NATIXIS INVESTMENT MANAGERS

2022 NATIXIS GLOBAL RETIREMENT INDEX

Danger Zone

Global retirement security challenges come home to roost in 2022

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Ten years of the Global Retirement Index

When we introduced the Natixis Global Retirement Index in 2012, the world had just emerged from the global financial crisis: Memories of market turmoil were still fresh. Inflation was low, but so was growth. Central banks had slashed interest rates to all-time lows. Balance sheets had ballooned from asset repurchase programs. And public debt had swelled to record highs around the globe.

On top of it all, the first wave of the Baby Boom generation had just reached retirement age, indicating that pay-as-you-go retirement systems around the world would soon face a stress test like no other. It all raised the question of whether the models for those systems would be sustainable in the long term.

The time was right to examine retirement security from a global perspective. Working in collaboration with CoreData Research, Natixis Investment Managers sought to identify, measure, and track the key factors that would determine if individuals around the world would be able to live with dignity in the years after work.

As an investment management company, we knew finances would factor greatly into retirement security. After all, the discussion often focuses on saving for retirement and generating an income in retirement. But we also recognized that like many sustainability issues, retirement security was a more complex, multi-dimensional topic. So the index went beyond interest rates, savings rates, and inflation.

People are living longer, and with age comes increased need for medical care. So the index considers health factors alongside finances. To ensure their finances hold up, the index considers key economic indicators that examine material wellbeing. And because retirees need to live in a clean, safe environment, the index considers quality of life.

In 2022, the world finds itself recovering from another global crisis. Inflation is running at levels not seen since the 1980s. Balance sheets and debt levels have soared even higher. Central bankers again are turning to interest rates as a stopgap, only this time they're raising rates. After a decade-long bull run, the markets are more volatile, with indexes and investors around the world experiencing losses. The Boomer retirement wave is at its crest, and the Millennial generation is making its presence known in the workforce.

As the global economy evolves, the Natixis Global Retirement Index still meets its clear objective: to provide policy makers, employers and the public at large with a comparative tool for seeing where the factors are best aligned to ensure a secure retirement.

Global retirement security challenges come home to roost in 2022

The warning signals are blaring and the gauges are flashing bright red in 2022 as key risk concerns for retirement security are coming to a head in today's rapidly changing economic environment.

Inflation, the long-sleeping giant among financial woes for retirees, has been riled up in the jet wash of a global pandemic and war in Ukraine. Skyrocketing prices for oil, food and shelter are taking a dramatic bite out of the purchasing power of retirees and presenting a core economic lesson to those still planning for life after work.

A bad year to retire

But even while inflation is running at its highest level in 40 years, it is just one factor on a growing list of concerns. Given all the potential pitfalls, 2022 could be one of the worst years to retire in recent memory. With markets down, rates still relatively low, and inflation taking a big bite out of retirees' wallets, those who step out of the working world run the risk of taking retirement distributions from an already depleted pool of assets. At the same time, it's likely they will have to take greater risks with their portfolio to make up ground they've already lost. Both will make it hard to preserve retirement savings and make it harder to attain a secure retirement, but with 20 years ahead in retirement, there is still time for 2022's retirees to reset their plans.

Where retirement plans can go wrong

How much does inflation factor into retirement security? Financial professionals around the world say underestimating the impact of inflation is the number one mistake investors make in their retirement planning, according to the 2022 Natixis Global Survey of Financial Professionals. Perhaps more than any other factor, it has the potential to upset the plans that have taken decades for millions of people to realize by simply eroding the value of what they've worked so hard to accumulate.

But inflation is just the starting point of a long list of potential mistakes that individuals can make in their retirement plans. From underestimating how long they will live to forgetting to factor in healthcare costs. From overestimating investment income to relying too much on public benefits. And a range of other mistakes underscore just how hard it can be to get it right.

Familiar issues. New risks.

The risks to global retirement security were clear when we first published the Natixis Global Retirement Index in 2012: aging populations, pension funding shortfalls, and an uncertain economic environment. Those core issues remain the same ten years later, but after a decade of increasing pressure they are presenting some new risks in 2022:

- **Inflation: an immediate threat to retirement security** – Rapidly escalating costs can pose a significant threat to the financial security of retirees by eroding purchasing power. Institutional investors will be challenged to preserve assets in a more volatile investment environment.
- **Interest rates and income: long-term gains, short-term pain** – After a decade of historically low interest rates, central bank rate hikes hold promise for annuitizing assets in the long term, but not without some short-term pain for individual and institutional investors alike.
- **Demographics: the good and bad of living longer** – For individuals, the longevity revolution will tax their income plans. For institutions, rapidly aging populations will test the limits of both pensions and government benefits systems.

Getting retirement security right and helping to ensure individuals can live with dignity after their working years is a core sustainability issue for society in the 21st century. Success will require a concerted effort from policy makers, employers, the financial services industry and individuals. It all starts with understanding the risks.

Top 10 retirement planning mistakes

1	Underestimating the impact of inflation **49%**	6	Forgetting to factor in healthcare costs **39%**
2	Underestimating how long you will live **46%**	7	Failing to understand income sources **35%**
3	Overestimating investment income **42%**	8	Relying too much on public benefits **33%**
4	Being too conservative in investments **41%**	9	Underestimating real estate costs **23%**
5	Setting unrealistic return expectations **40%**	10	Being too aggressive in investments **21%**

Source: Natixis Investment Managers, Global Survey of Financial Professionals

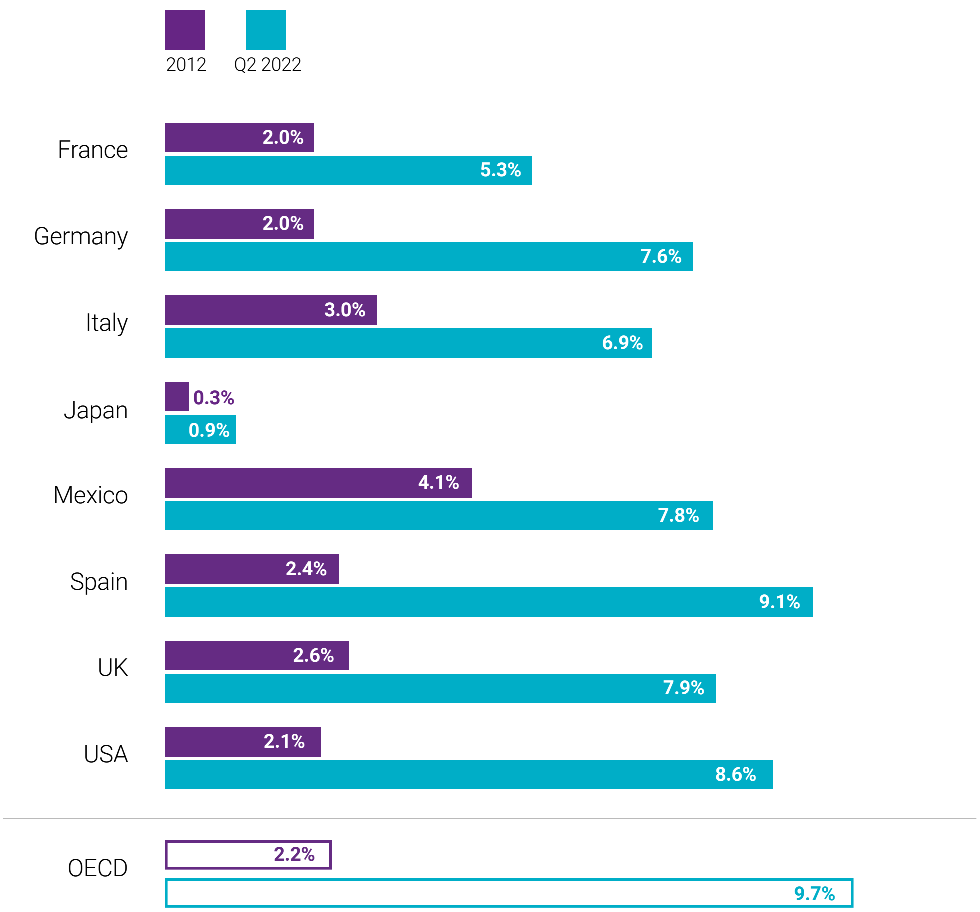
Inflation: an immediate threat to retirement security

A global pandemic, a disruption to the global supply chain, and a war in Ukraine are all linked as a series of world events that has delivered the highest level of inflation since the Reagan-Thatcher era. While inflation is always a concern, the speed at which costs have ramped up gives reason to rethink fundamentals in retirement planning.

For most of the past decade inflation has been exceptionally low. Between 2012 and 2020 inflation for 38 OECD member countries averaged just 1.76%. Supply chain disruptions helped inflation more than double to 4% in 2021, but even still, the decade average remains less than 2% (1.92%). Then came Russia's war on Ukraine. In just the first half of the year, inflation for those same 38 countries spiked to 9.6% in May.[2]

But inflation pains were not felt equally across retirees' wallets. With a post-pandemic jump in demand for energy and the war in Ukraine driving scarcity, consumers have felt a powerful inflation effect at the gas pump.

Inflation has increased dramatically from 2012 to 2022



Source: OECD

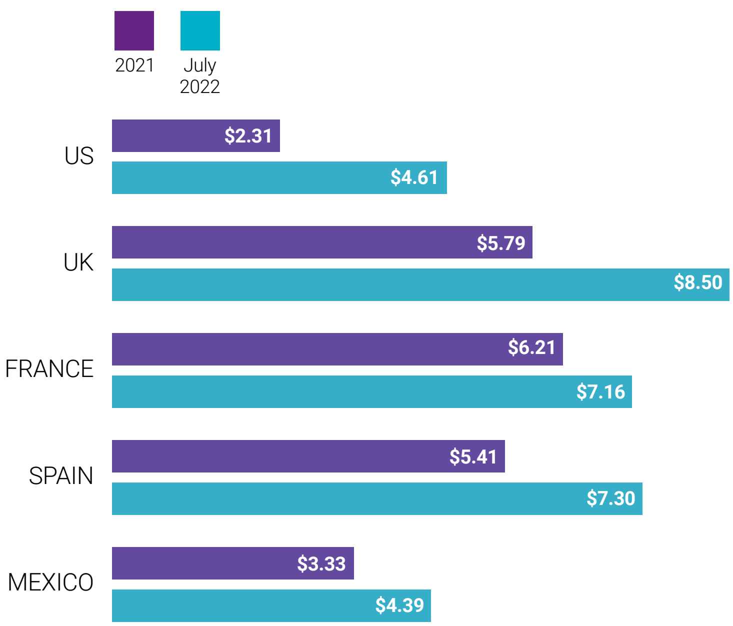
Inflation pains were not felt equally across retirees' wallets.

For those on a fixed income an extra $3,000 for food and fuel can have a dramatic impact on quality of life.

Pain at the pump

Between 2012 and 2021 gasoline cost an average of $2.80 per gallon in the US,[3] making a fill-up for a 15-gallon tank $42. While that may still be a significant bill for someone living on a fixed income, it is more manageable than the $75 it cost in June 2022 when average pump prices hit $5.[4] While prices have moderated, the point is clear: A 40% hike tallies up to a $1,700 increase in retirees' expenses for just one tank a week. But it's not just at the pump that retirees are feeling the squeeze.

Rising gas costs put the squeeze on retirees in the last year



Prices are USD per US gallon

Sources: Statista, GlobalPetrolPrices.com

Pain at the checkout line

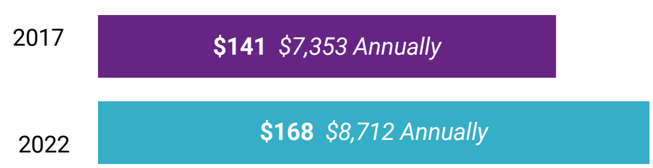
Food prices have also spiked, and this jump can be even more detrimental to retirement security. In simple terms, you can always go without travel, but you can't go without food. Grocery prices had been relatively stable in recent years. Between 2017 and 2021 food inflation averaged about 3.6% across OECD countries. Even in that time, the US (-0.2%) and Canada (-1.0%) saw food prices actually decline in 2017.[5] But the picture is much different in 2022.

By June 2022, OECD reports that food inflation spiked to 13.3% across member countries, including a 12.2% increase in the US, 11.95% in Germany, and 9.8% in the UK. Even Japan, where food inflation had been less than 1% in four of the five previous years, saw food prices jump 4.11%.[6] In practical terms this translates into a significant increase in grocery bills. For example, USDA's estimated costs for a moderate weekly meal plan for two adults increased from $141.40 in 2017 to $167.53 in 2022.[7] It all adds up to another $1,300 annually.

For those on a fixed income an extra $3,000 for food and fuel can have a dramatic impact on quality of life.

Consumers are getting less for their money at the grocery store

COST FOR A MODERATE WEEKLY MEAL PLAN FOR TWO ADULTS (US) +$1,300



Source: USDA

Social Security orders up a COLA

Policymakers have a key tool at their disposal to help mitigate the impact of inflation on pensioners – the Cost of Living Adjustment. In the US, low inflation has meant Social Security beneficiaries had received an average adjustment of just 1.32% between 2012 and 2021. The good news was that the COLA was increased to 5.9% in December of 2021.[8] Unfortunately, inflation has reached much higher levels and expenses are increasing. For example, rising prescription drug benefit premiums in general, and for Alzheimer medication Aduhelm in particular, have resulted in a one-time increase in Medicare Part B monthly premiums from $148 to $170[9] in 2022. Reduced pricing for the drug will result in significant cost savings, and as a result, premium payments are expected to decrease in 2023.

The good and the bad of inflation for institutions

While inflation has a negative impact on individuals, certain institutions may find an indirect benefit. Pensions generally make out better in inflationary times as central banks implement interest rate hikes to curb inflation. This is because of the seesaw effect that rates have on pension liabilities. In simplest terms: The higher the rate, the lower the liabilities.

Here's how it works. All pensions calculate their future liabilities, or payments that will be made to members for decades into the future. But they are required to calculate the sum of what they will pay members over time using present-day dollars. When rates are low, liabilities look a lot larger. That's because the low rates mean the future income from any bonds managers hold will be low as well. When rates rise, the future income of those holdings is greater. As a result, pensions will receive a higher level of income.

Now with rates increasing, liabilities are shrinking for many. But not all pensions respond in equal measure. The math on inflation ultimately works out to the better for private pensions. With inflation driving rates up and liabilities down, these managers generally see their contribution rate decline. On the public side of pensions, the math may not be as advantageous.

Two key differences for public and private pensions

Two other factors add significantly to the challenge for public pensions: First, most private pensions are closed to new members as employers have shifted retirement plans from defined benefit pensions to defined contribution plans, so fewer and fewer people will receive pension payments. Most public pensions remain open to new members. In the simplest terms, getting new members means they will need more money to pay more members and their payments will have to stretch out over a longer, indefinite period of time. Second, many public plans also include a cost of living adjustment which makes liabilities more variable over the long term.

Ultimately, inflation is not just the apex of retirement security threats; it is also the trigger for another key challenge facing individuals and institutions: rising interest rates.

WHEN RATES RISE, PENSION LIABILITIES FALL

Rate hikes mean that institutions have the potential for greater income in the future, which makes today's liabilities lower.

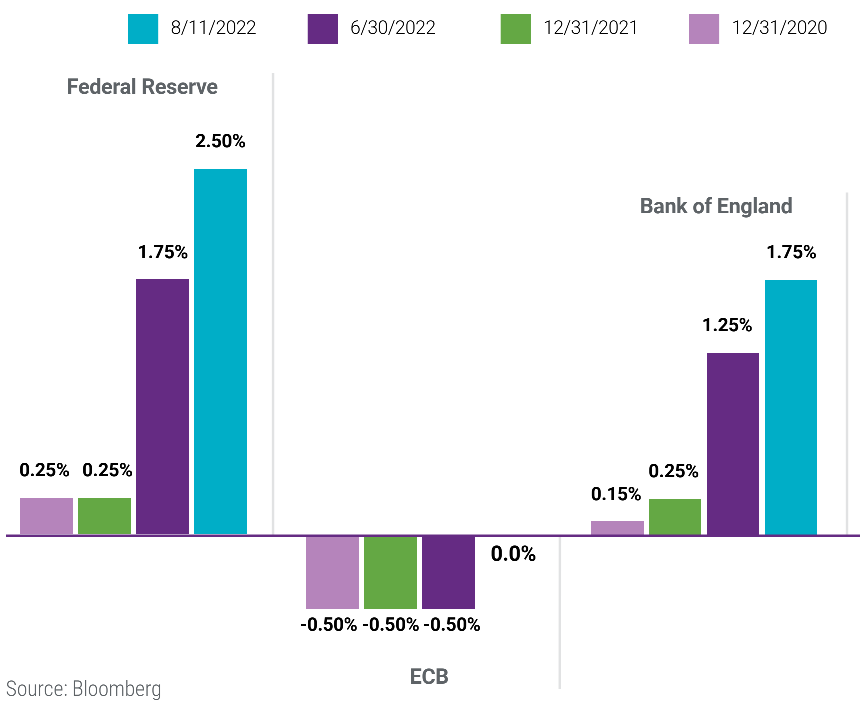
Interest rates and income: long-term gains, short-term pain

Low interest rates have been the bane of retirement security for well over a decade. Beginning with the cuts implemented during the global financial crisis, interest rates stayed at historic lows for more than a decade. But now in the inflationary post-pandemic economy, central banks have begun to raise rates in earnest. While that is good news in the long term, it will not be without some short-term pain.

In the US, the fed funds rate had dropped to 0.7% in 2011 and stayed well below historic averages until 2016 when a series of small rate hikes began to suggest a return to the norm. Then came the global pandemic and rates were slashed to 0.05% in April 2020. Two years later, as inflation has spiked, the Fed has responded by hiking rates by 75 basis points, first in June and then again in July.[10]

In Europe, a series of cuts by the ECB took rates down to 0% in 2012. By 2014 rates were into negative territory, where they stayed for the next eight years. It wasn't until July of 2022, when bankers in Europe implemented a 50bps hike, that rates even got back to zero.[11]

CENTRAL BANK RATES HAVE INCREASED SUBSTANTIALLY IN THE LAST TWO YEARS



Source: Bloomberg

Similarly, rates in the UK have remained low, not topping 1% since 2009. Covid and the threat of recession brought about cuts that brought the Bank of England rate to a 300-year low of 0.1% in March of 2020.[12] Two-plus years later, rates were increased to 1.25% in June 2022.

Elsewhere, the German Bund rose to 0.5% in July 2022 after going to 0% during the pandemic. Australia hiked rates from 0.85% to 1.35% the same month. In Japan, where they have been steadying the economy against stagflation since the '90s, the Bank of Japan has continued its negative rate policy, maintaining the -0.1% rate that's been in place since 2016.[13]

The good and the bad of rates

There are a lot of advantages to living in a low-interest-rate world. Low rates helped propel global growth from $75 trillion to $104 trillion[14] over the past decade. They've helped drive equity markets to record highs, helped business grow, and helped individuals attain homeownership.

Those investing for retirement most certainly benefited from the boon, but low rates have not helped retirees in equal measure. In fact, low rates have presented retirees with some difficult choices.

In the simplest terms, low rates have made it hard for retirees to generate income off their savings. With rates in low to negative territory, many were not able to follow the golden rule of "Never touch the principal." Instead of waiting for bonds to throw off a sustainable income, retirees were forced to dip into the principal of their nest egg when they might normally seek to preserve their capital.

This puts them in the difficult position of lowering their expected income, accepting that their assets may run out too early, or taking on more investment risk to make up the difference. Each decision takes on heavier consequences in 2022's volatile markets.

Risks at every turn for retirees

With inflation running at a 40-year high, those on a fixed income will already find it difficult to keep pace with rising costs, let alone find room to cut their income. Longevity adds to the challenge. People may be living longer, but nobody knows how long they will live. As a result, there's a crucial piece missing to the equation that tells you how much income you can take from your savings while ensuring it will last the rest of your life. And as markets have shown in 2022, equity markets do not operate in a vacuum. Economic surprises like an inflationary spike, slow growth, and recession can lead to a swift market downturn, further complicating their ability to preserve capital while taking income.

Bonds also experiencing turbulence

In the long run, retirees may gain some hope for higher income in the future, but not without some pain along the way as markets weather the change. Unfortunately, few investors may understand what rising rates hold in store for them. In 2019, the Natixis Center for Investor Insight conducted a quiz with 9,000 investors in 27 countries. We asked them what two things happen when rates go up.

They weren't sure.

Professionals may recognize that with rising rates there's a greater chance for higher income in the future, but that the present value of the bonds you currently own goes down. Only 3% of investors worldwide understood both sides of the equation. One-third didn't understand either.[15]

MANY INVESTORS DON'T UNDERSTAND HOW RISING RATES AFFECT BONDS

3%

of investors from our Survey of Individual Investors understand how rates affect bonds.

1

Higher rates decrease the present value of the bond.

2

Higher rates today mean bonds will generate higher income down the road.

Source: Natixis Investment Managers, Global Survey of Individual Investors

Bond yields have hovered around historic lows for more than a decade, which has put income-oriented investors at a disadvantage. Now with rates ratcheting up, they are feeling even more pain as US government bond values have plummeted -10.41% as of June 30, 2022 according to the ICE BofA 7-10 Year Treasury Index, setting the stage for their worst calendar performance year since the index began in 1973. German government bonds are down -11.39% and Eurozone government bonds are down -12.44% in the same time frame – which is shaping up to the worst year on the continent since the ICE BofA Index data began in 1986.[16]

Funding ratios still troubled by volatile market

It's not just individuals who are faced with interest rate challenges. The success and health of public and private pensions is directly linked to interest rate policy. Not only do rates affect pension funding ratios, but the knock-on effects can affect their overall investment performance.

Rising rates foretell higher yields for bonds in the future. For pensions that estimate their liabilities using current rates, higher rates demonstrate a greater ability to make payments to members decades in the future. Improved funding ratios are positive for pension managers, but they will also feel the effects of any downturns that may come from reactions to rate hikes.

For example, pension managers might have breathed a sigh of relief at the start of 2022. Even with rates at pandemic lows, they had seen some recent improvement in funding ratios. They also benefited from the bull market in which the S&P 500 delivered about 40% over 2021 and 2022. As a result of the boon, OECD reports that member countries had seen pension assets rise by an average of 8% in 2021.[17]

At the high end of pension fund performance, New Zealand saw assets grow by 19%. Australia (18%), Iceland (17.9%), France (16.6%) and Mexico (11.2%) all followed suit with double-digit gains. But the relief didn't last long.[18] In the US, pensions delivered 11.6% in 2021, and funding ratios had climbed above 80% for the first time since 2008.[19] But the storyline has flipped in 2022.

Equitable reports that with average losses of -10.4%[20] in the first half of 2022, the funded status for state and local pensions has experienced the sharpest decline in funding ratio since the global financial crisis, dropping from 84.8% on average to 77.9%.[21] Topping it off, the National Association of State Retirement Administrators average assumed rate of return for its US members has dropped below 7% to 6.9%.[22]

Interest rates have been a challenge to global retirement security for more than a decade. Now, with central banks implementing rate hikes to counter inflationary pressures, individuals and institutions will find the hope for higher income and improved funding ratios in the long run. But the ancillary effects of rate increases can result in a lot of pain in the here and now.

A REVERSAL OF FORTUNE FOR PENSION PLANS IN 2022

2021	2022
Pensions saw gains of 11.6%	**Pensions** had average losses of -10.4%
Funding ratios were above 84.8%	**Funding ratios** have dropped to 77.9%

Sources: Pew Charitable Trust; Equable Institute

Demographics: the good and bad of living longer

It's no secret that the population in Japan, Europe and the US has been aging. The drumbeat of concern has been loud and clear since statisticians first realized that the massive post-World War II Baby Boom generation would eventually enter their 60s and that wave would put a strain on retirement systems.

In 2012, the earliest wave of the Baby Boom generation was just reaching retirement age as the 2.1 million individuals born in the US in 1946[23] inched closer to age 66. Since then, the number of people age 65+ in the US has grown to 16%[24] of a population of 331 million. In Europe, that population represents an even bigger piece of the pie at 20.8% of the 750 million EU residents. The number is bigger still in Italy (23.5%), Finland (22.7%), Greece (22.5%), and Portugal (22.4%).[25]

Japan has been at the vanguard of the silver wave sweeping the global population. Already 12% in 1990, the country's 65-plus population has more than doubled and continues to gain momentum. It took ten years for that share to reach 17% in 2000. It reached 22% in 2010, and 28% in 2020.[26]

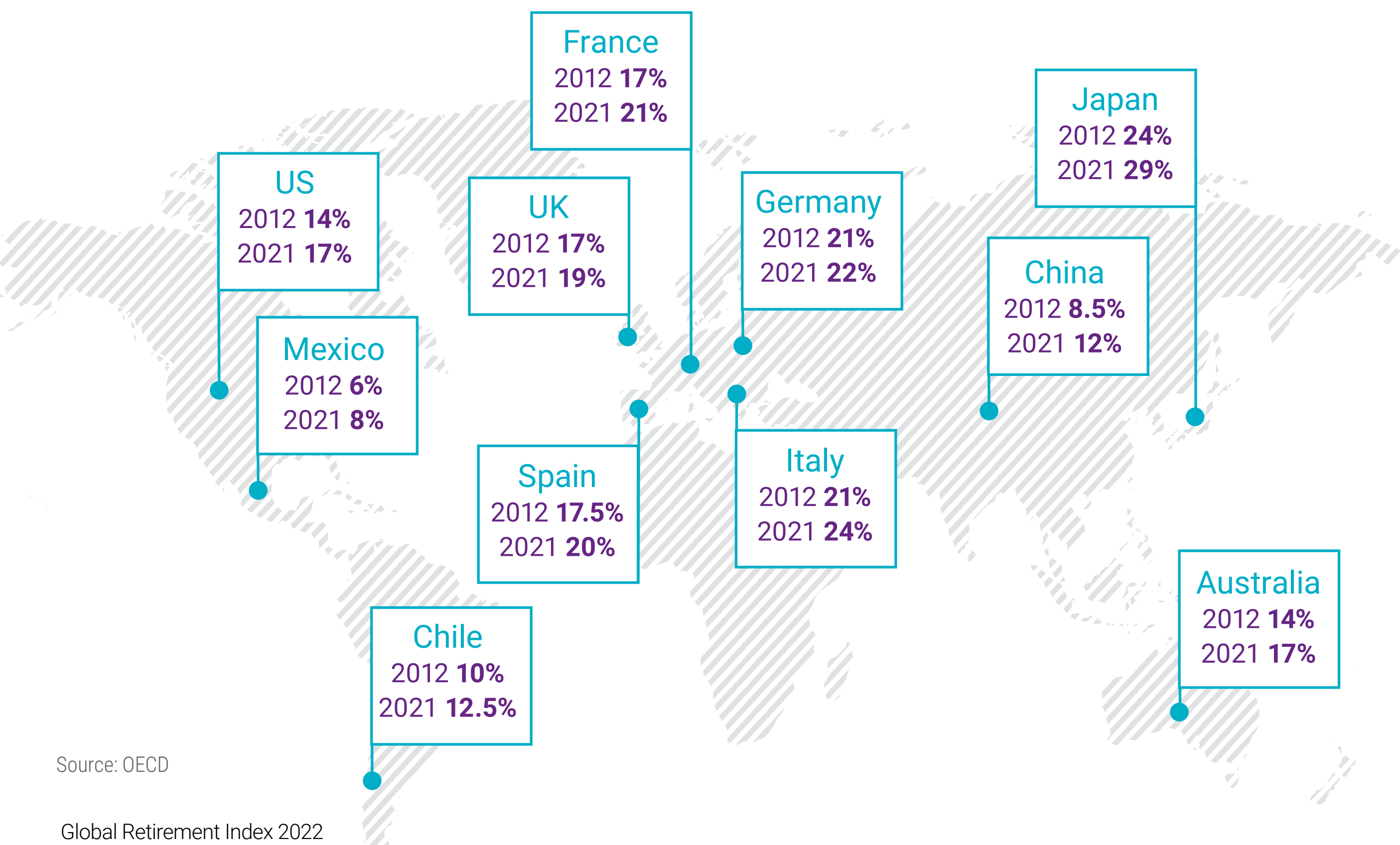
Challenges ahead for younger countries, too

Even regions with young populations could soon face similar challenges as improved nutrition, healthcare and environmental factors contribute to longevity and low birth rates help push the overall population ever older. This is the case in both China and Latin America in 2022.

Along with other longevity factors, China is also grappling with the repercussions from its one-child policy, which capped population growth for decades. As a result, the UN estimates that by 2050, the 65-plus population will reach 366 million people, surpassing today's total US population. Over the next three decades, the share of people in the cohort will more than double from today's 12% to 26%.[27] As a result, policy makers there announced plans to gradually increase the retirement age from the current 60 for men, 50 for blue-collar women and 55 for white-collar women over the next five years.[28]

In Latin America, where the 65-plus population is expected to reach 18% by 2050, the overall impact will not be as great, but some countries will be facing significant challenges. For example, Chile and Uruguay are among four countries where it is expected that by 2050 there will be only two working age adults for every person over 65.

THE PERCENTAGE OF THE POPULATION OVER 65 IS GROWING



Source: OECD

Older for longer

Adding to the sheer volume of individuals who would be entering retirement is how long they will live after they retire. OECD reports that the average life expectancy past age 65 in G20 countries reached 21.3 years for women and 18.1 years for men between 2015 and 2020. And while the gains in lifespans past 65 have slowed slightly since 2010, the average for women past 65 in these countries will reach 25.2 between 2060 and 2065, while it will increase to 22.5 for men.[29]

As a result of increased life expectancy and slowing fertility rates, OECD projects the over-65 population to increase from 2019's 17.3% to 26.7% by 2050. The percentage will be even higher in older countries. OECD estimates that this share of population will surpass 30% by 2050 in Greece, Italy, Japan, Korea, and Portugal.[30]

Population growth doesn't add up to retirement security

This is where math becomes most concerning for policy makers. A larger population that will live longer breaks the formula behind most pay-as-you-go retirement systems. Many of these systems, like Social Security in the US, use payroll taxes to fund government retirement benefits. What makes them work is the balance between the number of working age people and the number of retirees – and others – drawing benefits.

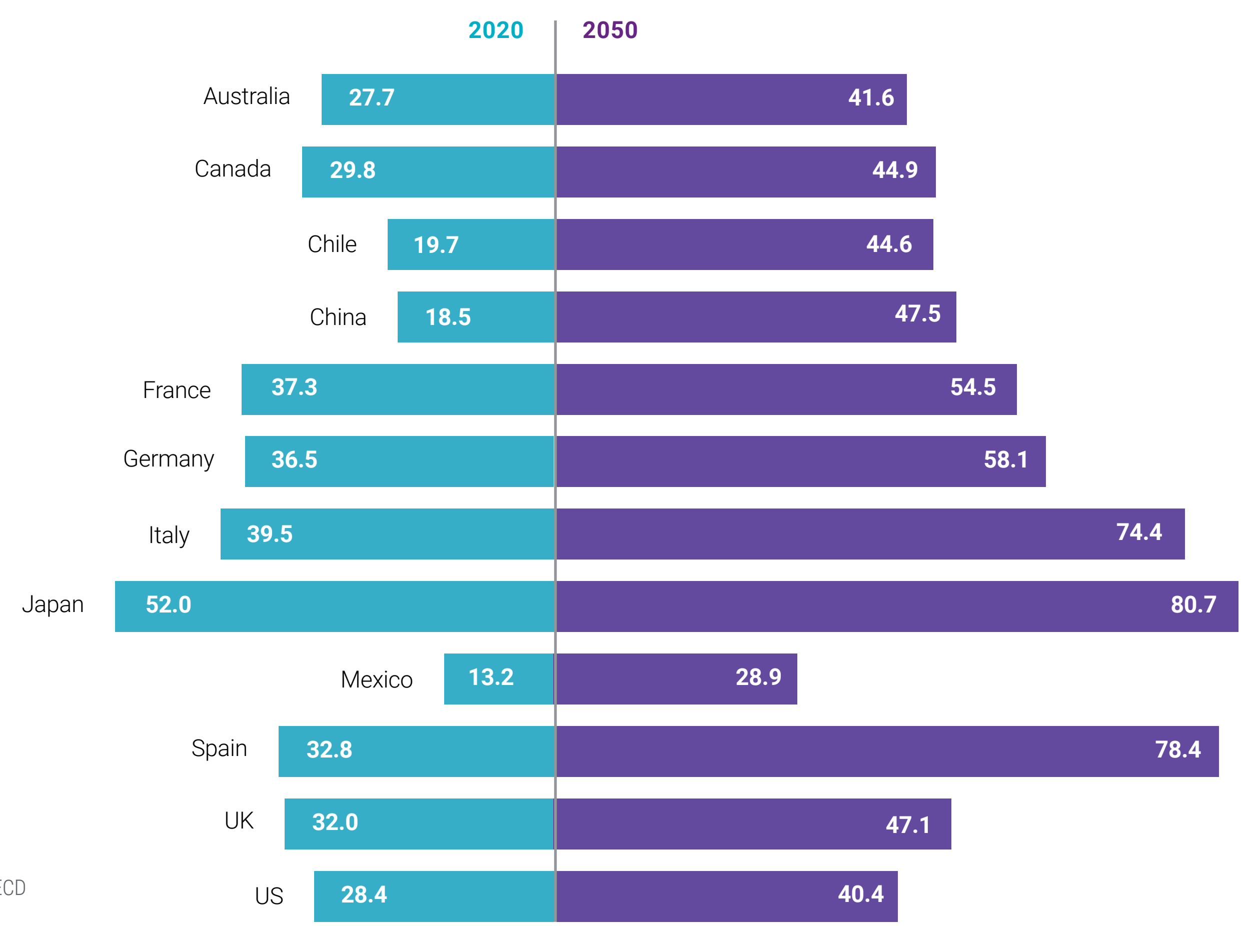
The problem is best illustrated by old-age dependency ratio, which provides a simple statement on the number of retired people out of every 100 people within a population. For most of the developed world, that number has been climbing steadily higher for the past century.

In 1950, just 15 years after its Social Security system was created, the US had an old-age dependency ratio of just 14.2%. Seventy years later it reached 28.4%. By 2050 the over-65 population in the US will reach 40.4%. But even with four in ten Americans past retirement age, the challenge won't be as great as it is in other countries:

- Japan's ratio has already grown from 9.9% in 1950 to today's 54%. In 30 years, it's expected that 80.7% of the Japanese population will be 65+.
- Italy is projected to see its share of older people grow from 39.5% in 2020 to nearly three-quarters (74.4%) by 2050.
- Germany's will rise from 36.5% in 2020 to 58.1% in 2050.
- France's will grow from 37.3% in 2020 to 54.5% in 2050.

A similar trend shows up in the perennial top three countries in the Natixis Global Retirement Index. Iceland will see its old-age dependency increase from 26.6% to 46.2%, Switzerland's will go from 31.3% to 54.4%, and Norway's will rise from 29.6% to 43.4%.[31]

OLD-AGE DEPENDENCY IS HIGH – AND WILL SKYROCKET BY 2050



Source: OECD

Limited options for policy makers

Aging populations present limited choices for policy makers – choices that will be difficult as retirement benefits compete with a growing public debt burden. The debt to GDP ratio for OECD countries reached a record high of 95% in 2020, a figure that's 73% greater than it was in 2007, before the Global Financial Crisis.[32]

Down the road, policy makers could be forced into one of three tough decisions, none of which are real vote-getters. To make up for funding shortfalls they may need to:

1. **Raise payroll taxes:** Hiking taxes is never popular and will be even less so should inflation continue to reduce consumer purchasing power as it's done in 2021 and 2022.
2. **Raise the retirement age:** Telling people they have to work longer than planned is an unenviable position. In 2020, French workers took to the streets to protest a proposed retirement age increase from 62 to 64. And in 2021, Swiss workers marched in Bern to protest retirement reforms including a proposed hike in the retirement age for women from 64 to 65.
3. **Reduce benefits:** Maybe the least popular option, reducing benefits is not only a political loser, it's also an economic nightmare for retirees, especially during inflationary periods when their dollars don't go as far to begin with.

Aging also presents a critical healthcare challenge for both policy makers and retirees themselves. Growing elderly populations will put additional strains on healthcare and long-term care systems. For example, in the US, where health expenditures already account for nearly 19% of GDP,[33] those age 55 and older accounted for 56% of healthcare spending in 2019. Those 65 and older accounted for 35% on their own.[34]

Rising costs are not limited to the US. The World Health Organization reports that global healthcare spending topped $8.5 trillion in 2019 – twice the $4.2 spent globally in 2000. An older population can also translate into a slower economy. With large numbers of individuals leaving the workforce, OECD suggests that there could be significant economic consequences. Growth could be impeded as "there will be less working-age people in the population, older workers tend to be employed less, and may be less productive and entrepreneurial." In addition, OECD cautions that the cost of healthcare, pensions, and long-term care could become "unmanageable for many countries."[36]

Retire or keep working?

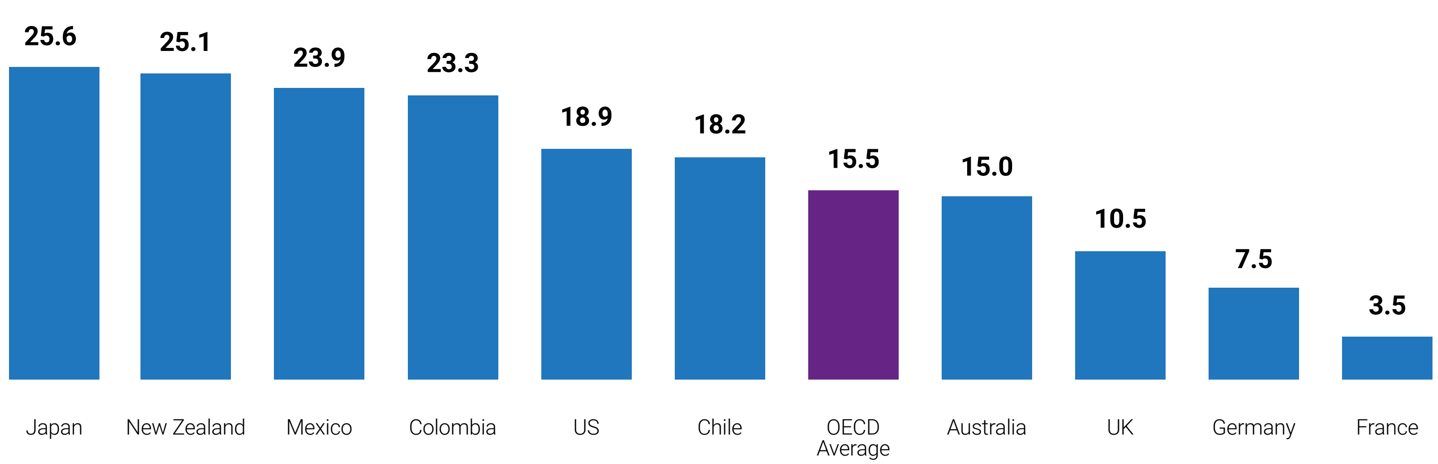
For many individuals globally, the traditional view of retirement is fading. Many continue to work well beyond retirement age. In fact, results from the 2021 Natixis Global Survey of Individual Investors show that even as they plan to retire at age 62 on average, six in ten believe they will have to work longer than they anticipated. This from a group of more than 8500 individuals who already has at least $100,000 in investable assets.[37]

Whether by economic necessity or by choice, the silver workforce is growing. OECD reports that the highest rate of workers over age 65 can be found in Asia, 47.6% in both South Korea and Japan. New Zealand also sees high labor participation among the same group, reporting 45% of those age 65–69 continue to work.[38]

Eurostat reports that 20% of people age 55 or older were working, including the 48% of all men and 60% of women aged 65-plus in the EU who work part-time.[39] While the numbers are smaller in the US today, the number of people age 65 and older still working is expected to grow from 24% of men and 16% of women in 2018 to 26% and 18% respectively in 2026.[40]

For many in the US, working in the flexible gig economy may provide an opportunity to augment their income beyond Social Security and savings. In fact, 44% of workers aged 55–64 and 37% of those age 65 and older say they are interested in gig economy jobs for extra money and flexibility.[41]

PERCENTAGE OF THE POPULATION OVER 65 THAT IS STILL WORKING



Source: OECD

Retirement security: a shared responsibility

The factors that make 2022 one of the worst years to retire in recent memory – inflation, interest rates, poor market performance – could right themselves within a year or two. But the risks will still be great. If we are to achieve retirement security, every stakeholder will have to do their part.

Policy makers

Demographics provide the most direct motivation for policy makers. Aging populations have the potential to weaken pay-as-you-go retirement systems. Smart policy will focus on setting individuals up for success:

- Ensuring access to a workplace retirement savings plan is a crucial first step. Australia, New Zealand, Singapore and other countries have taken on the challenge with compulsory retirement savings programs.
- Incentives for employers as well as their employees are crucial. Tax incentives and streamlined plan requirements are strategies for motivating businesses large and small to give employees the tools they need to fulfill their personal savings responsibilities.
- Education and advice on how to manage retirement assets is increasingly needed given today's complex financial choices. In fact, 62% of individuals surveyed in 2021 say they need professional advice in selecting investments from their workplace retirement plan.[42]

Retirement policy will need to adapt to a range of long-term economic and demographic changes. The focus as always will need to be on ensuring people have the opportunity to meet their responsibilities and goals.

Employers

There is no question that individuals are looking to employers for help. In fact, 80% of individual investors surveyed in 2021 said they believe employers have a responsibility to help employees achieve retirement security.[43] Providing access to an effective retirement savings plan is just the starting point:

- Participation is the foundation. Auto-enrollment is one of the key starting points to getting employees to save. Rather than waiting for workers to opt in on a company-sponsored plan, allow them to opt out if they choose not to participate. Similarly, allowing plan participation to begin on the first day of employment is another consideration.
- Incentives to increase savings rates. If an employer has any doubt about how much the match is valued by employees, just consider what investors told us. Eight in ten of those surveyed said they would be more likely to work for a company that provides a match. The match can be a critical advantage in today's tight labor market.
- Employee engagement is needed to maximize the savings opportunity. Auto-escalation can help boost contribution rates by allowing employees to increase the size of their contribution annually. Investment choices also incentivize participation.
- Looking beyond saving, employers may even consider financial solutions that help participants navigate the complex process of drawing a sustainable income from their savings.
- Education is necessary. Employees need to understand why they should save and how to make the most out of a company plan.

Assuming the responsibility to save is a big ask of individuals. It's critical to ensure they are financially literate and ready to take on this important job.

Individuals

Even if favorable retirement policies are set and employers provide access to a plan and the tools to maximize the opportunity, individuals need to act: Retirement saving needs to be a lifelong financial priority. Individuals have clear objectives for fulfilling their personal responsibility:

- Participation is essential. It's been said the best advice on saving for retirement is to start as early as you can to maximize the number of years available to for saving. But even those individuals who start later in life benefit from saving, especially if there are incentives designed to help older workers increase their savings.
- Personal engagement: Individuals should take the time to get familiar with the features and benefits of their employers. Take advantage of incentives like company match. Leverage tools like auto-escalation. Participate in educational opportunities.
- Go beyond the workplace plan. Many countries allow for personal retirement savings vehicles such as the UK's Individual Savings Account (ISA), Canada's Registered Retirement Savings Plan (RRSP), or Individual Retirement Accounts (IRAs) in the US. Making smart use of these opportunities can enhance savings levels dramatically.

The key step toward achieving retirement security is to have a plan. Whether working with a financial professional or working with an online tool, individuals need goals and a road map to guide their savings and investment decisions.

Graphic sources

Page 3: Natixis Investment Managers, Global Survey of Financial Professionals conducted by CoreData Research in March and April 2022. Survey included 2,700 respondents in 16 countries.

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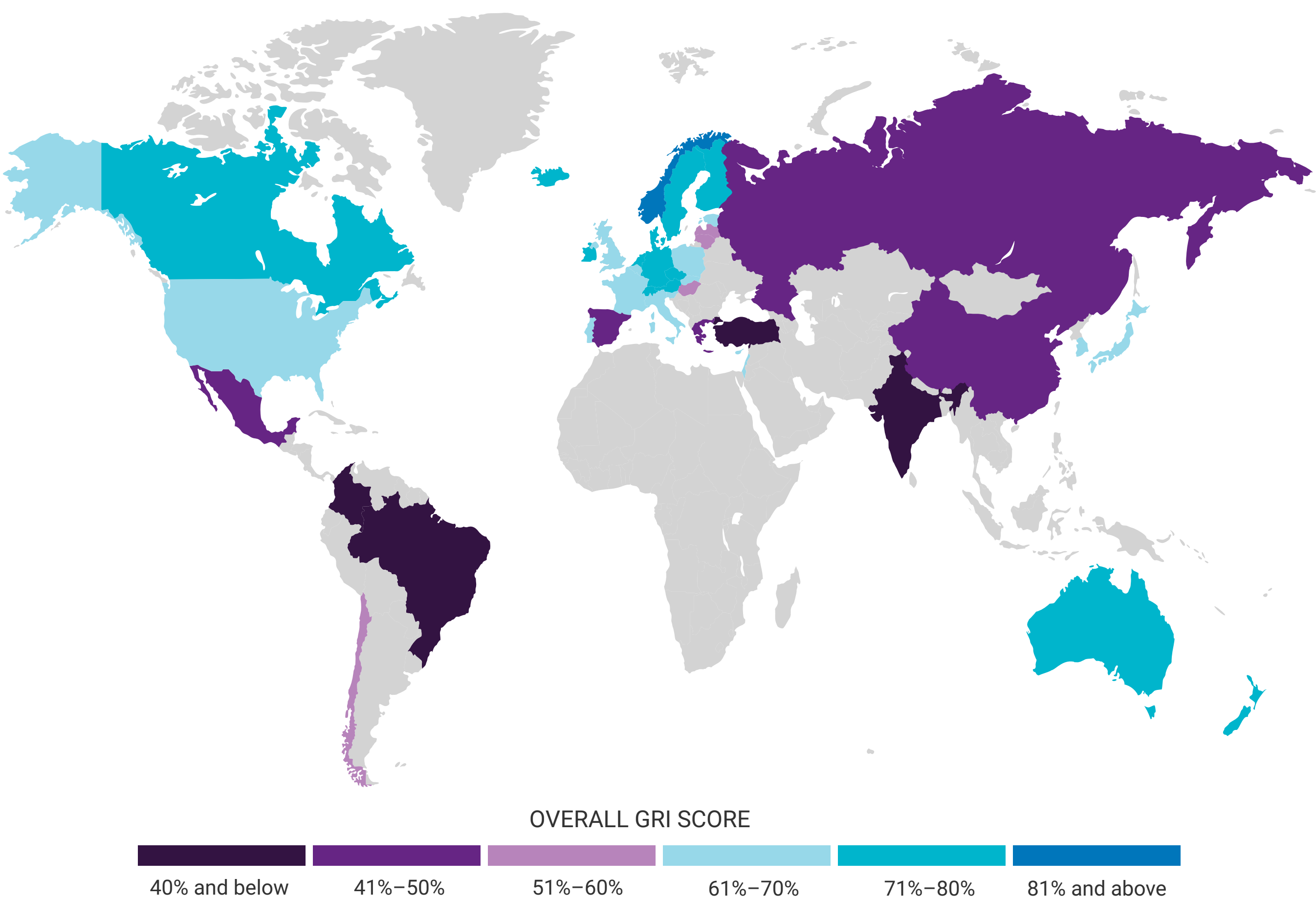
Global Retirement Index 2022

The Global Retirement Index (GRI) is a multi-dimensional index developed by Natixis Investment Managers and CoreData Research to examine the factors that drive retirement security and to provide a comparison tool for best practices in retirement policy.

As the GRI continues to run each year, it is our hope it will be possible to discern ongoing trends in, for instance, the quality of a nation's financial services sector, thereby identifying those variables that can be best managed to ensure a more secure retirement. The country rankings are intended to examine key retirement factors and a discussion of best practices.

This is the tenth year Natixis and CoreData have produced the GRI as a guide to the changing decisions facing retirees as they focus on their needs and goals for the future, and where and how to most efficiently preserve wealth while enjoying retirement. As part of celebrating a decade producing the GRI, the report will include historical analysis of previous country rankings to examine changes in retirement conditions in the individual countries.

The index includes International Monetary Fund (IMF) advanced economies, members of the Organization for Economic Cooperation and Development (OECD) and the BRIC countries (Brazil, Russia, India and China). The researchers calculated a mean score in each category and combined the category scores for a final overall ranking of the 44 nations studied. See page 75: Appendix B for the full list of countries.



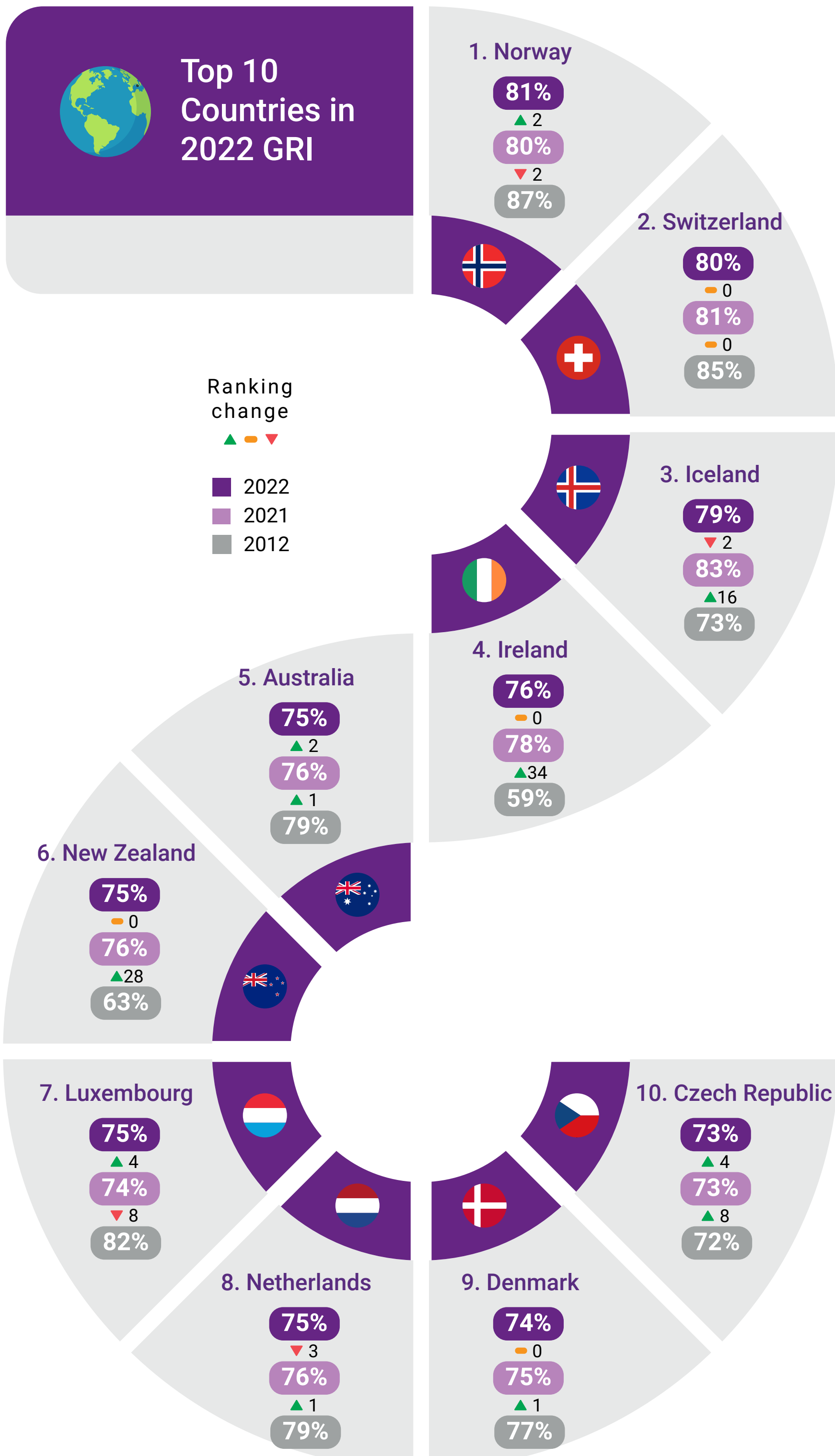
Framework

The index incorporates 18 performance indicators, grouped into four thematic sub-indices, which have been calculated on the basis of reliable data from a range of international organizations and academic sources. It takes into account the particular characteristics of the older demographic retiree group in order to assess and compare the level of retirement security in different countries around the world.

The four thematic indices cover key aspects for welfare in retirement: the material means to live comfortably in retirement; access to quality financial services to help preserve savings value and maximize income; access to quality health services; and a clean and safe environment.

The sub-indices provide insight into which particular characteristics are driving an improvement or worsening each country's position. Data has been tracked consistently to provide a basis for year-over-year comparison.

The Best Performers



Norway returns to the top in this year's GRI after four years in third place, registering a score of 81%. Iceland moves down two spots into third with a score of 79%. Switzerland remains in second while Ireland also retains the same rank as last year at fourth. Australia, New Zealand, Netherlands and Denmark remain in the top ten this year with rankings of fifth, sixth, eighth and ninth respectively. Luxembourg (seventh) and Czech Republic (tenth) are two new entrants in the top ten this year, replacing Germany and Canada.

Countries in the top ten overall typically score very well across all four sub-indices. Both Norway and Iceland have the distinction of finishing in the top ten in all four sub-indices. The rest of the top ten countries have at least one top-ten sub-index score, with no countries ranking in the bottom ten. The one outlier in the group is Denmark, which ranks in the bottom half (33rd) for Finances.

This year, the top performers' rankings across the four sub-indices are more consistent than in years past. Among the top ten overall countries, there are six top ten finishes for Health, Material Wellbeing and Finances and seven for Quality of Life. In previous years, some of the top ten countries did very well in Health and Quality of Life but would be near the middle or bottom of the rankings for Material Wellbeing and Finances. While this is still the case for some countries such as Denmark, others have managed to improve weak spots to improve their overall placement. For example, Norway rose from 25th to eighth in Finances because its five-year average for interest rates moved into positive territory. Finances had been the one sub-index holding it back from pole

position given the rest of its sub-indices are in the top five with Health ranking first, Material Wellbeing ranking second and Quality of Life ranking fourth.

Switzerland remains second this year with a marginally lower score compared to last year. Its rankings are relatively consistent with the previous year with Health ranking fourth, Finances ranking second and Quality of Life ranking fifth. Material Wellbeing is its only sub-index to not make the top ten with a ranking of 14th.

Although Iceland drops two spots to third overall, it still has superb performances across all four sub-indices. All its sub-indices place in the top ten with Material Wellbeing ranking fifth, Quality of Life ranking sixth and both Health and Finances ranking tenth.

Ireland, which has made considerable score improvements over the years, continues its steady performance and retains its overall ranking of fourth. It posts top-ten finishes in Finances and Health, ranking seventh and eighth respectively, while it finishes twelfth in Quality of Life. It falls out of the top ten for Material Wellbeing after dropping seven spots to 17th.

Australia and New Zealand rank fifth and sixth overall in this year's GRI with Australia moving up two spots and New Zealand retaining the same rank as last year. Both countries place in the top ten for two sub-indices. Australia ranks fourth and ninth for Finances and Health respectively, while New Zealand ranks sixth and ninth for Finances and Quality of Life respectively. Both have relatively mediocre scores for the Material Wellbeing sub-index at 19th and 20th.

Luxembourg and Czech Republic, two new entrants in the top ten at seventh and tenth respectively, took different paths to get there. While both countries climbed up four spots, only Luxembourg registers a higher overall score, with Czech Republic curiously keeping the same score as last year. Luxembourg is only one of two countries in the top ten to have a higher overall score compared to last year due to higher scores across all four sub-indices. Two of its sub-index rankings, Material Wellbeing (ninth) and Quality of Life (tenth), move into the top ten while Health remains in the top ten at second. Meanwhile, Czech Republic has the same overall score as last year and only has one sub-index (Material Wellbeing) placing in the top ten, albeit first place. Czech Republic's move into the top ten is therefore more of a result of other countries losing ground such as Germany and Canada.

The Netherlands and Denmark, at eighth and ninth respectively, round out the top ten overall. Both countries have two sub-index finishes in the top ten, with the Netherlands ranking third and seventh for Material Wellbeing and Health respectively, and Denmark ranking second and sixth for Quality of Life and Material Wellbeing respectively.

Spotlight:

GRI's Biggest Movers: A Ten-Year Retrospective

The Leaders

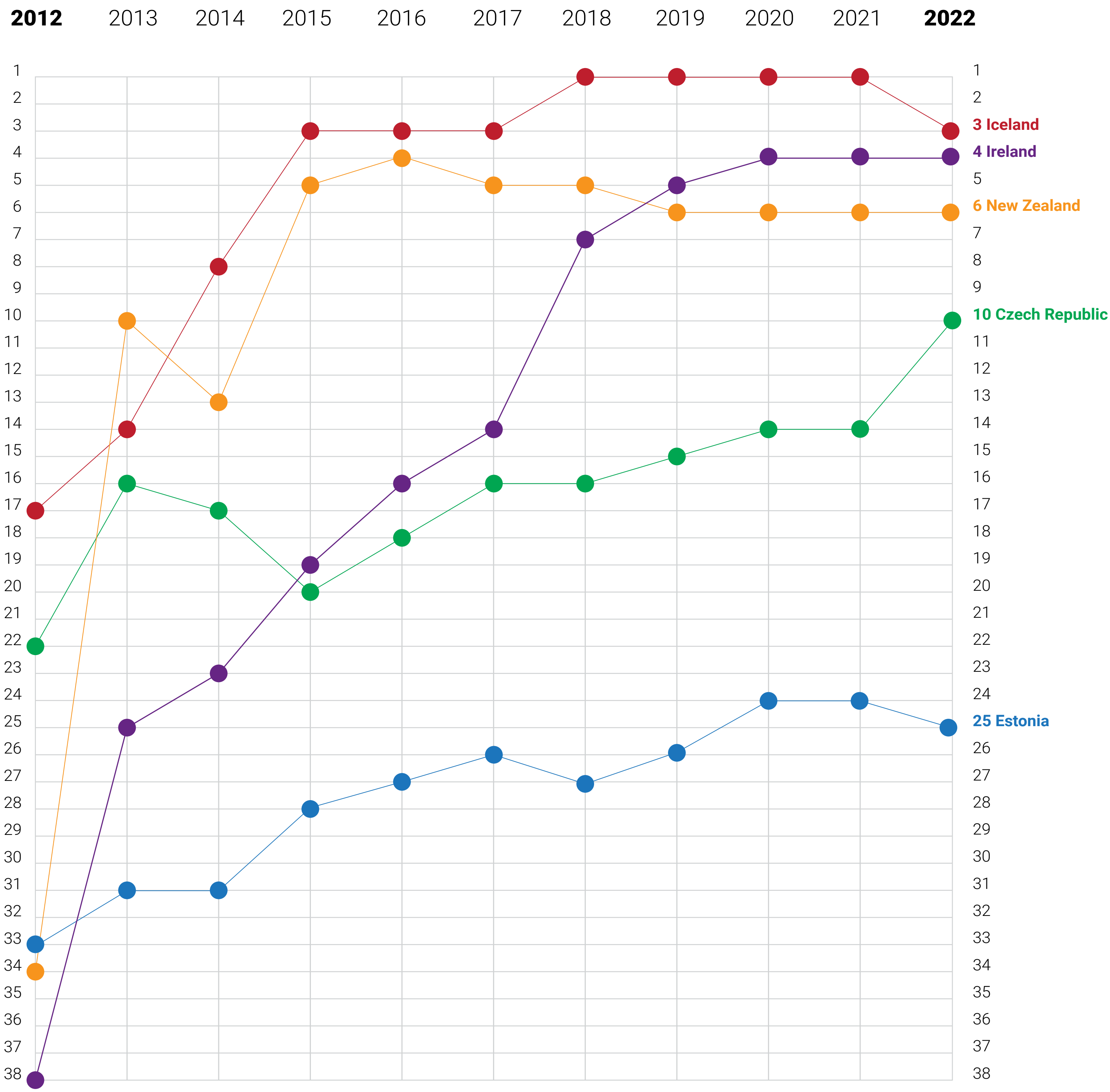
Ireland stands alone with the largest gains in the GRI rankings over the past decade. It has rocketed from 38th overall in 2012 all the way to fourth this year. The Finances sub-index is the biggest driver of its gains. The sub-index started at rock bottom of the list in 2012 and now ranks seventh among all countries. Indicators leading the charge include tax pressure, which went from bottom 15 to eighth this year, and government indebtedness which moved from 21st to ninth. The Quality of Life sub-index also had a meaningful positive impact on Ireland's overall score trajectory, moving from 24th a decade ago to 12th this year. Within this sub-index, the largest improvements over the ten years are in biodiversity and environmental factors.

New Zealand has also had a meteoric rise in the overall rankings, improving 28 spots from 34th to sixth overall. Compared to a decade ago, New Zealand has realized the largest gains in the Health sub-index. The country had the second-lowest score for the sub-index in 2012 with poor performance in the health expenditure indicators. Since then, the sub-index score has improved 26 spots to 16th this year. Recently, New Zealand has posted consistent strong performance, holding the same overall rank for the past four years. Steady top ten performances in Finances and Quality of Life have helped solidify the country in the top ten, while its Material Wellbeing rank continues to hover in the middle of the pack.

Iceland has posted the third-largest climb over the decade. After starting 17th overall in 2012, Iceland has managed to consistently compete in the top three over the past eight years, finishing top of the pile on four occasions. Similar to Ireland, the Finances sub-index has been the biggest factor pushing Iceland into the top echelon of the overall rankings. Ten years ago, it started at 41st for the Finances sub-index. Improvements across its indicators, particularly bank nonperforming loans and interest rates, have moved Iceland's sub-index ranking up to eighth. As for the other sub-indices, Iceland's performance in the Quality of Life and Health sub-indices has actually slipped somewhat since 2012, but remains strong relative to peers.

Czech Republic is a new entrant in the top ten this year and has experienced significant score growth from a decade ago. It started at 22nd in 2012 and now ranks tenth overall this year. The Finances and Material Wellbeing sub-indices are the main drivers of the Czech Republic's overall positive movement from 2012, with the former sub-index moving from 32nd to 15th and the latter moving from 17th to first. The Health and Quality of Life sub-indices lag somewhat, as the former has moved from 12th to 27th and the latter has hovered between 21st and 30th over the course of the decade.

The Leaders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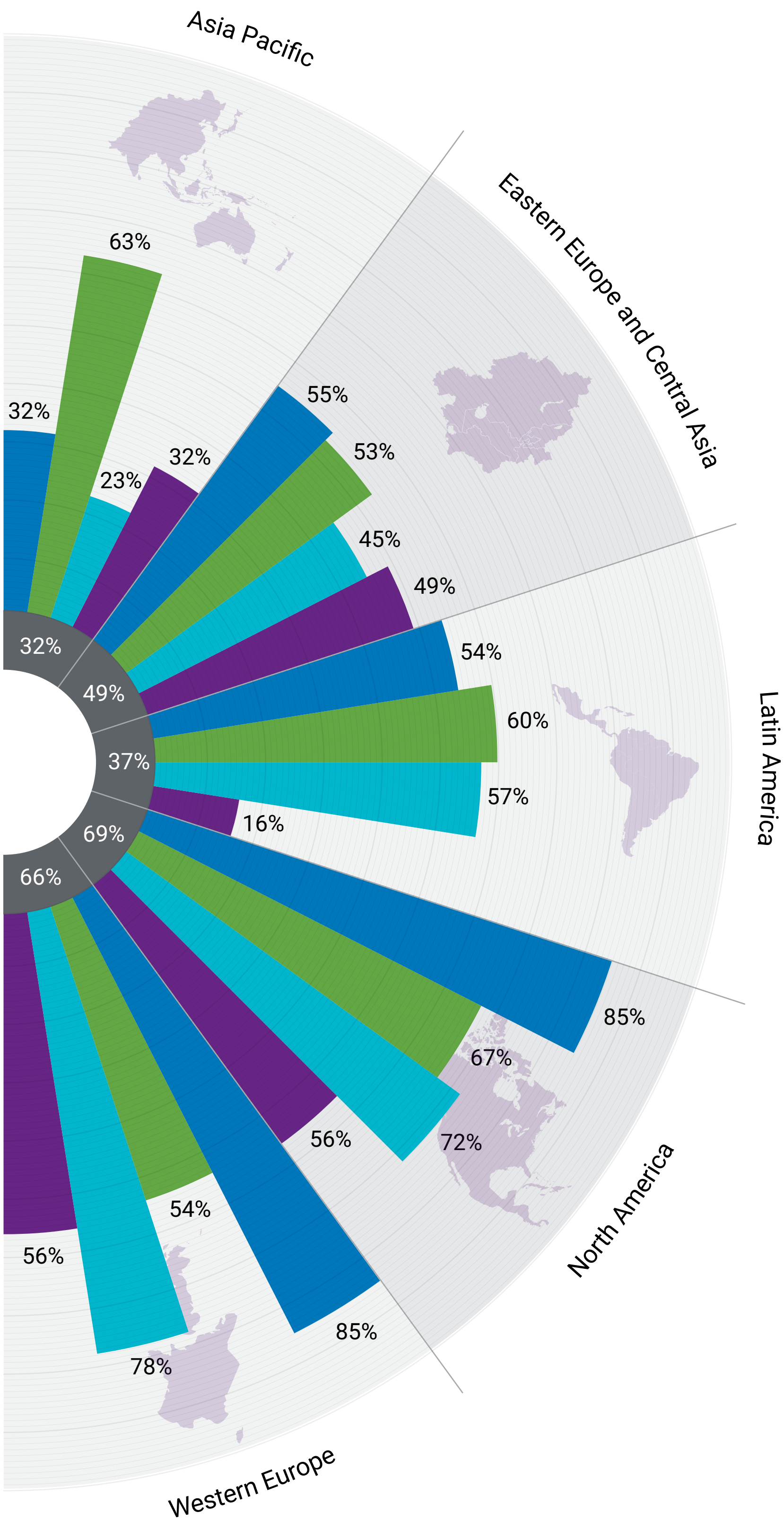
Regional Perspective



For the fourth year in a row, North America has the highest score among regions at 69%. Western Europe places second with an overall score of 66%, followed by Eastern Europe and Central Asia (49%) and Latin America (37%), with Asia Pacific (32%) finishing last. The regional scores are population-weighted, so the scores of countries with larger populations have a larger proportional effect on the regional score than the scores of countries with smaller populations.

North America sets the pace for the overall rankings as a result of having the highest regional scores for the Finances and Material Wellbeing sub-indices, and the second-highest scores for the Health and Quality of Life sub-indices. The region benefits from having just two relatively strong performers to account for, whereas other regions contain weak countries that drag down the regional scores.

Western Europe has the same sub-index rankings as last year. The region ranks first for both the Health and Quality of Life sub-indices, second for Material Wellbeing and fourth for Finances. Individual country performances remain superb in the former two sub-indices, with Western European countries making up eight of the top ten for Health and nine of the top ten for Quality of Life. As for the Finances sub-index, more of its countries

- Health Index
- Finances in Retirement Index
- Quality of Life Index
- Material Wellbeing Index
- Global Retirement Index

finish either in the middle of the pack or the back end, such as Greece at second-to-last, France at fourth-to-last and Belgium at seventh-to-last. If Western Europe's Finances score were to match the pace of its other sub-indices, it would have the highest overall regional score.

Eastern Europe and Central Asia finishes third overall as a region. Like Western Europe, it struggles in Finances where it finishes rock bottom. Four of the bottom ten countries in Finances belong to this region, namely Turkey, Hungary, Slovak Republic and Latvia. The region also ranks second-to-last in Quality of Life but manages to move up one spot to third for Health and maintains its ranking for Material Wellbeing. This mixed performance across the sub-indices leads to a middle of the pack result overall.

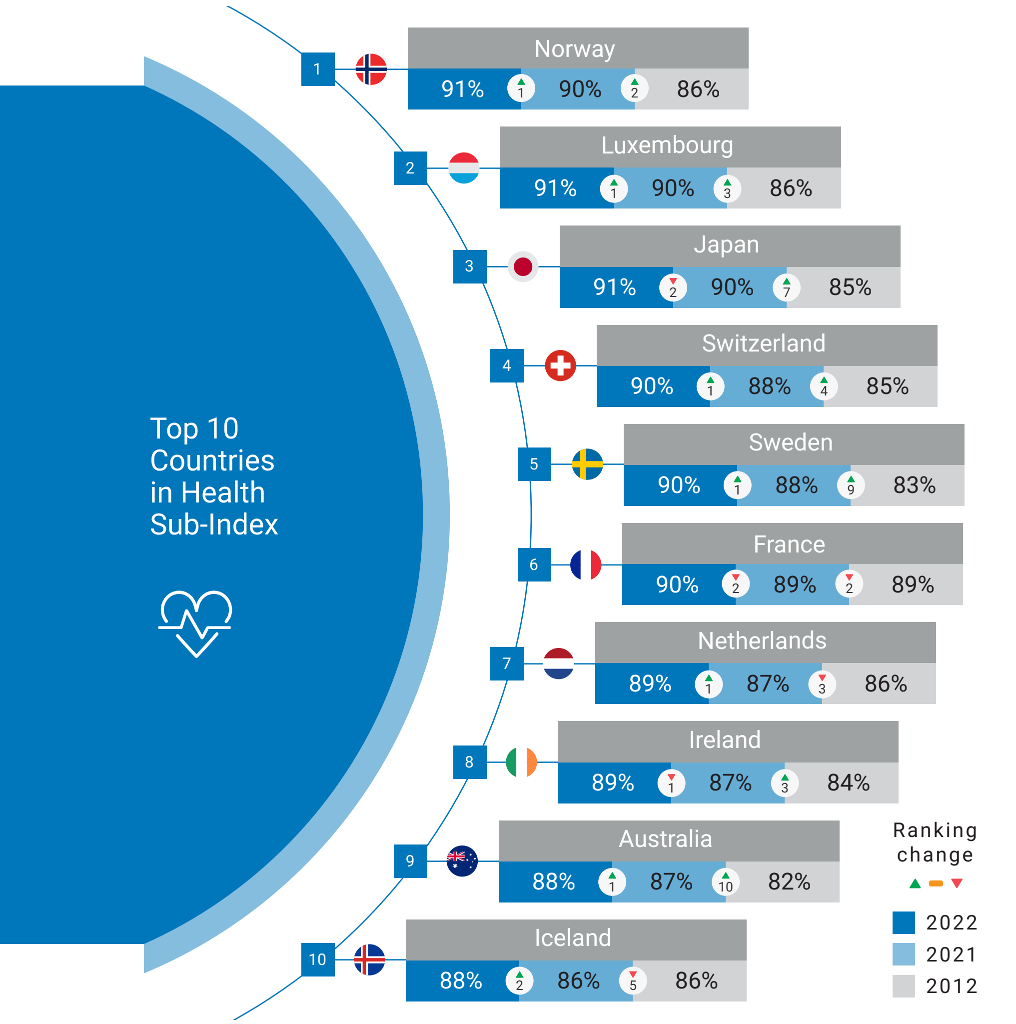
Latin America comes in at fourth overall. The region ranks third for both Finances and Quality of Life, fourth for Health and fifth for Material Wellbeing. Latin America's performance in Material Wellbeing, where its score is just 16%, continues to significantly hold back its overall performance. All four Latin American countries, namely Brazil, Colombia, Chile and Mexico, feature in the bottom ten for Material Wellbeing with scores of less than 40%. Brazil in particular scores extremely low at 4%. While some countries perform relatively better in other sub-indices, such as Chile ranking fifth for Finances, it is not enough to compensate for the poor score in Material Wellbeing.

Asia Pacific has the lowest overall regional score due to posting poor scores in three of the four sub-indices. The low scores for the Health and Quality of Life sub-index are in large part driven by India's exceptionally low scores in these two sub-indices. The Finances sub-index is a bright spot, where the region has the second-highest score. Four of the top six countries in the sub-index are Asia Pacific countries with Singapore ranking first, South Korea ranking third, Australia ranking fourth and New Zealand ranking sixth. Still, this bright spot is not enough to outweigh the relatively low scores in the other sub-indices.

Performance by Sub-Index

The performance by sub-index section analyzes GRI performance on an indicator-by-indicator basis. Focusing on sub-index performance highlights the strengths of some countries' indicators and illuminates good practices for certain countries while highlighting needed areas of improvement for others.

Health Index



Norway reclaims the top spot in the Health sub-index, as Japan slides from 1st to 3rd. Luxembourg moves into 2nd place, climbing up one spot from 2021. The Health sub-index is based on performance across three indicators: insured health expenditure, life expectancy and health expenditure per capita. Norway benefited from improving its ranking in life expectancy and insured health expenditure and maintaining a high rank for health expenditure per capita. Luxembourg slides two places for life expectancy despite an increase in score but exhibits a sizable increase in its health expenditure per capita score, warranting an overall improvement for the country. Japan slips one spot for health expenditure per capita and insured health expenditure but tops the life expectancy index – ultimately the two negatives outweigh the one positive, pushing Japan 2 ranks down from 2021. Switzerland and Sweden round out the top five, with each inching up one spot from last year by either maintaining or advancing their ranks across all Health sub-index indicators. France, which was 4th in 2021, falls 2 spots down to 6th even though it posted an improved score for two Health sub-index indicators and maintained its top score for insured health expenditure.

Completing the top ten are the Netherlands, Ireland, Australia, and Iceland. The Netherlands moves from 8th to 7th, as significant improvements were made in life expectancy and health expenditure per capita. Ireland, which ranks 8th, posts the biggest drop in ranking among all countries for health expenditure per capita, falling to 10th from 6th in 2021. However, its life expectancy ranking improves to 15th from 18th and thus mitigates the negative impact on the overall index score. Australia increases one spot to 9th despite dropping 2 places in the life expectancy indicator (from 7th to 9th). Its overall index score was buoyed by its insured health expenditure, which moves up 2 spots, in concert with an improvement in its health expenditure per capita score. Iceland takes back its top 10 place this year after ranking 12th in 2021. All its heath sub-index indicators improved, propelling Iceland two ranks up.

Canada, Germany, Denmark, Austria and Belgium make up 11th to 15th in the Health sub-index. Canada maintains its position as an increase in health expenditure per capita is neutralized by the decrease in scores of life expectancy and insured health expenditure. Germany leaves the top 10 list as it suffers a major slide in the life expectancy indicator (20th to 27th) and registers a one-spot decline in each of the other two Health sub-index indicators. Denmark and Austria remain at 13th and 14th respectively, but their insured health expenditures both decrease from 2021. Belgium posts moderate improvement in life expectancy and insured health expenditure which is instrumental for its placement in 15th.

The next five countries are New Zealand, the United States, Spain, Finland, and Italy. New Zealand swaps spots with Belgium and is now in 16th place. Its decline is due to a significant decrease in the life expectancy indicator (16th to 22nd). The United States maintained its status in 17th. The country's health expenditure per capita ranks first among all countries and even the insured health expenditures is very high (4th), but its life expectancy score still languishes well below in 31st, an increase of 3 spots from 2021. The remaining three countries in the top 20 all increased their rankings from 2021. Spain is up 1 spot to 18th by improving scores and maintaining ranks on all Health sub-index indicators. Similarly, Finland is up 1 spot to 19th by increasing its scores and ranks on all indicators. Italy, at rank 20, increases its scores on all indicators, but only the life expectancy ranking reflected that, climbing up 2 spots in 2022.

The last five countries in the top 25 are the United Kingdom, Slovenia, Singapore, Israel, and South Korea. The UK falls out of the top 20 for the first time in five years, driven by improvements from other countries rather than a decrease in its own scores. Slovenia jumps up 2 spots to 22nd, with progress in life expectancy and health expenditure per capita leading the way. Slovenia also ranks strongly in the insured health expenditure indicator. With Slovenia going 2 spots up, Singapore and Israel each move 1 spot down, placing 23rd and 24th for Health sub-index. Both countries are performing well in life expectancy indicators (top 10) but show mediocre scores and ranks in health expenditure per capita and insured health indicators. South Korea maintained its 25th spot. Similar to Singapore and Israel, South Korea scores well in the life expectancy indicator, but poorly in the health expenditure per capita and insured health indicators.

Top 25 Countries in Health Sub-Index

Ranking			Country	Score		
2022	2021	2012		2022	2021	2012
1	2	4	Norway	91%	90%	86%
2	3	6	Luxembourg	91%	90%	86%
3	1	8	Japan	91%	90%	85%
4	5	9	Switzerland	90%	88%	85%
5	6	15	Sweden	90%	88%	83%
6	4	2	France	90%	89%	89%
7	8	5	Netherlands	89%	87%	86%
8	7	10	Ireland	89%	87%	84%
9	10	20	Australia	88%	87%	82%
10	12	7	Iceland	88%	86%	86%
11	11	26	Canada	87%	86%	79%
12	9	3	Germany	87%	87%	88%
13	13	13	Denmark	86%	85%	84%
14	14	1	Austria	86%	85%	90%
15	16	11	Belgium	85%	83%	84%
16	15	42	New Zealand	85%	84%	35%
17	17	21	United States	85%	83%	81%
18	19	17	Spain	85%	82%	83%
19	20	16	Finland	84%	82%	83%
20	21	18	Italy	83%	81%	83%
21	18	19	United Kingdom	83%	82%	82%
22	24	23	Slovenia	82%	80%	81%
23	22	36	Singapore	82%	81%	67%
24	23	24	Israel	82%	80%	80%
25	25	30	Korea, Rep.	80%	77%	78%

Color Scale: 0%–60% | 61%–70% | 71%–80% | 81%–90% | 91%–100%

Spotlight:

Ukrainian refugees could improve Polish demographic issues

Poland is facing a demographic crisis, with population both aging at a faster rate than similar countries and also starting to shrink in size, according to its most recent census.[1] In this context, the arrival of over a million, if not more, Ukrainian refugees so far in 2022 might be a silver lining to a dark demographic cloud hovering over Poland.

Poland sits at 26th overall in the GRI rankings for 2022, with its strongest performance coming from a 7th place ranking in the Material Wellbeing sub-index. However, as a greater portion of the population ages out of the labor force, Poland will feel considerable pressure on its old-age dependency ratio, a key factor within the GRI's Finances in Retirement sub-index. But could an influx of refugees from the war in Ukraine help to change Poland's fortunes in this area over the long term? And what lessons can be taken from the arrival of Syrian migrants over the past decade in Poland's neighbor to the west, Germany?

Over the past ten years, Poland has seen its old-age dependency ratio increase from 21.2% in 2012 to 32.2% in 2022. Poland's demographic shift outpaces the change seen across all OECD members over that same timeframe, which grew more modestly from 25.8% in 2012 to 32.4% this year. The demographic old-age dependency ratio is defined as the number of individuals aged 65 and over per 100 people of working age. The ratio is a function of both an aging population and the size of the labor force. While Poland's old-age dependency ratio currently sits roughly in line with the OECD average, the country's older age group is forecasted to rise considerably faster than its counterparts. Poland's old-age dependency ratio is forecasted to reach 60.3% by 2050, compared to 52.7% for OECD countries overall.[2]

Poland's population is also on a downward path. From a peak of 38.6 million in 1999, it is projected to fall to 33.3 million by 2050,[3] the result of both a low birth rate and negative net migration in recent times, as many younger workers left in search of work abroad.

Poland Population Clock	
Poland Population (as of 6/13/2022)	37,742,939
Last UN Estimate (7/1/2022)	37,739,785
Births per Day	961
Deaths per Day	1,089
Migrations per Day	-38
Net Change per Day	-166
Population Change Since Jan. 1	-27,058
Net decrease of 1 person every 9 minutes Population estimates based on interpolation of data from World Population Prospects	

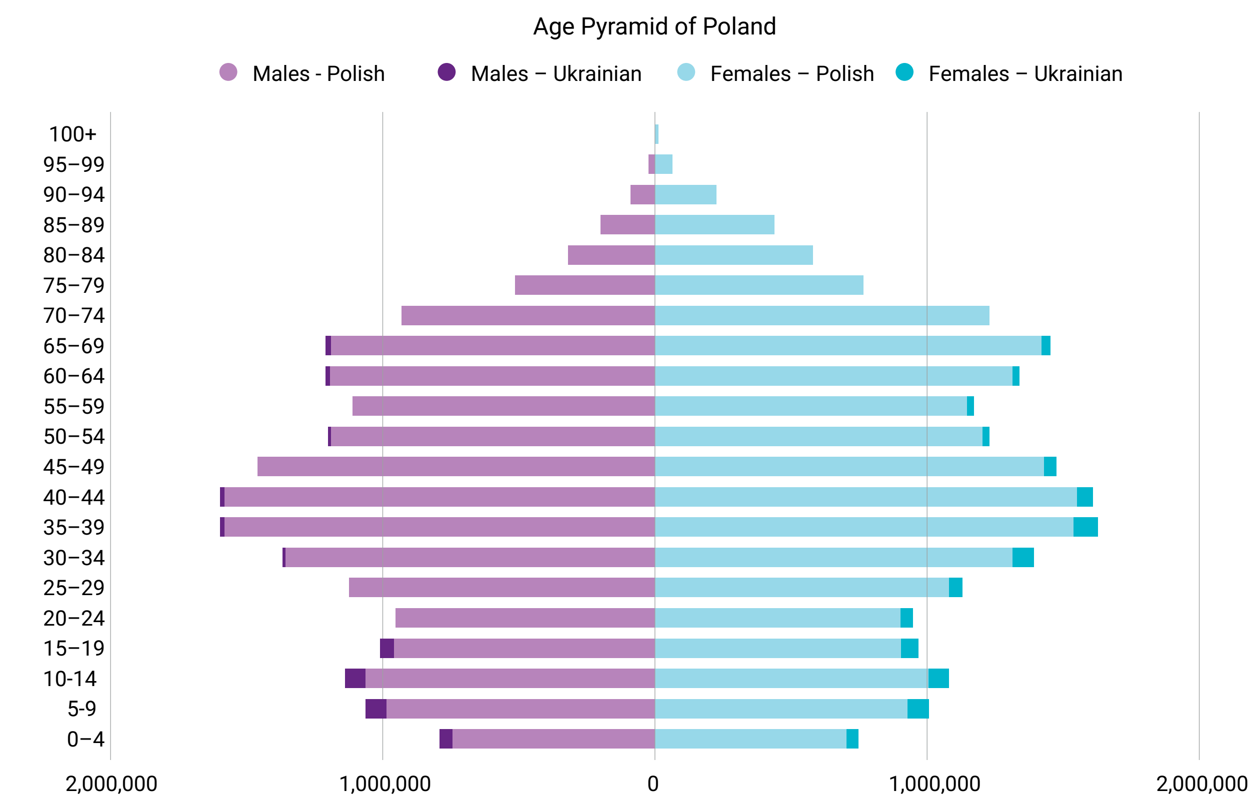
Source: World Population Review, https://worldpopulationreview.com/countries/poland-population

[1] https://notesfrompoland.com/2022/01/28/census-data-show-polands-society-shrinking-and-ageing/
[2] OECD, https://data.oecd.org/pop/old-age-dependency-ratio.htm
[3] World Population Review, Poland population 2022 (live) https://worldpopulationreview.com/countries/poland-population

Given Poland's dire demographics, the mass migration caused by Russia's attack on Ukraine may help improve its outlook. At present, there is considerable uncertainty over how many Ukrainian refugees have settled in Poland since the Russian invasion began in February. According to the United Nations High Commissioner on Refugees (UNHCR), Poland has been the biggest recipient of Ukrainian refugees, with more than 1.15 million, compared to 1.12 million in the Russian Federation, 780,000 in Germany and 366,632 in the Czech Republic.[4] However, another report[5] claimed the Polish population has increased by 8%, or almost 3.2 million people, this year due to influx of refugees, although others think the true figure is closer to 2 million. In any event, Poland already hosted a substantial Ukrainian diaspora, with 600,000 individuals registered to the Polish social insurance system and up to double that number estimated to be in Poland in total.[6]

Given that Ukrainian men of conscription age, 18 to 60, have not been allowed to leave the country, women and children account for a vast proportion of refugees. Anecdotally, refugee groups also incorporate relatively fewer people from older demographics based on greater challenges associated with fleeing the country (healthcare, mobility, etc.). These combined factors mean that the demographics of refugees arriving in Poland skew towards working-age females today, as well as children that can significantly contribute to the labor pool in the future. As a result, Poland has the potential to make up ground in old-age dependency compared to its peers, or at least slow the current trends expected from the currently aging population.

The impact of Ukrainian immigration on Poland's demographics



Note: Ukrainian refugees aged 65 and older were all added to the 65–69 age group, even if some of them were older. The official data do not report on specific age sub-groups for refugees aged 65 and older.

Source: Notes from Poland website, How many Ukrainian refugees are there really in Poland, and who are they?

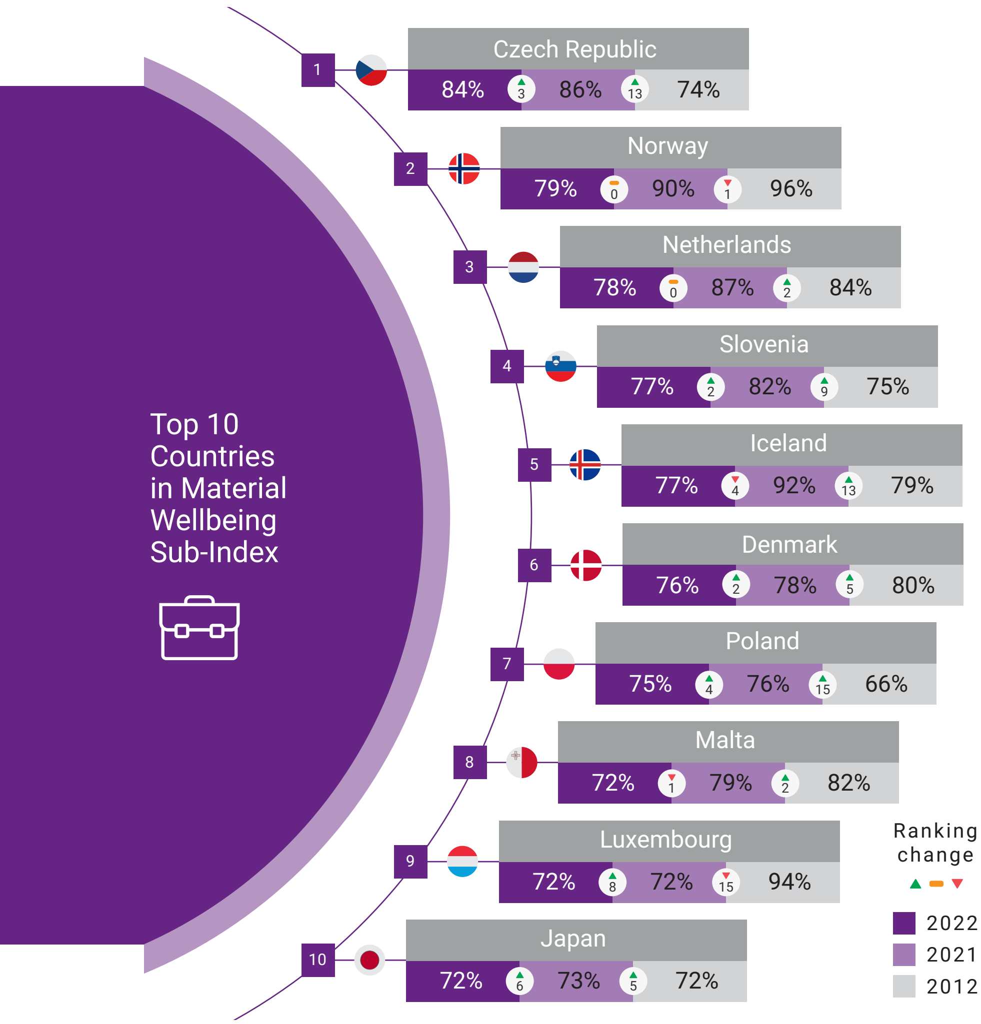
[4] https://data.unhcr.org/en/situations/ukraine
[5] Union of Polish Metropolises, https://metropolie.pl/fileadmin/news/2022/04/Ump_Ukraina_RAPORT_final_2.pdf
[6] https://notesfrompoland.com/2022/05/11/how-many-ukrainian-refugees-are-there-really-in-poland-and-who-are-they/

A recent historical parallel can be found in Germany, which led the way among European countries in accepting Syrian refugees during the migrant crisis that began in 2014. It currently hosts over 600,000 refugees from the country.[7] Over the past decade, Germany faced similar pressures as Poland regarding a rapidly aging population, as it saw its old-age dependency ratio increase from 26.5% in 2000 to 35.0% in 2014, when the migrant crisis took hold, and it has since increased further to 40.5% in 2022.[8] In 2014 Germany also faced an overall population decline.[9] While the influx of Syrian refugees could not change the momentum of the old-age dependency ratio, Germany did reverse its population decline and begin to grow again. This experience in Germany bodes well for the impact of the current refugee trends in Poland. Not only does the number of Ukrainian refugees entering Poland significantly outpace Syrian entries to Germany on an absolute basis, but they are also entering into a country with less than half the population of Germany[10] leading to a proportionally larger demographic impact.

An unknown factor for Poland is whether the refugees from war-torn Ukraine will want to stay permanently or return home in the future. Whereas Syrian migrants to Germany are likely to settle there, in search of a better life and because of the fear of persecution should they return to Syria, many Ukrainian refugees may want to return and help to rebuild their country, if and when peace returns. Against this, the cultural and linguistic similarities of Poland and Ukraine may lead others to decide to remain in Poland, particularly if they assimilate and find work opportunities they might not have had at home. If a substantial part of the Ukrainian population that has migrated to Poland puts down roots for the long term, the country stands to see a considerable improvement in its old-age dependency ratio and will benefit in its efforts to provide for its growing number of retirees.

[7] Statista, Ranking of the largest Syrian refugee-hosting countries in 2020, https://www.statista.com/statistics/740233/major-syrian-refugee-hosting-countries-worldwide/
[8] OECD, https://data.oecd.org/pop/old-age-dependency-ratio.htm
[9] Newsham, N., Rowe, F. Projecting the demographic impact of Syrian migration in a rapidly ageing society, Germany. J Geogr Syst 23, 231–261 (2021). https://doi.org/10.1007/s10109-018-00290-y
[10] OECD, https://data.oecd.org/pop/population.htm#indicator-chart

Material Wellbeing Index



Czech Republic moves up three spots from 2021 and tops this year's Material Wellbeing sub-index, a first for the country since the GRI's inception. The Material Wellbeing sub-index is based on performance across three indicators: income equality, income per capita and unemployment. Czech Republic is one of the top 5 countries in unemployment and income equality, and its income per capita indicator posts improvement in score and ranking. Norway and the Netherlands maintain their positions at 2nd and 3rd, respectively. Despite retaining their ranks, the Material Wellbeing scores of these countries fell significantly. The dips are driven primarily by a plunge in unemployment scores, which push Norway's ranking down 9 spots and the Netherlands by 7 spots. The Netherlands also slips 5 spots in the income equality indicator.

Rounding out the top 5 are Slovenia and Iceland. Slovenia jumps two spots to 4th as a result of rising 3 places in income per capita, while holding its high ranks in income equality and unemployment. Iceland, which secured first or second spot in the Material Wellbeing sub-index for the past 6 years, now slips four places to 5th. Its scores for income per capita and unemployment post the largest decreases of all countries in the GRI, resulting in a 6-place decrease in the latter (from 8th to 14th) and a 16-place fall in the latter (from 6th to 22nd). However, Iceland's income equality performance remains strong in second place, mitigating a major slide down the Material Wellbeing ranks.

Denmark, Poland, Malta, Luxembourg, and Japan complete the top 10 in the Material Wellbeing sub-index. All of these countries increase their rankings this year with the exception of Malta, which slips 1 spot down from 7th to 8th. The underperformance of Malta is driven by a marked decline in its income equality ranking (down 6 spots to 18th) and income per capita (down 5 spots to 27th). A more drastic decrease in Malta's sub-index rank is negated by a big improvement in its unemployment indicator ranking (up from 8th to 4th). Denmark and Poland made a decent jump forward over the last year, with the former moving up two places to 6th based on an increase in its unemployment ranking. Poland moves up four places to 7th as rankings across all their indicators improve. Luxembourg and Japan post the highest climb among the top 10 countries. The former jumps 8 places to 9th while the latter climbs 6 places to 10th, driven by a boost in rankings in their income equality and unemployment indicators.

The 11th to 15th ranks are all in Europe: Germany, Hungary, Belgium, Switzerland, and Austria. Among these five, three countries decline in ranking compared to last year. Germany slides 6 ranks down to 11th and leaves the top 10 for the very first time. Its income equality indicator deteriorates massively, slipping 11 spots to 28th. Austria also slides 6 spots down to 15th as all its indicators fall. Belgium has a small decline in rank from 13th to 12th, while Hungary inches one spot up to 12th. Switzerland keeps its place of 14th as the country shows a steady performance.

South Korea ranks 16th this year, continuing its climb back toward the top 10 after falling 17 places in 2020.

All its Material Wellbeing indicators show improvement, with unemployment improving dramatically (from 19th to 5th in 2022). Completing the top 20 are Ireland, Slovak Republic, Australia, and New Zealand. Ireland (17th) and Slovak Republic (18th) fall seven and three spots respectively, as both post a greater than 15% drop in scores for unemployment. Australia (19th) and New Zealand (20th) both move up 4 spots from last year because of increases in their income per capita and unemployment indicators.

In spots 21 to 25 are Finland, Cyprus, United Kingdom, Estonia, and Israel. Among them, Cyprus was the standout, progressing 8 places from last year and returning to the top 25 after spending eight years outside. This gain is attributed to improvements in unemployment (12 spots up) and income equality (7 spots up). The United Kingdom's score for income equality decreases by 15% and drives the country's Material Wellbeing rank to 23rd from 18th. Israel (25th) just barely keeps its place in the top 25, as its score for unemployment decreases by 19% and pulls its sub-index rank down 3 places.

Top 25 Countries in Material Wellbeing Sub-Index

Ranking			Country	Score		
2022	2021	2012		2022	2021	2012
1	4	17	Czech Republic	84%	86%	74%
2	2	1	Norway	79%	90%	96%
3	3	5	Netherlands	78%	87%	84%
4	6	15	Slovenia	77%	82%	75%
5	1	14	Iceland	77%	92%	79%
6	8	13	Denmark	76%	78%	80%
7	11	26	Poland	75%	76%	66%
8	7	9	Malta	72%	79%	82%
9	17	2	Luxembourg	72%	72%	94%
10	16	21	Japan	72%	73%	72%
11	5	10	Germany	71%	83%	82%
12	13	25	Hungary	70%	75%	67%
13	12	19	Belgium	70%	76%	74%
14	14	8	Switzerland	69%	75%	82%
15	9	3	Austria	69%	77%	86%
16	27	7	Korea, Rep.	68%	65%	83%
17	10	28	Ireland	67%	77%	65%
18	15	22	Slovak Republic	67%	74%	71%
19	23	4	Australia	66%	67%	85%
20	24	23	New Zealand	64%	66%	70%
21	20	11	Finland	63%	69%	81%
22	30	12	Cyprus	62%	58%	81%
23	18	20	United Kingdom	61%	69%	73%
24	25	36	Estonia	60%	65%	56%
25	22	27	Israel	60%	67%	66%

Color Scale: 0%–60% | 61%–70% | 71%–80% | 81%–90% | 91%–100%

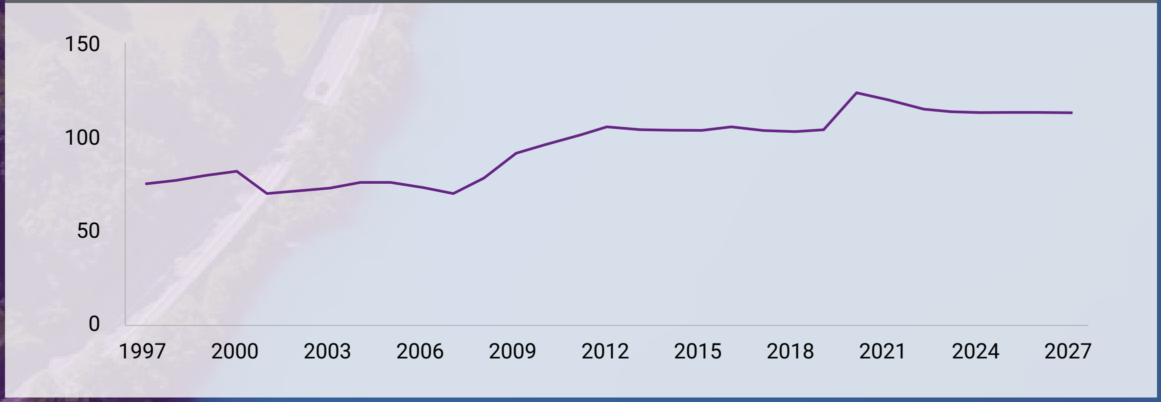
Spotlight:

Inflation improving debt-to-GDP ratios? First impressions could be misleading

Ever since the global financial crisis (GFC) of 2008, the advanced economies have experienced relatively high debt-to-GDP ratios, as a debt crisis that began in the private sector shifted to the public sector. The Covid-19 pandemic has further increased government debt levels, following the introduction of emergency aid packages and furlough schemes to prevent corporate failures and mass unemployment, when the pandemic brought a sudden downturn to large parts of the global economy.

Data from the International Monetary Fund (IMF) shows that debt-to-GDP was at 71% for advanced economies in 2007 before the GFC, rising to 105.5% in 2012 after the GFC, as growth rates fell and governments were required to provide support to ailing economies at that time. Debt-to-GDP then spiked at 123.2% in advanced economies in 2020, with the impact of the pandemic.

Countries with largest overall gains over the decade



Source : IMF Fiscal Monitor, April 2022

Now, after a prolonged period of very low inflation, the recent rise in inflation is improving debt-to-GDP ratios. This is due to price rises caused by inflation boosting GDP figures and tax revenues. Growth rates also initially rebounded, as economies opened up following the pandemic, adding to this effect. At the same time, debt levels have remained constant and government borrowing costs are still relatively low. This has led to debt-to-GDP ratios falling in various countries. For example, in the USA, the ratio has gone from 134.2% in 2020 to 125.6% in 2022. Similar falls have happened in the UK (102.6% in 2022 to 87.8% in 2020), Italy (155.3% in 2020 to 150.6% in 2022) and Canada (117.8% in 2020 to 101.8% in 2022). These countries have also seen inflation rise in the same period; inflation in the UK rose from 0.8% in 2020 to 7.4% in 2022, and in the USA from 1.2% in 2020 to 7.7% in 2022 (average consumer prices).[1]

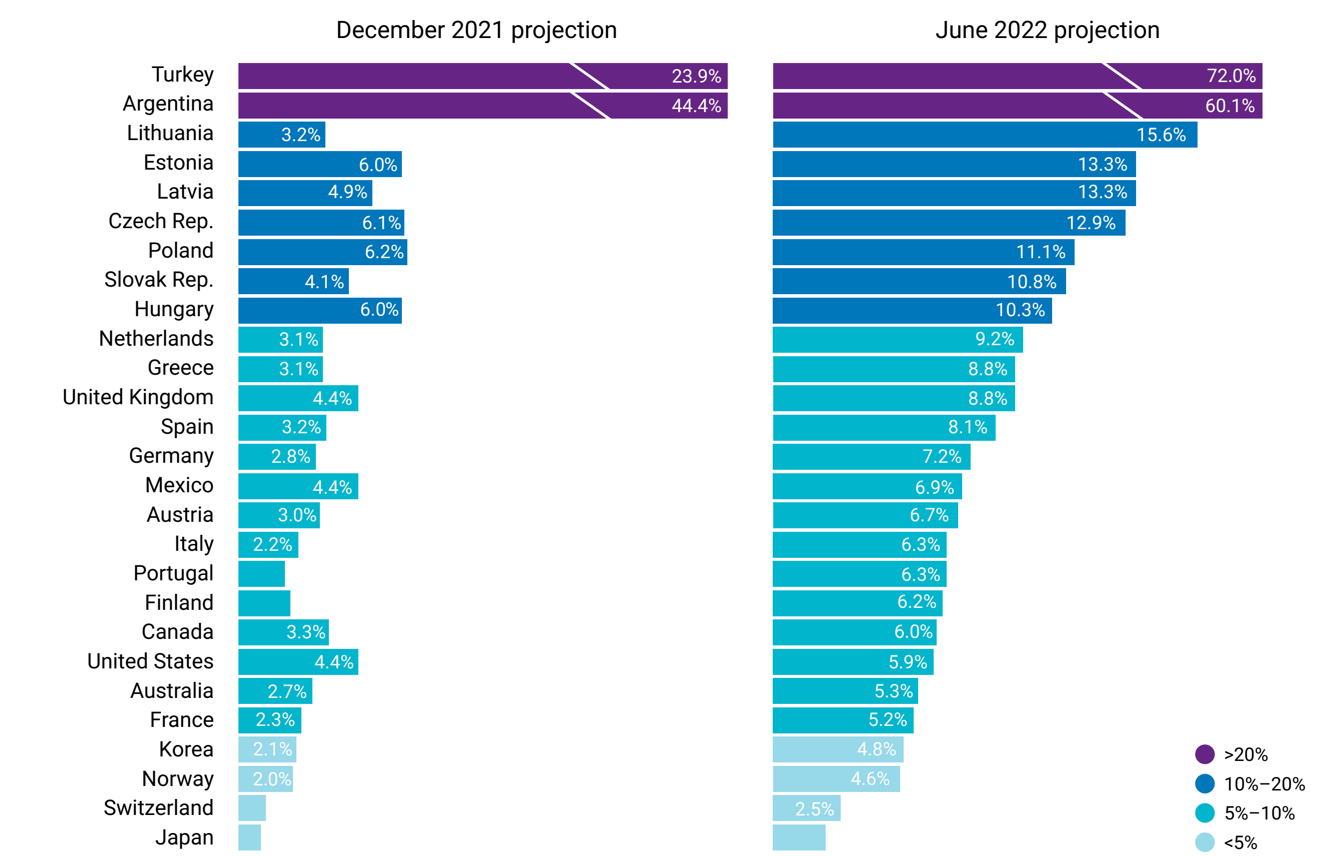
[1] World Economic Outlook database: April 2022

In the article "Fiscal Policy from Pandemic to War" in the IMF Fiscal Monitor, April 2022, the IMF noted the link between the initial rise in inflation and falling debt-to-GDP ratios, saying that surprise inflation (the difference between actual and projected inflation rates) contributed to an average fall of 1.8% from 2021 debt-to-GDP ratios in advanced economies, and of 4.1% in emerging markets. It added that the 2022 fiscal balance could improve from higher inflation.

But while inflation has had an initial positive impact on debt-to-GDP ratios, this is unlikely to last if inflation persists. As the IMF Fiscal Monitor, April 2022, states: "Although inflation surprises can improve debt dynamics, unexpected inflation cannot last. In the longer run, preserving the special status of government debt as the safe asset of reference requires maintaining price stability." This means that if inflation continues, governments are likely to raise interest rates both to choke off inflation and to compensate investors for holding government debt which is being devalued by inflation. While there have been historical cases where inflation has helped reduce public debt, such as in the USA after World War Two, this is unlikely to happen now as circumstances have changed. "Although the surprise rise in inflation may have provided short-term relief for fiscal accounts, the effects of higher and persistent inflation could reverse those gains and undermine financial stability and medium-term growth," the IMF stated.

The conflict in Ukraine is another factor at work here. According to the latest OECD Economic Outlook, released in June 2022, the war in Ukraine has intensified inflation pressures, as it is contributing to energy and food price inflation. Russia is a major gas supplier to many European countries and is an oil exporter, while Ukraine is an important producer of wheat. The OECD has found widespread increases in the annual inflation projections for 2022, from between December 2021 and June 2022, caused by the conflict.

Annual inflation projections for 2022



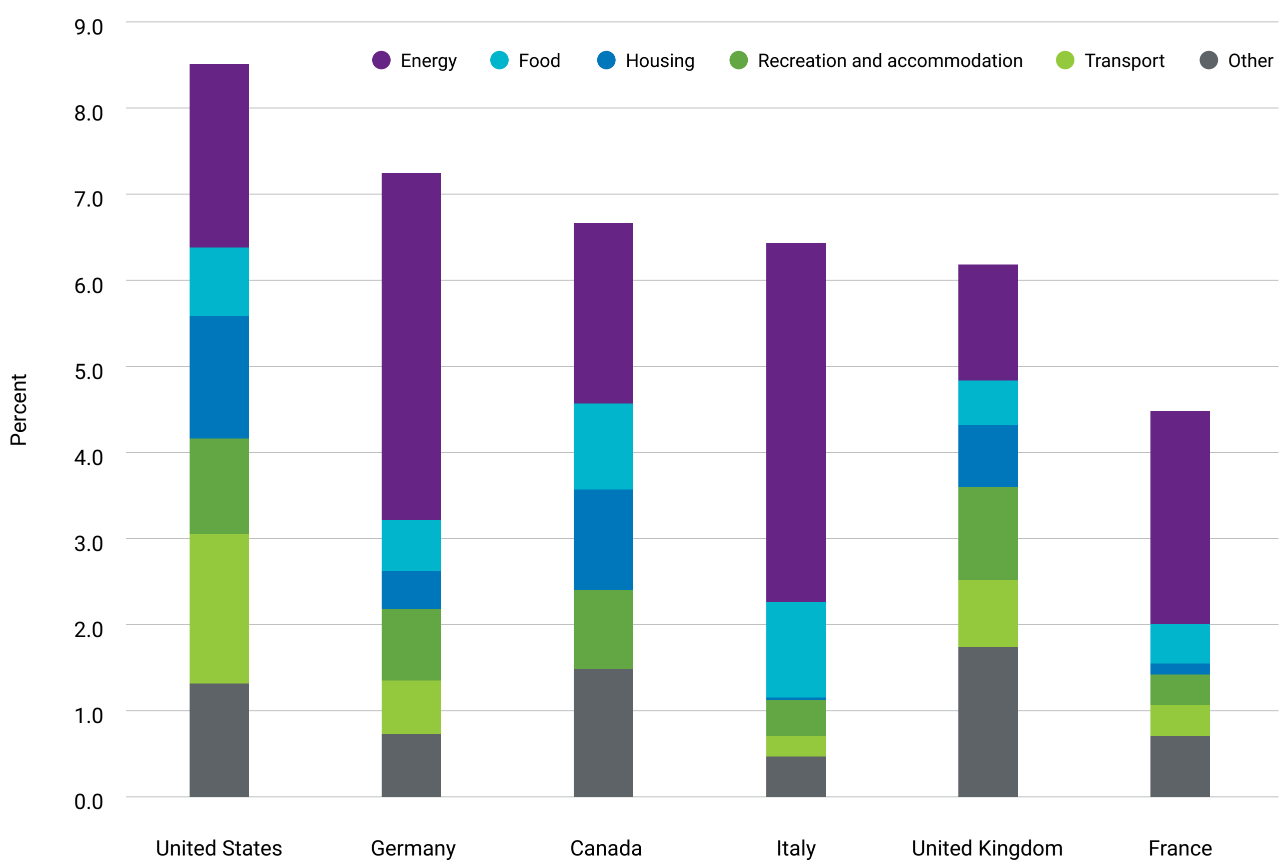
Source: https://www.oecd.org/economic-outlook/

Because food and energy price inflation are significant parts of the overall increase in inflation, governments could be under additional pressure to help the worse off, who spend a larger proportion of their incomes on food and heating, with financial support, adding to pressures on public debt.

At this stage, another uncertainty over inflation is whether it will be temporary or permanent. Some experts are now warning that inflation expectations are changing, which could lead to higher wage demands, which are passed on with higher prices, making inflation longer lasting. Another fear is stagflation, or low growth and high inflation, which would also add to pressure on public finances. In summary, inflation may have reduced debt-to-GDP ratios, but this is an initial effect of rising inflation. Ultimately, higher and persistent inflation will likely have a negative impact on government finances and debt-to-GDP ratios.

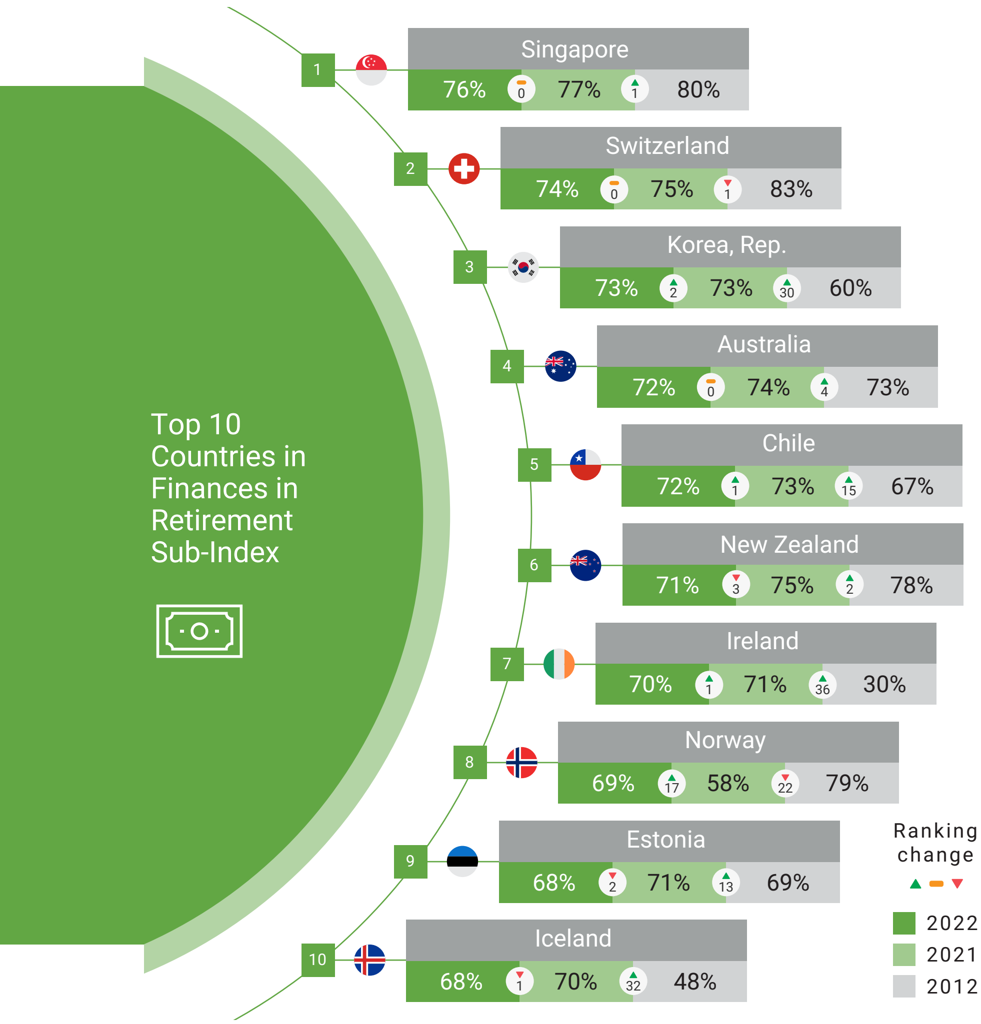
The contribution of food and energy to CPI inflation

The contribution of food and energy to CPI inflation varies widely across the largest OECD economies.
Contributions to year-on-year CPI inflation, March 2022, percentage points



Source: https://www.oecd.org/sdd/prices-ppp/statistical-insights-why-is-inflation-so-high-now-in-the-largest-oecd-economies-a-statistical-analysis.htm
Data: https://stats.oecd.org/Index.aspx?DataSetCode=PRICES_CPI

Finances in Retirement Index



Singapore, 27th in the GRI overall, maintains the top spot in the Finances in Retirement sub-index, a position it has held since 2019. The Finances in Retirement sub-index is based on performance across seven indicators: old-age dependency, bank nonperforming loans, inflation, interest rates, tax pressure, government indebtedness and governance. Singapore's top ranking is driven by strong performance in inflation (first), tax pressure (third), interest rate (fifth), old-age dependency (eighth), and governance (eighth), despite having a moderate ranking in bank nonperforming loans (15th) and a poor record in government indebtedness (40th). Switzerland remains second in the Finances in Retirement rankings, driven by strong rankings in inflation (first), bank nonperforming loans (fifth), and governance (sixth). South Korea has risen to third place, up two spots from last year, having moved up one spot in the rankings for interest rate, tax pressure, and governance. Australia maintains fourth place in the rankings, while Chile has risen one spot in 2022 to rank fifth. Chile improved this year in both old-age dependency (seventh) and interest rate (20th) to solidify a top 5 spot, but weaknesses in the other major indices leave it 34th in the GRI overall.

The next five countries in the Finances in Retirement rankings are New Zealand, Ireland, Norway, Estonia, and Iceland. New Zealand dropped three spots after ranking third in 2021, with the largest change this year being a seven-spot drop in interest rates. While experiencing a slide in the Finance in Retirement rankings, New Zealand still ranked in the top ten for inflation (first), governance (third), bank nonperforming loans (fourth), and government indebtedness (eighth). Norway sees the biggest positive change of any country in the sub-index, moving up 17 spots to eighth after ranking 25th last year. Norway's rise is driven primarily by higher rankings this year in government indebtedness (ninth) and interest rate (14th). Estonia's ninth place ranking for Finances in Retirement is considerably stronger than its overall GRI ranking of 25th. Rounding out the top 15 are the United States, Canada, Israel, China, and the Czech Republic, which all ranked between 10th and 14th for Finances in Retirement in 2021. Most of these countries rate below average in government indebtedness and governance, with the exceptions being government indebtedness for the Czech Republic (sixth) and governance for Canada (11th).

The next five countries are Malta, Colombia, India, Mexico, and Poland.All five ranked between 15th and 19th in 2021, with Colombia jumping two spots this year while both Mexico and Poland fall by three spots. There are significant bright spots among these five countries, but all see their rankings dragged down by below average performance in both bank nonperforming loans (between 28th and 41st) and governance (between 26th and 42nd). India, Mexico, and Colombia all rank in the top three for old-age dependency, identical to the rankings in 2021. Colombia and India rank second and third respectively for interest rates, while India ranks first in tax pressure followed by Mexico (fifth), Colombia (sixth), and Malta (12th). Roundingout the top 25 for the sub-index are

Luxembourg, Spain, Portugal, Brazil, and the Russian Federation. Luxembourg climbs three spots to 21st while Brazil and the Russian Federation each rise by two spots. Spain falls two spots to 22nd and Portugal slips one spot into 23rd. Despite ranking seventh in the GRI overall, Luxembourg's ranking for Finances in Retirement suffers from below average rankings for interest rates (26th) and tax pressure (35th) while finishing in the top ten for all other metrics. Brazil comes in below average for most factors but ranks first in interest rates and fifth in old-age dependency.

The Netherlands and Denmark rank eighth and ninth respectively in the GRI overall despite coming outside the top 25 for Finances in Retirement. Each suffers from below average performance in tax pressure where the Netherlands ranks 36th and Denmark ranks 41st. The two biggest declines in Finances in Retirement come from Slovenia (37th) and Cyprus (39th) as each falls by 17 spots compared to their 2021 rankings. Japan, France, Hungary, Greece, and Turkey are the lowest performing countries in the sub-index for the third consecutive year.

Top 25 Countries in Finances in Retirement Sub-Index

Ranking 2022	Ranking 2021	Ranking 2012	Country	Score 2022	Score 2021	Score 2012
1	1	2	Singapore	76%	77%	80%
2	2	1	Switzerland	74%	75%	83%
3	5	35	Korea, Rep.	73%	73%	60%
4	4	8	Australia	72%	74%	73%
5	6	21	Chile	72%	73%	67%
6	3	5	New Zealand	71%	75%	78%
7	8	44	Ireland	70%	71%	30%
8	25	3	Norway	69%	58%	79%
9	7	20	Estonia	68%	71%	69%
10	9	41	Iceland	68%	70%	48%
11	11	19	United States	67%	69%	69%
12	10	9	Canada	67%	69%	72%
13	13	4	Israel	66%	67%	78%
14	12	33	China	65%	67%	60%
15	14	32	Czech Republic	64%	65%	61%
16	15	28	Malta	63%	65%	64%
17	19	18	Colombia	62%	62%	69%
18	18	14	India	62%	63%	71%
19	16	12	Mexico	62%	63%	72%
20	17	31	Poland	61%	63%	62%
21	24	10	Luxembourg	59%	59%	72%
22	20	17	Spain	59%	61%	69%
23	22	13	Portugal	59%	60%	72%
24	26	15	Brazil	57%	57%	71%
25	27	42	Russian Federation	56%	56%	42%

Color Scale: 0%–60% | 61%–70% | 71%–80% | 81%–90% | 91%–100%

Spotlight:

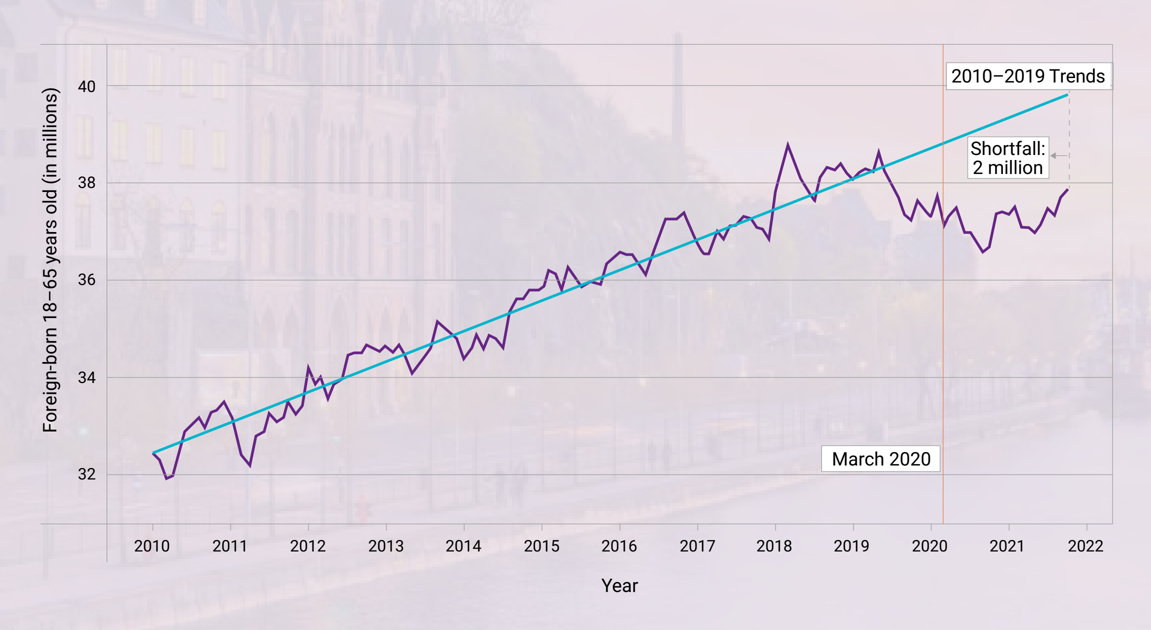
The pandemic's lasting impact on the US labor market

The Covid-19 pandemic has had a far-reaching and unpredictable impact on the US economy. One manifestation of this has been a reduction in the labor force. According to Miguel Faria-e-Castro, senior economist at the Federal Reserve Bank of St. Louis, the pandemic was responsible for 2.4 million excess retirements by August 2021.[1]

In addition to this, many workers quit their jobs for reasons including low pay, lack of benefits and Covid-related concerns in what came to be known as the Great Resignation.

Meanwhile, pandemic-related immigration curbs meant fewer additional workers were entering the country to fill the void as the economy reopened. Economists Giovanni Peri and Reem Zaiour of the University of California, Davis, estimate there are about 2 million fewer immigrants in the US than would have been the case if pre-pandemic trends continued.[2]

Working-age foreign-born population

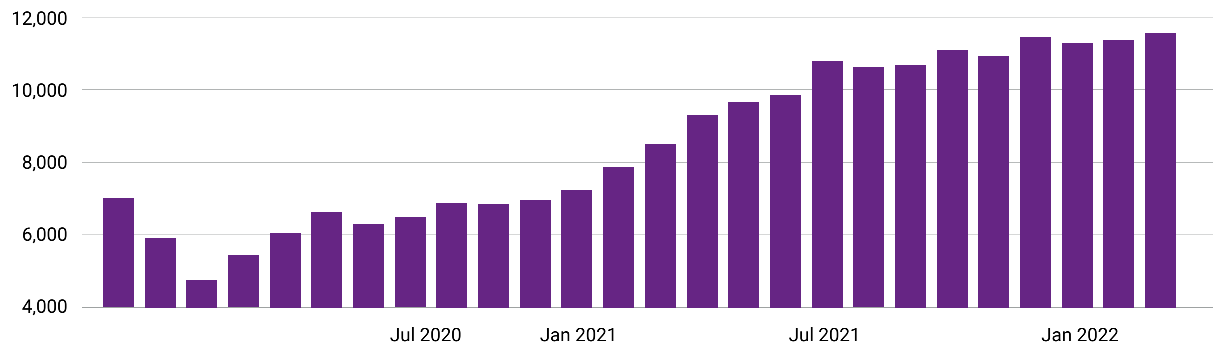


Source: U.S. Bureau of Labor Statistics, and Current Population Survey, U.S. Census Bureau EconoFact econofact.org

[1] https://www.stlouisfed.org/on-the-economy/2021/december/excess-retirements-covid-19-pandemic [2] https://econofact.org/labor-shortages-and-the-immigration-shortfall

All of which has created something of a perfect storm for the labor market. These worker shortages, fueled by people voluntarily quitting the workforce, culminated in job openings hitting an all-time high in March 2022, according to the US Bureau of Labor Statistics. The resulting wage pressures helped push inflation to a multidecade high, prompting the Fed to embark on a series of rate hikes.

United States Job Openings

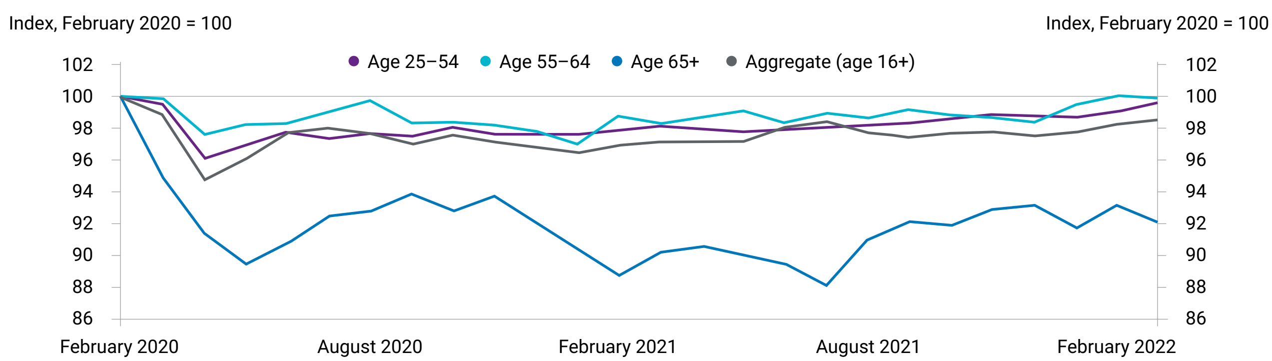


Source: Tradingeconomics.com | U.S. Bureau of Labor Statistics

The yawning gap between workers and jobs has driven unemployment to near pre-pandemic levels and increased competition for staff. These trends point to a tight labor market, making it more difficult for employers to hire or retain workers. But there are signs of a recovery in labor participation rates as higher wages, increases in the cost of living and reduced Covid fears encourage people back into the workforce.

Indeed, labor participation rates have improved across most age groups over the last two years. But crucially, participation rates of the oldest workers (65+) have remained stubbornly below pre-pandemic levels.[3] Retirees cite a variety of factors for remaining outside the workforce, in line with their unique set of circumstances.

The labor force participation rate of people age 65+



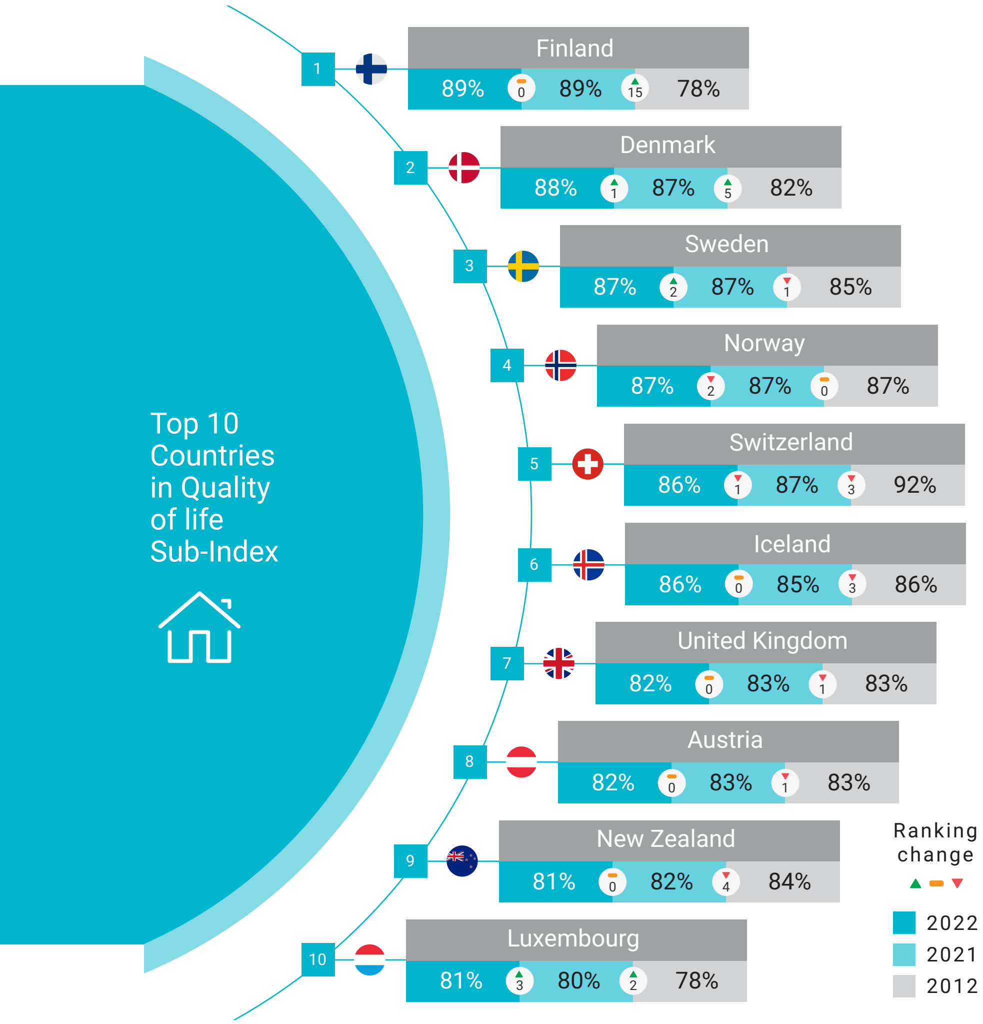
Source: Didem Tüzemen and U.S. Census Bureau

Should the labor market continue to tighten, policymakers will need to make some tough choices. If the Fed cannot use monetary policy tools to rebalance the jobs market, then it may need to consider other options including more immigration.

Furthermore, the task facing Fed Chair Jerome Powell of improving participation rates will be made that much harder as more Baby Boomers exit the workforce.

[3] https://www.kansascityfed.org/research/economic-bulletin/how-many-workers-are-truly-missing-from-the-labor-force/

Quality of Life Index



Finland, 12th in the GRI overall, remains at the top of Quality of Life sub-index for the fourth consecutive year. The Quality of Life sub-index is based on performance across five indicators: air quality, biodiversity and habitat, environmental factors, happiness, and water and sanitation. Finland ranks highly on three indicators – happiness (1st), air quality (3rd), and water and sanitation (4th). Its environmental factors indicator inches up two spots from last year, helping Finland to secure the top position in Quality of Life sub-index. Nordic countries constitute the next three in the rankings, with Denmark (2nd) and Sweden (3rd) moving up one and two places respectively from their 2021 ranking. Norway slips two places to 4th in the sub-index as its happiness ranking slides two spots this year. As a result, Denmark and Sweden move up the rankings, with Sweden seeing a larger relative rise based on improvement in its happiness indicator. Switzerland rounds out the top five and falls one spot from 2021. Switzerland ranks first in the environmental factors indicator, an increase of 3 spots from last year, but its happiness indicator falls one spot and contributes to the decrease in its sub-index ranking.

Iceland, the United Kingdom, Austria, and New Zealand remain in sixth to ninth places respectively in Quality of Life sub-index this year. Some changes are observed in environmental factors and happiness indicators for these countries, but these variations are not significant enough to shift their sub-index rankings from last year. Austria and New Zealand each drop slightly in both environmental factors and happiness, while Iceland's rank rises in both. The United Kingdom climbs one spot in environmental factors but sees a comparable drop in the happiness indicator. Luxembourg climbs three spots from last year and reaches the top 10 of the Quality of Life sub-index for the very first time, driven by higher scores in both the environmental factors and happiness indicators.

The Netherlands, Ireland, Germany, France, and Australia rank 11th through 15th in the Quality of Life sub-index. Among these countries, only the Netherlands inches upward in the sub-index rankings this year, due to the increase in its score on environmental factors. Ireland and Germany both drop in the rankings due to a slide in one indicator, despite showing a rise in other indicator ranks. France and Australia maintain their rankings from last year, even as France falls five spots in the environmental factors indicator. Australia drops in the rankings for both environmental factors and happiness but holds on to its previous spot in the sub-index rankings overall. Both the Netherlands and Australia reside in the top 15 for the Quality of Life sub-index despite bottom 10 rankings in the environmental factors indicator.

The countries in 16th to 20th in the sub-index rankings are Canada, Belgium, Israel, Spain, and Italy. Canada keeps the 16th rank this year even with a small slide in the happiness indicator. Belgium and Israel move upwards in rank this year, with Belgium improving in environmental factors and Israel's rank boosted by increases in both environmental factors and happiness. Spain and Italy each decline in their ranks from last year, with each dropping one rank in the happiness indicator despite an increase in score from last year. The improvement from Belgium and Israel outpaced the positive changes for Spain and Italy, leading to a jump in their Quality of Life sub-index rankings.

Rounding out the top 25 countries are the United States, Slovenia, Estonia, the Czech Republic, and Japan. The United States moves up 2 places for both the environmental factors and happiness indicators, but the change is not enough to improve its sub-index ranking. The opposite effect happens for Slovenia and Estonia, where the upswing in scores for both environmental factors and happiness pushes them higher in the sub-index at the expense of the Czech Republic, which shows a decline in both indicators. Japan retains its position from last year as a decrease in score on environmental factors is counteracted by a rise in score for the happiness indicator.

Lithuania and South Korea both remain in the bottom half of the Quality of Life rankings but each rises three spots versus last year. Lithuania benefits from a climb in the happiness rankings relative to 2021. South Korea maintains the same ranking for each indicator this year but sees its overall sub-index ranking rise due to falls from other countries. Singapore, the Russian Federation, China, Turkey, and India remain the bottom five in the Quality of Life rankings this year.

Top 25 Countries in Quality of Life Sub-Index

Ranking 2022	Ranking 2021	Ranking 2012	Country	Score 2022	Score 2021	Score 2012
1	1	16	Finland	89%	89%	78%
2	3	8	Denmark	88%	87%	82%
3	5	4	Sweden	87%	87%	85%
4	2	2	Norway	87%	87%	87%
5	4	1	Switzerland	86%	87%	92%
6	6	3	Iceland	86%	85%	86%
7	7	6	United Kingdom	82%	83%	83%
8	8	7	Austria	82%	83%	83%
9	9	5	New Zealand	81%	82%	84%
10	13	15	Luxembourg	81%	80%	78%
11	12	10	Netherlands	80%	80%	82%
12	11	24	Ireland	80%	80%	73%
13	10	11	Germany	80%	80%	80%
14	14	9	France	78%	78%	82%
15	15	21	Australia	77%	77%	75%
16	16	14	Canada	74%	75%	79%
17	18	13	Belgium	74%	74%	79%
18	20	17	Israel	74%	72%	78%
19	17	19	Spain	74%	74%	76%
20	19	12	Italy	72%	72%	80%
21	21	22	United States	72%	71%	74%
22	23	29	Slovenia	69%	67%	70%
23	24	39	Estonia	68%	66%	55%
24	22	28	Czech Republic	68%	68%	71%
25	25	25	Japan	67%	66%	72%

Color Scale: 0%–60% | 61%–70% | 71%–80% | 81%–90% | 91%–100%

The Top 25: Year-on-Year Trends

The list of countries in the top 25 has remained steady for three straight years.

Norway, Switzerland and Iceland are the top three countries, followed by Ireland, Australia and New Zealand. Both Luxembourg and Czech Republic move into the top ten at seventh and tenth respectively, while Germany and Canada move out of the top ten to 11th and 15th respectively. Netherlands and Denmark round out the rest of the top ten at eighth and ninth respectively.

Some countries are remarkably consistent and have maintained the same overall placement for the past three years. In fact, four of the top ten countries have maintained the same ranking for the past three years: Switzerland in second, Ireland in fourth, New Zealand in sixth and Denmark in ninth.

However, across the top 25, there are some noteworthy movements. Three countries had swings of five places or more with South Korea moving up six spots to 17th, and both Canada and Slovenia dropping five spots to 15th and 21st respectively. The Netherlands, Germany, Malta, Finland and Israel all swung three spots with the former three moving down and the latter two moving up.

Even larger swings were exhibited across the top 25 over the past decade. Ireland registered the largest change by far, improving a whopping 34 spots (from 38th in 2012 to fourth this year). Iceland and New zealand have also had huge improvements, moving from 17th and 34th respectively to third and sixth this year. Meanwhile, France has had a large swing in the opposite direction, moving from 11th in 2012 to 24th this year.

Top 25 Countries in 2022 GRI

Ranking 2022	Change	Ranking 2021	Ranking 2012	Country	Trend in Ranking (2022–2012)	Score 2022	Score 2021	Score 2012
1	▲	3	1	Norway		81%	80%	87%
2	▬	2	2	Switzerland		80%	81%	85%
3	▼	1	17	Iceland		79%	83%	73%
4	▬	4	38	Ireland		76%	78%	59%
5	▲	7	8	Australia		75%	76%	79%
6	▬	6	34	New Zealand		75%	76%	63%
7	▲	11	3	Luxembourg		75%	74%	82%
8	▼	5	6	Netherlands		75%	76%	79%
9	▬	9	10	Denmark		74%	75%	77%
10	▲	14	22	Czech Republic		73%	73%	72%
11	▼	8	9	Germany		72%	75%	78%
12	▲	15	7	Finland		71%	72%	79%
13	▬	13	4	Sweden		71%	73%	81%
14	▼	12	5	Austria		71%	74%	81%
15	▼	10	12	Canada		71%	75%	76%
16	▲	19	14	Israel		70%	71%	75%
17	▲	23	24	Korea, Rep.		70%	67%	71%
18	▼	17	23	United States		69%	72%	71%
19	▼	18	18	United Kingdom		69%	72%	73%
20	▲	21	13	Belgium		69%	69%	76%
21	▼	16	15	Slovenia		69%	72%	74%
22	▬	22	25	Japan		69%	68%	71%
23	▼	20	20	Malta		68%	70%	72%
24	▲	25	11	France		66%	67%	77%
25	▼	24	33	Estonia		66%	67%	64%

Changes in 2022: ▲ Increase ▬ Consistent ▼ Decrease

Color Scale: 51%–60% 61%–70% 71%–80% 81%–100%

Country Reports

This section offers a summary of GRI performance for each country finishing in the top 25 overall. Each country report references last year's figures and shows how different indicator movements have affected the country's overall and sub-index scores this year.

The goal of the country analysis is to obtain an adequate proxy for changes in retirement conditions in a particular country by comparing year-on-year performance and movements in ranking.

1

Norway

Norway moves into first overall in this year's GRI with a score of 81%. It has a higher overall score because of stronger performances in the Finances (8th) and Health (1st) sub-indices. Norway has remained relatively consistent over the past decade with the country also ranking first overall in 2012.

Norway's significantly higher score in the Finances sub-index is mainly due to its five-year average for real interest rates moving from negative to positive. As a result, its interest rate score significantly improves and boosts its placement within the sub-index. It also has higher scores in the government indebtedness, inflation and governance indicators. It has the highest score for governance among all GRI countries and ranks in the top ten for both bank non-performing loans (7th) and government indebtedness (9th) but also has the eighth-lowest score for the tax pressure indicator.

Norway boasts the highest score among all countries for the Health sub-index. It has a higher score compared to last year because of improvements in all three indicators. It finishes in the top ten for all indicators by ranking third for health expenditure per capita, eighth for life expectancy and tenth for insured health expenditure.

The country moves down to fourth in the Quality of Life sub-index because of a lower score compared to last year. The main reason for this is a reduced score for the environmental factors indicator. Still, it has several top ten placements in the sub-index with environmental factors ranking third, air quality fourth, water and sanitation fifth and happiness eighth.

Norway remains at second in the Material Wellbeing sub-index despite a lower sub-index score. It has lower scores in both the unemployment and income equality indicators. It finishes in the top ten for the income per capita and income equality indicators by ranking fifth in both indicators.

NORWAY

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
1	3	1	81%	80%	87%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE	2021	CHANGE	2012
HEALTH	91%	▲	90%	▲	86%
QUALITY OF LIFE	87%	–	87%	–	87%
MATERIAL WELLBEING	79%	▼	90%	▼	96%
FINANCES IN RETIREMENT	69%	▲	58%	▼	79%
Old-Age Dependency	39%	▼	40%	▼	51%
Bank Non-Performing Loans	68%	▼	77%	▼	87%
Inflation	92%	▲	87%	▼	92%
Interest Rates	70%	▲	1%	▼	77%
Tax Pressure	8%	▼	10%	▼	27%
Government Indebtedness	69%	▲	52%	▼	96%
Governance	93%	–	93%	▼	96%

2

Switzerland

Switzerland remains in second place overall in this year's GRI. Its overall score drops due to lower scores in the Material Wellbeing (14th), Finances (2nd) and Quality of Life (5th) sub-indices. Switzerland also ranked second in 2012.

Switzerland registers its largest score slide in the Material Wellbeing sub-index. It has a lower sub-index score due to lower scores in the income equality and unemployment indicators. The country has the fourth highest score for income per capita among all GRI countries.

Switzerland has a lower score in the Finances sub-index due to lower scores in the bank nonperforming loans, tax pressure, old-age dependency, interest rate and governance indicators. Despite these falls, the sub-index still ranks highly with several top ten indicator placements. The country ranks fifth in bank nonperforming loans, sixth in governance, eighth in interest rates and tenth in the government indebtedness indicator.

Switzerland also has a lower score in the Quality of Life sub-index. It has a lower sub-index score due to a lower score in the happiness indicator. Switzerland ranks in the top ten for environmental factors (1st) and happiness (4th) but has a bottom ten finish in the biodiversity indicator with the tenth-lowest score.

Switzerland's sole sub-index with a higher score compared to last year is Health (4th). It has higher scores in all three indicators. It has the second highest scores for both the life expectancy and health expenditure per capita indicators among all GRI countries.

SWITZERLAND

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
2	2	2	80%	81%	85%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE	2021	CHANGE	2012
HEALTH	90%	▲	88%	▲	85%
QUALITY OF LIFE	86%	▼	87%	▼	92%
MATERIAL WELLBEING	69%	▼	75%	▼	82%
FINANCES IN RETIREMENT	74%	▼	75%	▼	83%
Old-Age Dependency	34%	▼	35%	▼	44%
Bank Non-Performing Loans	73%	▼	79%	▼	100%
Inflation	100%	–	100%	–	100%
Interest Rates	74%	▼	75%	▲	57%
Tax Pressure	25%	▼	32%	▼	58%
Government Indebtedness	68%	▲	54%	▼	97%
Governance	92%	–	92%	▼	97%

3

Iceland

Iceland moves down two spots overall to third place this year. It has a lower overall score compared to last year because of lower scores in the Material Wellbeing (5th) and Finances (10th) sub-indices. Iceland has had significant improvement since 2012 with the country moving up 14 spots from 17th to third overall this year.

The country's lower score in the Material Wellbeing sub-index is due to lower scores in all three indicators. It finishes in the top ten for the income equality indicator by ranking second.

The country also registers a lower score compared to last year in the Finances sub-index (10th). It has lower scores across all indicators within the sub-index with the government indebtedness indicator having the largest drop in score. Despite the lower scores, it manages to have multiple top ten finishes with the interest rates indicator ranking seventh and governance ranking tenth.

Iceland has a higher score in Quality of Life (6th) and maintains the same sub-index ranking as last year. The better sub-index performance is due to higher scores in both the environmental factors and happiness indicators. Iceland has multiple top ten finishes in the sub-index with air quality ranking second and happiness ranking third.

Iceland also manages to improve in the Health sub-index (10th) and moves into the top ten rankings. It has a higher sub-index score because of improvements in all three indicators. None of its indicators make the top or bottom ten.

ICELAND

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
3	1	17	79%	83%	73%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE ▲ – ▼	SCORES 2021	CHANGE ▲ – ▼	SCORES 2012
HEALTH	88%	▲	86%	–	86%
QUALITY OF LIFE	86%	▲	85%	▼	86%
MATERIAL WELLBEING	77%	▼	92%	▲	79%
FINANCES IN RETIREMENT	68%	▼	70%	▲	48%
Old-Age Dependency	45%	▼	47%	▼	64%
Bank Non-Performing Loans	45%	▼	46%	▲	1%
Inflation	90%	▼	96%	▲	65%
Interest Rates	79%	▼	80%	▲	59%
Tax Pressure	13%	▼	14%	▼	35%
Government Indebtedness	44%	▼	58%	▼	79%
Governance	90%	–	90%	▲	79%

4

Ireland

Ireland remains in fourth place overall with a score of 76%. Its overall score drops from last year due to lower scores in the Material Wellbeing (17th) and Finances (7th) sub-indices. Ireland has had the most significant improvement among all GRI countries compared to a decade ago with the country moving 34 spots from 38th overall in 2012.

Ireland has a lower score in the Material Wellbeing sub-index due to lower scores in the unemployment and income equality indicators. It has the third highest score for the income per capita indicator.

Ireland also sees its score fall in the Finances sub-index. Indicator scores for tax pressure, bank nonperforming loans and old-age dependency have all dropped compared to last year. It has a top ten finish with the tax pressure indicator ranking eighth.

Ireland improves its score in the Quality of Life sub-index (12th). It has a higher sub-index score due to a higher score in the environmental factors indicator. Ireland has multiple top ten finishes in the sub-index with air quality ranking ninth and environmental factors ranking tenth.

Ireland also sees an improvement in the Health sub-index (8th). It improves in all three indicators compared to last year and ranks in the top ten for both the insured health expenditure (6th) and health expenditure per capita (10th) indicators.

IRELAND

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
4	4	38	76%	78%	59%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE	2021	CHANGE	2012
HEALTH	89%	▲	87%	▲	84%
QUALITY OF LIFE	80%	–	80%	▲	73%
MATERIAL WELLBEING	67%	▼	77%	▲	65%
FINANCES IN RETIREMENT	70%	▼	71%	▲	30%
Old-Age Dependency	49%	▼	51%	▼	66%
Bank Non-Performing Loans	38%	▼	44%	▲	39%
Inflation	100%	–	100%	▲	1%
Interest Rates	43%	▼	52%	▼	65%
Tax Pressure	37%	▼	46%	▲	31%
Government Indebtedness	55%	▲	42%	▲	3%
Governance	89%	▲	88%	▲	3%

5

Australia

Australia moves up two spots to fifth overall this year. It has a lower score compared to last year due to lower scores in the Finances (4th), Material Wellbeing (19th) and Quality of Life (15th) sub-indices. Australia is relatively consistent with its performance a decade ago, where it ranked 8th overall.

The country has a lower score in the Finances sub-index on the back of lower scores in the tax pressure, interest rate, bank nonperforming loans, old-age dependency and governance indicators. However, it manages a top ten finish in the bank nonperforming loans indicator with a ranking of tenth.

Australia also has a lower score in the Material Wellbeing sub-index. Improvements in both the income per capita and unemployment indicators are offset by a lower score in the income equality indicator. None of its indicators rank in the top or bottom ten.

Australia's other sub-index with a lower score than last year is Quality of Life. This is mainly due to a lower score in the environmental factors indicator. It has the sixth highest score for the air quality indicator but has the eighth-lowest for the environmental factors indicator.

Australia's lone sub-index improvement is in the Health sub-index (9th). It has a higher sub-index score due to higher scores in both the health expenditure per capita and insured health expenditure indicators. It makes the top ten for the life expectancy indicator by ranking ninth.

AUSTRALIA

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
5	7	8	75%	76%	79%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE	2021	CHANGE	2012
HEALTH	88%	▲	87%	▲	82%
QUALITY OF LIFE	77%	–	77%	▲	75%
MATERIAL WELLBEING	66%	▼	67%	▼	85%
FINANCES IN RETIREMENT	72%	▼	74%	▲	73%
Old-Age Dependency	43%	▼	44%	▼	57%
Bank Non-Performing Loans	63%	▼	67%	▼	78%
Inflation	100%	–	100%	▲	86%
Interest Rates	73%	▼	78%	▲	71%
Tax Pressure	25%	▼	30%	▲	10%
Government Indebtedness	53%	▲	50%	▼	94%
Governance	90%	▼	91%	▼	94%

6

New Zealand

New Zealand remains in sixth place in this year's GRI. It sees its overall score dip slightly because of score declines in the Finances (6th), Material Wellbeing (20th) and Quality of Life (9th) sub-indices. New Zealand has made a relatively large improvement from a decade ago where it ranked 34th overall.

New Zealand's lower score in the Finances sub-index results from lower scores in the interest rates, bank nonperforming loans, tax pressure, old-age dependency and governance indicators. Despite these lower scores, it manages top ten finishes in multiple indicators. It ranks third for governance, fourth for bank nonperforming loans and eighth for government indebtedness.

New Zealand's lower score in the Material Wellbeing sub-index is due to lower scores in both the income equality and unemployment indicators. It has the tenth highest score for the unemployment indicator.

New Zealand has a lower Quality of Life sub-index score due to a lower score in the happiness indicator. It ranks fifth for air quality and tenth for happiness.

New Zealand has a higher score in the Health sub-index (16th) compared to last year. The higher sub-index score is due to higher scores for the health expenditure per capita and insured health expenditure indicators. It has the seventh highest score for the insured health expenditure among all GRI countries.

NEW ZEALAND

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
6	6	34	75%	76%	63%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE	2021	CHANGE	2012
HEALTH	85%	▲	84%	▲	35%
QUALITY OF LIFE	81%	▼	82%	▼	84%
MATERIAL WELLBEING	64%	▼	66%	▼	70%
FINANCES IN RETIREMENT	71%	▼	75%	▼	78%
Old-Age Dependency	42%	▼	44%	▼	58%
Bank Non-Performing Loans	76%	▼	85%		N/A
Inflation	100%	–	100%	▲	85%
Interest Rates	37%	▼	67%	▲	65%
Tax Pressure	19%	▼	22%	▲	4%
Government Indebtedness	69%	▲	62%	▼	98%
Governance	93%	–	93%	▼	98%

7

Luxembourg

Luxembourg moves up four spots to 7th this year. It has a higher overall score because of higher scores in all four sub-indices.

The Health sub-index (2nd) is Luxembourg's largest score improvement. Its higher sub-index score is due to score improvements across all three indicators. It makes the top ten for both the insured health expenditure and health expenditure per capita indicators by ranking second and fourth respectively.

Luxembourg's score in the Quality of Life sub-index (10th) improves compared to last year. It has higher scores in both the biodiversity and happiness indicators. It places sixth in the happiness indicator and eighth in the biodiversity indicator.

Luxembourg's Finances sub-index score (21st) also improves from last year. This is a function of score increases in government indebtedness and governance. It has multiple top ten indicator finishes with government indebtedness ranking third, governance ranking fifth, bank nonperforming loans ranking sixth and old-age dependency ranking ninth.

Luxembourg's last sub-index to improve is Material Wellbeing (9th) after moving up eight spots into the top ten. Its higher sub-index score is due to a higher score for the income per capita indicator. It has the second highest income per capita score among all GRI countries.

LUXEMBOURG

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
7	11	3	75%	74%	82%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE	2021	CHANGE	2012
HEALTH	91%	▲	90%	▲	86%
QUALITY OF LIFE	81%	▲	80%	▲	78%
MATERIAL WELLBEING	72%	–	72%	▼	94%
FINANCES IN RETIREMENT	59%	–	59%	▼	72%
Old-Age Dependency	55%	▼	56%	–	56%
Bank Non-Performing Loans	69%	▼	72%	▼	100%
Inflation	100%	–	100%	▲	93%
Interest Rates	1%	–	1%	–	1%
Tax Pressure	9%	–	9%	▼	29%
Government Indebtedness	88%	▲	71%	▼	97%
Governance	92%	–	92%	▼	97%

8

Netherlands

The Netherlands moves down three spots to eighth overall this year. Its overall score falls due to lower scores in the Material Wellbeing (3rd) and Finances (26th) sub-indices.

Material Wellbeing, the Netherlands' highest-ranked sub-index, returns a lower score than last year due to lower scores for both the unemployment and income equality indicators. It has the eighth highest score for both the income per capita and unemployment indicators.

The Netherlands also records a lower score in the Finances sub-index due to lower scores in the bank nonperforming loans, old-age dependency, tax pressure and governance indicators. It has the ninth highest score for the governance indicator but the ninth-lowest score for the tax pressure indicator.

The Netherlands registers a higher score in the Quality of Life sub-index (11th). The improvement is due to a higher score for the environmental factors indicator. It has the fifth highest score for the happiness indicator but the tenth lowest score for the environmental factors indicator.

The country also has a higher score for the Health sub-index (7th). Higher scores across all three indicators drive its higher sub-index score. It finishes with the third highest score for the insured health expenditure indicator and the sixth highest score for the health expenditure per capita indicator.

NETHERLANDS

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
8	5	6	75%	76%	79%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	2021	2012
HEALTH	89%	87%	86%
QUALITY OF LIFE	80%	80%	82%
MATERIAL WELLBEING	78%	87%	84%
FINANCES IN RETIREMENT	56%	56%	66%
Old-Age Dependency	29%	31%	49%
Bank Non-Performing Loans	53%	57%	72%
Inflation	100%	100%	100%
Interest Rates	1%	1%	1%
Tax Pressure	9%	11%	36%
Government Indebtedness	59%	48%	95%
Governance	91%	91%	95%

CHANGE

9

Denmark

Denmark remains in ninth place this year. It has a lower overall score because of lower scores in the Material Wellbeing (6th) and Finances (33rd) sub-indices.

Denmark's largest drop in score occurs in the Material Wellbeing sub-index. This is due to lower scores for both the income equality and unemployment indicators. It finishes in the top ten for the income per capita indicator by ranking seventh.

The country also has a lower score in the Finances sub-index. It has a lower sub-index score due to lower scores in the old-age dependency, bank nonperforming loans and tax pressure indicators. While it has the fourth highest score for the governance indicator, it also has the lowest score for the tax pressure indicator among all GRI countries.

Denmark registers a higher score in the Quality of Life sub-index (2nd). It has higher scores for both the happiness and environmental factors indicator. The country has multiple top ten finishes with happiness ranking second and environmental factors ranking sixth.

Denmark sees its Health sub-index score (13th) improve because of higher scores in the life expectancy and health expenditure per capita indicators. It has the ninth highest score for the health expenditure per capita indicator among all GRI countries.

DENMARK

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
9	9	10	74%	75%	77%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE ▲ – ▼	2021	CHANGE	2012
HEALTH	86%	▲	85%	▲	84%
QUALITY OF LIFE	88%	▲	87%	▲	82%
MATERIAL WELLBEING	76%	▼	78%	▼	80%
FINANCES IN RETIREMENT	54%	–	54%	▼	65%
Old-Age Dependency	28%	▼	29%	▼	43%
Bank Non-Performing Loans	58%	–	58%	▼	59%
Inflation	100%	–	100%	▲	93%
Interest Rates	1%	–	1%	▼	42%
Tax Pressure	1%	▼	2%	▼	8%
Government Indebtedness	68%	▲	62%	▼	99%
Governance	92%	–	92%	▼	99%

10

Czech Republic

The Czech Republic moves into the top ten despite having the same overall score as last year. An improvement in the Health sub-index (27th) is balanced out by lower scores for the rest of the sub-indices.

The Czech Republic's higher score in the Health sub-index is due to higher scores across all three indicators. None of its indicators make the top or bottom ten.

The Czech Republic has the highest score for the Material Wellbeing sub-index among all GRI countries. Despite moving up three spots in the rankings, it has a lower sub-index score compared to last year because of a lower score in the income equality indicator. It has the highest score for the unemployment indicator and the fourth highest score for the income equality indicator.

Finances (15th) is Czech Republic's second largest drop in sub-index score. It has lower scores for the interest rate, inflation, old-age dependency and bank nonperforming loans indicators. It finishes in the top ten for government indebtedness with a ranking of sixth.

Czech Republic has a lower score in the Quality of Life sub-index (24th) compared to last year. It has lower scores for both the environmental factors and happiness indicators. It has the eighth-lowest score for the environmental factors indicator among all GRI countries.

CZECH REPUBLIC

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
10	14	22	73%	73%	72%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE ▲ – ▼	2021	CHANGE ▲ – ▼	2012
HEALTH	76%	▲	73%	▼	84%
QUALITY OF LIFE	68%	–	68%	▼	71%
MATERIAL WELLBEING	84%	▼	86%	▲	74%
FINANCES IN RETIREMENT	64%	▼	65%	▲	61%
Old-Age Dependency	29%	▼	30%	▼	54%
Bank Non-Performing Loans	49%	▼	50%	▼	53%
Inflation	93%	▼	100%	–	100%
Interest Rates	60%	▼	68%	▲	1%
Tax Pressure	15%	▼	17%	▼	63%
Government Indebtedness	73%	▲	61%	▼	83%
Governance	83%	–	83%	–	83%

11

Germany

Germany drops three spots this year to 11th. It has a lower overall score because of lower scores in all four sub-indices. The country ranks relatively close to a decade ago when it was ranked ninth overall.

Germany's largest drop in sub-index score is Material Wellbeing (11th). It has a lower sub-index score due to a lower score in the income equality indicator. It makes the top ten for both the unemployment and income per capita indicators by ranking sixth and tenth respectively.

Germany's next largest fall is in the Health sub-index (12th). It has a lower sub-index score due to a lower score in the life expectancy indicator. It finishes in the top ten for both the health expenditure per capita and insured health expenditure indicators by ranking fifth and eighth respectively.

Germany also has a lower score in the Finances sub-index (30th). It has reduced scores in the bank nonperforming loans, tax pressure, old-age dependency and governance indicators. The country has the sixth-lowest score for the old-age dependency indicator among all GRI countries.

The country's lower score in the Quality of Life sub-index (13th) is due to a lower score in the happiness indicator. It has the third highest score for the biodiversity indicator among all GRI countries.

GERMANY

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
11	8	9	72%	75%	78%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE ▲ – ▼	2021	CHANGE	2012
HEALTH	87%	–	87%	▼	88%
QUALITY OF LIFE	80%	–	80%	–	80%
MATERIAL WELLBEING	71%	▼	83%	▲	82%
FINANCES IN RETIREMENT	55%	–	55%	▼	64%
Old-Age Dependency	25%	–	25%	▼	30%
Bank Non-Performing Loans	62%	▼	69%	▲	67%
Inflation	100%	–	100%	–	100%
Interest Rates	1%	–	1%	–	1%
Tax Pressure	9%	▼	12%	▼	64%
Government Indebtedness	50%	▲	41%	▼	91%
Governance	89%	–	89%	▼	91%

12

Finland

Finland moves up three spots to 12th overall. It has a lower overall score compared to last year because of a lower score in the Material Wellbeing sub-index (21st).

Finland finishes with a lower score in the Material Wellbeing sub-index due to lower scores in both the unemployment and income equality indicators. It has the seventh highest score for the income equality indicator.

Finland registers a score improvement in the Health sub-index (19th). This is due to higher scores across all three indicators. None of its indicators make the top or bottom ten.

Finland maintains the highest score for the Quality of Life sub-index among all GRI countries. It has a higher score in the environmental factors indicator compared to last year. It has the highest score for the happiness indicator and also ranks in the top ten for the air quality indicator by ranking third among all GRI countries.

The country also has a higher score in the Finances sub-index (28th). It has higher scores compared to last year for both the government indebtedness and governance indicators. It has the second highest score for the governance indicator but also the second-lowest for old-age dependency and the seventh-lowest for tax pressure.

FINLAND

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
12	15	7	71%	72%	79%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE ▲ – ▼	2021	CHANGE	2012
HEALTH	84%	▲	82%	▼	83%
QUALITY OF LIFE	89%	–	89%	▲	78%
MATERIAL WELLBEING	63%	▼	69%	▼	81%
FINANCES IN RETIREMENT	55%	–	55%	▼	74%
Old-Age Dependency	19%	▼	21%	▼	41%
Bank Non-Performing Loans	54%	▼	62%	▼	100%
Inflation	100%	–	100%	–	100%
Interest Rates	1%	–	1%	–	1%
Tax Pressure	5%	–	5%	▼	46%
Government Indebtedness	51%	▲	41%	▼	100%
Governance	93%	▲	92%	▼	100%

13

Sweden

Sweden remains at 13th overall this year. Its overall score goes down because of a lower score (26th) in the Material Wellbeing sub-index.

Sweden sees its Material Wellbeing sub-index score (26th) fall from last year. This is due to lower scores in both the unemployment and income equality indicators. It has the eighth highest score for the income equality indicator and the ninth highest score for the income per capita indicator but also finishes in the bottom ten for the unemployment indicator with the eighth-lowest score among all GRI countries.

Sweden's largest score improvement is the Health sub-index (5th). It has a higher sub-index score due to higher scores in the life expectancy and health expenditure per capita indicators. It has the seventh highest score among all GRI countries for both the life expectancy and health expenditure per capita indicators.

Sweden rises two spots in Quality of Life (3rd) and records a higher sub-index score compared to last year. This is due to higher scores in the environmental factors and happiness indicators. It finishes in the top ten for several indicators with air quality ranking first, environmental factors ranking fourth and happiness ranking seventh.

Sweden also has a higher score (27th) for the Finances sub-index. It has higher scores in the government indebtedness indicator. It has multiple top ten finishes with bank nonperforming loans ranking third and both governance and government indebtedness ranking seventh. However, it also finishes in the bottom ten for both the tax pressure and old-age dependency indicators with the fourth-lowest and tenth-lowest scores respectively.

SWEDEN

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
13	13	4	71%	73%	81%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE	2021	CHANGE	2012
HEALTH	90%	▲	88%	▲	83%
QUALITY OF LIFE	87%	–	87%	▲	85%
MATERIAL WELLBEING	59%	▼	69%	▼	84%
FINANCES IN RETIREMENT	56%	▲	55%	▼	74%
Old-Age Dependency	26%	▼	27%	▼	36%
Bank Non-Performing Loans	82%	▼	83%	▲	81%
Inflation	100%	–	100%	–	100%
Interest Rates	1%	–	1%	▼	32%
Tax Pressure	4%	▲	3%	▼	60%
Government Indebtedness	72%	▲	57%	▼	99%
Governance	91%	▼	92%	▼	99%

14

Austria

Austria moves down two spots to 14th overall this year. It has a lower overall score compared to last year because of lower scores in the Material Wellbeing (15th), Quality of Life (8th) and Finances (32nd) sub-indices.

Austria's lower score in the Material Wellbeing sub-index results from lower scores unemployment and in income per capita. It finishes in the top ten for the income equality indicator by ranking ninth among all GRI countries.

Austria remains at eighth in the Quality of Life sub-index. It has a lower sub-index score compared to last year because of lower scores for both the happiness and environmental factors indicators. It finishes in the top ten for the environmental factors indicators with the eighth highest score among all GRI countries.

Austria's last sub-index with a lower score compared to last year is Finances (32nd). It has lower scores in the bank nonperforming loans, tax pressure, old-age dependency and governance indicators. It has the sixth lowest score for tax pressure and none of its indicators make the top ten.

Austria's sole sub-index score improvement (14th) is the Health sub-index. It has a higher sub-index score due to higher scores in both the life expectancy and health expenditure per capita indicators, with the latter ranking eighth highest among all GRI countries.

AUSTRIA

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
14	12	5	71%	74%	81%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE ▲ – ▼	2021	CHANGE	2012
HEALTH	86%	▲	85%	▼	90%
QUALITY OF LIFE	82%	▼	83%	–	83%
MATERIAL WELLBEING	69%	▼	77%	▼	86%
FINANCES IN RETIREMENT	54%	–	54%	▼	65%
Old-Age Dependency	34%	▼	35%	▼	41%
Bank Non-Performing Loans	52%	▼	61%	▼	72%
Inflation	100%	–	100%	–	100%
Interest Rates	1%	–	1%	–	1%
Tax Pressure	5%	▼	6%	▼	45%
Government Indebtedness	42%	▲	36%	▼	93%
Governance	89%	–	89%	▼	93%

15

Canada

Canada moves down five spots to 15th overall this year. The lower overall score is due to lower scores in the Material Wellbeing (27th), Finances (12th) and Quality of Life (16th) sub-indices. Canada ranks relatively similar to a decade ago when it placed 12th overall in 2012.

Canada has a lower score in the Material Wellbeing sub-index because of lower scores in all three indicators compared to last year. None of its indicators make the top or bottom ten.

Canada also has a lower score for the Finances sub-index. The lower sub-index score is due to lower scores in the interest rate, tax pressure, old-age dependency and governance indicators. It has the second highest score for the bank nonperforming loans indicator.

Canada also has a lower score in the Quality of Life sub-index because of lower scores in both the happiness and environmental factors indicators. It has the seventh highest score for the air quality indicator but the eighth-lowest score for biodiversity.

Canada has a higher score for the Health sub-index (11th) compared to last year. The improvement in the sub-index score is because of a higher score in the health expenditure per capita indicator. None of its indicators make the top or bottom ten.

CANADA

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
15	10	12	71%	75%	76%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE	2021	CHANGE	2012
HEALTH	87%	▲	86%	▲	79%
QUALITY OF LIFE	74%	▼	75%	▼	79%
MATERIAL WELLBEING	58%	▼	69%	▼	75%
FINANCES IN RETIREMENT	67%	▼	69%	▼	72%
Old-Age Dependency	37%	▼	39%	▼	56%
Bank Non-Performing Loans	85%	▲	81%	▼	97%
Inflation	100%	–	100%	–	100%
Interest Rates	47%	▼	63%	▲	1%
Tax Pressure	17%	▼	21%	▼	34%
Government Indebtedness	30%	▲	29%	▼	95%
Governance	90%	▼	91%	▼	95%

16

Israel

Israel moves up three spots to 16th overall this year despite having a lower score compared to last year. It has a lower overall score because of lower scores in the Material Wellbeing (25th) and Finances (13th) sub-indices.

Israel has a lower score in the Material Wellbeing sub-index due to lower scores in all three indicators. None of the indicators in the sub-index make the top or bottom ten.

Israel's next largest drop is in the Finances sub-index. It has a lower sub-index score compared to last year because of lower scores in the bank nonperforming loans, tax pressure, governance and old-age dependency indicators. It has the ninth highest score for the interest rates indicator and the tenth highest score for the old-age dependency indicator.

Israel's largest sub-index score improvement is Quality of Life (18th). It has a higher sub-index score because of higher scores in both the environmental factors and happiness indicators. It has the ninth highest score for happiness but also the fifth-lowest score for the biodiversity indicator among all GRI countries.

Israel also registers an improvement in the Health (sub-index (24th). It has a higher sub-index score because of higher scores across all three indicators. It has the tenth highest score among all GRI countries for the life expectancy indicator.

ISRAEL

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
16	19	14	70%	71%	75%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE	SCORES 2021	CHANGE	SCORES 2012
HEALTH	82%	▲	80%	–	80%
QUALITY OF LIFE	74%	▲	72%	▼	78%
MATERIAL WELLBEING	60%	▼	67%	▲	66%
FINANCES IN RETIREMENT	66%	▼	67%	▼	78%
Old-Age Dependency	55%	▼	56%	▼	68%
Bank Non-Performing Loans	56%	▼	63%	▼	90%
Inflation	100%	–	100%	▲	88%
Interest Rates	73%	▲	69%	▲	60%
Tax Pressure	22%	▼	25%	▼	34%
Government Indebtedness	48%	▲	40%	▼	92%
Governance	79%	▼	80%	▼	92%

17

South Korea

South Korea moves up six spots to 17th overall in this year's GRI. It has a higher overall score because of higher scores in all four sub-indices. South Korea has had a relatively large swing in its overall ranking compared to a decade ago, moving up seven spots from 24th in 2012.

South Korea's largest score improvement is in the Material Wellbeing (16th) sub-index. It has a higher sub-index score because of higher scores in the unemployment and income per capita indicators. It has the fifth highest score for the unemployment indicator among all GRI countries.

South Korea's next largest improvement is the Quality of Life (34th) sub-index. Its higher sub-index score is due to higher scores in both the environmental factors and happiness indicators. It has multiple bottom ten indicator finishes with the fourth lowest score for environmental factors, the sixth lowest for happiness and the ninth lowest for biodiversity.

South Korea manages a higher score in the Health sub-index (25th) because of higher scores in both the health expenditure per capita and insured health expenditure indicators. It has the fifth highest score among all GRI countries for the life expectancy indicator.

Finances (3rd), South Korea's highest ranked sub-index, also has a higher score compared to last year. The improvement is due to higher scores in the government indebtedness, interest rates and governance indicators. It has the highest score among all GRI countries for the bank nonperforming loans indicator.

SOUTH KOREA

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
17	23	24	70%	67%	71%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE ▲ – ▼	2021		2012
HEALTH	80%	▲	77%	▼	78%
QUALITY OF LIFE	59%	▲	56%	▼	67%
MATERIAL WELLBEING	68%	▲	65%	▼	83%
FINANCES IN RETIREMENT	73%	–	73%	▲	60%
Old-Age Dependency	51%	▼	54%	▼	73%
Bank Non-Performing Loans	100%	–	100%	▲	82%
Inflation	100%	–	100%	▲	85%
Interest Rates	72%	▲	70%	▲	50%
Tax Pressure	27%	▼	30%	▼	45%
Government Indebtedness	63%	▲	53%	▲	29%
Governance	83%	–	83%	▲	29%

18

United States

The United States falls one spot to 18th overall this year. It has a lower overall score because of lower scores in the Material Wellbeing (30th) and Finances (11th) sub-indices. The United States ranked 23rd a decade ago.

The US has a lower Material Wellbeing sub-index score because of lower scores in the unemployment and income equality indicators. It has the sixth highest score for the income per capita indicator among all GRI countries but also the seventh-lowest score for the income equality indicator.

The US also has a lower score for the Finances sub-index. The lower sub-index score this year is due to lower scores in the tax pressure, bank nonperforming loans, old-age dependency and governance indicators. It makes the top ten for both the bank nonperforming loans and interest rate indicators by ranking eighth and tenth respectively but also makes the bottom ten for the government indebtedness indicator with the sixth-lowest score among all GRI countries.

The US registers an improvement in the Health sub-index (17th). It has a higher sub-index score compared to last year because of a higher score for the life expectancy indicator. It has the highest score for the health expenditure per capita indicator and the fourth highest for insured health expenditure among all GRI countries.

The United States has a higher score in the Quality of Life sub-index (21st) due to higher scores in both the environmental factors and happiness indicators. It has the ninth lowest score for environmental factors among all GRI countries.

UNITED STATES

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
18	17	23	69%	72%	71%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE	2021	CHANGE	2012
HEALTH	85%	▲	83%	▲	81%
QUALITY OF LIFE	72%	▲	71%	▼	74%
MATERIAL WELLBEING	56%	▼	65%	▲	63%
FINANCES IN RETIREMENT	67%	▼	69%	–	69%
Old-Age Dependency	42%	▼	43%	▼	58%
Bank Non-Performing Loans	67%	▼	69%	▲	57%
Inflation	100%	–	100%	–	100%
Interest Rates	73%	–	73%	▲	55%
Tax Pressure	33%	▼	40%	▼	43%
Government Indebtedness	27%	▲	23%	▼	87%
Governance	84%	▼	86%	▼	87%

19

United Kingdom

The United Kingdom ranks 19th overall after falling one spot from last year. Its overall score drops due to lower scores in the Material Wellbeing (23rd), Finances (29th) and Quality of Life (7th) sub-indices. The UK has remained relatively consistent over the past decade with the country ranking 18th in 2012.

The UK's largest drop in sub-index score is Material Wellbeing. It has a lower sub-index score because of lower scores in the income equality and unemployment indicators. It has the tenth-lowest score for the income equality indicator among all GRI countries.

The UK's lower score in Finances is driven by lower scores in the bank nonperforming loans, tax pressure, governance and old-age dependency indicators. None of its indicators make the top or bottom ten.

The UK finishes with a lower score in Quality of Life (7th) due to a lower score in the happiness indicator. It finishes in the top ten for both the biodiversity and air quality indicators by ranking fourth and tenth respectively.

Health (21st) is the UK's sole sub-index score improvement. It has a higher sub-index score compared to last year because of a higher score in the health expenditure per capita indicator. None of its indicators make the top or bottom ten.

UNITED KINGDOM

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
19	18	18	69%	72%	73%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE ▲ – ▼	SCORES 2021	CHANGE ▲ – ▼	SCORES 2012
HEALTH	83%	▲	82%	–	82%
QUALITY OF LIFE	82%	▼	83%	–	83%
MATERIAL WELLBEING	61%	▼	69%	▼	73%
FINANCES IN RETIREMENT	55%	▼	56%	▼	57%
Old-Age Dependency	33%	▼	34%	▼	43%
Bank Non-Performing Loans	58%	▼	70%	▲	62%
Inflation	100%	–	100%	▲	81%
Interest Rates	1%	–	1%	–	1%
Tax Pressure	18%	▼	20%	▼	23%
Government Indebtedness	34%	▲	31%	▼	89%
Governance	87%	▼	88%	▼	89%

20

Belgium

Belgium moves up one spot to 20th overall in this year's GRI. It has a lower overall score compared to last year because of a lower score in the Material Wellbeing sub-index (13th).

Belgium has a lower score in the Material Wellbeing sub-index because of lower scores in the income equality and unemployment indicators. It has the sixth highest score for the income equality indicator among all GRI countries.

Belgium's largest score improvement is the Health sub-index (15th). It has a higher sub-index score compared to last year because of higher scores across all three indicators. None of its indicators make the top or bottom ten.

The country's next highest score improvement is the Finances sub-index (38th). It has a higher sub-index score because of higher scores in the government indebtedness, tax pressure and governance indicators. It has the third-lowest score for the tax pressure indicator and the tenth-lowest score for the government indebtedness indicator among all GRI countries.

Belgium's last sub-index with a higher score compared to last year is Quality of Life (17th). The higher sub-index score is due to a higher score in the environmental factors indicator. It has the ninth highest score for the biodiversity indicator.

BELGIUM

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
20	21	13	69%	69%	76%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE	2021	CHANGE	2012
HEALTH	85%	▲	83%	▼	84%
QUALITY OF LIFE	74%	–	74%	▼	79%
MATERIAL WELLBEING	70%	▼	76%	▲	74%
FINANCES IN RETIREMENT	51%	▲	50%	▼	67%
Old-Age Dependency	31%	▼	32%	▼	39%
Bank Non-Performing Loans	45%	▼	55%	▼	71%
Inflation	100%	–	100%	▲	95%
Interest Rates	1%	–	1%	▼	41%
Tax Pressure	4%	▲	2%	▼	26%
Government Indebtedness	30%	▲	26%	▼	89%
Governance	86%	–	86%	▼	89%

21

Slovenia

Slovenia moves down five spots to 21st overall this year. It has a lower overall score compared to last year because of lower scores in the Finances (37th) and Material Wellbeing (4th) sub-indices.

Slovenia's score in the Finances sub-index is lower than last year because of lower scores in the interest rates, tax pressure, old-age dependency, bank nonperforming loans and governance indicators. None of its indicators make the top or bottom ten.

Slovenia also has a lower score in the Material Wellbeing sub-index. It has lower scores in both the unemployment and income equality indicators. It has the third highest score for the income equality indicator among all GRI countries.

Slovenia manages to improve in the Health sub-index (22nd). The higher sub-index score is due to higher scores across all three indicators. It has the fifth highest score for the insured health expenditure among all GRI countries.

The country also records a higher score in the Quality of Life sub-index (22nd). The higher sub-index score is due to a higher score in the happiness indicator. It has the second highest score for the biodiversity indicator among all GRI countries.

SLOVENIA

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
21	16	15	69%	72%	74%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE ▲ – ▼	2021	CHANGE	2012
HEALTH	82%	▲	80%	▼	81%
QUALITY OF LIFE	69%	▲	67%	▼	70%
MATERIAL WELLBEING	77%	▼	82%	▲	75%
FINANCES IN RETIREMENT	51%	▼	61%	▼	72%
Old-Age Dependency	27%	▼	29%	▼	47%
Bank Non-Performing Loans	45%	▼	47%	▼	65%
Inflation	100%	–	100%	–	100%
Interest Rates	1%	▼	37%	▼	60%
Tax Pressure	11%	▼	15%	▼	67%
Government Indebtedness	44%	▲	38%	▼	82%
Governance	83%	▼	84%	▲	82%

22

Japan

Japan remains at 22nd overall in this year's GRI. It has a higher overall score compared to last year because of higher scores in the Finances (40th), Quality of Life (25th) and Health (3rd) sub-indices. Japan has had moderate movement in its overall ranking over the decade after moving up three spots from 25th in 2012.

Finances, Japan's lowest ranked sub-index, has a higher score compared to last year. This is due to improved scores in the interest rate and governance indicators. It has the lowest score among all GRI countries for both the old-age dependency and government indebtedness indicators.

Japan has a higher score in the Quality of Life sub-index due to a higher score in the happiness indicator. It has the ninth-lowest score for the happiness indicator among all GRI countries.

Japan's last increase in sub-index score is Health. The higher sub-index score is due to a higher score for the health expenditure per capita indicator. It has the highest score for the life expectancy indicator and the ninth highest for the insured health expenditure indicator.

Material Wellbeing (10th) is Japan's only sub-index with a lower score compared to last year. Its sub-index score decreases because of a lower score in the income equality indicator. It has the highest score for the unemployment indicator among all GRI countries.

JAPAN

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
22	22	25	69%	68%	71%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE	2021	CHANGE	2012
HEALTH	91%	▲	90%	▲	85%
QUALITY OF LIFE	67%	▲	66%	▼	72%
MATERIAL WELLBEING	72%	▼	73%	▲	72%
FINANCES IN RETIREMENT	51%	▲	49%	▼	58%
Old-Age Dependency	3%	▼	4%	▼	21%
Bank Non-Performing Loans	61%	▼	68%	▼	83%
Inflation	100%	–	100%	▲	1%
Interest Rates	19%	▲	1%	▼	62%
Tax Pressure	19%	▼	24%	▼	100%
Government Indebtedness	1%	–	1%	▼	62%
Governance	88%	–	88%	▲	62%

23

Malta

Malta moves down three spots to 23rd overall in this year's GRI. It experiences a lower overall score because of lower scores in the Material Wellbeing (8th), Quality of Life (31st) and Finances (16th) sub-indices.

Malta's largest drop is in the Material Wellbeing sub-index. It has a lower sub-index score due to lower scores across all three indicators. It has the fourth highest score for the unemployment indicator among all GRI countries.

Malta's lower score in Quality of Life is driven by a lower score in the happiness and environmental factors indicators. It has the second-lowest score for the environmental factors indicator among all GRI countries.

Malta records a lower score in the Finances sub-index because of lower scores in the bank nonperforming loans, tax pressure and old-age dependency indicators. It has the eighth lowest score for the old-age dependency indicator and the ninth lowest score for the bank nonperforming loans indicator.

Malta records a higher score in the Health sub-index (26th) due to higher scores for both the life expectancy and health expenditure per capita indicators. It has the seventh-lowest score for the insured health expenditure indicator among all GRI countries.

MALTA

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
23	20	20	68%	70%	72%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE	2021	CHANGE	2012
HEALTH	78%	▲	76%	▼	79%
QUALITY OF LIFE	61%	▼	63%	▼	66%
MATERIAL WELLBEING	72%	▼	79%	▼	82%
FINANCES IN RETIREMENT	63%	▼	65%	▲	64%
Old-Age Dependency	26%	▼	28%	▼	58%
Bank Non-Performing Loans	31%	▼	45%	–	45%
Inflation	100%	–	100%	–	100%
Interest Rates	N/A		N/A		49%
Tax Pressure	31%	▼	36%	▲	26%
Government Indebtedness	58%	▲	51%	▼	87%
Governance	83%	▲	82%	▼	87%

24

France

France moves up one spot to 24th overall in this year's GRI. It has a lower overall score because of lower scores in the Material Wellbeing (28th) and Finances (41st) sub-indices. France has had significant swings in its overall rankings over the decade with the country ranking eleventh in 2012.

France's lower score in the Material Wellbeing sub-index (28th) is due to a lower score in the income equality indicator. It has the ninth lowest score for the unemployment indicator among all GRI countries.

Finances (41st) is France's other sub-index with a lower score compared to last year. It has a lower sub-index score due to lower scores in the bank nonperforming loans, governance and old-age dependency indicators. It has the second lowest score for the tax pressure indicator and the seventh lowest score for the old-age dependency indicator.

France's higher score in the Health sub-index (6th) results from a stronger performance in the life expectancy and health expenditure per capita indicators. It has the highest score among all GRI countries for the insured health expenditure indicator.

France's higher score in the Quality of Life sub-index (14th) is due to a higher score in the happiness indicator. It has the fifth highest score for the biodiversity indicator among all GRI countries.

FRANCE

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
24	25	11	66%	67%	77%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE	2021	CHANGE	2012
HEALTH	90%	▲	89%	–	89%
QUALITY OF LIFE	78%	–	78%	▼	82%
MATERIAL WELLBEING	57%	▼	59%	▼	74%
FINANCES IN RETIREMENT	48%	▼	49%	▼	65%
Old-Age Dependency	25%	▼	26%	▼	41%
Bank Non-Performing Loans	39%	▼	49%	▼	60%
Inflation	100%	–	100%	–	100%
Interest Rates	1%	–	1%	▼	29%
Tax Pressure	1%	–	1%	▼	45%
Government Indebtedness	31%	▲	26%	▼	88%
Governance	85%	▼	86%	▼	88%

25

Estonia

Estonia moves down one spot to 25th this year. It has a lower overall score because of lower scores in the Material Wellbeing (24th) and Finances (9th) sub-indices. Over the decade, Estonia has made relatively large improvements in its overall score with the country ranking 33rd in 2012.

The country's lower score in the Material Wellbeing sub-index is due to lower scores in the unemployment and income equality indicators. None of its indicators make the top or bottom ten.

Estonia's other sub-index with a lower score compared to last year is Finances. It has a lower sub-index score due to lower scores in the bank nonperforming loans, tax pressure and old-age dependency indicators. It has the highest score for government indebtedness among all GRI countries.

Estonia records a higher score in the Quality of Life sub-index (23rd) due to score improvements in both the environmental factors and happiness indicators. It has the seventh highest score for the environmental factors indicator and the tenth highest score for the biodiversity indicator among all GRI countries.

Estonia's higher score in the Health sub-index (32nd) is due to higher scores in all three indicators. None of its indicators make the top or bottom ten.

ESTONIA

RANKING			SCORE		
2022	2021	2012	2022	2021	2012
25	24	33	66%	67%	64%

SUB-INDEX AND INDICATOR SCORES	SCORES 2022	CHANGE	2021	CHANGE	2012
HEALTH	68%	▲	67%	▼	78%
QUALITY OF LIFE	68%	▲	66%	▲	55%
MATERIAL WELLBEING	60%	▼	65%	▲	56%
FINANCES IN RETIREMENT	68%	▼	71%	▲	69%
Old-Age Dependency	27%	▼	29%	▼	42%
Bank Non-Performing Loans	56%	▼	90%	▲	55%
Inflation	100%	–	100%	▲	85%
Interest Rates	N/A		N/A		69%
Tax Pressure	18%	▼	21%	▼	71%
Government Indebtedness	100%	–	100%	▲	84%
Governance	87%	–	87%	▲	84%

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Framework

Index	Sub-index	Policy Category Weight (% of Index)	Indicators	Indicator Weight (% of Sub-Index)	Data Source	Latest Data Available	Target	Low Performance Benchmark	Statistical Transformation
Health Index	Life Expectancy Index	GEOMEAN	Life expectancy at birth	1	World Bank WDI 2022	2019	Sample Maximum (84.36 years, Japan)	Sample Minimum (69.66 years, India)	None
	Health Expenditure Per Capita Index	GEOMEAN	Current health expenditure per capita, PPP (current international $)	1	World Bank WDI 2022	2019	Sample Maximum ($10,921.01, USA)	Sample Minimum ($211.00, India)	Natural Logarithm
	Non-Insured Health Expenditure Index	GEOMEAN	Out-of-pocket expenditure (% of current health expenditure)	1	World Bank WDI 2022	2019	Sample Minimum (9.26%, France)	100%	None
Material Wellbeing Index	Income Equality Index	GEOMEAN	GINI Index	1	Eurostat, OECD, World Bank WDI 2022, CIA World Factbook	Between 2011 and 2020 depending on Country	Sample Minimum (20.90, Slovak Republic)	Sample Maximum (53.40, Brazil)	Natural Logarithm
	Income per Capita Index	GEOMEAN	GNI per capita, PPP (current international $)	1	World Bank WDI 2022	2020	Sample Maximum ($86,480, Singapore)	Sample Minimum ($6,440, India)	Natural Logarithm
	Unemployment Index	GEOMEAN	Unemployment (% of total labor force) (modeled ILO estimate)	1	World Bank WDI 2022	2021	3% Unemployment	Sample Maximum (14.80%, Greece)	Natural Logarithm
Finances in Retirement Index	Institutional Strength Index	0.5	Average of World Bank Governance Indicators	1	World Bank Worldwide Governance Indicators 2021	2020	Maximum on Scale (2.5)	Minimum on Scale (-2.5)	Natural Logarithm
	Investment Environment Index	0.5	Age dependency ratio, old (% of working age population)	GEOMEAN	World Bank WDI 2022	2020	10%	50%	Natural Logarithm
			Bank nonperforming loans to total gross loans (%)	GEOMEAN	IMF Financial Soundness Indicators	2019, 2020, 2021	Sample Minimum (0.22%, South Korea)	Sample Maximum (12.82%, Greece)	Natural Logarithm
			Inflation, consumer prices (% annual)	GEOMEAN	World Bank WDI 2022	2015 to 2019	2%	Sample Maximum (12.54%, Turkey)	Natural Logarithm
			Real interest rate (%)	GEOMEAN	World Bank WDI 2022, OECD	2015 to 2019	20%	0%	Natural Logarithm
			Public debt (% of GDP)	GEOMEAN	CIA World Factbook	2021	Sample Minimum (18.50%, Estonia)	Sample Maximum (256.22%, Japan)	Natural Logarithm
			Tax burden (% of GDP)	GEOMEAN	Country statistical agencies, central banks, and ministries of finance economy	2021	Sample Minimum (6.81%, India)	Sample Maximum (46.34%, Denmark)	Natural Logarithm
Quality of Life Index	Air Quality Index	0.125 GEOMEAN	PM2.5 exposure	0.55	Environmental Performance Index 2020	2019	Sample Minimum (71.68, Iceland)	Sample Maximum (2,706.53, India)	Natural Logarithm
			Household solid fuels	0.40	Environmental Performance Index 2020	2019	Sample Minimum (0.22, Switzerland)	Sample Maximum (1,837.97, India)	Natural Logarithm
			Ozone exposure	0.05	Environmental Performance Index 2020	2019	Sample Minimum (2.66, Ireland)	Sample Maximum (293.93, India)	Natural Logarithm
	Water and Sanitation Index	0.125 GEOMEAN	Unsafe drinking water	0.6	Environmental Performance Index 2020	2019	Sample Minimum (1.68, Greece)	Sample Maximum (1,425.45, India)	Natural Algorithm
			Unsafe sanitation	0.4	Environmental Performance Index 2020	2019	Sample Minimum (0.41, United Kingdom)	Sample Maximum (815.66, India)	Natural Algorithm
	Biodiversity and Habitat Index	0.125 GEOMEAN	Marine protected areas	0.2	Environmental Performance Index 2020	2020	10% of country's exclusive economic zone (EEZ) designated as a marine protected area	0%	None
			Terrestrial protected areas (National biome weights)	0.2	Environmental Performance Index 2020	2020	17% protection for all biomes within its borders	0%	None
			Terrestrial protected areas (Global biome weights)	0.2	Environmental Performance Index 2020	2020	17% global protection goal	0%	None
			Species protection index	0.1	Environmental Performance Index 2020	2019	100%	0%	None
			Protected areas Representativeness index	0.1	Environmental Performance Index 2020	2016	0.31	Sample Minimum (0.04, Singapore)	None
			Biodiversity habitat index	0.1	Environmental Performance Index 2020	2015	1.0	0.0	None
			Species habitat index	0.1	Environmental Performance Index 2020	2014	100.0	Sample Minimum (96.4, Brazil)	None
	Environmental Factors Index	0.125 GEOMEAN	CO2 emissions per capita	0.33	US Energy Information Administration (EIA), World Bank WDI 2022	2019	1262 kg CO2 eq. (Estimated value associated with 50% reduction in global GHG emissions by 2050, against 1990 levels)	19588.33059	Natural Logarithm
			CO2 emissions per GDP	0.33	US Energy Information Administration (EIA), World Bank WDI 2022	2019	0.07642 kg CO2 eq. (Estimated value associated with 50% reduction in global GHG emissions by 2050, against 1990 levels)	1.532823116	Natural Logarithm
			CO2 emissions per electricity generation	0.165	US Energy Information Administration (EIA), World Bank WDI 2022	2019	0 grams CO2 per KWh	8.453269722	Natural Logarithm
			Renewable electricity	0.165	US Energy Information Administration (EIA), World Bank WDI 2022	2019	100% electricity from renewable sources	0%	None
	Happiness Index	0.5 GEOMEAN	Happiness (0-10)	1	World Happiness Report 2022	2021	Sample Maximum (7.82, Finland)	Sample Minimum (3.78, India)	Natural Logarithm

Appendix A

Methodology

The Natixis CoreData Global Retirement Index is a composite welfare index which combines 18 target-oriented indicators, grouped into four thematic sub-indices.

The four sub-indices cover four relevant considerations for welfare in old age and are:

Health Index
Material Wellbeing Index
Finances in Retirement Index
Quality of Life Index

Constructing the Indicators

The first step in expanding the index is to construct the 18 indicators. These are constructed by selecting and preparing the raw data obtained from reliable secondary sources, and then transforming it into normalized indices.

In order to create normalized indices, minima and maxima need to be established. As a target-oriented performance index, the maxima are determined as ideal outcomes. The selection of target varies from variable to variable, and will be explored in greater depth later on.

The minima are in fact the opposite, and are defined as lower performance benchmarks, which mark the worst possible scenario. In some cases, they will refer to subsistence minimum levels and in others, simply as the worst observed value in the sample for that variable.

These indicators are created, following Emerson et al. (2012)[1] and based on a "proximity-to-target" methodology by which "each country's performance on any given indicator is measured based on its position within a range" established by the lower performance benchmark and the target, on a scale from 0.01 (instead of 0 to facilitate further calculation) to 1, where 0.01 is equal or lower than the lower performance benchmark and 1 equal or higher than the target.

The general formula to normalize the indicators is then given by:

$$\textit{Indicator} = \frac{\text{Observed value - lower performance benchmark}}{\text{Target - lower performance benchmark}}$$

However, this formula is, in certain cases, adapted to the characteristics of the data for each variable.

Again, following Emerson et al. (2012), most indicators are transformed into logarithms[2] due to the high level of skewness of the data. This has the advantage of identifying not only differences between the worst and the best performers, but it more clearly differentiates between top performing countries, allowing to better distinguish variations among them.

Moreover, using logarithms allows for better identification of differences across the whole scale, distinguishing between differences in performance which are equal in the absolute but very different proportionally.

Also, logarithmic functions are a better representation of variables which have decreasing marginal welfare benefits, such as income.

Once the indicators have been created, they are aggregated by obtaining their geometric mean[3] to obtain the thematic indices. The geometric mean offers a number of advantages over the arithmetic mean[4] ; this will be discussed later in this chapter.[5]

[1] Emerson, J. W., Hsu, A., Levy, M. A., de Sherbinin, A., Mara, V., Esty, D. C., & Jaiteh, M. (2012), "2012 Environmental Performance Index and Pilot Trend Environmental Performance Index." New Haven, CT: Yale Center for Environmental Law & Policy.
[2] Logarithmic form: variables with skewed distributions are transformed into logarithmic form by taking natural logarithms of the values to make the distribution less skewed. When calculating an indicator we transform into logarithmic form by doing the following:
Where:
t = target or sample maximum
m = lower performance benchmark or sample minimum
x = value of the variable
non-logarithmic indicator = (x-m) / (t-m) -> take logs -> indicator in logarithmic form = [ln(x)-ln(m)] / [ln(t)-ln(m)]
[3] Geometric mean is a representation of the typical value or central tendency of a series of numbers calculated as the nth root of the product of n numbers.
Geometric mean = $\sqrt[n]{x_1 \times x_2 \times \dots \times x_n}$
[4] Arithmetic mean (or average) is a representation of the typical value or central tendency of a series of numbers calculated as the sum of all the values in the series and divided by the number in the series. Arithmetic mean = $\frac{x_1 + x_2 + \dots + x_n}{n}$

[5] See Constructing the Global Retirement Index on page 74.

The four thematic sub-indices are constructed using the indicators in the following way:

1. **The Health in Retirement Index:** this sub-index is obtained by taking the geometric mean of the following indicators:

    a. **Life expectancy Index:** obtained using data from the World Health Organization. The target for this indicator is the sample maximum which is equal to 84.26 years, and the low performance benchmark is equal to 70.79 years, a figure observed as the sample minimum.

    b. **Health expenditure per capita Index:** obtained using data on current health expenditure per capita, PPP (current international $) from WB's WDI 2021. The target set for this indicator is the sample maximum, equal to $10,623.85 USD, and the low performance benchmark is equal to the sample minimum of $275.13. The indicator is transformed into logarithms, as the marginal returns to extra expenditure are decreasing.

    c. **Non-insured health expenditure Index:** this indicator is included to take into account the level of expenditure in health that is not insured. The smaller the proportion of expenditure in healthcare that is uninsured, the higher the probability of having access to healthcare. This indicator is calculated using data on out-of-pocket expenditure (percentage of current health expenditure), included in the WB's WDI 2021. The target for this indicator is equal to the sample minimum of 9.25% and the low performance benchmark is equal to 100%, which means that none of the population is covered by health insurance.

2. **The Material Wellbeing in Retirement Index:** this sub-index measures the ability of a country's population to provide for their material needs. The following indicators are aggregated by obtaining their geometric mean to obtain a single measure:

    a. **Income per capita Index:** this indicator is calculated using data for the gross national income per capita, PPP (current International $) from the WB's WDI 2021. The purchasing power parity (PPP) version is used as it provides a better approximation to the real purchasing power of incomes across countries. The target used for this indicator is the sample maximum of $92,270 USD, and the low performance benchmark is equal to the sample minimum of $6,920 USD. Logarithmic transformation is applied to calculate the indicator.

    b. **Income equality Index:** this indicator is included as it has been generally accepted that average levels of income in a society cannot on their own measure material welfare, and including a measure of equality ensures that countries with higher and more equally distributed income get a better score. This index is constructed using the GINI index with data obtained from Eurostat, the Organization for Economic Co-operation and Development (OECD), the WB's WDI 2021 and the CIA World Factbook. The target is set at 22.80, which is the sample minimum. The low performance benchmark is set at 53.90, which is the sample maximum. The index is presented in a logarithmic form.

    c. **Unemployment Index:** a measure of unemployment is included in this index, despite the fact that its focus is on people who have already retired from the labor market. This is because societies with high levels of unemployment will see their social security systems under pressure, putting in danger the financing and provision of services for the elderly. Moreover, retirees in countries with low unemployment levels will have a better possibility of complementing their pension incomes with employment income, which is becoming increasingly necessary and common. High levels of unemployment are also indicative of a country undergoing economic problems and it is likely that this will affect the living standards of those in retirement. The target for this index is 3% unemployment, at which level structural and cyclical unemployment can be assumed to be 0 and only frictional unemployment persists, which indicates practical full employment. The low performance benchmark is set at 15.50%, which is the sample maximum. The index undergoes a logarithmic transformation and the raw data used for this index was sourced from the WB's WDI 2021.

3. **Finances in Retirement Index:** this sub-index captures the soundness of a country's financial system as well as the level of returns to savings and investment and the preservation of the purchasing power of savings. It is calculated as the arithmetic mean of the institutional strength index and the investment environment index, which is in itself the geometric mean of six indicators of the soundness of government finances and the strength of the financial system. The rationale behind this construction is that while a favorable investment environment is extremely important for the finances of retirees, this will only be long lasting and stable in the presence of sound institutions, low levels of corruption, strong property rights and a strong regulatory framework. Hence, good governance is a necessary condition for long-term financial strength and stability and as much receives an equal weight.

    a. **Institutional Strength Index:** is calculated under logarithms after obtaining the arithmetic mean of the estimates of governance from six different dimensions (Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption) of the WB's Worldwide

Governance Indicators (2020 Update). The target level is set equal to the maximum on the scale used by the indicators, which is +2.5, while the lower performance benchmark is equal to the lowest value of the scale, -2.5.

b. Investment Environment Index: this is calculated as the geometric mean of the following indicators:

I. Old-age dependency Index: this indicator is included because a high dependency ratio poses a severe threat to the capacity of society to pay for the care of the elderly, as well as risks reducing the value of savings in the long run, through several channels such as a fall in asset prices and a fall in output, among others. This index is transformed into logarithms and is calculated using data on old-age dependency ratio (percentage of working-age population) from the WB's WDI 2021. The target value is equal to 10%, which reflects healthy demographics, where for every old-age dependent there are 10 people in the working force. The low performance benchmark is equal to 50%, as it is potentially unsustainable to have less than two workers for every old-age dependent.

II. Inflation Index: this is important due to the fact that high inflation will reduce the purchasing power of savings and pensions, which can affect retirees disproportionately. The data used is on annual consumer price inflation and is sourced from the WB's WDI 2021. The value for each country is the five-year average from 2015 to 2019. The target is 2%, which is a level of inflation pursued by major central banks, and considered to be sufficiently close to price stability and sufficiently far from deflation to provide some buffer from either. The low performance benchmark is set at the sample maximum 11.62%. This indicator undergoes a logarithmic transformation when calculated.

III. Real interest rate Index: this is included as higher interest rates will increase the returns to investment and saving, and in turn increase the level of wealth of retirees, who tend to benefit more than other age groups. Real interest rate is used instead of nominal interest rate to eliminate the effect of inflation. The data for this indicator is sourced from the WB's WDI 2021 and is completed from the OECD.[6,7] The value for each country is the five-year average from 2015 to 2019. The target is 20% and the low performance benchmark is 0%. The data is multiplied by 100 before logarithmic transformation applied.

IV. Tax pressure Index: the importance of this indicator lies in the fact that higher levels of taxation will decrease the level of disposable income of retirees and affect their financial situation. Data used is the tax burden from country statistical agencies, central banks, and ministries of finance, economy, and trade, which measures the total taxes collected as percentage of GDP. The target is set at the sample minimum of 9.42% of GDP while the low performance benchmark is the sample maximum of 46.09% of GDP. This indicator is calculated in logarithmic form.

V. Bank non-performing loan Index: this indicator captures the strength of the banking system by looking at the proportion of loans that are defaulted on. This index is transformed into logarithms and is constructed using the data observed from the IMF Financial Soundness Indicators database. The target for this index is set equal to the sample minimum of 0.24% and the low performance benchmark is the sample maximum of 29.80%.

VI. Government indebtedness Index: captures the soundness and sustainability of government finances and serves as a predictor of future levels of taxation. The data used for this index is sourced from the CIA World Factbook and undergoes a logarithmic transformation to construct the index. The target level is set equal to the sample minimum of 8.40% and the low performance benchmark is the sample maximum of 237.40%.

4. **Quality of Life Index:** this sub-index captures the level of happiness and fulfillment in a society as well as the effect of natural environment factors on the Quality of Life of individuals. It is constructed as the geometric mean of the happiness index and the natural environment index.

[6] Latest data on annual consumer price inflation and 10-year government bond yields are used to calculate the real interest rate (real interest rate = nominal interest rate – inflation) for those countries missing data from the WDI.

[7] Long-term interest rates are obtained from OECD for the following countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, and Sweden. Real interest rates are calculated by subtracting inflation from the long-term interest rate.

a. **Happiness Index:** this data is taken from the World Happiness Report, which calculates scores for happiness based on responses by people asked to evaluate the quality of their current lives on a scale of 0 to 10, averaged over the years 2018–2020. The indicator is presented in the logarithmic form. The target is set at the sample maximum, which is an average score of 7.84, and the low performance benchmark is set at the sample minimum of 3.82.

b. **Natural Environment Index:** this is calculated as the geometric mean of the following indicators, which measure the natural environment quality of a country and the effects of pollution on humans.

   I. **Air quality Index:** this index is calculated as the weighted average of PM2.5 exposure (55% weight), household solid fuels (40% weight), and ozone exposure (5% weight). The data is obtained from EPI 2020.

   II. **Water and sanitation Index:** captures the level of infrastructure providing people with safe drinking water and safe sanitation. This index is calculated as the weighted average of the two indicators with water weighing 60% and sanitation weighting 40% (after logarithms transformation). Targets are the sample minimums of 1.68 for unsafe drinking water and 0.41 for unsafe sanitation, and the low performance benchmarks are the sample maximums of 1,425.45 for unsafe drinking water and 815.66 for unsafe sanitation. The data used is obtained from EPI 2020.

   III. **Biodiversity and habitat Index:** provides an insight into a country's protection of its ecosystem. The higher the score is, the more a country is capable to ensure a wide range of "ecosystem service" like flood control and soil renewal, the production of commodities, and spiritual and aesthetic fulfillment will remain available for current and future generations. This index is calculated as the weighted average of marine protected areas (20% weight), national terrestrial protected areas (20% weight), global terrestrial protected areas (20% weight), the species protection index (10% weight), the protected areas representativeness index (10%weight), the biodiversity habitat index (10%weight) and the species habitat index (10% weight). The data is obtained from EPI 2020.

   IV. **Environmental Factors Index:** this index is included due to the fact that the impacts of environmental factors will dramatically affect human health, water resources, agriculture, and ecosystems. The index is calculated as the weighted average of CO2 emissions per capita (1/3 weight), CO2 emissions per GDP (1/3 weight), CO2 emissions per electricity generation (1/6 weight) and renewable electricity (1/6 weight). Logarithmic transformation is applied for all indicators except for renewable energy. The data is sourced from the U.S. Energy Information Administration (EIA) and the WB's WDI 2022.

Constructing the Global Retirement Index

The four sub-indices are then aggregated into the Global Retirement Index by obtaining their geometric mean. The geometric mean was chosen over the arithmetic mean as the functional form of the index in order to address the issues of perfect substitutability between the different indices when using the arithmetic mean.

In this sense, Klugman, Rodriguez and Choi (2011) argue that the use of an arithmetic mean is problematic because it implies that a decrease in the level of one of the sub-indices can be offset by an equal increase in the level of another sub-index without taking into account the level of each variable. This poses problems from a welfare point of view. For example, a fall in the level of health cannot be assumed to be offset by an increase in the level of income on a one-by-one basis and at a constant rate. Thus, perfect substitutability does not apply when analyzing the effects of different factors on welfare.

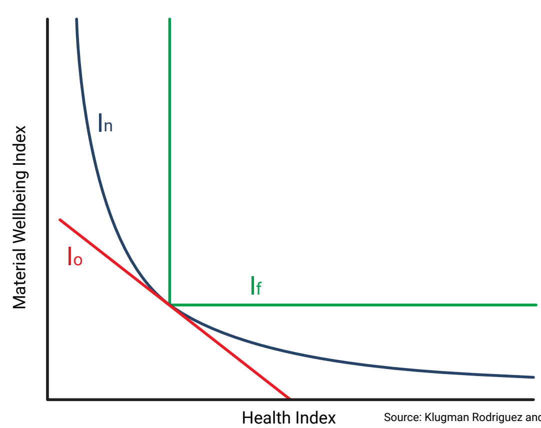
The opposite alternative, full complementarity, would also be problematic, as it would assume that the only way of increasing wellbeing is by providing two components at the same time (Klugman, Rodriguez and Choi, 2011), and so for example, an increase in the level of health would have no effect on welfare if it is not accompanied by an improvement in the other three sub-indices.

In this light, it makes sense to assume that there is some level of complementarity and some level of substitutability between the different parameters in the index. On one hand, a worsening of one of the indicators can be partially offset by an improvement of another one, but we can also assume that at least a basic level of health, financial services, material provision and quality of life is necessary in order to enjoy a good retirement.

In the end, each of the 44 countries is awarded a score between 0% and 100% for their suitability and convenience for retirees. A score of 100% would present the ideal country to retire to, with a great healthcare system and an outstanding health record, a very high quality of life and a well-preserved environment with low levels of pollution, a sound financial system offering high rates of true return and a very high level of material wealth.

The chart graphically shows the three cases:

1. **Perfect substitutability (Io):** where the effect on the GRI score of a unit decrease in one of the sub-indices can be perfectly offset by a unit increase in another sub-index. For example, the GRI score will not change after a 1% decrease in the Health Index score if accompanied by a 1% decrease in the Material Wellbeing Index. This assumes that welfare remains unchanged if a decrease in the health of the population is matched by a proportional increase in their Material Wellbeing, which is problematic (e.g. If taken to the extreme it means that the welfare of a society with middle levels of income and good health could be equal to that of a very rich society affected by a deadly epidemic.)
2. **Perfect complementarity (If):** where the effect on the GRI score of a unit increase in one of the sub-indices is zero if not accompanied by an equal increase in all the other sub-indices. This means that a 1% increase in the Health Index would not increase the overall GRI score unless accompanied by a 1% increase in the other three sub-indices. (I.e. assumes that an increase in Health is not an increase in overall welfare unless Material Wellbeing, Finances and Quality of Life all increase concurrently.)
3. **Unit-elastic substitution (In):** this is the assumption made in the construction of the GRI by using the geometric means. It means that the sub-indices become perfect substitutes as their levels approach the high end of the scale (100%) and perfect complements as their levels approach the low end of the scale (0%). As a result, when a country scores very low on one or more sub-indices, an increase to a high score on another sub-index will result in a less than proportional increase in the overall GRI score. This is consistent with the assumption that at least a basic level of health, financial services, material provision and quality of life is necessary in order to enjoy a good retirement. The geometric mean also offers an advantage over the arithmetic mean and other aggregation methods in that the results do not vary due to differences in the scales in which the variables are measured.



Source: Klugman Rodriguez and Choi (2011)

[8] Klugman, Rodriguez and Choi (2011), "The HDI 2010: New Controversies, Old Critiques", Human Development Research Paper 2011/1, UNDP, New York.

Appendix B: Full Rankings

Rank	Country	Health Index	Finances in Retirement Index	Quality of Life Index	Material Wellbeing Index	Global Retirement Index
1	Norway	91%	69%	87%	79%	81%
2	Switzerland	90%	74%	86%	69%	80%
3	Iceland	88%	68%	86%	77%	79%
4	Ireland	89%	70%	80%	67%	76%
5	Australia	88%	72%	77%	66%	75%
6	New Zealand	85%	71%	81%	64%	75%
7	Luxembourg	91%	59%	81%	72%	75%
8	Netherlands	89%	56%	80%	78%	75%
9	Denmark	86%	54%	88%	76%	74%
10	Czech Republic	76%	64%	68%	84%	73%
11	Germany	87%	55%	80%	71%	72%
12	Finland	84%	55%	89%	63%	71%
13	Sweden	90%	56%	87%	59%	71%
14	Austria	86%	54%	82%	69%	71%
15	Canada	87%	67%	74%	58%	71%
16	Israel	82%	66%	74%	60%	70%
17	Korea, Rep.	80%	73%	59%	68%	70%
18	United States	85%	67%	72%	56%	69%
19	United Kingdom	83%	55%	82%	61%	69%
20	Belgium	85%	51%	74%	70%	69%
21	Slovenia	82%	51%	69%	77%	69%
22	Japan	91%	51%	67%	72%	69%
23	Malta	78%	63%	61%	72%	68%
24	France	90%	48%	78%	57%	66%
25	Estonia	68%	68%	68%	60%	66%
26	Poland	66%	61%	57%	75%	64%
27	Singapore	82%	76%	51%	52%	64%
28	Portugal	74%	59%	67%	57%	64%
29	Cyprus	74%	51%	64%	62%	62%
30	Slovak Republic	66%	51%	64%	67%	62%
31	Italy	83%	52%	72%	46%	62%
32	Hungary	59%	48%	57%	70%	58%
33	Lithuania	60%	54%	64%	49%	57%
34	Chile	69%	72%	61%	31%	55%
35	Latvia	54%	52%	61%	49%	54%
36	Mexico	46%	62%	54%	37%	49%
37	Russian Federation	44%	56%	44%	53%	49%
38	Spain	85%	59%	74%	15%	49%
39	China	50%	65%	37%	45%	48%
40	Greece	72%	46%	63%	15%	42%
41	Turkey	60%	43%	32%	20%	36%
42	Colombia	60%	62%	56%	6%	34%
43	Brazil	56%	57%	59%	4%	29%
44	India	4%	62%	3%	13%	9%

Color Scale
81% and above
71%–80%
61%–70%
51%–60%
41%–50%
40% and below

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