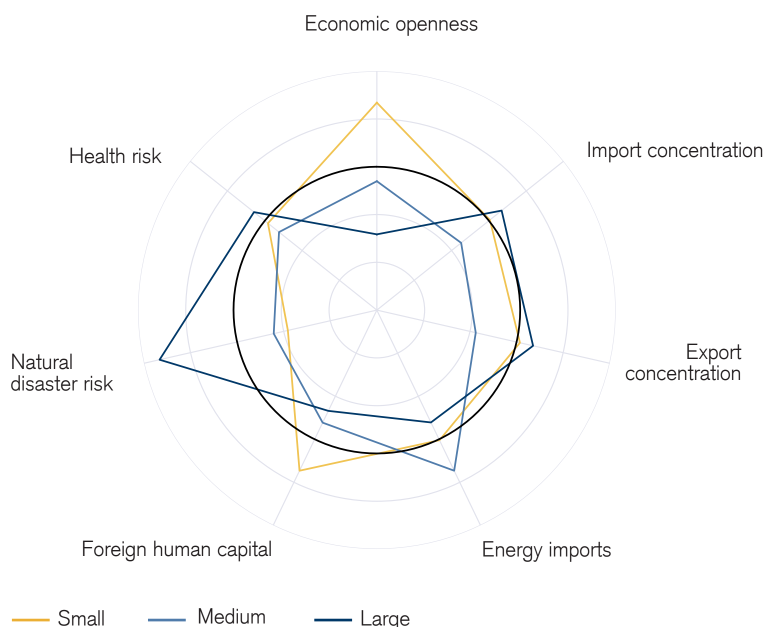
Source: Credit Suisse

dependent on foreign workers may face difficulties if this external supply of labor becomes restricted due to an external shock, e.g. due to restricted mobility as seen during the COVID crisis. We therefore include a country's international migrant stock as a percentage of the total population. Contrary to other measures of the importance of foreigners in the labor force, this variable is available for a large sample of countries and we believe it to be a reasonably good proxy for dependence on foreign workers.

- Natural disaster risk (5%): Weather extremes and natural disasters can have a significant impact on economic activity by destroying infrastructure, cutting off trade and communication routes, and costing lives. The frequency and severity of these events is expected to increase further in the future as a result of climate change. We include the extent to which populations in the different countries are exposed to and burdened by the impact of earthquakes, tsunamis, coastal and riverine floodings, cyclones, droughts and rising sea levels.
- Health risk (5%): While the COVID-19 pandemic has affected every single country in the world, the severity of the impact and the human toll correlated strongly with population health. Poor health makes a country more vulnerable, not only in the case of an epidemic or pandemic, but also by its effects on working

Figure 3: Small countries are more open and dependent on foreign human capital

Components of the Economic Vulnerability Indicator (EVI) by country size, synthetic index (sample average = 0), 2023



Source: Credit Suisse

capacity and productivity. We therefore include a country's share of the population affected by diseases, obesity and unhealthy lifestyles, approximated by tobacco use.

According to our indicator of economic vulnerability (EVI), Ireland, Switzerland and Belgium are the most vulnerable countries in our sample (see **Figure 2**). It is also evident that smaller countries often exhibit a high degree of vulnerability: nine of the 14 small countries in our sample show above-average vulnerability. From the 12 large countries in the sample, only Mexico and Canada exhibit above-average vulnerability, while the majority show a low vulnerability to shocks. Both Mexico and Canada are highly dependent on neighboring USA, making their economies particularly vulnerable. Moreover, Mexico is the second most-exposed country to natural disaster risk in our sample, after China.

> **"**
> **According to our indicator of economic vulnerability (EVI), Ireland, Switzerland and Belgium are the most vulnerable countries in our sample**

Figure 3 shows the average scores on the seven components of the economic vulnerability indicator by country size. We find that, on average, small countries are considerably more open and more dependent on foreign human capital than medium-sized or large countries. Regarding import and export concentration, small and large countries reach similar and somewhat higher scores than medium-sized countries. Concerning energy imports, medium-sized and small countries again appear more vulnerable than the large countries in our sample. With regard to natural disaster risk and health risk, however, small countries in our sample appear to be less vulnerable than large countries.

The country profiles for each of the 32 countries in our sample can be found in Chapter 4, starting on page 37.

Economic resilience

The Credit Suisse Economic Resilience Indicator (ERI) measures a country's resilience to withstand or absorb an economic shock and adapt to changing circumstances, again in comparison to the other countries in the sample. Higher figures imply above-average resilience and lower figures less resilience. The ERI is composed of two equally weighted sub-indicators based on five/six components (see table "Overview of data sources and methodology" on page 28 for details on the variables included).

The first sub-indicator assesses a country's economic robustness in dealing with shocks. It is composed of the following five components, which are all weighted equally:

- Macroeconomic stability (weight 20%): The macroeconomic stability measure gauges the overall health of a country's economy. First, by including the current account balance in terms of GDP, we can observe whether a country is relying too heavily on either imports or exports. Second, the inflation rate and its standard deviation indicate whether price levels are stable and thus whether purchasing power is preserved in the long run. Last, the contribution of the workforce to economic growth and the overall health of the labor market are indicated through the unemployment rate.
- Economic diversification (weight 20%): If a country is strongly focused on only a few sectors, a worsening in one sector has implications for the whole economy. Therefore, the more diversified the economy, the more resilient it is to difficulties in its sectors. We measure this component using the Economic Complexity Index (Harvard's Growth Lab). It assesses not only how diversified a country's export basket is, but also how complex the products are, i.e. how many other countries are able to produce them.
- Fiscal and monetary policy space (weight 20%): Fiscal policy space refers to a country's ability to temporarily increase its budget deficit without jeopardizing its access to markets or the sustainability of its debt. We capture this component through three variables. First, we include the primary budget balance as it may affect the budgetary abilities of the current government. Second, the amount of government debt is important as large debt heavily impairs a state's ability to act and invest if required. Third, we include government bond yields. Their significance in explaining fiscal policy space is twofold – high

yields indicate that there is a high perceived risk attached to the bonds, which is generally a bad sign for a country's fiscal situation, and higher debt servicing places more strain on state finances. To capture monetary policy leeway, we include the distance of the interest rates to the zero lower bound. This is an important indicator showing the room to maneuver with the central bank's primary instrument to tackle inflation and to promote economic growth, i.e. the base interest rate. When the base rate approaches the critical zero lower bound, this most important tool becomes less effective and the central bank's power to mitigate the impact of economic downturns becomes weaker.

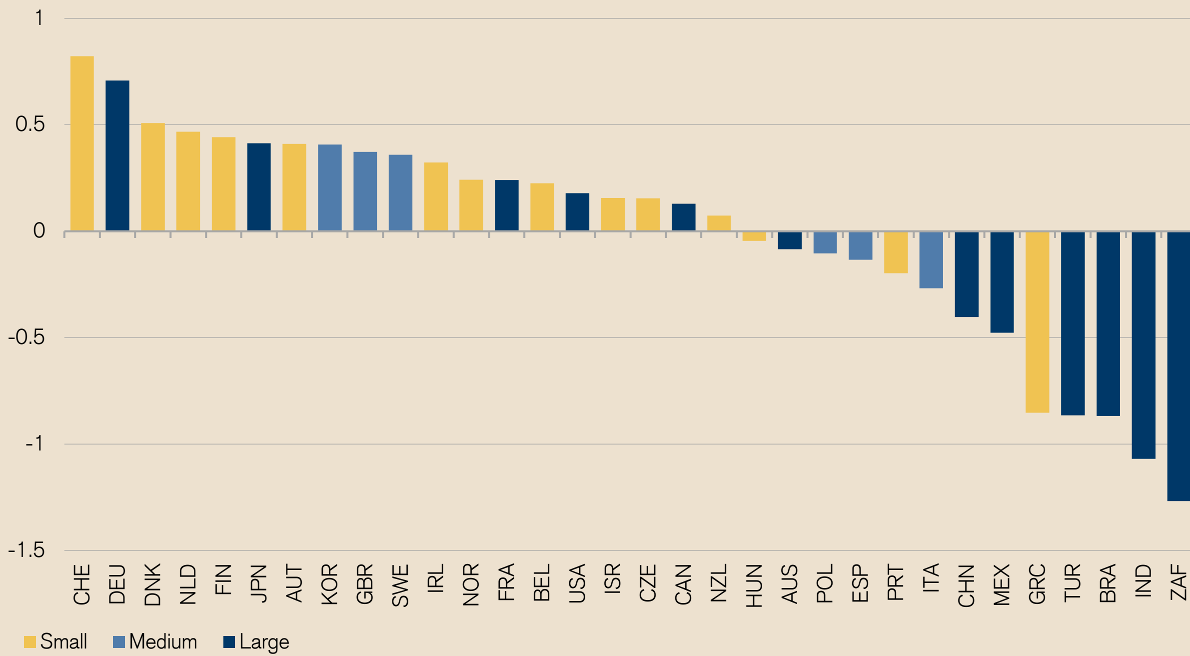
- Financial soundness (weight 20%): This component assesses the robustness of both the private non-financial sector as well as the financial sector, namely the soundness of banks. High core debt, i.e. the amount of credit to the private non-financial sector, indicates that businesses and private households carry a high level of debt and are thus susceptible to economic shocks like an economic downturn or a rise in interest rates. Additionally, the soundness of banks is important to attract foreign direct investment and create a good environment for businesses to prosper, but also to weather economic shocks.
- Social protection (weight 20%): Social protection in the form of unemployment insurance or other social benefits is vital to a nation's economic robustness. Unemployment insurance allows people to further participate in the economy until they find a new job, thus providing stability and enhancing economic growth. Social benefits in general are important to cushion the societal implications of economic downturns, making the economy and the country more robust.

The second sub-indicator assesses a country's economic readiness to adapt to changing economic circumstances. It is composed of six components, again weighted equally:

- Market efficiency (weight 16.7%): This component captures a country's ability to adapt its labor market to changes in the global economy. Ease of hiring foreign labor, the flexibility of wage determination and the degree of pro-business hiring and firing practices – three World Economic Forum Indicators – allow us to analyze how well and how quickly a country's labor market can react to shifts in the global economy. Last, we include the top marginal income tax rate as calculated by the Fraser Institute. This indicator includes both the top marginal tax rate and the income threshold at which these rates begin to apply. All else being equal (e.g. social protection, government services), countries with relatively low taxes leave their citizens with higher after-tax rewards, which may cushion the impact of economic shocks. The tax burden also plays an important role in a country's locational attractiveness for private individuals as well as legal entities.
- Governance (weight 16.7%): Governance refers to the government's ability to act effectively and efficiently, including the provision of a stable legal framework that guarantees political stability and the absence of violence or terrorism, and ensures the fundamental rights of the people and businesses. Among other things, we include variables to measure the degree of corruption, judicial independence and the protection of property rights.
- Human capital and health (weight 16.7%): Human capital captures the well-being of the general population in a broad sense, i.e. in terms of education, health and labor participation. A well-educated workforce is more flexible due to higher adaptivity to change and, if necessary, the ability to move more easily from one sector to another. Higher participation rates, especially among the younger generations, allow the country to use its economy's full potential. Adding to this, a healthy population is better able to weather social and economic setbacks. The health dimension is complemented by an assessment of the capability of the health system to prevent, detect and respond to infectious disease threats, as measured by the Global Health Security Index.
- Equality and social mobility (weight 16.7%): The Gini index measures the distribution of income across a population between the poorest and the wealthiest. Lower-income households in countries with low income inequality have higher purchasing power, which translates into stronger overall demand. These households should also be able to build higher buffers to rely upon in times of economic hardship. Although there is mixed empirical evidence regarding the impact of inequality on growth, most of the transmission channels point to a negative effect (Ferreira et al. (2022) provide a review of the impact of inequality on growth, human development and governance). As a measure of social mobility, we include the World Economic Forum's Global Social Mobility Index. This index assesses whether a country's policies, practices and institutions provide more equally shared opportunities—namely, an equal and meritocratic footing irrespective of socio-economic background, geographic location, gender or origin. Enhancing social mobility can also contribute to reducing historical inequalities and have positive effects on broader economic development (WEF 2020).

Figure 4: Small countries often show high levels of economic resilience

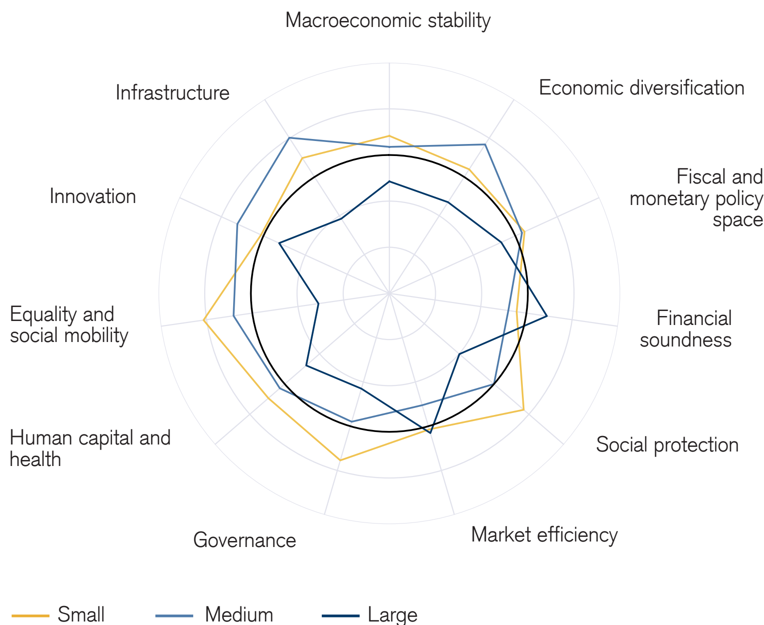
Economic Resilience Indicator (ERI) by country, synthetic index (sample average = 0), 2023



Source: Credit Suisse

Figure 5: Small countries score well in many aspects of economic resilience

Components of the Economic Resilience Indicator (ERI) by country size, synthetic index (sample average = 0), 2023



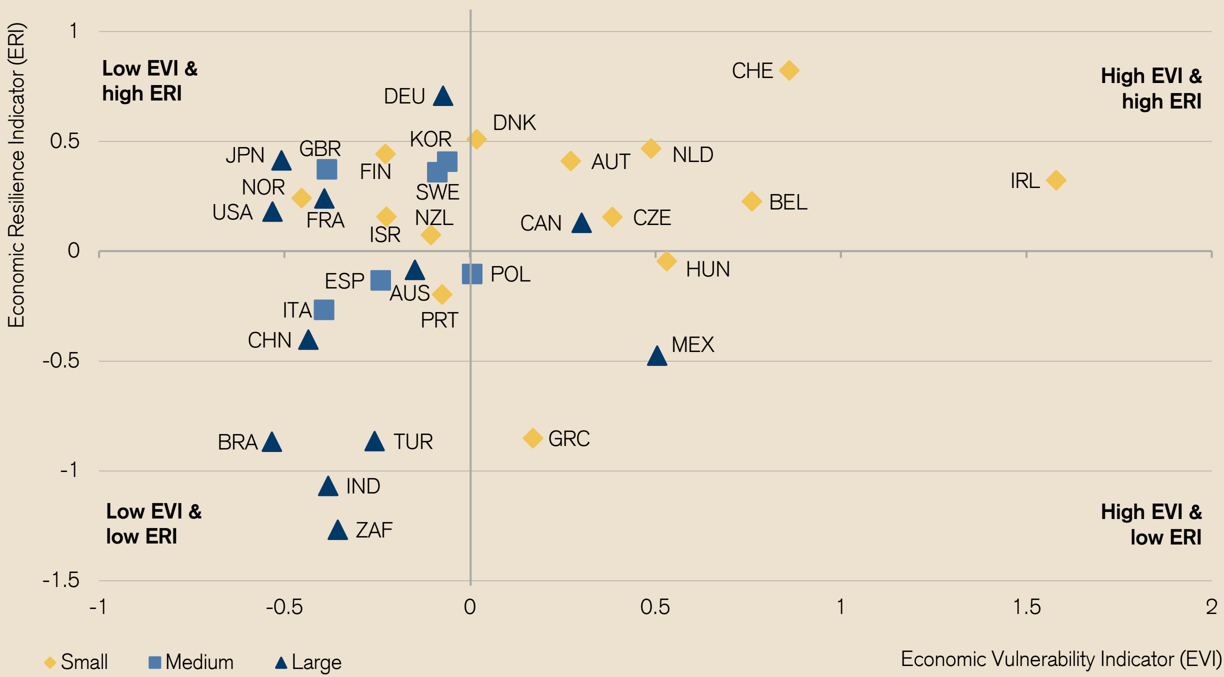
Source: Credit Suisse

- Innovation (weight 16.7%): Innovation is crucial for forward-looking nations, not only in the short term, but also in the long run. It is a driver of economic growth, improving efficiency and productivity, and increasing the number of businesses on the global stage. We include the "research and development" (R&D) sub-indicator from the Global Innovation Index (World Intellectual Property Organization), which is comprised of the full-time employed researchers in a country, gross expenditure on R&D as a percentage of GDP, average expenditure of the top three global companies and a measure of the average score of the top three universities. All together, this indicator captures how much emphasis a country places on innovation in its economy.
- Infrastructure (weight 16.7%): This component encompasses the quality of traditional infrastructure – roads, railway, airports and seaports – as well as the state o f the information and communications technology (ICT) infrastructure. The former is essential for a country to run smoothly as a whole, and for trade in particular, whereas ICT is needed for digitalization and automation of the economy – preparing it for the challenges of the 21st century.

In our ranking of overall economic resilience, small countries like Switzerland and Denmark come in first and third place (see **Figure 4**). Two more small countries (the Netherlands and

Figure 6: Countries characterized by high economic vulnerability often achieve a high level of resilience

Economic Vulnerability Indicator (EVI) and Economic Resilience Indicator (ERI) by country, synthetic indices (sample average = 0), 2023



Source: Credit Suisse

Finland) rank fourth and fifth, closely followed by Japan (large), Austria (small) and medium-sized Korea, the United Kingdom and Sweden, which all score well above average. The bottom of the resilience ranking is predominantly made up of large countries, with India and South Africa occupying the last two places. Overall, the ranking suggests that small countries – on average – exhibit a high level of economic resilience to economic shocks. Many large countries, on the other hand, are found at the bottom of the ranking.

The detailed scoring on the 11 components that make up the ERI reveals interesting differences by country size (see **Figure 5**). With regard to the five components that fall under the economic robustness sub-indicator, small countries exhibit the highest average score on macroeconomic stability, fiscal and monetary policy space, as well as social protection. They also have well-diversified economies, although they are outperformed by the medium-sized countries in our sample. When it comes to the economic readiness sub-indicator, small countries come out on top in terms of governance, human capital and health, equality and social mobility. Compared to the large countries in the sample, small countries also perform better in terms of innovation and infrastructure, and achieve a similar average score on market efficiency. The medium-sized countries in our sample stand out in terms of innovation and infrastructure. The country profiles for each of the 32 countries in our sample can be found in Chapter 4 starting on page 37.

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In our ranking of overall economic resilience, small countries like Switzerland and Denmark come in first and third place

High economic vulnerability often goes hand in hand with high economic resilience

Figure 6 shows the positioning of all countries in both the EVI and the ERI. Countries that fall in the upper left quadrant exhibit below-average economic vulnerability and above-average economic resilience. Four large countries, Germany, Japan, the USA and France, fall into this category, but also three medium-sized and four small countries. In the lower left quadrant with below-average vulnerability and resilience, we find most of the large countries in our sample, as well as three of the medium-sized countries, with Poland at the average level in the EVI. The top right quadrant, with high vulnerability and high resilience scores, is mainly populated by small countries, including Switzerland, Ireland, the Netherlands and Belgium.

> "Overall, economic vulnerability is seen to be positively correlated with economic resilience

Finally, there are three countries in the lower right quadrant – Mexico, a large country, and two small countries, Hungary and Greece – with high vulnerability and low economic resilience. Overall, economic vulnerability is seen to be positively correlated with economic resilience. In particular, the smaller and more vulnerable countries have implemented policies that improve their ability to absorb economic shocks and contribute to their long-term economic development. As the economic realities behind the vulnerability indicator are not likely to change substantially, countries with high vulnerability, but low economic resilience, may benefit from taking measures to improve their economic robustness and economic readiness to deal with the economic shocks that are an integral part of today's globalized world.

In summary, our analysis indicates that small countries tend to be economically more vulnerable than large countries due to the necessary openness of their economies to overcome their size limitations. The concentration of imports and exports on a few products and markets, as well as dependence on energy imports or foreign workers are other critical factors of added vulnerability. This, for example, explains why a country like Ireland displays high vulnerability, given its high reliance on the UK for trade and energy. But large countries can also share these vulnerabilities. For example, the high dependence of Mexico and Canada on the USA explains why these two large countries score as highly vulnerable in our framework. This stands in contrast to the USA, China and Japan, which have low vulnerability.

Even more than large countries, small countries therefore need to develop strategies to build resilience, i.e. the ability to withstand or absorb economic shocks (robustness), and also to adapt to changing circumstances and respond to future shocks (readiness). Economic robustness comes with macroeconomic stability, sound social protection, economic diversification, fiscal and monetary policy space, as well as a financially healthy private sector. Resilience in terms of the ability to react to new challenges is strengthened by good governance, market efficiency, innovation, infrastructure and a well-educated workforce. This is particularly important as the world is facing increasingly new sources of economic shocks, including the risk of pandemics and climate change. Many small countries score better than large ones in terms of resilience, precisely because they are more vulnerable. For example, Turkey and South Africa may not be as vulnerable as small countries due to their large size and lower degree of economic openness, but their resilience is actually among the weakest in our sample. In today's world, resilience also includes a healthy balance of sovereignty and prudent international relations.

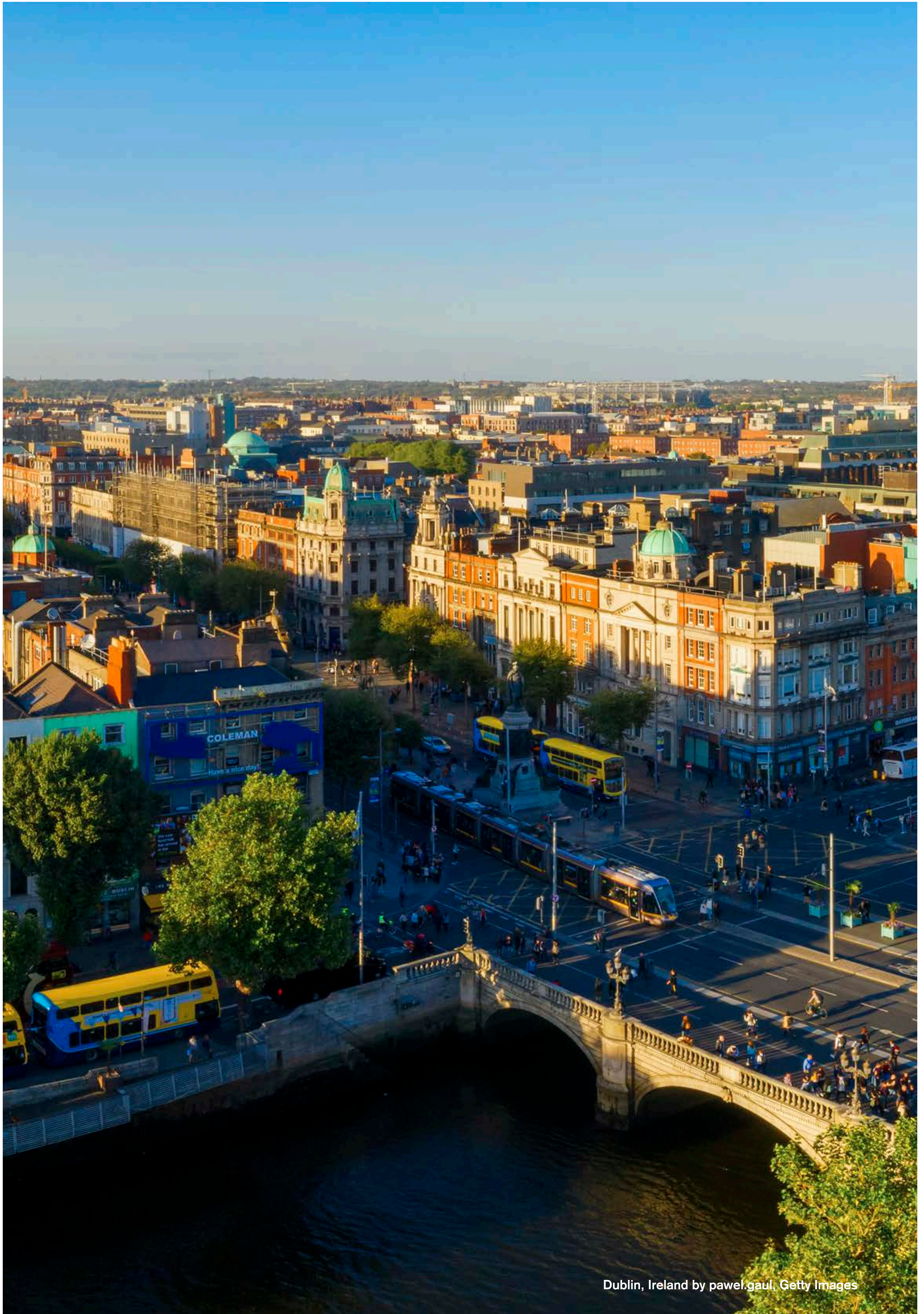
Table 1: Overview of data sources and methodology

List of variables and sources used for the construction of indicators, sub-indicators and components (including weightings)

Indicator	Sub-indicator (weight in indicator)	Component (weight in sub-indicator)	Variable (weight in component)	Source
Economic Vulnerability Indicator (EVI)	Vulnerability (100%)	Economic openness (40%)	Trade openness (imports and exports in % of GDP) (100%)	World Bank
		Import concentration (15%)	Import market concentration index (50%)	Credit Suisse[*]
			Import product concentration index (50%)	UNCTAD
		Export concentration (15%)	Export market concentration index (50%)	Credit Suisse[*]
			Export product concentration index (50%)	UNCTAD
		Energy imports (10%)	Total energy production in relation to total energy consumption (100%)	International Energy Agency
		Foreign human capital (10%)	International migrant stock as a percentage of total population (men and women combined) (100%)	United Nations
		Natural disaster risk (5%)	Exposure to earthquakes, tsunamis, coastal and riverine floodings, cyclones, droughts, and sea level rise (100%)	Institute for International Law of Peace and Armed Conflict (IFHV)
		Health risk (5%)	Vulnerable populations due to diseases and epidemics (33.3%)	Institute for International Law of Peace and Armed Conflict (IFHV)
			Tobacco use (% of adults) (33.3%)	Bell, J. and Nuzzo, J. (2021)
			Level of adult obesity (%) (33.3%)	Bell, J. and Nuzzo, J. (2021)
Economic Resilience Indicator (ERI)	Robustness (50%)	Macroeconomic stability (20%)	Current account balance as a % of GDP (33.3%)	HAVER (IMF)
			Inflation rate (16.7%)	Fraser Institute
			Inflation rate (standard deviation) (16.7%)	Fraser Institute
			Unemployment rate (% of total labor force, modeled ILO) (33.3%)	World Development Indicators[**]
		Economic diversification (20%)	Economic Complexity Index (ECI) (100%)	Harvard's Growth Lab
		Fiscal and monetary policy space (20%)	Primary budget balance in % of GDP (25%)	HAVER (IMF)
			Government debt in % of GDP (25%)	HAVER (IMF)
			10-year government bond yields (debt service) (25%)	HAVER (refinitiv)
			Dummy variable based on distance of central bank policy rates to the zero lower bound (25%)	Bank for International Settlements
		Financial soundness (20%)	Total credit to the private non-financial sector (core debt) as a % of GDP (50%)	Bank for International Settlements
			Soundness of banks (50%)	World Economic Forum
		Social protection (20%)	Unemployed receiving unemployment benefits (50%)	International Labour Organization
			Population covered by at least one social protection benefit (50%)	International Labour Organization
	Readiness (50%)	Market efficiency (16.7%)	Hiring and firing practices (25%)	World Economic Forum
			Flexibility of wage determination (25%)	World Economic Forum
			Ease of hiring foreign labor (25%)	World Economic Forum
			Top marginal tax rate (25%)	Fraser Institute
		Governance (16.7%)	Political stability and absence of violence and terrorism (14.3%)	World Bank, Worldwide Governance Indicators[**]
			Corporate governance (14.3%)	World Economic Forum
			Corruption perceptions index (14.3%)	Transparency International[**]
			Integrity of the legal system (14.3%)	Fraser Institute
			Judicial independence (14.3%)	Fraser Institute
			Impartial courts (14.3%)	Fraser Institute
			Protection of property rights (14.3%)	Fraser Institute
		Human capital and health (16.7%)	Tertiary education (% of total pop. ages 15–64) (20%)	Barro and Lee[**]
			Labor force participation rate (% of total population aged 15–64, ILO) (20%)	World Development Indicators[**]
			Proportion of youth (15–24) not in education, employment or training (20%)	International Labour Organization
			Life expectancy at birth (years) (13.3%)	UNDP Human Development Index
			Expenditures on health per capita (13.3%)	World Health Organization
			Global Health Security Index (13.3%)	Bell, J. and Nuzzo, J. (2021)
		Equality and social mobility (16.7%)	Gini index (50%)	OECD[**]
			Global social mobility index (50%)	World Economic Forum
		Innovation (16.7%)	Research and development (R&D) (100%)	World Intellectual Property Organization (WIPO) Global Innovation Index
		Infrastructure (16.7%)	Infrastructure quality (50%)	World Economic Forum
			ICT Access (50%)	World Intellectual Property Organization (WIPO) Global Innovation Index

Methodology: For each variable, we have used the most recent data available, whenever possible 2017–21. The data were averaged over a 5-year period to reduce the effects of short-term fluctuations. The different components and corresponding variables mostly have equal weights in the aggregation procedure. In the EVI, however, we assign a higher weight to economic openness and import/export concentration as we deem these components to be crucial aspects of economic vulnerability.

[*]Based on data from Gaulier, G. and Zignago, S. (2010, 2021); [**]data from Teorell et al. (2022)
Source: Credit Suisse



Dublin, Ireland by pawel.gaul, Getty Images

Countries in the spotlight

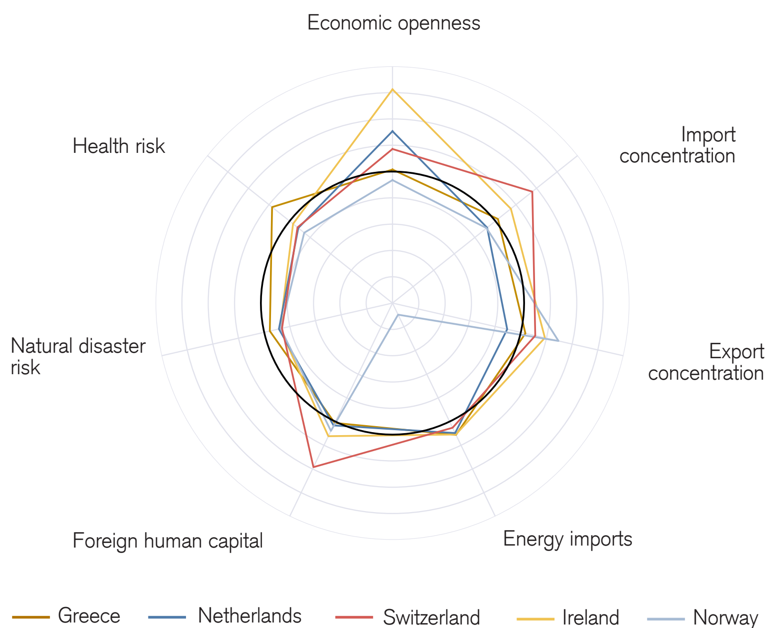
In this chapter, we provide a detailed analysis of five small countries, focusing on their respective scores in the Economic Vulnerability Indicator (EVI) and Economic Resilience Indicator (ERI). These countries each have their own unique characteristics, which have important implications for their ability to withstand economic shocks. Finally, we also present the results of all 32 countries to provide a comprehensive overview.

In the previous chapter, the emphasis was on the difference in the economic performance observed across country aggregates of various size categories. However, such a generalized approach fails to capture the complexity of the world and the unique characteristics of individual countries. To address this limitation, we have undertaken a more detailed analysis of five small countries, with a focus on their overall performance in both the EVI and ERI, as well as the 11 corresponding sub-indicators. By examining these country profiles, we aim to provide in-depth insight as to how these five countries are able to deal with their size limitations.

> A generalized approach fails to capture the complexity of the world and the unique characteristics of individual countries

Figure 1: Small countries are typically vulnerable

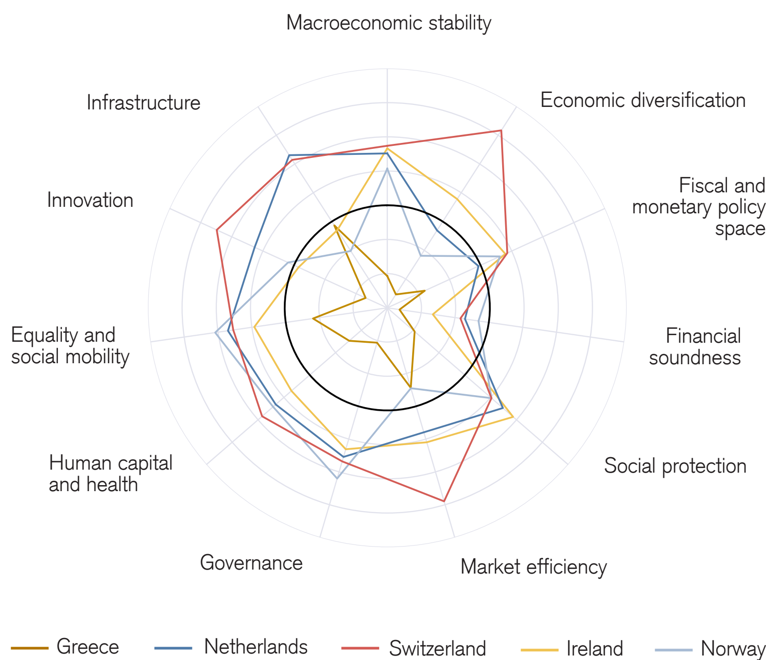
Components of the Economic Vulnerability Indicator (EVI), synthetic index (sample average = 0), selected countries, 2023



Source: Credit Suisse

Figure 2: Greece performs below average in all resilience metrics

Components of the Economic Vulnerability Indicator (EVI), synthetic index (sample average = 0), selected countries, 2023



Source: Credit Suisse

To illustrate our findings, we selected countries that represent diverse cases. The first country, Ireland, is the most vulnerable in our sample of 32 countries, primarily due to its high degree of economic openness (**Figure 1**). The second most vulnerable country is Switzerland, which is heavily reliant on foreign human capital and has a high score in import concentration. Interestingly, both Ireland and Switzerland are also highly resilient, with Switzerland ranking as the most resilient country in our sample. The Netherlands is another country that falls into the high vulnerability and high resilience category. The country is not only economically open, but also an important trade hub for Europe.

Our final two spotlights are dedicated to Norway and Greece. Norway, the least vulnerable small country in our sample, owes this distinction to its abundance of natural reserves of oil and gas, which enable it to be self-sufficient in energy imports (**Figure 1**). In addition, Norway is remarkably resilient. In contrast, Greece is relatively susceptible to economic shocks and is the least resilient small country in our sample. It ranks below average in all 11 sub-indicators of the ERI (**Figure 2**). Following the in-depth analysis of Greece, Ireland, Netherlands, Norway and Switzerland, we present the detailed EVI and ERI results for all the countries in our sample.

Greece

Key numbers

Population (2021)	10,664,568
Land area (square km)	128,900
GDP per capita (2021)	USD 32,218
Wealth per capita (2021)	USD 108,300

Performance scales

Red/blue represents the performance of the country on the respective indicator

Economic Vulnerability Indicator (EVI), score: 8

low vulnerability high vulnerability

Economic Resilience Indicator (ERI), score: 2

low resilience high resilience

Economic Vulnerability Indicator (EVI)

Greece has a well-diversified trade network, with Germany and Italy being the largest trading partners, each accounting for roughly 10% of total trade. In addition, it has developed strong trade relations with China and Russia, which has diversified its trade portfolio geographically. At the same time, however, these trade relations have also exposed its economy to potential geopolitical risks. More importantly, the reason behind Greece's significant export and import concentration lies in its product concentration. When it comes to commercial services, Greece is heavily reliant on tourism and transport – two sectors heavily impacted by the pandemic. In 2019, Greece's tourism industry made up nearly 28% of total employment in its business economy (excluding the financial sector). This figure is significantly higher than any other EU country. Shipping is another sector that plays a significant role in the Greek economy, with the country's merchant navy being the largest in the world and accounting for 18% of global fleet tonnage. This has contributed to Greece's reliance on energy imports, particularly oil. Greece also shows above-average exposure to health risk in our sample.

Economic Resilience Indicator (ERI)

The Greek economy relies heavily on its two main sectors, tourism, and shipping, which has led to a lack of economic diversification. However, the country's primary challenge in terms of resilience lies in its fiscal situation. Its debt-to-GDP ratio is one of the highest in the world, leaving the government with limited scope for investments in crucial areas such as social policies and infrastructure. The lack of funding in education, coupled with bleak professional prospects in the job market, has resulted in a high youth unemployment rate and a low score in human capital and health. Unfortunately, Greece performs below average in all eleven sub-indicators of the ERI, making the country even more exposed to external shocks. Despite the challenges, there have been some positive developments in recent years. The current administration has trimmed corporate taxes, raised pensions and increased the minimum wage. Furthermore, it has managed to lower the extremely high debt-to-GDP ratio.

Figure 1: Export and import concentration make Greece vulnerable

EVI 2023, synthetic index, median of 32 countries = black line

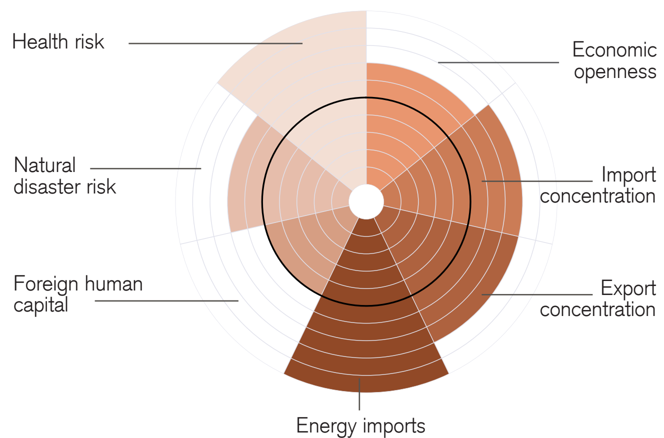
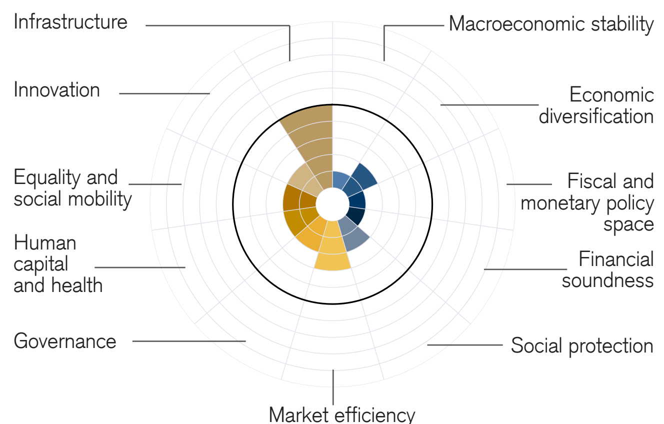


Figure 2: Below average in all eleven resilience sub-indicators

ERI 2023, synthetic index, median of 32 countries = black line



Source Figures 1 and 2: Credit Suisse

Ireland

Key numbers

Population (2021)	5,028,230
Land area (square km)	68,890
GDP per capita (2021)	USD 112,463
Wealth per capita (2021)	USD 251,337

Economic Vulnerability Indicator (EVI)

Ireland is vulnerable in many ways. First, the country's exports and imports are heavily reliant on a narrow range of industries, namely chemicals and pharmaceuticals, machinery and software, which account for over half of all product exports and imports. Moreover, Ireland's trade is also heavily dependent on a handful of trading partners, with nearly a third of Irish exports going to the United States and another third going to Belgium, Germany and the United Kingdom (UK). The UK also accounts for 23% of total imports. Ireland is particularly reliant on the UK for energy in the form of liquid gas and oil. This makes Ireland one of the most energy-dependent countries in the EU, with nearly three-quarters of domestic energy consumption covered by imported energy. Although it has made some progress in reducing its dependence on foreign energy imports by opening its own gas field off the Northwest Coast and transitioning to renewable energy, Ireland still faces significant challenges in this area. The reliance on UK energy imports has also resulted in a dependence on UK regulations, which in turn has had an impact on Ireland's sovereignty. More generally, Brexit has made the import process more cumbersome and susceptible to disturbances, thus exacerbating Ireland's vulnerability.

Economic Resilience Indicator (ERI)

Ireland's economic growth has been nothing short of impressive, with the country emerging as one of the fastest-growing economies in Europe. In just three decades, Ireland has transformed from one of the poorest countries in Europe to having the third-highest GDP per capita in the world. This remarkable development, referred to as the "Celtic Tiger" phenomenon, is largely attributed to the influx of major international corporations choosing to set up their European headquarters in Ireland. The country's business-friendly policies, low corporate taxes and a young highly educated workforce have created an attractive and efficient market in which companies can prosper. Despite facing challenges during the global financial crisis of the late 2000s, Ireland has recovered and learned some valuable lessons – the country has reduced its debt burden and implemented critical reforms prioritizing social policy.

Performance scales

Red/blue represents the performance of the country on the respective indicator

Economic Vulnerability Indicator (EVI), score: 10

low vulnerability — high vulnerability

Economic Resilience Indicator (ERI), score: 7

low resilience — high resilience

Figure 1: Extremely high vulnerability, mostly due to UK exposure

EVI 2023, synthetic index, median of 32 countries = black line

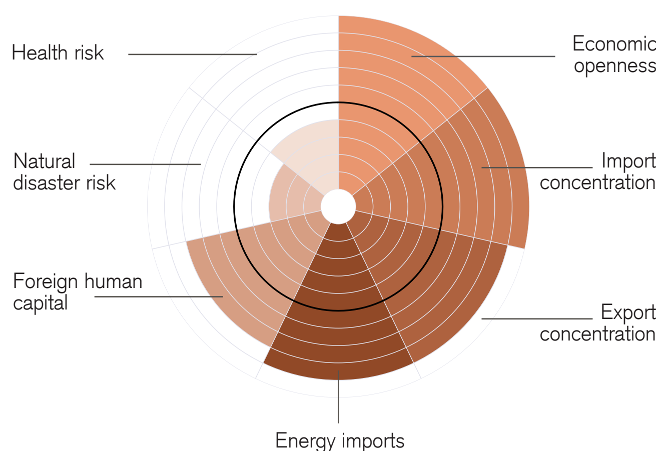
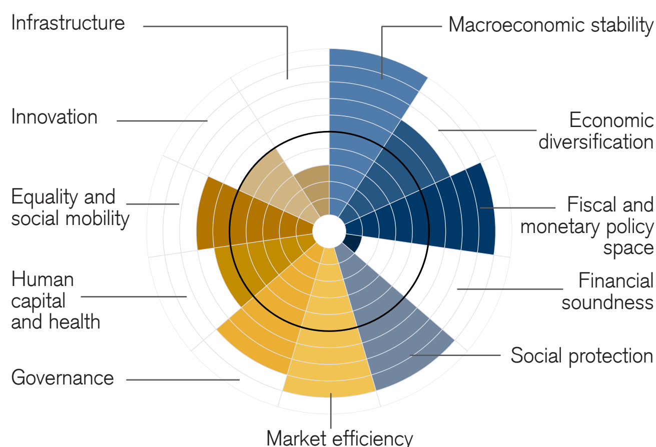


Figure 2: Learning lessons from setbacks and creating a more resilient Ireland

ERI 2023, synthetic index, median of 32 countries = black line



Source Figures 1 and 2: Credit Suisse

Netherlands

Key numbers

Population (2021)	17,533,405
Land area (square km)	33,670
GDP per capita (2021)	USD 62,841
Wealth per capita (2021)	USD 400,828

Economic Vulnerability Indicator (EVI)

The Netherlands is one of the most economically open countries in our sample. Its economic openness is paired with extensive trade activities in the economy. In fact, many goods destined for Europe pass through either Amsterdam's Schiphol airport or Rotterdam's port – the largest freight port in Europe, which handles over twice the amount of cargo as the second largest port in Antwerp. The port of Rotterdam also serves as a significant hub for European imports of commodities such as oil, iron ore and coal. Much of these energy imports remain in the Netherlands to meet domestic demand – even more so due to declining inland gas production in recent years. Despite its heavy trade focus, however, the Netherlands maintains a product and market mix with a relatively low concentration of specific goods and trading partners.

Economic Resilience Indicator (ERI)

In addition to its important airports and seaports, the Netherlands boasts a highly advanced road and railway system that facilitates trade throughout the country. The Netherlands also offers a favorable business environment with a well-educated and multilingual workforce, and relatively low corporate taxes. However, the country's market efficiency is somewhat dampened by the abundance of permit requirements and regulations for businesses. At the same time, the Netherlands is recognized for its progressive policymaking, as demonstrated by its decision in 2012 to index the retirement age to life expectancy. This reform is not only an effective measure against a shortage of skilled labor on the Dutch labor market, but also promotes the long-term sustainability of the Dutch pension system, while also reducing the strain on public finances. Furthermore, the country is generally considered to be generous in its social protection measures and performs well in measures of equality and social mobility. Overall, these factors contribute to the Netherlands being regarded as a socially advanced and forward-thinking country – attributes that help it to weather challenges like demographic shifts or economic fluctuations.

Performance scales

Red/blue represents the performance of the country on the respective indicator

Economic Vulnerability Indicator (EVI), score: 9

low vulnerability | high vulnerability

Economic Resilience Indicator (ERI), score: 10

low resilience | high resilience

Figure 1: A well-diversified product and market mix

EVI 2023, synthetic index, median of 32 countries = black line

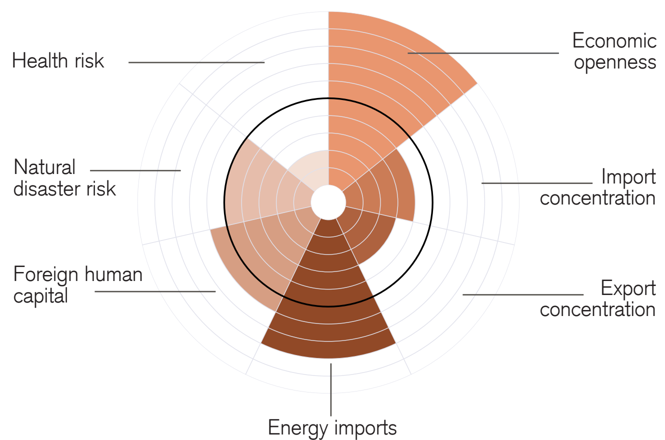
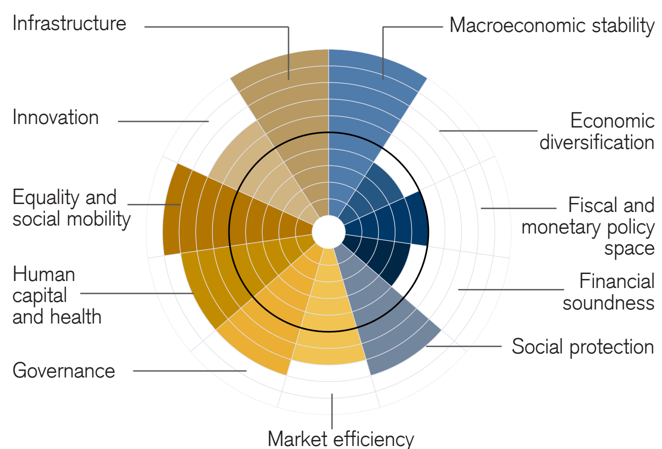


Figure 2: Forward-thinking enhances resilience

ERI 2023, synthetic index, median of 32 countries = black line



Source Figures 1 and 2: Credit Suisse

Norway

Key numbers

Population (2021)	5,408,320
Land area (square km)	365,108
GDP per capita (2021)	USD 70,825
Wealth per capita (2021)	USD 334,432

Economic Vulnerability Indicator (EVI)

Norway is heavily reliant on a few export products and a selected group of trading partners. First, as a significant player in the global oil and gas industry, the country has established itself as a major energy exporter. Second, Norway's main export destinations are European countries in close proximity, such as the United Kingdom (20%) and Germany (19%). While this export concentration exposes Norway to fluctuations in global demand, the relative price inelasticity in regard to demand for fuels and the country's strong reputation for high-quality goods have enabled it to maintain a steady demand for its products. In contrast to its exports, Norway's imports are much less concentrated, with a more balanced range of partner countries. Moreover, the country's abundant natural reserves of oil and gas, combined with high levels of electricity production through hydropower, have made Norway independent of energy imports. This has significantly reduced Norway's overall vulnerability, particularly when compared to other small countries.

Economic Resilience Indicator (ERI)

The ERI for Norway shows a mixed picture. On the one hand, Norway scores low when it comes to economic diversification and infrastructure, owing to the underdeveloped road and train systems in the rural parts of northern Norway. On the other hand, the country has clear strengths like its low inequality and high social mobility, good governance, and well-qualified and healthy human capital. This success can be attributed to its wide range of social welfare programs, such as universal healthcare and a comprehensive pension system. Moreover, Norway's relatively low public debt levels provide the country with the ability to increase government spending if necessary. These factors, in combination with its high macroeconomic stability make Norway a remarkably resilient country.

Performance scales

Red/blue represents the performance of the country on the respective indicator

Economic Vulnerability Indicator (EVI), score: 1

low vulnerability — high vulnerability

Economic Resilience Indicator (ERI), score: 7

low resilience — high resilience

Figure 1: Relatively low vulnerability despite high dependency on energy exports

EVI 2023, synthetic index, median of 32 countries = black line

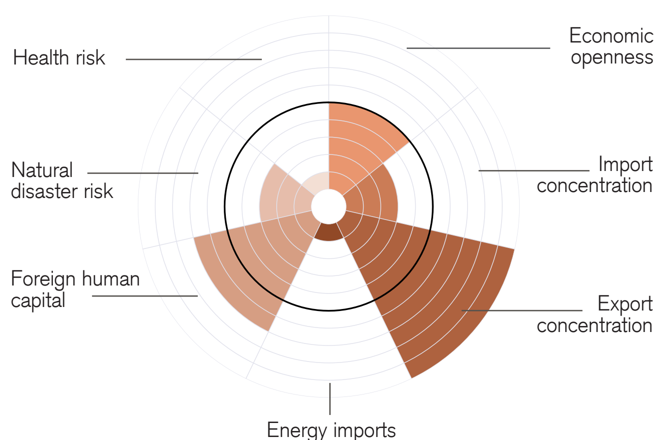
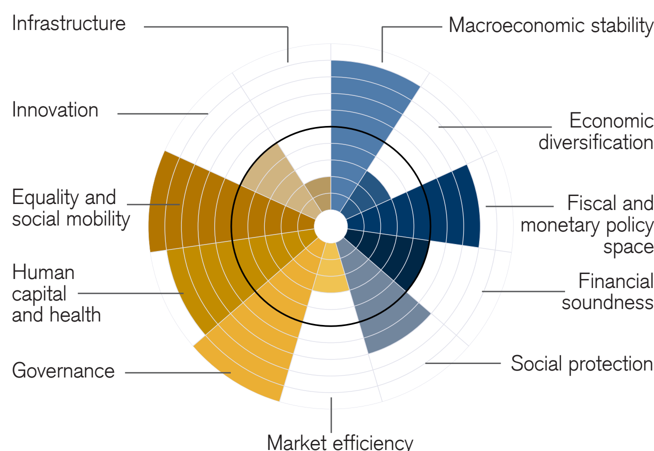


Figure 2: Remarkably resilient

ERI 2023, synthetic index, median of 32 countries = black line



Source Figures 1 and 2: Credit Suisse

Switzerland

Key numbers

Population (2021)	8,697,723
Land area (square km)	39,516
GDP per capita (2021)	USD 78,530
Wealth per capita (2021)	USD 696,604

Economic Vulnerability Indicator (EVI)

Owing to Switzerland's hydroelectric and nuclear power sources, it has a relatively low reliance on energy imports. Overall, however, its close ties to other countries make it vulnerable to fluctuations in global trade. Swiss exports primarily consist of products from the chemical and pharmaceutical industries (52%), machinery (13%), watches (8%) and precision instruments (7%). Except for pharmaceuticals, demand for these products is closely tied to the state of the global economy, with the market for luxury goods like watches being particularly susceptible to disruptions. During the last decade, for example, events such as anti-corruption measures in China or the emergence of smartwatches have represented significant challenges for the Swiss watchmaking industry. Switzerland's key trading partner is the EU, but not only in terms of tradable goods. With a relatively high proportion of foreign human capital (26%), many industries such as technology, construction and healthcare rely heavily on foreign workers – mainly from the EU. Any interruption in this arrangement would have severe consequences for the economy.

Economic Resilience Indicator (ERI)

Switzerland is home to 14 of the top 500 firms in terms of market capitalization. Large multinational firms like these contribute significantly to GDP and employ roughly a third of the Swiss workforce. But it is the country's many small and medium-sized enterprises (SMEs) that make up the backbone of the economy, constituting 99% of all businesses and operating across a wide range of sectors. Companies operating in Switzerland benefit from efficient markets, an excellent infrastructure and business-friendly regulations featuring relatively low corporate taxes. Switzerland also has a highly educated workforce, which has helped to make it one of the most innovative nations in the world. Further, it has a very high level of equality and social mobility. After introducing the debt brake in 2003, Switzerland was also able to enhance and preserve its fiscal policy space, reducing its debt-to-GDP ratio to a remarkably low 42% in 2021. However, the country's financial stability ranking is relatively low, mainly due to the high amount of household debt in mortgages. Despite relatively low interest rates, these debts are only slowly amortized, contributing to the lower score.

Performance scales

Red/blue represents the performance of the country on the respective indicator

Economic Vulnerability Indicator (EVI), score: 10

low vulnerability high vulnerability

Economic Resilience Indicator (ERI), score: 10

low resilience high resilience

Figure 1: Switzerland is highly susceptible to shocks…

EVI 2023, synthetic index, median of 32 countries = black line

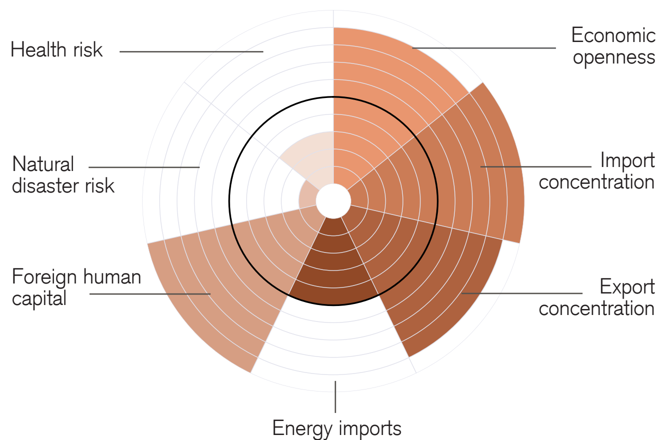
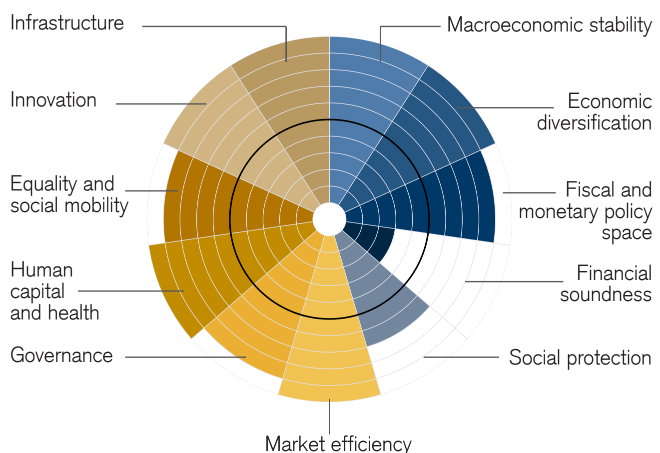


Figure 2: …but offsets this vulnerability with a high resilience

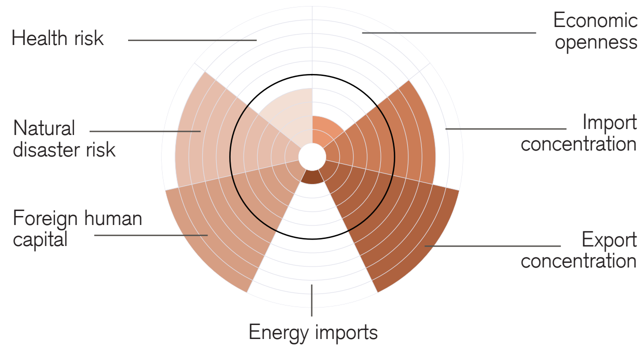
ERI 2023, synthetic index, median of 32 countries = black line



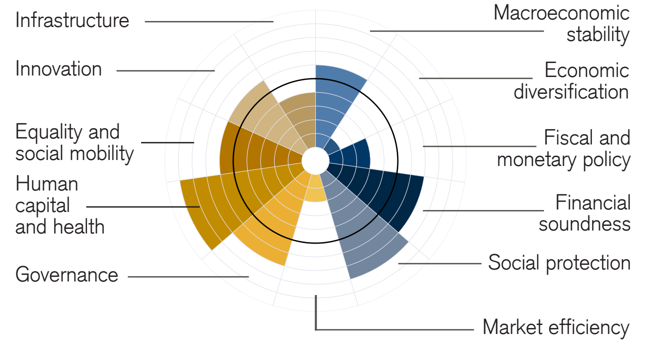
Source Figures 1 and 2: Credit Suisse

EVI and ERI snapshots

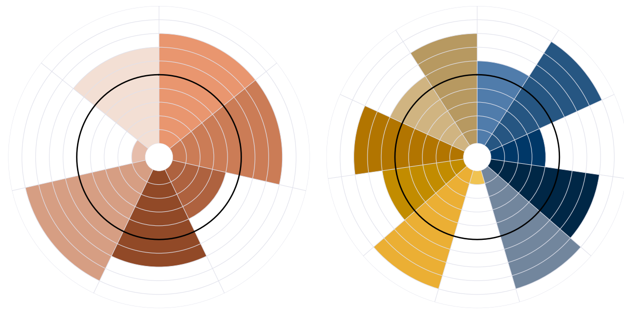
Australia EVI 2023



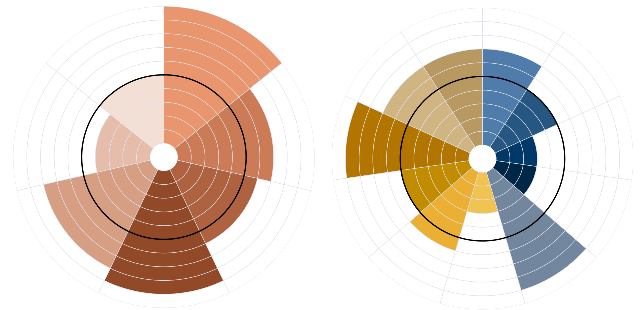
Australia ERI 2023



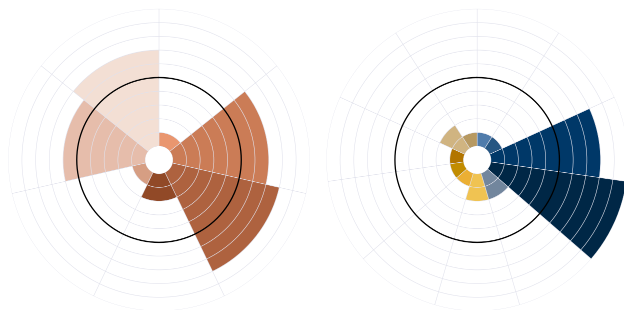
Austria



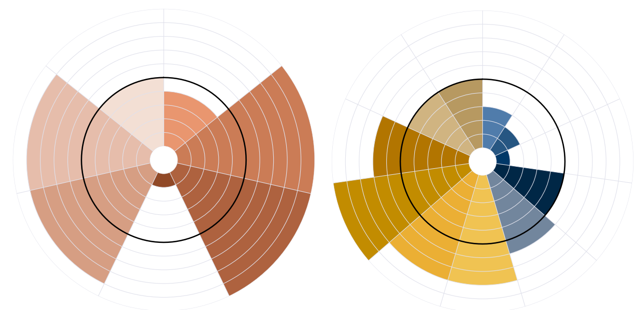
Belgium



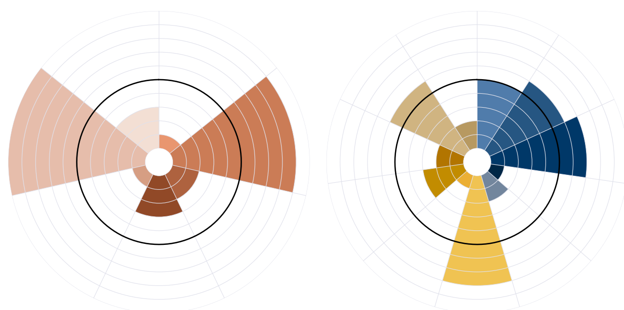
Brazil



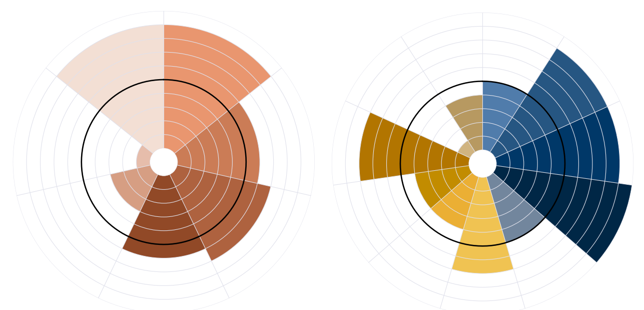
Canada



China

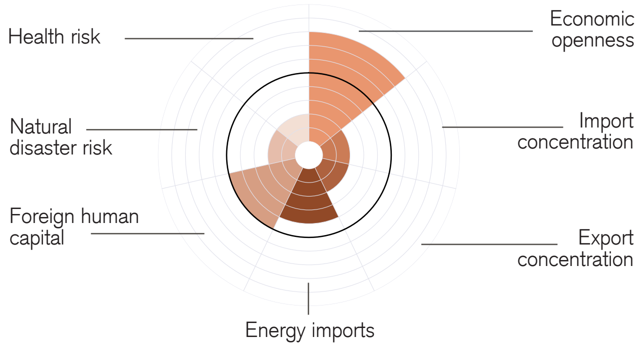


Czech Republic

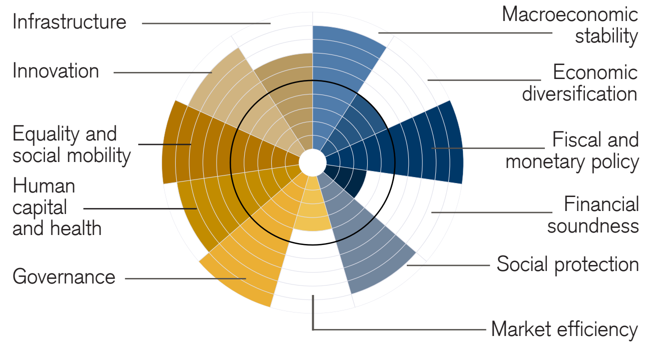


Source: Credit Suisse

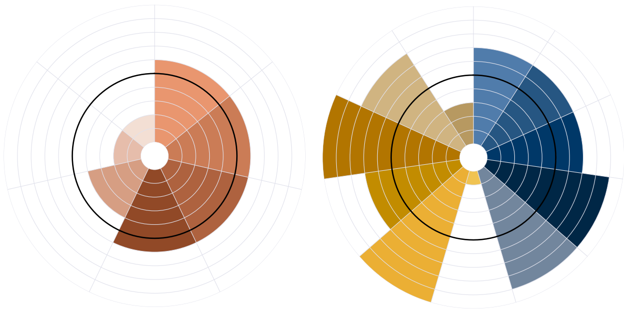
Denmark EVI 2023



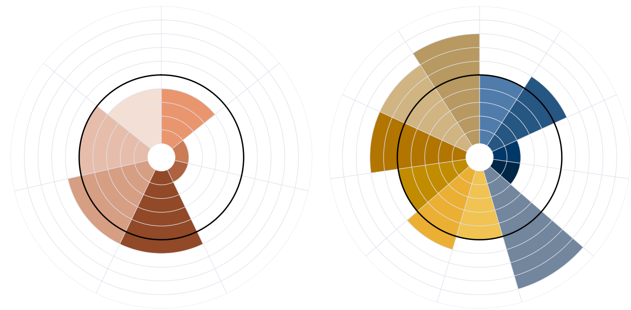
Denmark ERI 2023



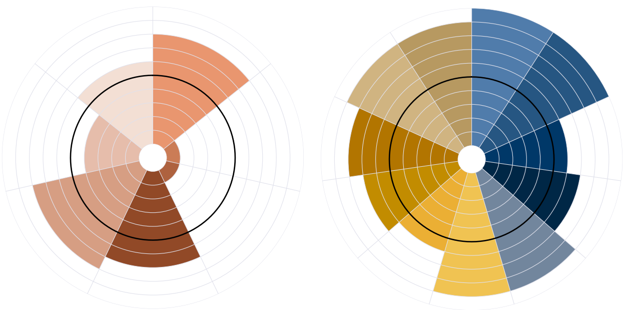
Finland



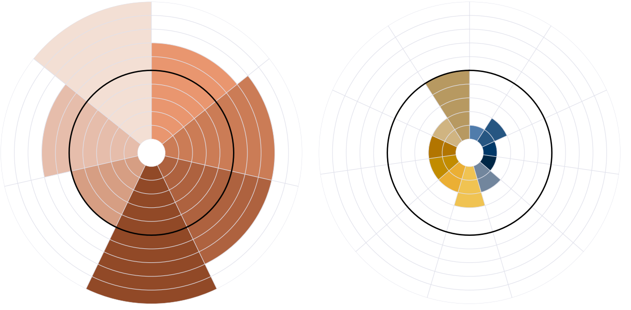
France



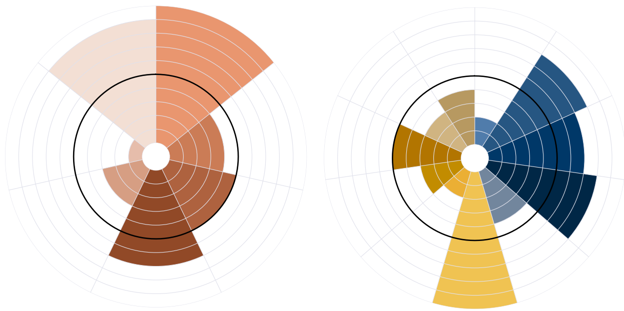
Germany



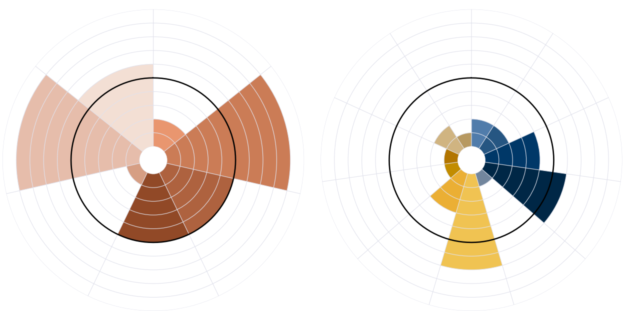
Greece



Hungary

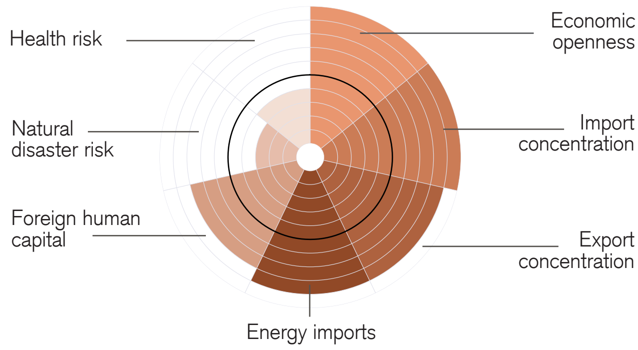


India

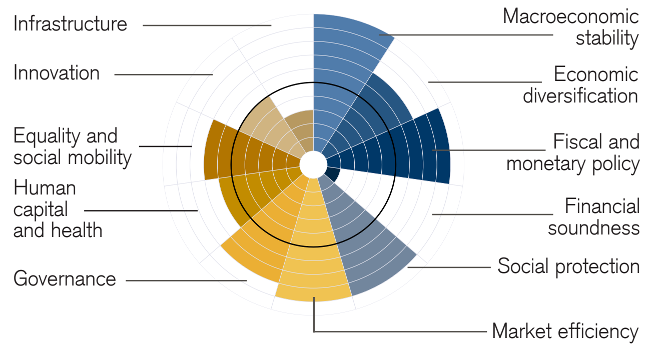


Source: Credit Suisse

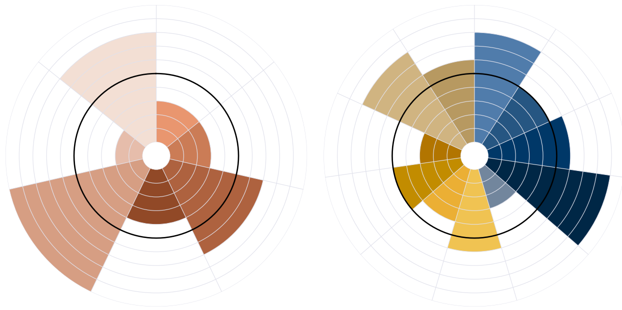
Ireland EVI 2023



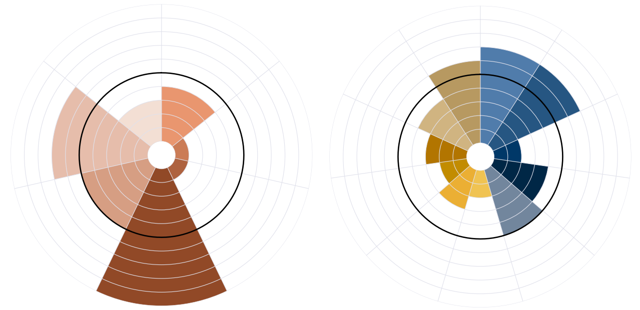
Ireland ERI 2023



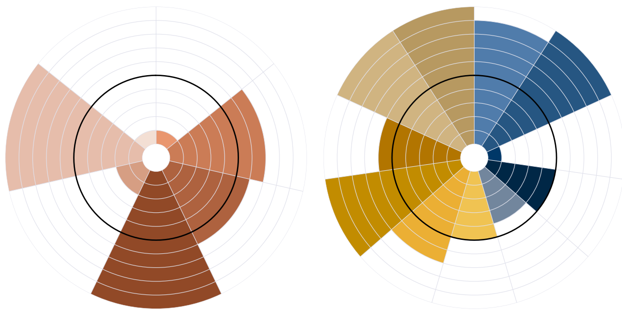
Israel



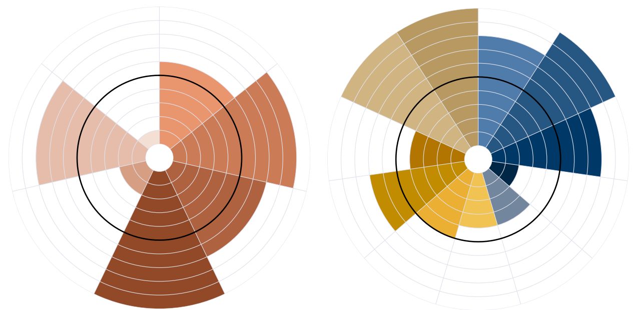
Italy



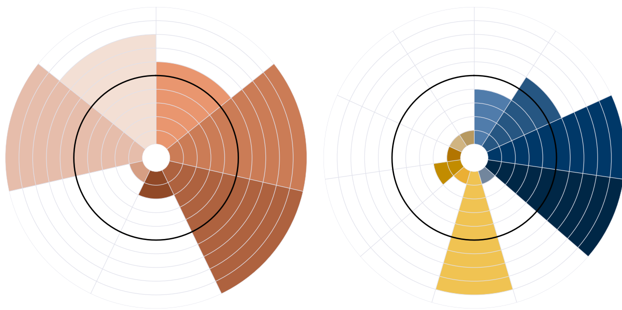
Japan



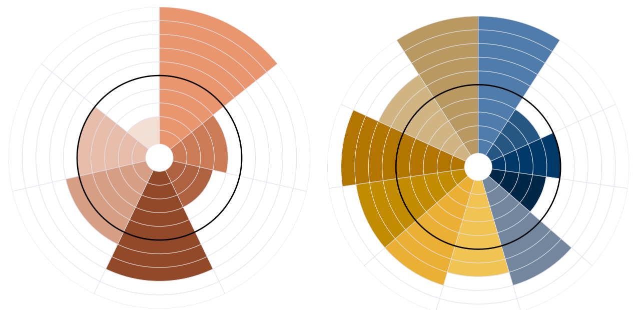
Korea



Mexico

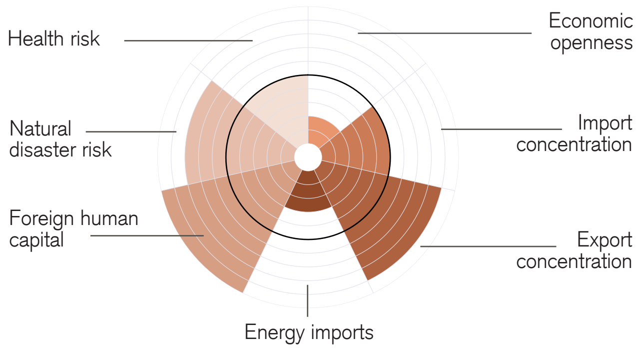


Netherlands

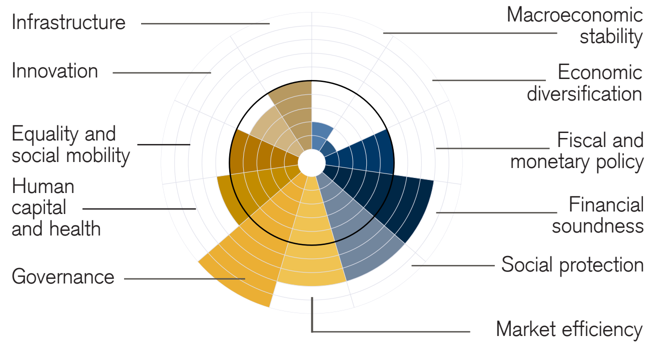


Source: Credit Suisse

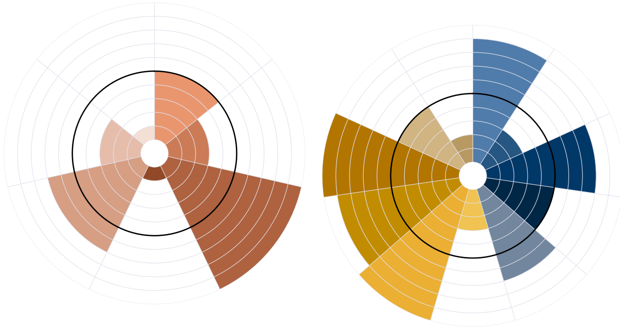
New Zealand EVI 2023



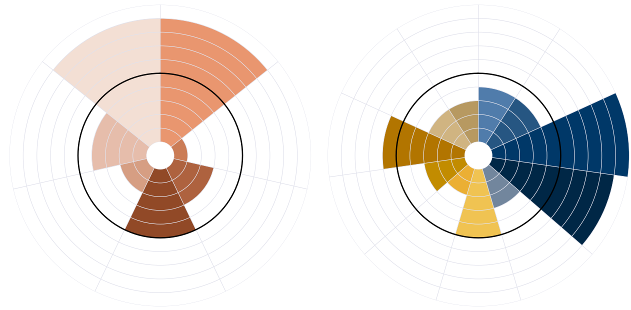
New Zealand ERI 2023



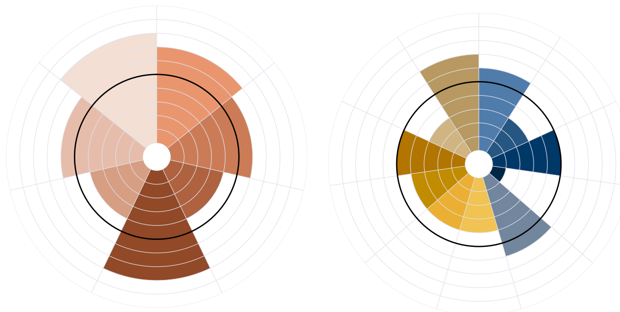
Norway



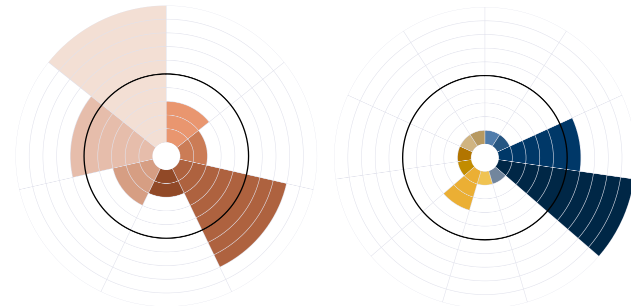
Poland



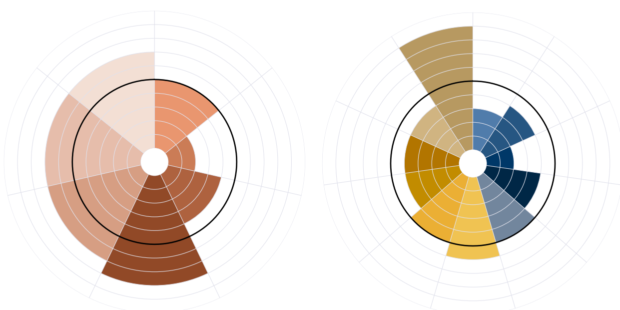
Portugal



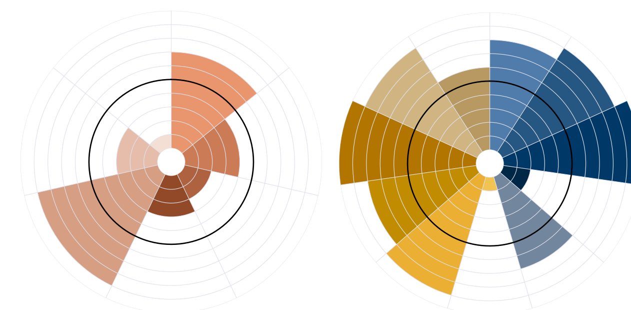
South Africa



Spain

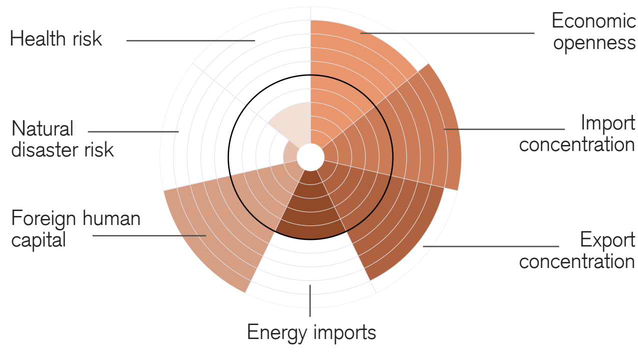


Sweden

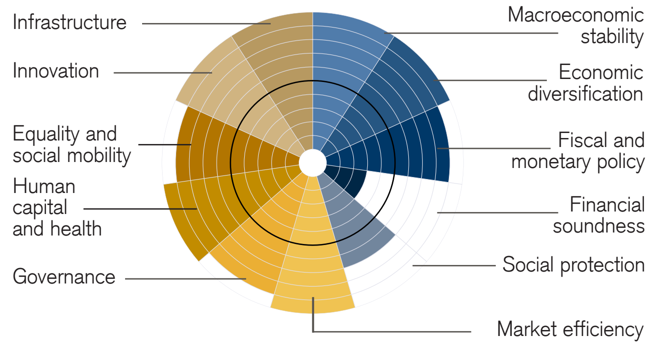


Source: Credit Suisse

Switzerland EVI 2023



Switzerland ERI 2023



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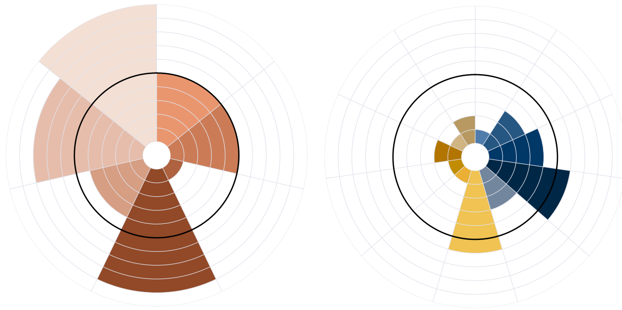

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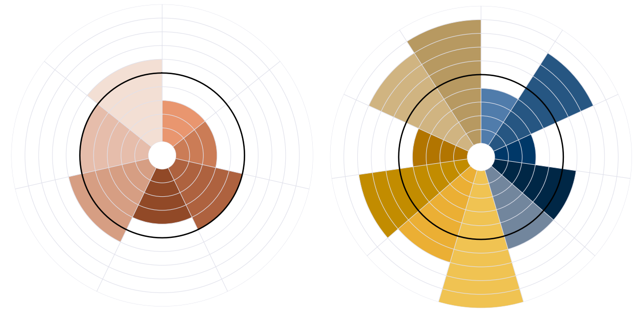

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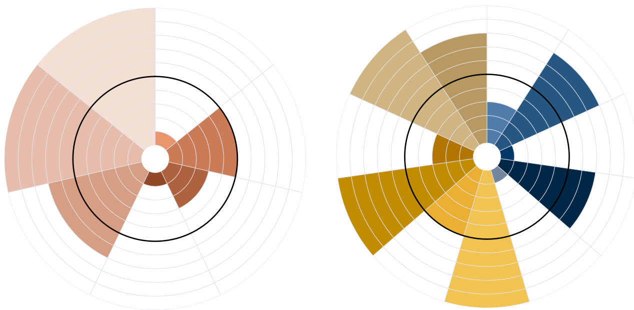

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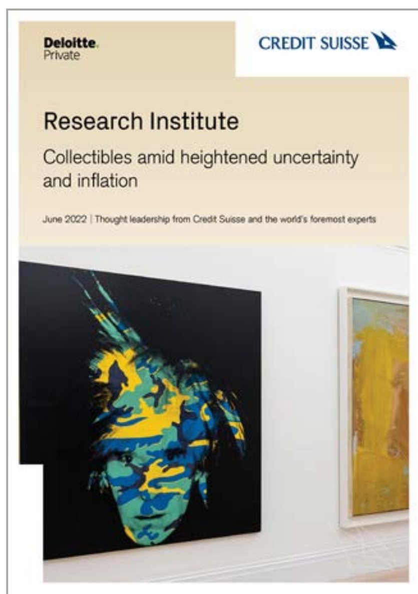

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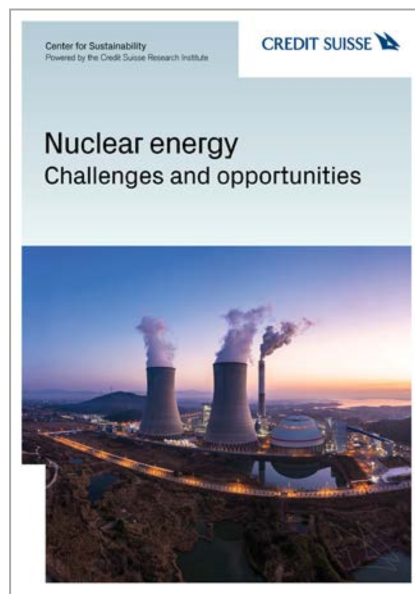

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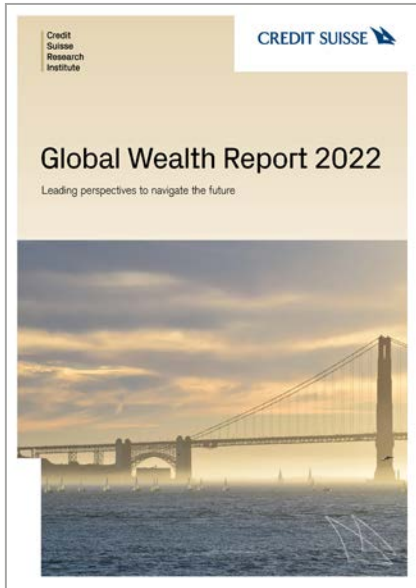

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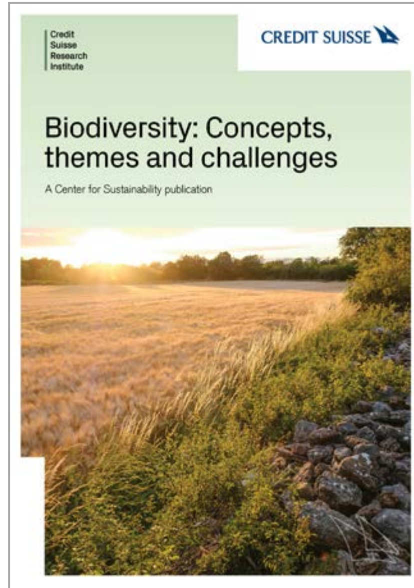

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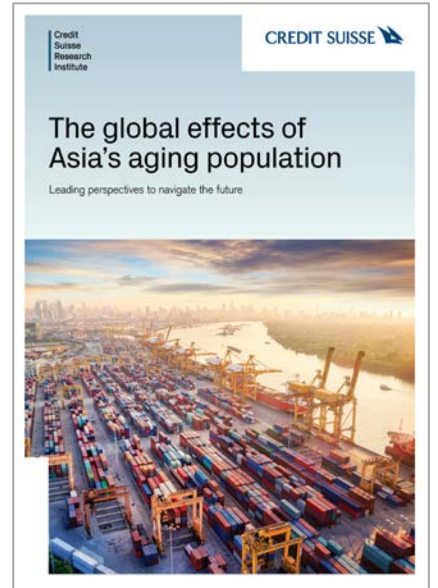

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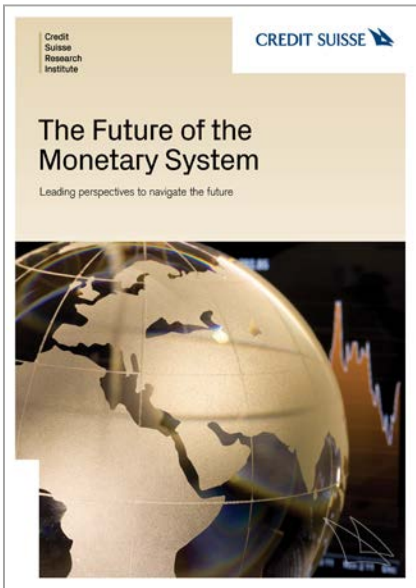

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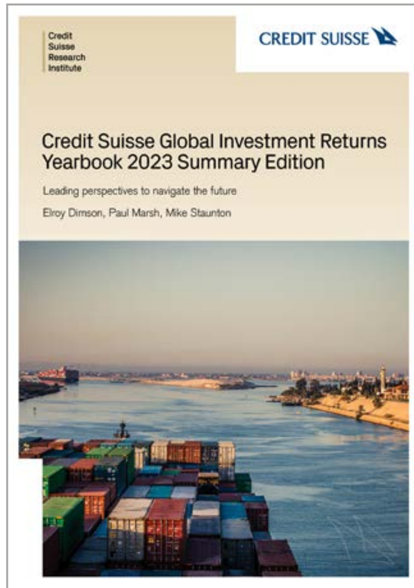

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