



# 2015 GLOBAL RETIREMENT INDEX

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## Background

The Natixis Global Asset Management CoreData Global Retirement Index (GRI) is an international comparison tool with the objective of providing a global benchmark for retirees and future retirees to evaluate and compare the suitability of nations globally in meeting retirement expectations, needs and ambitions.

Welfare in retirement is an increasingly relevant issue in modern societies as demographic compositions continue to shift, with average ages creeping up relentlessly and the numbers of people finishing their working life increasing.

In this context, institutions, be they public or private, are having to adapt the products and services they provide in order to cater not only to an increasing number of retirees, but also to their differing needs.

The Natixis CoreData GRI is a multi-dimensional welfare index, with a specific focus on the factors that determine welfare in retirement and old age.

The index incorporates 20 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 and taking into account the particular characteristics of the older demographic retiree group, in order to assess and compare the level of welfare in retirement in different countries around the world.

The four thematic indices cover key aspects for welfare in retirement: having good health and access to quality health services, having enough material means to live a comfortable life, having access to quality financial services, including preserving the value of savings, and living in a clean and safe environment.

This is the third year Natixis Global Asset Management 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.

This year's GRI is deliberately consistent in form and methodology, in relation to last year's, so that year-on-year comparisons can be made and any notable shifts can be highlighted in quality of life, material wellbeing, quality of financial services and the quality of healthcare services that have taken place over the past twelve months in 150 countries across the globe.

Such comparisons contextualize the score each country receives on the GRI by enabling us to maintain a sense of perspective: for instance, if a country has improved its position in the GRI by twenty places since 2014, this may be an indication of the beginning of an upward trend in its suitability (and therefore desirability) as a home for retirement.

The sub-indices provide some insight into which particular national characteristics are driving an improvement or worsening in each country's position this year, compared with last year.

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 enabling retirees to make more informed advance decisions about their lives in the future.

## Executive summary

Buoyed by a healthier economic recovery than its European neighbors and a strong banking system that helps citizens sustain high levels of material wellbeing, Switzerland tops the 2015 Global Retirement Index published by Natixis Global Asset Management and CoreData Research.

Like Switzerland, other countries in the top ten for 2015 share three important characteristics: 1) a well-developed and growing industrialized economy with a strong financial system and regulations; 2) public policies that provide broad access to healthcare and other social services; and 3) substantial public investment in infrastructure and technology.

### Bold public policies key to shoring up retirement security

In our opinion, the greatest contribution to the security of retirees in these countries comes from bold public policies such as compulsory healthcare insurance coverage and mandatory or quasi-mandatory retirement savings programs. Given these factors, it is not surprising that eight of the ten highest-ranking countries are located in Northern Europe.

New Zealand and Australia are the two non-European countries to reach the top ten due in large part to mandatory retirement savings schemes. Australia's Superannuation Guarantee system and New Zealand's voluntary KiwiSaver demonstrate that security for retirees begins well before the date an individual actually retires.

# Today's security challenged by demographics and economics

While strong financial regulations, universal healthcare coverage and federal retirement savings programs have added up to greater security for retirees worldwide today, the question remains as to whether these positive policies are sustainable in the long run. As countries grapple with ever-increasing budget deficits and financial markets remain volatile, future security for retirees remains uncertain.

# Results from our 2015 Index highlight key issues as shaping the future of retirement:

- What can be learned from the factors separating top-ranking countries from the rest of the world
- A wide range of risks that pose a threat to maintaining retirement security in any country
- A growing expectation that no matter what country they come from, individuals will need to take on a greater share of the burden in funding retirement

The solution will still rely on the three-legged stool upon which retirement has traditionally been built: government policies and programs, employer-driven retirement savings schemes, and a personal commitment to saving from individuals. But it will require innovation and a deeper commitment from each party in order to achieve security.

## **ABOUT THE GLOBAL RETIREMENT INDEX**

The Global Retirement Index is intended to be a comparison tool that provides a global benchmark to evaluate and compare the suitability of countries in meeting the needs and expectations of retirees worldwide.

To provide a clear view into retirement security in each country, the Index considers four main factors:

- Material Wellbeing: examines retirees' ability to live comfortably in retirement
- Health: evaluates retiree access to quality health services
- Finances in Retirement: considers access to quality financial services and the ability to preserve savings
- Quality of Life: focuses on whether a country can provide a clean, safe environment in which to live

Individual rankings are determined by a country's scores across all four factors.

### **SECTION 1:**

## What separates the top-ranked countries?

The 2015 Global Retirement Index rankings show relative stability among the top-ranked countries as compared to our 2014 report. The results highlight the contributions that a growing economy, financial stability and progressive public policies play in the security of retirees worldwide.

Despite relatively high tax burdens, the Northern European countries that comprise the largest share of the top ten also rank highly in per capita income and demonstrate a narrow or improving gap in income equality across their citizens.

Like Switzerland, number-two ranked Norway also provides universal healthcare to citizens and has a sound financial system. Lifted by one of the world's richest sovereign wealth funds, Norway ranks at the top of the Material Wellbeing sub-index. The country has further strengthened its fiscal position by reducing public debt as a percentage of GDP, decreasing unemployment and improving income equality among its residents.

### Iceland, Netherlands gain ground with improved finances

Improved financial performance also brought two new entrants to the top ten in 2015. As a result of successful government efforts to stabilize public debt and manage the collapse of its banking system, Iceland earned the number-four slot. The country had ranked number 11 in 2014 and number 23 in 2013.

The Netherlands moved up eight spots over 2014, placing at number five on the list. Driven by an improving interest rate environment, the country's banking system also saw an improvement in non-performing loans which decreased to just three percent, paving the way for healthier levels of credit and growth.

### TOP 30 COUNTRIES IN THE 2015 GRI INDEX

COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

Rank	Country	Health Index	Finances in Retirement Index	Quality of Life Index	Material Wellbeing Index	Global Retirement Index
1	Switzerland	83%	70%	91%	85%	82%
2	Norway	84%	63%	88%	95%	81%
3	Australia	81%	73%	80%	76%	77%
4	Iceland	81%	63%	86%	81%	77%
5	Netherlands	84%	62%	83%	81%	77%
6	Sweden	81%	64%	89%	75%	77%
7	Denmark	82%	59%	91%	78%	77%
8	Austria	88%	53%	86%	84%	76%
9	Germany	87%	59%	82%	79%	76%
10	New Zealand	78%	70%	84%	70%	75%
11	Luxembourg	84%	58%	78%	84%	75%
12	Canada	76%	68%	81%	72%	74%
13	Finland	81%	55%	87%	76%	74%
14	Korea, Rep.	75%	69%	67%	83%	73%
15	Czech Republic	81%	61%	76%	74%	73%
16	Belgium	82%	58%	75%	76%	72%
17	Japan	84%	54%	75%	76%	71%
18	France	86%	57%	80%	66%	71%
19	United States	80%	65%	78%	64%	71%
20	Slovenia	78%	57%	79%	73%	71%
21	Qatar	79%	77%	51%	81%	71%
22	United Kingdom	79%	53%	82%	69%	70%
23	Israel	77%	62%	75%	65%	70%
24	Malta	78%	61%	65%	76%	69%
25	United Arab Emirates	65%	55%	77%	84%	69%
26	Kuwait	67%	54%	69%	91%	69%
27	Estonia	76%	65%	72%	62%	68%
28	Slovak Republic	76%	62%	76%	60%	68%
29	Italy	82%	50%	80%	63%	67%
30	Singapore	63%	72%	66%	68%	67%

## Government policies and fiscal issues directly impact retirement security

Variables accounting for year-over-year movement in the Index can be largely attributed to macroeconomic factors – most notably, government debt, inflation, and fiscal policies that put pressure on income stability and financial security for retirees.

A clear example of these forces at play are the high scores earned by the United States in the Finances in Retirement index where the country saw the results of continued economic growth in year-over-year improvements for non-performing loans, inflation and interest rates.

Improvements in these factors are overshadowed by a persistent budget deficit and high levels of government debt, rising tax pressures and increased income inequality. Additionally, the availability of government services has not kept pace with economic growth and high healthcare costs are troublesome for retiree wellbeing. As a result, the U.S. remains in the 19th position in the Index for a third year.

The biggest movers in 2015 were Japan, Qatar and Kuwait, each moving up more than 10 places in the ranking. Japan rose from 27th to 17th as a result of improvements in its health ranking, while solid management of the recovering financial sector in the Middle East led Qatar to rise from 31st to 21st and Kuwait to rise from 40th to 26th.

While developed countries tend to have an advantage over developing countries in retirement security, all things are not certain that this order will remain in place over the long term as retirement systems around the world feel the impact of sweeping financial, fiscal and demographic trends.

#### YEAR-OVER-YEAR (YOY) TOP 30 COUNTRIES IN THE 2015 GRI INDEX

	CHANGES IN 2015
	Increase
	Constant
	Decrease
	COLOR SCALE
	90% - 100%
%)	80% - 90%
score	70% - 80%
	60% - 70%
9	50% - 60%
Overall GRI	40% - 50%
Ó	30% - 40%
	20% - 30%
	10% - 20%
	0% - 10%

Country	Ranking 2015	Ranking 2014	Ranking 2013	Trend in Ranking	Score 2015	Score 2014	Score 2013
Switzerland	1	1	2	•	82%	84%	87%
Norway	2	2	1	•••	81%	84%	87%
Australia	3	5	11	• • •	77%	79%	78%
Iceland	4	11	23	-	77%	77%	73%
Netherlands	5	13	7	• • •	77%	77%	80%
Sweden	6	4	4	•	77%	79%	82%
Denmark	7	6	8		77%	79%	79%
Austria	8	3	5	• • •	76%	81%	81%
Germany	9	7	9	• • •	76%	79%	78%
New Zealand	10	9	22		75%	78%	73%
Luxembourg	11	10	3	• • •	75%	78%	82%
Canada	12	14	13	• • •	74%	77%	77%
Finland	13	8	6	• • •	74%	78%	79%
Korea, Rep.	14	17	27		73%	74%	72%
Czech Republic	15	16	17		73%	75%	74%
Belgium	16	12	14		72%	77%	77%
Japan	17	27	15		71%	69%	77%
France	18	15	10	• • •	71%	76%	78%
United States	19	19	19		71%	73%	74%
Slovenia	20	21	16		71%	73%	76%
Qatar	21	31	50		71%	68%	64%
United Kingdom	22	18	20		70%	74%	74%
Israel	23	20	12		70%	73%	77%
Malta	24	28	26		69%	69%	73%
United Arab Emirates	25	26	30		69%	70%	71%
Kuwait	26	40	39		69%	65%	67%
Estonia	27	33	43	+++	68%	67%	66%
Slovak Republic	28	22	18		68%	72%	74%
Italy	29	23	21		67%	72%	74%
Singapore	30	41	28		67%	65%	72%

### SECTION 2:

## What puts retirement security at risk?

Retirement security is a multi-dimensional issue built on health, material wellbeing, finances in retirement and quality of life. There are myriad political, fiscal and demographic forces that pose significant risks to providing security across these issues globally.

For example, changes in government policy, an aging population and immigration all put pressure on social services, while interest rate policy, inflation and market forces challenge financial security. The developed countries that top the GRI in 2015 are not immune to these pressures and many face key challenges that threaten to erode financial security for retirees.

## Strained social, political and financial systems put security at risk

Shifting fiscal policies, declining tax revenues, and strained social services may contribute to lower security for retirees. Switzerland's place at the top of the Index could be at risk given monetary policies there have resulted in negative interest rates, which could discourage savers and disproportionately affect retirees if left unchecked.

Global investment markets have not been kind to retirees in recent years either. Following the global financial crisis, which eroded savings for many, markets around the world have not been fully cooperative in getting retirees back to whole. Facing an economic environment marked by low interest rates, inconsistent returns and slow, tenuous growth poses challenges to retirees as they strive to maintain a comfortable lifestyle.

### Demographics point to increased pressure on public resources

A dramatic increase in the number of people reaching age 65, coupled with increasing life expectancies globally, is putting pressure on government benefits and pension schemes to meet future obligations. Government resources that many people have counted on to help fund retirement are being consumed by healthcare and other social services to meet the needs of an aging population now living longer in active retirement.

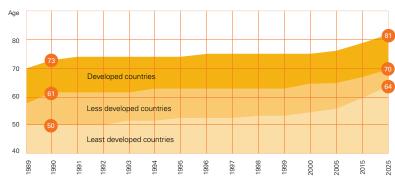
Even among institutional investors, confidence in the long-term viability of current retirement schemes can be questioned. Among the 600 decision makers we interviewed in our 2014 Global Survey of Institutional Investors,<sup>1</sup> we found that while 87% were confident that they would meet their long-term liabilities, more than half said they believe that other organizations will fall short.

## Healthcare a key contributor

Each of the top 20 performers in the 2015 Index have modern healthcare systems, which include high levels of physicians per capita, sustainable health expenditure per capita and high life expectancy. The worst performing countries in the 2015 Index lack modern infrastructure and have non-existent or underdeveloped healthcare systems.

For the third year, Austria ranked highest in healthcare, followed by Germany and France. Despite having the world's highest health

## LIFE EXPECTANCY AT BIRTH



Source: U.S. Census Bureau, International Database, accessed December 3, 2014.

expenditure per capita, life expectancy in the U.S. has declined slightly and its health system is constrained by high demand and limited capacity of beds and physicians per capita, causing concern for retirees.

Beyond the broad economic and political risks, perhaps the greatest risk to the financial security of retirees is the increased responsibility for retirement funding that is placed squarely on the shoulders of individuals worldwide.

<sup>1</sup> Natixis Global Asset Management Global Institutional Investor Survey conducted by CoreData Research (October 2014). Survey included 642 institutional investors in 27 countries across six geographical regions.

### **SECTION 3**

## Individuals will shoulder a greater share of retirement funding

Individuals have long relied on a traditional three-legged stool model of retirement funding with government benefits, employer pensions and personal savings providing a solid platform for stable income. But it would appear that retirees are now left to balance on a one-legged stool as decreasing public and employer benefits shift the greater share of the responsibility onto the individual.

### Individuals may not be ready for the responsibility

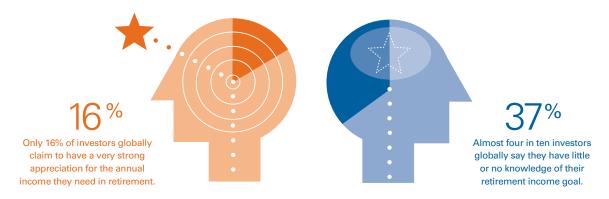
For many individuals, retirement savings and income can be abstract concepts. Human nature is to approach longer-term objectives with a general sense of what is needed rather than specific goals and metrics for measuring progress along the way.

In our 2014 Global Survey of Individual Investors,<sup>2</sup> we found that only 16% of the nearly 6,000 individuals we spoke to in 14 countries claimed to have a very strong understanding of the annual income they will need to live comfortably in retirement. An additional 37% of those we spoke to said they have no knowledge of their retirement income goal.

This lack of clarity is brought further into focus by the fact that 58% of those we interviewed said they do not have clear financial goals. Additionally, 68% said they have no financial plans and 78% said that when making investment decisions they rely on gut instincts alone.

With other sources of retirement funding shrinking, investors will need to firm up plans or be faced with a significant shortfall. Even in those countries that rank highest in the Retirement Index, where benefits are strong today, individuals should be wary of a potential pension gap in the coming years.

### INVESTORS ARE UNCERTAIN OF RETIREMENT INCOME NEEDS



### Realistic expectations need to be set

Part of the reality facing individuals is the prospect of working longer. Almost seven in ten (68%) of those surveyed said they expect to retire by age 65, but only 22% are confident that their current investment approach is on track to provide steady retirement income.

This lack of conviction is exacerbated by high hopes for early retirement. Despite increasing lifespans and rising retirement ages globally, about one-third of those surveyed said they expect to retire by age 60.

One area where individuals do exhibit a realistic view of the world is in understanding the risks to financial security that they will face in retirement. When asked, 43% say long-term care costs represent the greatest risk to their security while only 26% say it's insufficient funds from their government benefits.

Addressing the financial planning gap with individuals now is just one of the critical steps toward ensuring retirement security globally in the future.

<sup>2</sup> Natixis Global Asset Management Global Survey of Individual Investors conducted by CoreData Research (March 2014). Survey included 5,950 investors in 14 countries from Asia, Europe, the Americas, and the Middle East.

### CONCLUSION

## What's needed to address global retirement security

Although there are political, economic and demographic forces at work that challenge the viability of the traditional three-legged stool, we think the best strategies for addressing retirement security still lie within this model. But there is still room for government, employers and individuals to enhance what they bring to the table.

### Public policy considerations

While government benefits may no longer be the sole source of income for many retirees, these funds still represent an important income source and as such they will still need to be funded, as will health and welfare programs that are essential to wellbeing in retirement.

Beyond these programs, governments can help address retirement needs with sympathetic tax policies that encourage individuals to take the first step toward ensuring a secure retirement: saving a larger share of their annual salary toward their future needs and obligations.

Establishing policies that encourage innovation is another critical step forward. Mandatory or semi-mandatory programs such as Australia's Superannuation and New Zealand's KiwiSaver have proven to be effective measures for increasing participation among individuals and employers alike.

Recently, in the U.S., the State of Illinois has announced the Secure Choice retirement savings program in which individuals not covered by a workplace retirement plan will be automatically enrolled. Contributions to individual accounts will come via a 3% payroll deduction. While participation is voluntary, individuals will need to opt out should they not want to contribute. The plan, which is similar to what's been discussed by the Obama administration at the federal level, could present a powerful test case for addressing a growing retirement savings crisis in the U.S. and abroad.

It is important to note the direct connection between fiscal policy and retirement security. Sound, forward-thinking policies that are sensitive to the strength of the national economy go a long way toward improving the quality of life for retirees. Recent moves by Switzerland to strengthen the franc against the euro go a long way toward increasing purchasing power of the country's retirees, a critical consideration for individuals seeking to make their retirement savings last.

## Access and incentives from employers

Globally, we are beginning to see a major shift in employee retirement benefits. Employers are faced with the challenge of providing consistent funding to defined benefits programs such as pensions while addressing the longevity risk presented by ever-increasing lifespans among benefit recipients. In place of these traditional benefits plans, employers are looking more closely at defined contribution plans that will place greater emphasis on the personal savings of workers.

The first challenge for employers is to provide employees broad access to retirement savings plans. Those firms making the transition to defined contribution plans will need to ensure employees have access to this foundation early in their careers to allow greater time for accumulation of assets. The second challenge is to provide tangible incentives that encourage employee participation.

Employer savings matches have proven to be an effective incentive to participation in many cases. Our recent survey of 401(k) participants<sup>3</sup> in the U.S. demonstrated that this is by far the most important incentive employers can provide.

### Automatic features may help increase participation and engagement

Similarly, as highlighted by the experience with Australia's Superannuation system, auto-enrollment provisions that require employees to contribute help to drive participation. Once enrolled, auto-escalation features encourage participants to increase contributions at annual review time, helping individuals put more income away at a time when more is expected of them in funding retirement.

Beyond matching contributions, employers should also concentrate on participant education. Where many individuals may not be active investors with discretionary income, they are asked to step up as investors within the confines of their retirement plan. Providing a basic framework for how to invest can go a long way toward helping maximize their retirement savings.

While a defined contribution plan can provide employees with a solid start toward saving for retirement, we have found that the true challenge is helping individuals make the transition from passive retirement savers to active and engaged retirement investors. From our view one of the most important steps to be considered here is making professional financial advice available to all plan participants. They are being asked to shoulder a larger share of the burden in retirement funding; retirement plans should make every effort to help them succeed.

## Deeper engagement from individuals

A simple strategy for individuals looking to ensure a secure retirement would be to save more and start saving sooner. In reality it's not that simple. Life is complicated and brings with it many competing priorities. Saving for a child's education, caring for elderly parents, and other more immediate needs can often take precedence over the long-term objective of securing one's retirement funding. Perhaps the best step forward for individuals is to set realistic goals. Our recent Global Survey of Individual Investors identifies a critical lack of planning among individuals.

## Looking out for the pension gap

Beyond a stronger commitment to financial planning, we believe individuals who are now being asked to shoulder a larger share of retirement funding should look closely at the options available to them. If they have a pension, they should calculate their expected annual payout, along with potential government benefits they may receive, to determine just how much they will be required to contribute to their retirement income from their personal savings. Recognizing the pension gap early can be a powerful motivation to increase personal investments.

Special note should be made here of individuals in the U.K., who will now take on management of their total retirement benefits payout rather than traditional annuity options. In taking on this responsibility, they may benefit from professional financial advice on how to make their pension payout last through a retirement that could go on for decades.

And those with access to defined contribution plans should recognize that saving alone is not enough. In meeting the challenge of achieving retirement security, they may want to consider how to best maximize their participation in a workplace retirement plan by taking advantage of matching contributions, auto-escalation and other features. Ultimately, success may depend upon making the leap from being a passive retirement saver to an active and engaged retirement investor.

### DATA HIGHLIGHTS

## Leaders and laggards

- Eight of the 10 highest-ranked nations are Northern European. These include Switzerland, Norway, Iceland, the Netherlands, Sweden, Denmark, Austria, and Germany.
- Northern European countries outrank Southern European countries, which have been forced to cut their social programs more severely in recent years.
- Switzerland retains the number one spot on the retiree security scoreboard in 2015, while Norway ranks 2nd for consecutive years.
- The United States ranks 19th out of the 150 countries and maintains its position from last year. Yet the U.S. trails countries such as South Korea, Japan, and the Czech Republic in this year's GRI. However, with a better demographic outlook and economic fundamentals than many of its developed-country peers, one may see the U.S. gradually becoming a better (relative) place for retirees and it could rise in the rankings in the years to come.
- Iceland and the Netherlands moved into the top 10 this year. Iceland's success could be attributed to the government's subsequent management of the financial crisis that led to the collapse of its financial sector in 2008. The Netherlands has also benefited from a gradual improvement in its financial sector after the financial crisis.
- · Among Asian countries, Japan and Singapore improved significantly, relative to their peers, over the past year.
  - Japan retakes its place in the top 20, rising from 27th to 17th, after dropping out last year. The country performs very strongly in the Health Index, which is hardly surprising considering it has the world's highest life expectancy, most hospital beds per thousand people and high health insurance coverage.
  - Singapore's economy remains stable and vibrant following the 2008 crisis, allowing the country to continue its growth as the financial center of Southeast Asia. The strong and healthy financial system and the fact that its citizens enjoy the world's third highest income per capita result in Singapore's improvement in the overall rankings, moving from 41st to 30th.
- In the Middle East, Qatar and Kuwait performed well, gaining more than ten places in 2015. Qatar moved from 31st to 21st and Kuwait moved from 40th to 26th. The two countries enjoy the world's first and second highest income per capita and their unemployment rates are under 1.5%.
- Conversely, the United Kingdom fell out of the top 20. Spain dropped 26 places to 55th, behind the likes of Thailand, Mauritius, and Peru. Greece slipped 37 spots to 76th, lagging behind Vietnam, Colombia, and Ukraine.
  - Despite its recently improved national economic performance, the United Kingdom fell from 18th to 22nd this year. Real interest rates remained negative and government debt was higher than average. While the recovery has taken hold with a healthy rate of economic growth and the unemployment rate on a downward trajectory, real incomes have yet to benefit significantly from these improving fundamentals. However, as the improving economy translates into an improved quality of life for retirees and healthier public finances we can expect the U.K. to rise gradually in the rankings in years to come.
  - Spain (from 29th to 55th): The country has suffered from economic weakness in recent years, causing its retirement system rank to drop two years running. A high level of unemployment, gradually falling income per capita, weak bank balance sheets and higher public debt have combined in the last few years to create a less welcoming environment for retirees. However, the tide appears to be turning for the Spanish economy and this will most likely contribute towards making it a better place for retirees in the coming years, which would in turn lead to a stabilization and rise of the country's position in the rankings.
  - Greece (from 39th to 76th): As the only country in the euro zone to have a higher rate of unemployment than Spain, Greece is yet to recover from the deep recession that followed the country's financial crisis. Although maintaining a high score in the Health Index, this could not offset the continuing drop in economic performance which leads the nation's retirement system security downwards in the GRI.
- As has happened in previous years, Sub-Saharan African nations hold all the bottom 10 places in the ranking, with Togo ranked last in this year's Global Retirement Index.

### Shifts in retiree financial security attributed to fluctuating macro and economic factors

- Macro market and economic factors most notably government debt, inflation and fiscal policies are creating risks that can have a profound influence on financial security for retirees around the globe.
- Compounding the challenge, rising demand from aging populations will consume a greater share of government resources.
- This dilemma has contributed to the complexities involved in solving the worldwide crisis in retirement funding and underscores the need for more diverse and stable sources of funding, including personal savings and investments.

## Implications for individuals: More responsibility; re-engineer financial plans for retirement

- While many structural factors determine retirement security, individual savers and investors should focus on the factors that
  remain in their control namely saving for their futures; obtaining and following professional financial advice; and acting to minimize external risks to the extent possible.
- Investors globally face critical challenges when answering fundamental questions about retirement planning.
  - A recent Natixis survey found that almost 70% (68%) of investors worldwide have no financial plan. Specifically, nearly four in ten (37%) investors globally say they have little or no knowledge of their retirement income goal.<sup>4</sup>
  - Only 16% of investors globally claim to have a very clear idea of the annual income they will need to live comfortably in retirement.<sup>5</sup>
  - Compounding the problem, many investors are holding tight to the notion of an early retirement. Approximately one-third of those surveyed who are not yet retired expect to do so before age 60.6 This desire to retire early is hindered further by the fact that increased longevity can make the mathematics of funding an early retirement impractical.

### Role of financial advisory community never more critical

- As investors around the world look to ease the burden of funding retirement, financial advisors are stepping forward to help
  clients set clearer goals and establish more specific plans for both accumulating retirement assets and turning savings into a
  reliable income source in retirement. Our research identifies that helping clients to more clearly define retirement goals and
  expectations on retirement income is among the key trends that are shaping today's advisory practices.
- Advisors are clearly aware of this demand for help with retirement services. When asked what products and services clients want from them, advisors' top answers are "retirement planning" at 70% and "access to stable income products" at 68%.
- While they cannot resolve the deep structural challenges some governments face, financial advisors are in a position to drive demand for investing strategies that will empower individuals with greater control of their own financial security and deliver durable portfolios that can withstand market fluctuations over time. Research reveals almost two-thirds (66%) of investors agree a traditional approach that relies only on stocks and bonds is no longer the best way to pursue investment returns.<sup>8</sup> At the same time, only 38% of financial advisors now deem conventional portfolio strategies (60/40 portfolio) as the right solution.<sup>9</sup>
- One approach advisors should consider is goal-based investing, which places the emphasis on what an individual needs to save to meet specific goals rather than simply trying to outperform an irrelevant benchmark. Actually, almost seven in 10 advisors globally (69%) say they encourage clients to have a target return that is independent of the market.<sup>10</sup>

## Durable Portfolio Construction provides a new approach that can help people pursue retirement goals

As they assume more of the planning and saving responsibility, investors need to think of risk first as they build durable, diversified portfolios that can manage short-term volatility, pursue long-term growth, and keep them invested through a variety of market cycles in order to realize their full savings potential.

<sup>7, 9, 10</sup> Natixis Global Asset Management, Global Survey of Financial Advisors, July 2014.

## What Drives Change in the Global Retirement Index

The Global Retirement Index is a multi-dimensional index focused on the factors that determine the welfare of retirees in different countries. More concretely, the index considers 20 drivers of retiree welfare that are grouped into four sub-indices corresponding with four key aspects influencing the wellbeing of those in retirement: health, material wellbeing, quality of life and finances in retirement. Thus, the determinants of welfare for those in the latter stages of their life are not only numerous, but also diverse in nature.

The GRI is a tool aimed at gauging levels of retiree welfare globally. It provides an assessment of the quality of life of retirees by country and at a given point in time and provides a comparison of 150 countries. More importantly, it tracks the evolution of the wellbeing of retirees across time and uncovers trends that may only be visible with a consistent measurement tool. In fact, retiree welfare is determined to a great extent by the structural economic, social, environmental and political characteristics of a country, which tend to be stable over the short term and only change significantly over the long term. Hence, while there is movement in the rankings each year there is also an element of ranking stability.

For the movers and shakers, some countries experience notable movements in their relative retiree welfare rankings. This can, in general, be attributed to those drivers of retiree welfare that are more likely to experience short-term movements. This is particularly the case with macroeconomic variables that impact the finances of individuals in retirement.

Iceland, for instance, gains seven positions in the 2015 GRI when compared with 2014, jumping from 11th to 4th in the rankings; a move that can primarily be attributed to an improvement in the loan books of its banking sector, which directly impacts the security of the savings of those in retirement. In fact, Iceland's performance in most other indicators remains mostly stable, which is a result of the short-term rigidity of environmental, healthcare provision and wealth indicators, due to the more structural nature of the realities they measure. As a result of this, and given Iceland's strong performance in other areas, a dramatic strengthening of its banking system, which saw the percentage of non-performing loans fall from 18.3% in 2010 to under 4.3% today, resulted in Iceland moving into the top five countries for retiree welfare.

Similarly, the Netherlands benefited from an improvement in short-term variables that are important to the financial security of retirees, climbing from 13th position in the overall rankings in 2014 to 5th in this year's index. A relatively more favorable interest rate environment than some of its Northern European peers and an improvement in the quality of its bank loan books means its score in the Finances in Retirement sub-index increased from 56% in 2014 to 62% in 2015, underpinning its rise to become one of the top five countries for retirees.

On occasion, countries can experience a rapid improvement not only in short-term macroeconomic variables, but also in structural variables that positively impact the wellbeing of those in retirement. An improvement in structural variables can be a telling sign of rapid development, and some countries in the Middle East, particularly in the Gulf, are an example of this.

Qatar, for instance, has seen the quality of healthcare available to its retirees improve substantially over the past few years. Since 2006 the number of physicians for every 1,000 inhabitants has nearly tripled, from 2.8 to 7.7, to make it the top-ranked country in the world in this respect. Moreover, the country has seen its wealth continue to increase; income per capita increased by nearly \$1,000 in the last year alone, despite already having the highest income per capita. On top of this, short-term financial fundamentals have also seen a sizable improvement. As growth has returned, post-financial crisis, monetary policy has become more favorable for retirees with real interest rates increasing from -0.3% to 4.3%, pushing the country's score in the interest rates indicator from 1% to 79%, giving the country's ranking a boost from 31st in 2014 to 21st in the 2015 index.

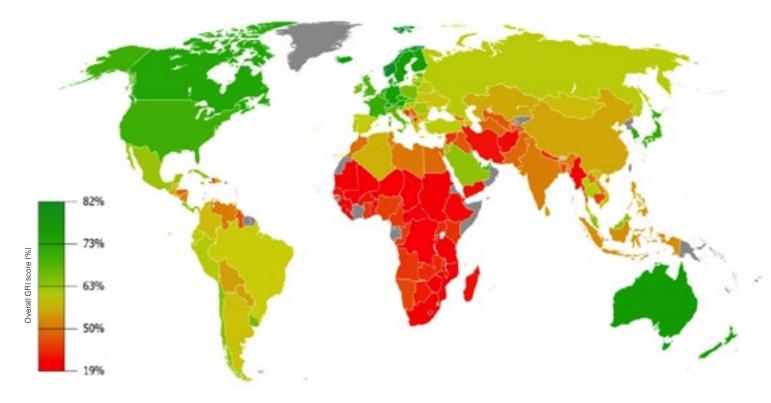
## The Global Retirement Index 2015

A holistic assessment of the life conditions for retirees should not be limited to a "snapshot" at a particular point in time but should aim to capture the evolution of key factors driving wellbeing among people of retirement age. Changes in these drivers reflect developments associated with the economic cycle. More importantly, they bring to a fore the underlying fundamental trends in policy, economic development, demographics and environmental preservation which together all impact an individual's wellbeing in retirement.

The analysis of these different factors is vital in painting an accurate picture of how retiree life will evolve in the long run and which particular elements may increase or decrease retiree welfare in a particular nation. One of the main objectives of this report is to identify key factors which may cause shifts in the fundamental trends mentioned above (economic development, demographics, policy and environmental preservation).

The map below shows the overall scores obtained in this year's Global Retirement Index. The highest performers, scoring over 70%, are either North American or developed European nations, with the exception of a number of countries from Asia Pacific and the Middle East (i.e. Australia, New Zealand, Japan, South Korea, Qatar, etc.). At the lower end of the scale, those scoring 40% and under are predominantly Sub-Saharan countries, but also include some Middle Eastern and Southeast Asian nations.

#### **GLOBAL RETIREMENT INDEX 2015**

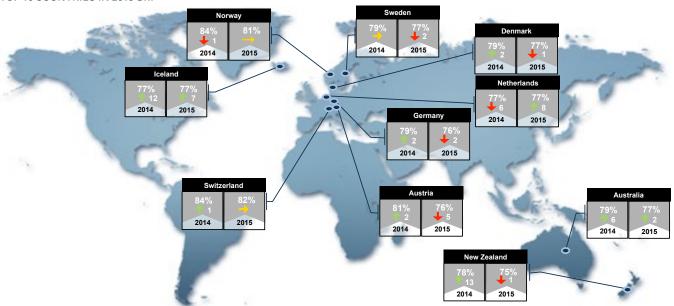


## The Best and Worst Performers

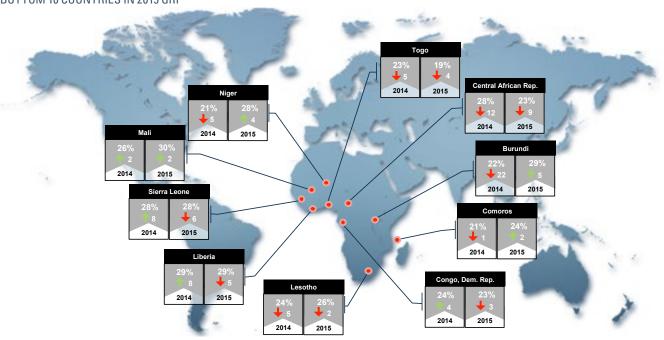
The group of best performers in this year's GRI is composed of four Nordic countries (Norway, Iceland, Denmark, and Sweden), four of the six official German-speaking nations (Switzerland, Austria, Germany, and Luxembourg), Australia and New Zealand.

By and large, these top-performing nations are modern industrialized economies with significant service sectors and contemporary infrastructure. Although these countries have relatively high tax burdens (Denmark, Sweden, Norway, and Austria are among the top 10 for tax pressures), their citizens benefit from some of the highest income levels per capita (Norway, Switzerland, and Sweden are among top the 10 in income per capita), while also having narrow income gaps (top 10 include Norway, Iceland, and Denmark). In addition, the citizens of these nations benefit from exceptional universal healthcare systems (all are in the top 20 in the Health Index). Furthermore, government policy is geared towards ensuring high standards with regard to the environment and overall wellbeing.

#### **TOP 10 COUNTRIES IN 2015 GRI**



### **BOTTOM 10 COUNTRIES IN 2015 GRI**



The group of worst performers in this year's GRI is composed of Sub-Saharan countries (Togo, Central African Republic, Democratic Republic of the Congo, Comoros, Lesotho, Sierra Leone, Niger, Burundi, Liberia, and Mali).

In general, these nations lack modern infrastructure and have non-existent or underdeveloped healthcare systems. They have some of the lowest levels of income per capita and are often burdened with substantial barriers to economic development, such as high levels of inflation and sovereign debt. Furthermore, improvement in key indicators seems unlikely in the short term due to these chronic economic issues.

In terms of the Health sub-index, the top 30 performers have modern healthcare systems, which include high levels of physicians per capita, sustainable health expenditure per capita and high life expectancy. The lowest overall score is 63% for Singapore and the best score is 88% for Austria, which ranks first for three years in a row. Similarly in the Quality of Life/Natural Environment sub-index, all top 30 countries score above 65% (except for Qatar with 51%) and Switzerland tops the list for the third consecutive year with a score of 91%. As government policy becomes increasingly focused on issues related to the environment and pollution, welfare in these countries has reached a relatively high standard. Therefore they tend to perform well in the Quality of Life/Natural Environment sub-index.

The overall score for the Finances in Retirement sub-index tends to be relatively low due to many of the top 30 nations having low birth rates and increasing numbers of retirees as a proportion of their population, coupled with high levels of sovereign debt.

### TOP 30 COUNTRIES IN THE 2015 GRI INDEX

	COLOR SCALE
	90% - 100%
<u>@</u>	80% - 90%
_	70% - 80%
score	60% - 70%
verall	50% - 60%
Š	40% - 50%
_	
	20% - 30%
	10% - 20%
	0% - 10%

Rank	Country	Health Index	Finances in Retirement Index	Quality of Life Index	Material Wellbeing Index	Global Retirement Index
1	Switzerland	83%	70%	91%	85%	82%
2	Norway	84%	63%	88%	95%	81%
3	Australia	81%	73%	80%	76%	77%
4	Iceland	81%	63%	86%	81%	77%
5	Netherlands	84%	62%	83%	81%	77%
6	Sweden	81%	64%	89%	75%	77%
7	Denmark	82%	59%	91%	78%	77%
8	Austria	88%	53%	86%	84%	76%
9	Germany	87%	59%	82%	79%	76%
10	New Zealand	78%	70%	84%	70%	75%
11	Luxembourg	84%	58%	78%	84%	75%
12	Canada	76%	68%	81%	72%	74%
13	Finland	81%	55%	87%	76%	74%
14	Korea, Rep.	75%	69%	67%	83%	73%
15	Czech Republic	81%	61%	76%	74%	73%
16	Belgium	82%	58%	75%	76%	72%
17	Japan	84%	54%	75%	76%	71%
18	France	86%	57%	80%	66%	71%
19	United States	80%	65%	78%	64%	71%
20	Slovenia	78%	57%	79%	73%	71%
21	Qatar	79%	77%	51%	81%	71%
22	United Kingdom	79%	53%	82%	69%	70%
23	Israel	77%	62%	75%	65%	70%
24	Malta	78%	61%	65%	76%	69%
25	United Arab Emirates	65%	55%	77%	84%	69%
26	Kuwait	67%	54%	69%	91%	69%
27	Estonia	76%	65%	72%	62%	68%
28	Slovak Republic	76%	62%	76%	60%	68%
29	Italy	82%	50%	80%	63%	67%
30	Singapore	63%	72%	66%	68%	67%

For example, the highest score is 77% for Qatar and the lowest is 50% for Italy. In terms of the Material Wellbeing sub-indices, the best-performing nations such as Norway, Luxembourg, and Switzerland tend to have high levels of income per capita and low unemployment. The highest scoring nation is Norway with 95% and the lowest is Slovakia with 60%.

In this year's GRI, with the exception of three Asian countries (Yemen, Afghanistan, and Myanmar), the 30 worst performers are African nations. Due to high levels of pollution and few resources in terms of disease prevention, these nations score low in the Quality of Life/Natural Environment sub-index, with most countries scoring under 50% and the lowest score being 7% for Togo. Similarly, in the Health index, scores do not exceed 40% (except for South Africa with 50%) and the lowest score is 8% for Sierra Leone. This is due to an under-developed healthcare system, poor medical infrastructure and low levels of physicians per capita, which results in low life expectancy and high infant mortality rates.

These countries perform equally poorly in the Material Wellbeing sub-index, where no African country scores over 50% and South Africa only scores 8%. The main reasons for such low scores are very low levels of income per capita and also the highest rate of income inequality in the world. In contrast, with low levels of tax pressures and overall low old age dependency, the performance in the Finances in Retirement sub-index is impressive as almost half (14) nations beat the 50% mark and Botswana scores the highest with 66%. However, one should bear in mind that high performance in the Finances in Retirement sub-index does not account for future political and economic instability.

### BOTTOM 30 COUNTRIES IN THE 2015 GRI INDEX

	COLOR SCALE
	90% - 100%
<u>_</u>	80% - 90%
% e	70% - 80%
all score	60% - 70%
	50% - 60%
Overall	40% - 50%
J	
	20% - 30%
	10% - 20%
	0% - 10%

Rank	Country	Health Index	Finances in Retirement Index	Quality of Life Index	Material Wellbeing Index	Global Retirement Index
121	Botswana	29%	66%	45%	22%	37%
122	Senegal	22%	44%			
123	Afghanistan	21%	51%			
124	Madagascar	20%	51%			
125	Yemen, Rep.	26%				
126	Burkina Faso	19%				
127	Ethiopia	19%				
128	Benin	20%		37%		
129	Myanmar	17%	33%	57%	44%	
130	South Africa	50%	62%	54%	8%	
131	Mozambique	17%	60%	49%	25%	
132	Djibouti	35%	57%	53%	11%	
133	Zimbabwe	18%	33%	60%		
134	Sudan	28%	26%			
135	Haiti	35%	56%	25%	22%	
136	Guinea	18%	34%	43%		
137	Tanzania	16%	55%	25%		
138	Chad	12%	56%	36%	37%	
139	Malawi	18%	55%	63%	13%	30%
140	Mauritania	26%	55%	51%	11%	30%
141	Mali	9%	55%		39%	30%
142	Burundi	17%	48%		21%	29%
143	Liberia	18%	57%		20%	29%
144	Niger	13%			29%	28%
145	Sierra Leone	8%	49%	36%	47%	28%
146	Lesotho	21%	56%	25%	16%	26%
147	Comoros	27%	58%	22%	10%	24%
148	Congo, Dem. Rep.	11%	45%		14%	23%
149	Central African Republic	13%	52%	41%	10%	23%
150	Togo	20%	38%	7%	27%	19%

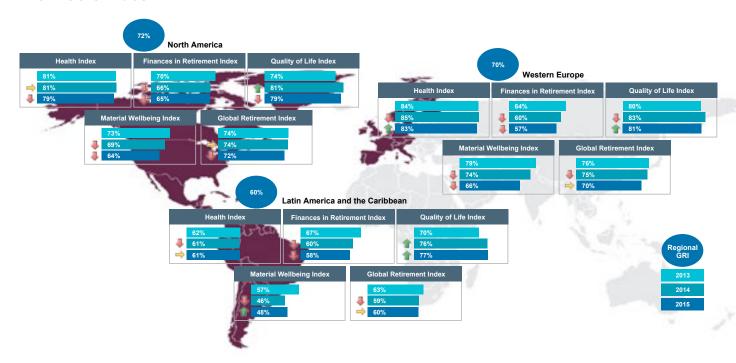
### Regional Perspective

On a regional basis, North America (Canada and the United States) takes first place in this year's GRI, instead of Western Europe, though with a lower score of 72% compared to last year's 74%. A trend of decreasing overall scores for four regions in the world (Western Europe, North America, Eastern Europe and Central Asia, and Middle East and North Africa) can be observed. When calculating the regional average for the Global Retirement Index scores, a population-weighted method is used to allow countries with larger populations to have greater influence than those with fewer citizens.

North America's remarkable performance is mostly due to its stability. The United States and Canada together maintain the region's rankings in all the four sub-indices compared to last year. The region is in 2nd place in the sub-indices for Health, Quality of Life/Natural Environment and Material Wellbeing and is in the 1st place in the finance category. In contrast, Western Europe decreased its score in the Finances in Retirement sub-index to 57% from 60%, ranking 4th in the world (behind North America, Asia Pacific, and Latin America and the Caribbean). This leads to Western Europe's drop in overall ranking to the 2nd place, although the region tops the other three sub-indices.

Latin America and the Caribbean's performance is stable in this year's GRI at 60%, placing 3rd among all the regions under review. It has improved its standing in the Quality of Life sub-index to 77% and increased its ranking in the finance category to 3rd place. This is consistent with the findings that show three countries from this region feature in the top 10 for the Quality of Life sub-index and two for the Finances in Retirement sub-index. Further detail on this will be illustrated later in this report.

#### **TOP REGIONS IN 2015 GRI**

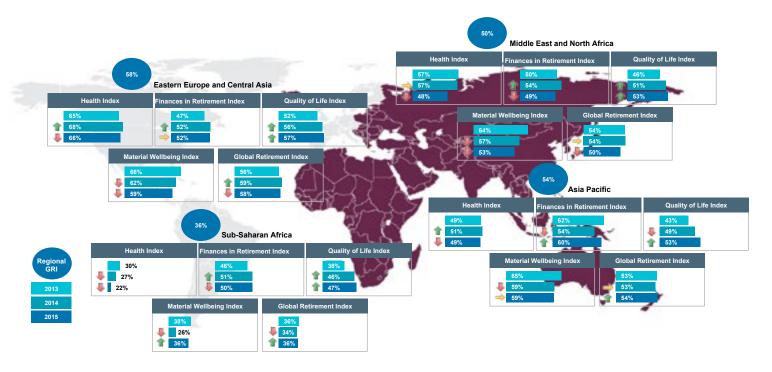


With an overall score of 58% in this year's GRI, Eastern Europe and Central Asia maintains its 4th place. The region's score decreased in all but the Quality of Life sub-index, where the region's score rises by only 1% to 57%. The Asia Pacific region performed reasonably well in this year's GRI with its score increasing to 54%, moving it up one spot and ranking 5th. The region has seen its score in the Quality of Life sub-index increase for three consecutive years. Moreover, being the only region that could increase its score in the finance category, Asia Pacific improves this score by 6% to 60% in 2015, ranking 2nd in the Finances in Retirement sub-index.

The Middle East and North Africa dropped down the rankings with an overall score of 50%. The region experienced substantial decreases in all but the Quality of Life sub-index. Although the region is home to three fast growing economies – Qatar, Kuwait, and the United Arab Emirates – these cannot offset the poor performance of Egypt and Iran as these two countries account for 34% population of the whole region.

As stated previously, Sub-Saharan Africa's performance has been particularly poor in this year's GRI, having been the worst performer in the Health sub-index (scoring 22%) and the Finances in Retirement sub-index (scoring 50%). Although Sub-Saharan Africa did manage to improve in the Quality of Life and the Material Wellbeing sub-indices, it only scores 36% overall, finishing last by a substantial margin (the Middle East and North Africa finishes second to last with an overall score of 50%).

#### **BOTTOM REGIONS IN 2015 GRI**



## THE TOP 30: Year-on-Year Trends

This year's top 30 performers in the GRI are largely represented by Europe and North America. Other regional groups are also represented, such as Asia Pacific, with Australia, New Zealand, South Korea, Japan, and Singapore. Finally, the Middle East has two more nations (Qatar and Kuwait) joining the top 30 performers, in addition to United Arab Emirates and Israel. No countries from either Latin America or Africa make this list.

The most significant change in this year's GRI is Iceland's rise to 4th position up from 11th in the 2014 GRI. This follows the country's increase last year from 23rd in 2013. Qatar also increased its score, ranking 21st in this year's GRI, up from 31st place last year. Both Iceland and Qatar significantly improved their performance in the Finances in Retirement index. Singapore and Japan both rebounded after last year's drop. When it comes to the worst performers, Israel fell in both its overall score and ranking for two years in a row and now ranks 23rd, down from 20th place in last year's GRI. Its performance in the Quality of Life/Natural Environment sub-index was limited by ecosystem degradation, according to this year's report. The Slovak Republic and Italy both fall six places due to their unfavorable domestic economic environment.

#### YOY TOP 30 COUNTRIES IN THE 2015 GRI INDEX

	CHANGES IN 2015
	Increase
	Constant
	Decrease
	COLOR SCALE
	90% - 100%
Over all dry score (70)	80% - 90%
	70% - 80%
2	60% - 70%
5	50% - 60%
<u>D</u>	40% - 50%
Š	30% - 40%
	20% - 30%
	10% - 20%
	0% - 10%

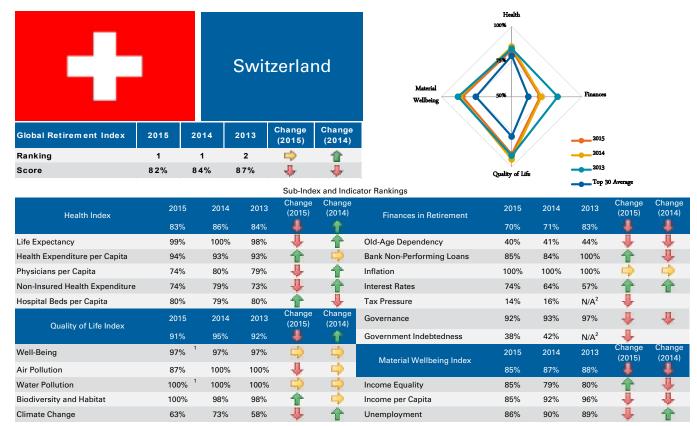
Country	Ranking 2015	Ranking 2014	Ranking 2013	Trend in Ranking	Score 2015	Score 2014	Score 2013
Switzerland	1	1	2	• • • •	82%	84%	87%
Norway	2	2	1	• • •	81%	84%	87%
Australia	3	5	11	•	77%	79%	78%
Iceland	4	11	23		77%	77%	73%
Netherlands	5	13	7	• • • •	77%	77%	80%
Sweden	6	4	4	• • • •	77%	79%	82%
Denmark	7	6	8	• • • •	77%	79%	79%
Austria	8	3	5	• • •	76%	81%	81%
Germany	9	7	9	• • •	76%	79%	78%
New Zealand	10	9	22		75%	78%	73%
Luxembourg	11	10	3	• • •	75%	78%	82%
Canada	12	14	13	• • •	74%	77%	77%
Finland	13	8	6	• • • •	74%	78%	79%
Korea, Rep.	14	17	27		73%	74%	72%
Czech Republic	15	16	17		73%	75%	74%
Belgium	16	12	14		72%	77%	77%
Japan	17	27	15		71%	69%	77%
France	18	15	10	• • •	71%	76%	78%
United States	19	19	19		71%	73%	74%
Slovenia	20	21	16	• • •	71%	73%	76%
Qatar	21	31	50		71%	68%	64%
United Kingdom	22	18	20		70%	74%	74%
Israel	23	20	12		70%	73%	77%
Malta	24	28	26		69%	69%	73%
United Arab Emirates	25	26	30		69%	70%	71%
Kuwait	26	40	39		69%	65%	67%
Estonia	27	33	43		68%	67%	66%
Slovak Republic	28	22	18		68%	72%	74%
Italy	29	23	21		67%	72%	74%
Singapore	30	41	28		67%	65%	72%

## 1. Switzerland

Switzerland retains top position in this year's Global Retirement Index as a result of a consistent performance across the four dimensions of retiree welfare. Switzerland has an extremely high quality of life and an outstanding healthcare system, and is one of the world's leading financial centers as a result of its track record, strong fundamentals and solid regulatory framework.

From a macroeconomic perspective, Switzerland is undoubtedly an attractive place for retirees, with its economy recovering from the financial crisis better than most of its European peers. This has helped its banking system improve their loan books and has sustained high levels of material wellbeing, with increasing income equality and high levels of income per capita. Swiss retirees also benefit from a well-funded top-class health system that has driven life expectancy to increase steadily to nearly 83 years.

However, Switzerland's status as a safe haven has proven to be a double-edged sword, allowing the government to borrow cheaply and the financial system to attract capital but also putting upward pressure on the Swiss franc and forcing the central bank to take extraordinary measures to avert further appreciation of the currency. This has resulted in negative interest rates, which penalizes savers and affects retirees disproportionately.



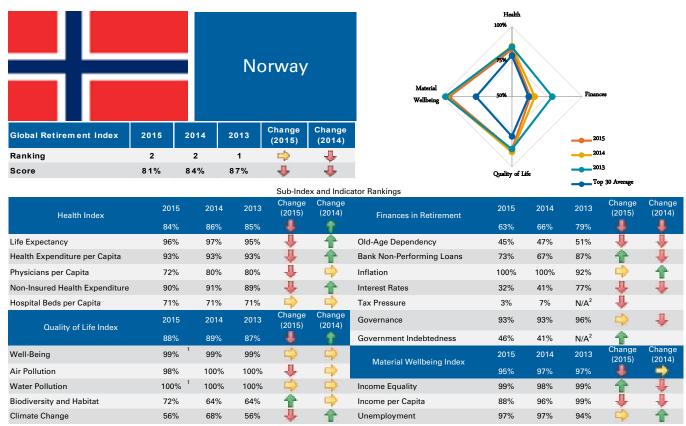
- 1. Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

## 2. Norway

Despite Norway failing to reclaim its crown and the first position it achieved in 2013, the country manages to retain its place as a destination with the second highest level of retiree welfare globally. Norway has an extremely high quality of life, an outstanding healthcare system and a sound financial system. Moreover, due to the country's careful management of its oil wealth, Norway runs one of the world's largest sovereign wealth funds with assets worth over \$890bn.

Norway outperforms the average top 30 countries in all four dimensions of the GRI and maintains its first place in the Material Wellbeing sub-index. Within this category Norway's most notable performance can be seen in a higher level of income equality and in a decrease in the level of unemployment.

Moreover, Norway has managed to reduce its level of government debt relative to GDP from nearly half of GDP (49.6%) to one-third (34.1%) of GDP, further strengthening its fiscal position and its ability to fund public services and retirement income schemes in the future. However, Norwegian investors, particularly those approaching or at retirement, face a challenge to fund their lifestyle in retirement given the ultra-low interest rate environment (e.g. 10-year government bond yield fell from 3.03% last year to 2.21% this year). The recent dramatic fall of oil prices in global markets could also be a challenge for the Norwegian economy and its retirees in the years to come, given the importance of the oil industry for the overall economy and tax revenues.



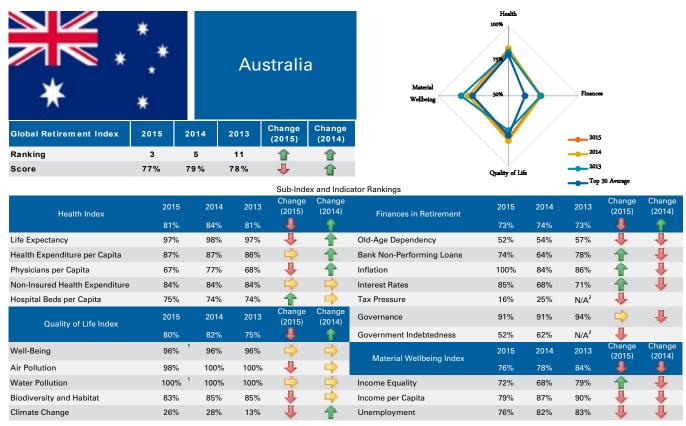
- 1. Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

## 3. Australia

Australia has improved its ranking in this year's GRI, from 5th to 3rd place. Australia is one of the fastest-growing developed countries in the world, with a strong services and commodities industry. Australians benefit from a strong welfare system, high income equality and low levels of unemployment (approximately 5%).

Australia retains the top spot in the Finances in Retirement sub-index, with low levels of public debt, strong bank balance sheets and low levels of inflation – 1.8% in 2014. In addition, although the number of physicians per 1,000 people decreased due to an increase in the population, a higher life expectancy and an improvement in health insurance coverage and total health expenditure per capita help the nation perform well in the Health category.

Moreover, Australia, despite pessimism in some quarters, has seen the economy make progress towards rebalancing and largely avoiding the consequences of the end of the commodities export boom. In fact, a weaker currency has dispersed fears of a "Dutch Disease" and given a boost to other sectors of the economy. One area where Australia has significant room for improvement, if it is to remain a country with high levels of retiree welfare in the long term, is its level of CO2 emissions and its contribution towards averting climate change. Energy-intensive industries such as mining are key for the Australian economy which, coupled with very low levels of renewable energy production, translates into comparatively high levels of CO2 emissions per capita.

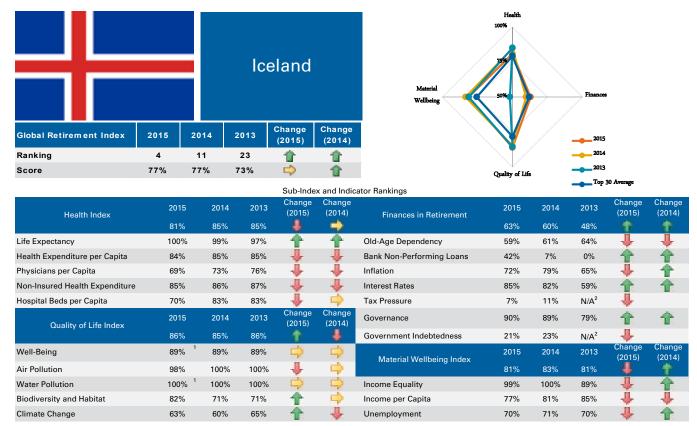


- 1. Updated data not available, 2014 data used.
- Indicator added in 2014.

## 4. Iceland

Iceland takes 4th position in this year's GRI, up from 11th place in last year's index. Although Iceland witnessed the systemic collapse of its three major commercial banks between 2008 and 2011, the government has been able to limit serious, long-term economic damage. In fact, the Icelandic government has managed to stabilize the level of government debt and worked towards its sustainability. Standard & Poor's recent upgrade of Iceland from negative to stable is a testament to this.

Iceland's performance in the Finances in Retirement sub-index, which saw a jump of 3%, is a reflection of the improving fundamentals of its banking system and overall economic performance. This upward spike was facilitated by a sharp reduction in the proportion of non-performing bank loans from 23% to 5.1% in 2014. The country's efforts to write off unsustainable debts and strengthen the balance sheets of domestic banks are a major achievement for Iceland's banking industry and should pave the way for credit to start flowing again and translate into improved economic growth figures. Moreover, a healthier banking system reduces the risk that retirees could lose their life savings while potentially boosting retirement saving levels by restoring faith in the system. However, challenges remain, and if the country is to remain a top pick in terms of retiree welfare it will have to further strengthen its financial system and ensure the sustainability of its spending on public services and providing retirement income support.



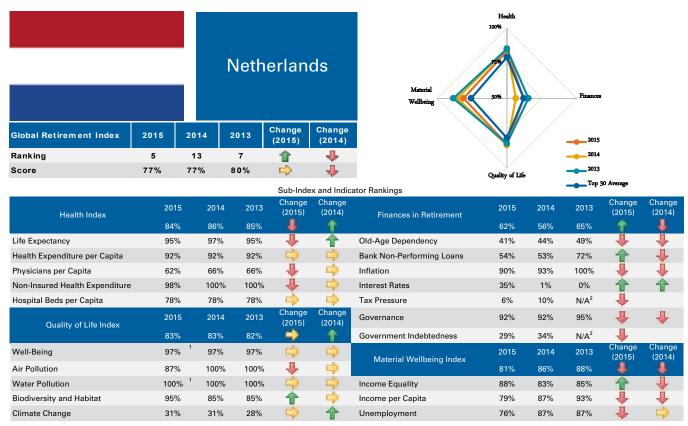
- 1. Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

## 5. Netherlands

The Netherlands impresses this year with an eight-place rise from last year's 13th position up to 5th in the overall GRI rankings. This rise in the rankings is due to an improved performance in the Finances in Retirement sub-index, which sees it jump from 56% in 2014 to 62% this year, as a result mostly of an improvement in the interest rate environment. Moreover, the country ranks among the top ten in the Health and Material Wellbeing sub-indices.

The Netherland's banking system experienced an improvement in its loan books as the proportion of non-performing loans decreased to 3% (non-performing to total), paving the way for healthier levels of credit and growth. Also, real interest rates have left negative territory, improving the returns on low-risk portfolios and annuities, which are key to retirees. Coupled with this, the nation remains attractive to retirees due to the high levels of health expenditure per capita and insurance coverage as well as a high quality of life.

However, there has recently been much debate, as in many developed Western nations, about the sustainability of the Dutch welfare state and pension system given negative demographic projections and an increasing old age dependency ratio. Reforms that take into account increases in life expectancy could be critical to the sustainability of the system, but might be politically difficult to implement. An improvement in economic growth in the euro zone could also be crucial to the sustainability of retirement-oriented public programs, but it has so far proved elusive.



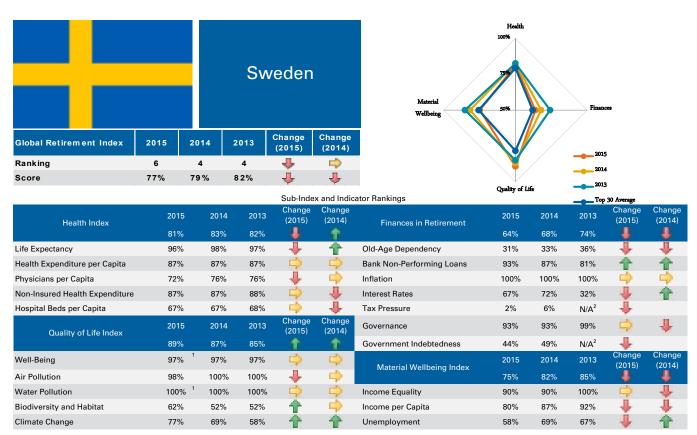
- 1. Updated data not available, 2014 data used.
- Indicator added in 2014.

## 6. Sweden

Sweden slipped two places in this year's GRI, pushing it just outside the top five with a fall from 4th to 6th place. Sweden is a prime example of the Nordic model – an export-oriented and capitalist economy, with a universal welfare system. Sweden's universal healthcare system, with high levels of physicians per capita (close to 4 per 1,000 people) and a high life expectancy (around 82 years), makes it one of the top-rated healthcare systems in this index. Added to this, Swedish retirees are also seeing an increase in their quality of life driven primarily by government policies aimed at reducing energy consumption and CO2 emissions that contribute to a better and healthier environment.

Regarding material wellbeing, Swedes benefit from high levels of income equality and one of the highest levels of the income per capita in the European Union at around \$45,000. However, a premature tightening of monetary policy after the financial crisis contributed to stalling the economic recovery and has led to low growth and relatively high levels of unemployment (8% in 2014). The prospects of the Swedish economy have been further hit by political instability, as the government called snap elections after only three months in office because it didn't have the majority necessary to approve its own budget.

A continued Swedish success in maximizing retiree welfare will depend on its ability to remain internationally competitive while preserving its generous and well-functioning welfare system with an aging population.



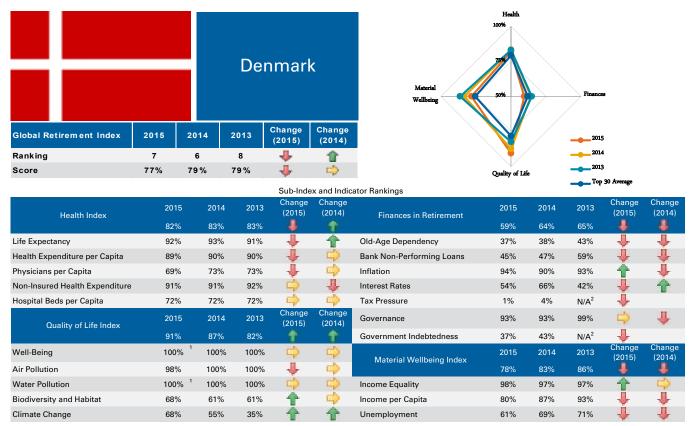
- 1. Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

## 7. Denmark

This year, Denmark's score retreated slightly with 2% shrinkage to 77%, pushing it down a place to 7th in the 2015 GRI. Danish retirees benefit from extensive government welfare programs and comfortable living standards. As shown in the Material Wellbeing sub-index, Denmark has extremely low levels of income inequality coupled with one of the highest levels of income per capita, at approximately \$45,000 (about \$1,000 more than last year).

Denmark also boasts a highly effective universal health system, with one of the highest levels of health expenditure per capita which has increased life expectancy to over 80 years. Denmark's three-pillar pension system is often touted as a model for other countries and has been highly successful at preserving generous retiree benefits while maintaining sustainability in the context of an aging population.

However, and despite these successes, the countries' retirees face significant challenges. With very close economic ties with the euro zone and a currency pegged to the euro, Denmark has seen its recovery stall in 2014, with GDP growth of only 0.8%. This has detrimental effects for the current and future finances of retirees as it has forced the Central Bank to keep interest rates at historical lows, affected the banking system's balance sheet and widened the government's deficit from 1.7% in 2013 to over 2% in 2014. While likely to remain a top destination for retiree welfare in years to come, further progress will depend to a great extent on an economic recovery in the euro zone.



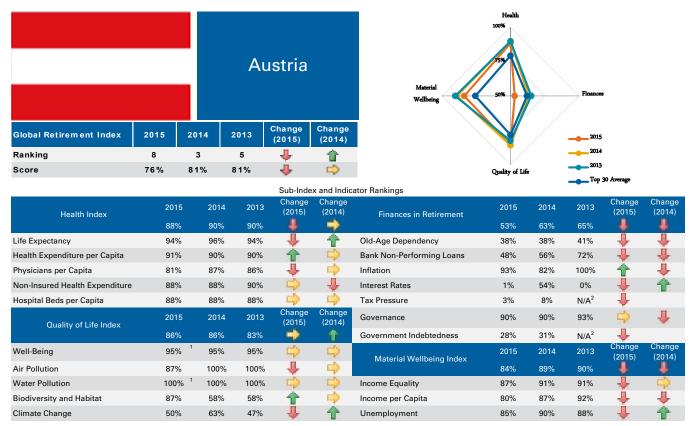
- 1. Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

## 8. Austria

Austria ranks 8th in this year's GRI, down from 3rd in 2014. While this Central European nation has a well-developed social market economy and a high standard of living, with an exceptional universal healthcare system, the unfavorable evolution of its macroeconomic fundamentals has impacted its overall ranking.

Austria's healthcare system maintains its top ranking, driven by a high proportion of health professionals per capita, abundant funding and an improvement in health insurance coverage. Retirees in Austria also enjoy high levels of material wellbeing with a high level of income equality, income per capita and a low, albeit rising, level of unemployment.

Similar to other euro zone economies, Austria is yet to fully recover from the financial crisis, and has seen its economy contract in the final months of 2014. This is having detrimental effects on the current and future finances of retirees, as it has weakened the banking system, forcing the government to bail out the Hypo Alpe Adria Bank in 2014. This has been credited with widening the government's deficit and has led to further planned spending cuts in 2015 that could affect public services and programs aimed at retirees. While likely to remain a top destination for retiree welfare in years to come, Austria's future place in the top 10 will depend to a great extent on an economic recovery in the euro zone for strengthening its macroeconomic fundamentals.



- 1. Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

## 9. Germany

Germany reversed in this year's ranking, slipping from 7th to 9th place. Germany is the largest economy in Europe, with an important service sector and a strong export-oriented economy specializing in high-end manufactured goods. In conjunction with strong economic fundamentals, it also has a leading welfare and healthcare system. Greenhouse gas emissions increased last year and Germany is set to miss its greenhouse gas emissions target for 2020 according to the government. This could have a potentially detrimental effect on the quality of life of retirees in the long term.

While Germany started off strong in 2014, its economic growth slackened – growth dipped to -0.1% in the second quarter and slightly increased by a weak 0.1% in the third quarter, thus managing to avoid a technical recession. Industrial production fell in August and while that could be attributed to the summer vacation period in Europe, there was another decrease in industrial production in November that might be a cause of worry for the German economy.

Another reason for the weak growth could be the dismal performance of the exports sector which is crucial for an export-oriented country like Germany. The sluggish growth across Europe and many of Germany's major trading partners, such as China, hurt its prospects further in this regard.

Germany's already low real interest rates continued to fall hurting retirees and savers in the process. With inflation at historic lows in Germany and around Europe, and the ECB cutting interest rates to avert the risk of deflation, Germany's interest rate environment is set to remain unfavorable in the near future.

On a more positive note, unemployment is on a downward trajectory with the continuation of the 'German labor market miracle' – a consistent decrease in German unemployment rates (except for a brief aberration during the financial crisis) despite the fact that growth in economic activity has not been anywhere as stellar. The decreased unemployment should improve the country's fiscal position and hence the prospects of future retirees.

Domestic demand and exports both managed to stage a minor comeback in the third quarter and may be the catalyst needed to boost the economy going forward. A full-blown recovery is by no means certain, especially with depressed aggregate demand in the euro zone and possible reduced economic growth in China. In spite of its recent weak economic performance, the world's fourth largest economy remains a good place to retire with solid scores (despite marginal reductions from last year) in the Health index and Quality of Life index.



<sup>1.</sup> Updated data not available, 2014 data used.

<sup>2.</sup> Indicator added in 2014.

## 10. New Zealand

New Zealand drops a place to 10th in the 2015 GRI. New Zealand is a free market economy, particularly dependent on international trade, and ranks as one of the top nations for ease of doing business. The country's macroeconomic fundamentals have remained strong, with low inflation and an above-trend growth rate in 2014, which has led to a strengthening of the banking system's loan books and expectations of rising interest rates in 2015.

Strong fundamentals have allowed retirees in New Zealand to enjoy relatively high levels of material wellbeing, with increasing levels of income equality and an annual income per capita of over \$30,000 on a purchasing power parity basis. Moreover, retirees in New Zealand can expect to live over 81 years, partly due to an excellent healthcare system with high levels of funding and insurance coverage.

Finally, New Zealand continues to do well in providing a high quality of life to its retirees, with low levels of air pollution and a rich and diverse natural environment. However, the country has struggled to cut its level of CO2 emissions per capita and lags with respect to developing nations in its use of renewable energy sources.



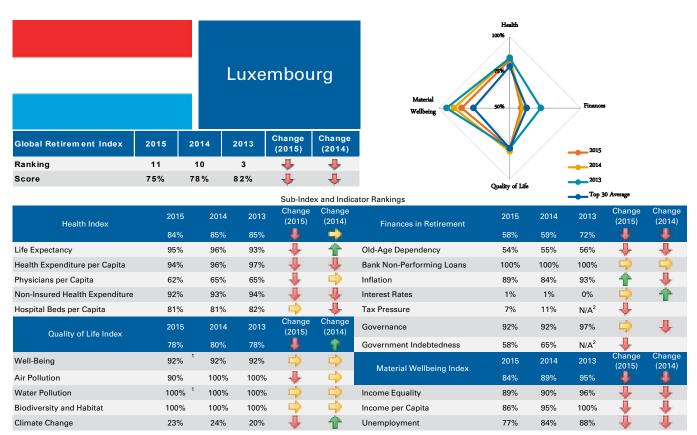
- 1. Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

## 11. Luxembourg

Luxembourg slips one place to 11th place in this year's GRI. Luxembourg is one of the most prosperous economies in the world, with the 5th highest income per capita and an outstanding healthcare system.

While Luxembourg's economy suffered substantially as a result of the 2007-08 crisis, it has managed to recover better than its peers despite a short recession in 2012. In fact, the economy is expected to grow next year above 3%. However, unemployment has increased and looks to remain at above-trend levels in the near future. The interest rate environment remains unfavorable, and with low inflation, and the ECB potentially engaging in further monetary stimulus, there is little cheer on this front for retirees. On the flip side, inflation is low and on a decreasing path with dipping oil prices.

On the environmental front, Luxembourg still puts up a decent performance. While its air quality still stacks up well, the PM2.5 levels have increased compared to last year, which could have a negative impact on the health of present and future retirees.



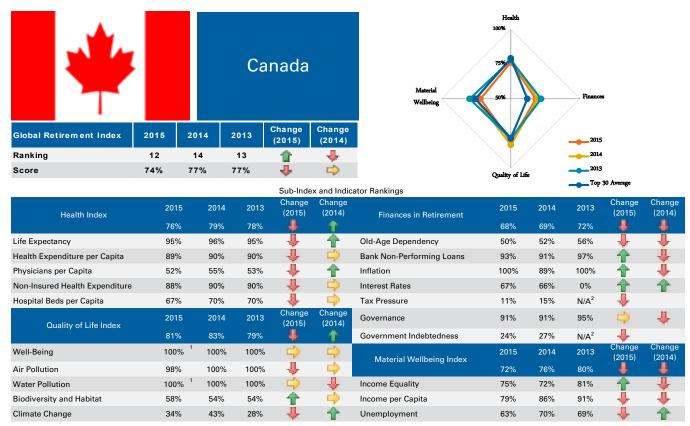
- 1. Updated data not available, 2014 data used.
- Indicator added in 2014.

## 12. Canada

Canada has been very consistent in its GRI rankings, moving up two places following last year's drop from 13th position. Canada has increased its scores in the Material Wellbeing sub-index and outperforms the average 30 top-performing nations in the Finances in Retirement sub-index.

Canada's economy performed better than most advanced countries in 2014 and may continue to outperform in 2015 with growth projections among some of the highest for advanced economies. While Canada's inflation hovered within the central bank's target of 2%, a recent increase in inflation might prove to be a good thing for savers and retirees in the medium term as it may put pressure on the central bank to increase its key interest rates. While the Canadian economy has some of the rosiest prospects of OECD countries in 2015, significant risks still loom on the horizon. Weaker oil and commodity prices as a result of slow global growth and a further slowdown in the Chinese economy could hit the country's large commodity sector, and highly indebted households could see consumption fall in the event of an economic or financial shock.

Meanwhile, Canada is set to miss its 2020 greenhouse emissions target by a significant margin, which could affect the health and quality of life of retirees in the country and abroad in the years to come.



- 1. Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

## 13. Finland

Finland has not performed as well as other Nordic countries and drops five places in this year's GRI. It is a country with an overall high quality of life, and although its scores in the Finances in Retirement and Material Wellbeing sub-indices have fallen, it maintains a robust healthcare system.

Finland struggled after the financial crisis – it has not seen growth in output since 2012 and the unemployment rate remains stubbornly high at 7.5%. There is little optimism that this situation will improve in the coming year, especially with two of its key trading partners, the Russian economy and the euro zone, underperforming, leading to reduced exports and tourism. Being an export-oriented economy, it could be further affected by sluggish growth elsewhere in the world.

In terms of healthcare provision, Finland's performance is similar to other Nordic nations, with a strong performance in healthcare services and expenditure. However, Finland's most notable improvement has been in the Quality of Life sub-index, where its score has increased to 87% on the back of the nation's efforts in lowering CO2 emissions per capita and switching to renewable electricity generation.



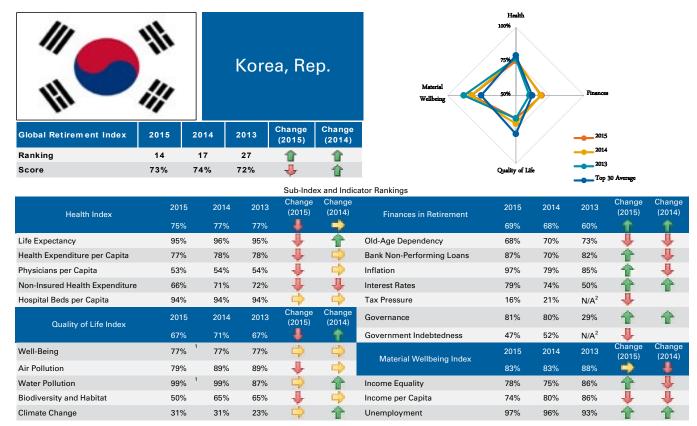
- 1. Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

## 14. Republic of Korea

As the top Asian country in this year's ranking, the Republic of Korea continues its upward trajectory and climbs three places from last year. The Korean economy did well partly due to increased external demand from its major trading partners, such as the U.S. which in turn staged a strong recovery. In South Korea inflation fell to about 2.2%; however, as a result of low inflation and pressure to stimulate the economy, the central bank has cut interest rates twice this year. South Korea also faces a rapidly aging population which will take a toll on its dependency ratio in the years to come.

South Korea has also performed well in the Material Wellbeing sub-index, thanks to a better level of income equality, about \$2,500 more income per capita compared to last year (around \$33,000 in 2015), and a lower unemployment rate (3.2% this year). The nation has a good healthcare system with the third most hospital beds per 1,000 people, which helps to contribute towards a high level of life expectancy.

Despite South Korea's strong performance in the other three sub-indices, the country does not impress when it comes to quality of life. The air pollution is still high relative to other nations, which could pose serious health risks, particularly to the most vulnerable segments of the population, infants and retirees. However, there have been efforts to address this – for example, it implemented the Green Growth Strategy, a policy package aimed at promoting environmentally friendly growth and contributing to stopping climate change.



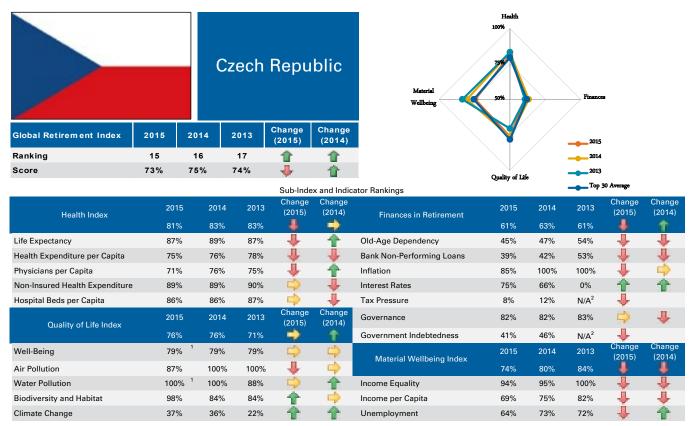
- 1. Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

## 15. Czech Republic

The GRI ranking of the Czech Republic has improved slightly since last year, rising marginally from 16th to 15th, as a result of a consistently above-average performance across the four sub-indices.

The economic slowdown in Western Europe and the crisis in Ukraine, which both intensified recently, may have had an impact on the Czech economy. However, domestic conditions have improved and things are looking up for the Czech economy in 2015. Retirees in the Czech Republic enjoy a high standard of healthcare, through a well-funded and resourced health system and widespread insurance coverage. In fact, retirees in the country can expect to live over 78 years, more than their counterparts in neighboring Slovakia (76 years) and Hungary (75 years).

However, the country faces significant challenges in the near future and its ability to overcome them could have a significant impact on the welfare of retirees in the country. Worsening bank balance sheets, with a growing proportion of non-performing bank loans (almost 6% in 2015), together with rising public debt and a higher unemployment rate, could undermine the financial security and material wellbeing of present and future retirees.



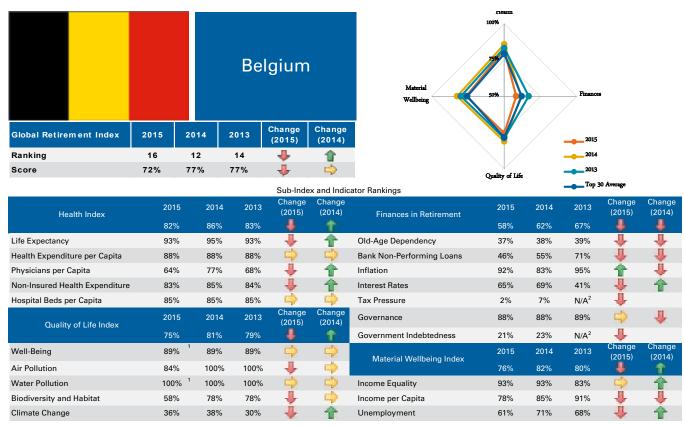
- 1. Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

## 16. Belgium

Belgium is now 16th in this year's GRI, moving down from its 12th position last year. Belgium is a typical modern economy within the European Union, possessing a universal healthcare system and a high level of material wellbeing. In terms of its financial soundness, issues over sovereign debt have been of concern since the beginning of the global financial crisis.

The Belgian government recently announced an increase in the retirement age from 65 to 67 in an effort to reduce spending while also supporting the sustainability of the retirement system. This is particularly significant in light of the fact that Belgium's dependency ratio is on the rise, and with sluggish birth rates and increased life expectancy, Belgium has to implement measures to reduce the strain on retirement income programs and public services. The actual impact of these threats to retirees will depend on whether the government can implement the necessary reforms.

Belgium's economy has been slowly but surely recovering even though growth projections for next year are not particularly encouraging. Inflation decreased over the last year and may continue on the same path. The country maintains good standings in both the Health and Material Wellbeing sub-indices, which are critical to retiree welfare.



- 1. Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

# 17. Japan

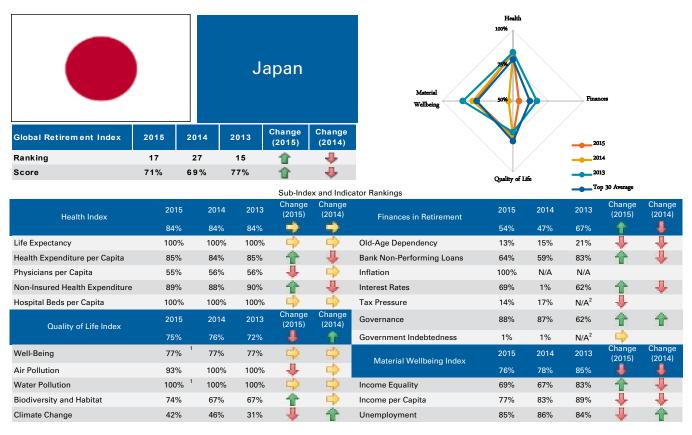
Japan has performed well in this year's GRI, as it increased its overall score to 71% and is now in 17th place, returning to the top 20 after dropping out last year. The country has done very well in the Health sub-index, same as in the last two years. Japan is at the top of the hospital beds per capita (14 beds per 1,000 people), which reflects how well resourced its healthcare system is.

However Japan has had a tumultuous year with Prime Minister Abe calling for elections amidst doubts that 'Abenomics', comprising monetary easing, temporary fiscal stimulus and structural reform, will be effective at reviving the economy. After posting decent growth in the first quarter, Japan's economy contracted in the second and third quarters which could possibly be because of the sales tax hike in April 2014. This was in line with the second 'arrow' of Abenomics where after providing two fiscal stimulus packages over the last two years, the government decided to change its policy to fiscal consolidation. Evidently the Japanese economy was not ready to handle the tax hike. Abe has postponed a second tax hike to 2017 despite winning the elections, in a bid to spur domestic growth.

Meanwhile, on the 'first arrow' of monetary easing, Japan pursued this aggressively with massive asset purchase programs that included buying government bonds, among other assets, in a bid to increase the inflation to its target level of 2%. This has led to the devaluation of the yen which may help bring up inflation and result in decreased purchasing power for Japanese consumers, but it could also boost exports and kick-start economic growth.

The Japanese economy and the welfare of its retirees is not free of long term challenges either—its high old-age dependency ratio and high levels of government debt are two major challenges. Japan, like South Korea, faces a rapidly aging population which will put further pressure on its national budget. This, coupled with a record high government debt totaling 240% of GDP, means that the government will likely have to make some tough choices on public expenditure in the future which could impact retiree welfare significantly.

Although there seem to be quite a few downside risks to the Japanese economy, there are positives as well. Exports should grow on account of a weaker currency and low interest rates should spur business investment. Much of Japan's economic outlook is contingent on the 'three arrows' of Abenomics working. The recently announced third stimulus package and the delay of the tax hike should work towards restoring consumer confidence akin to the first quarter of 2014. The easy monetary stance taken by the Bank of Japan has worked to a certain extent with inflation up marginally – whether it brings the country out of deflation remains to be seen. However, while economic challenges remain, Japan continues to be a strong contender in the GRI with a good health system and high quality of life.



<sup>1.</sup> Updated data not available, 2014 data used

<sup>2.</sup> Indicator added in 2014.

# 18. France

France retreats three places in this year's GRI, pushing it back to 18th place. Along with an increase in tax pressure, public debt, and old age dependency, French retirees have also faced lower interest rates. This is reflected in the Finances in Retirement sub-index where France dropped from 61% to 57%.

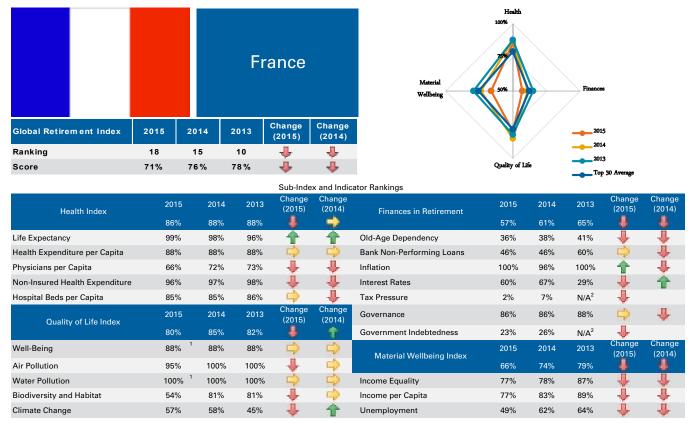
The French economy is yet to find any respite with GDP growing very slowly and the unemployment rate increasing from 9.3% to 9.9% in 2014. The French economy contracted in the second quarter but managed to register 0.3% growth in the third quarter on the back of stronger domestic demand. While economic activity is expected to recover slowly, whether it will have any impact on unemployment remains to be seen. France's budget deficit, at 3.8%, is also above the EU stipulated level of 3%. The financial crisis took a significant toll on the country's fiscal position and France is still reeling from its effects. The high budget deficit would have adverse effects on the country's fiscal position which could in turn jeopardize sustainability of welfare programs that benefit retirees.

Tax pressures increased in an effort to rein in the budget deficit, putting considerable strain on retirees and French taxpayers in general - this is reflected by its poor performance in the tax pressure indicator. The tax burden in France increased to 45% compared to the OECD average of 34% and it has the second highest tax burden in the euro zone behind only Denmark in this regard according to 2012 data.\*

France's inflation was already dangerously close to deflation and the recent sharp decrease in oil prices is likely to push prices further downwards. This could turn out to be a double edged sword, good for retirees and consumers in general but with potential risks to the economy as a result of falling prices and its effect on expectations and demand.

However, France manages to maintain its spot on the podium for the health care in retirement provision, with a special mention warranted for the improvement in life expectancy from 81.5 years to 82.5 years and a social security system favorable to retirees (92.6% insurance coverage for health expenditure).

The economy is on the road to a slow recovery but not without obstacles. France's Finance Minister has announced that bringing back the budget deficit to 3% will take another two years to 2017 in light of the challenges facing the economy. Modest growth, even if slightly higher than this year, is expected with a spur in domestic demand and higher external demand from recovering economies. The economy can expect to get further support from the quantitative easing program announced by the ECB in an effort to stimulate the euro zone and bring up inflation. Although that might depress interest rates further hurting retiree savings in the process.



<sup>\*</sup> OECD (2014), Revenue Statistics 2014, OECD Publishing, Paris

<sup>1.</sup> Updated data not available, 2014 data used.

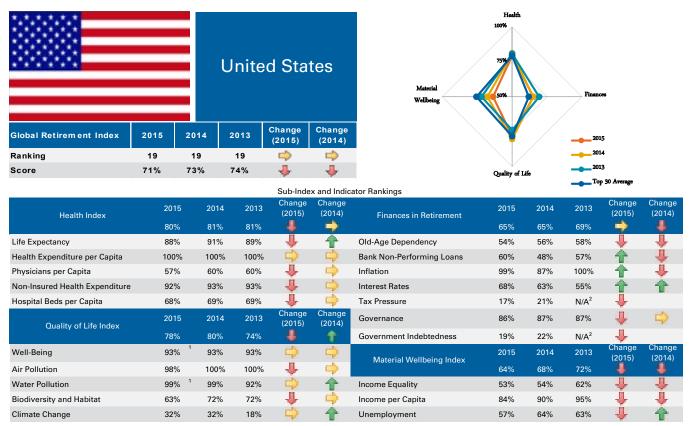
Indicator added in 2014.

## 19. United States

The United States maintains its ranking of 19th in the 2015 GRI. A persistent budget deficit and high levels of government debt coupled with increasing tax pressures have overshadowed improvements in other financial indicators. In fact, the U.S. banking industry has improved its loan quality as the default ratio dropped to 2.3% from 3.9% last year. Moreover, inflation has decreased from 3.1% to 2.07% by mid-year and then dropped under 2% for the remainder of 2014. With unemployment on the decline and revived economic growth on the horizon, expectations of a rise in interest rates in 2015 are high (many people expected rates to rise in 2014). This could be good news for retirees purchasing an annuity and those relying on fixed-income investments to fund their retirement goals.

Despite having one of the highest income per capita (\$54,000) levels, the United States ranks low for income equality relative to other developed economies. This could be a potential explanation for a comparatively low life expectancy despite the world's highest health expenditure per capita, and could be a cause for concern for retirees.

Meanwhile, the U.S. President recently announced a program to reduce CO2 emissions and increase renewable energy production; for the moment the U.S. continues to be the main producer of CO2 emissions. While we can expect the U.S. to improve in this respect in the coming years, high emissions can also have serious consequences in the short term and the health and quality of life of retirees could be among the worst affected.



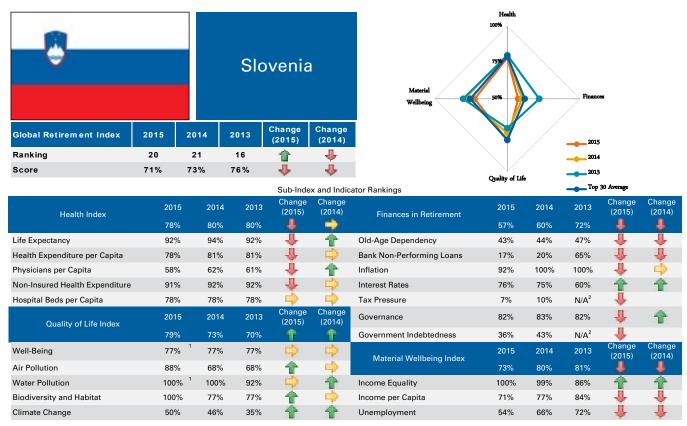
- 1. Updated data not available, 2014 data used.
- Indicator added in 2014.

## 20. Slovenia

Slovenia ranked 20th in this year's GRI - up one place from 2014.

Slovenia's economy looks to be recovering after an average performance last year. Growth seems to have picked up with the help of higher export demand from other recovering economies in the area. Slovenia had suffered during and after the financial crisis on account of its export sector struggling to recover from a reduction in demand from its European exporting partners. This increase in economic activity should hopefully bring down the rising unemployment it has been facing. Slovenia's non-performing loans still prove to be a worry despite transfer of a substantial amount of bad debt (15%) to Slovenia's newly created 'bad bank'. The banking sector reforms should strengthen banks, which should in turn provide a boost to economic activity and financial security for retirees.

In the Quality of Life sub-index, the country improved its position since 2014, possibly due to the government's investment in renewable energies and reducing CO2 emissions. Slovenia's universal healthcare system, together with the country's commendable statistics in life expectancy, health expenditure and its insurance coverage, top level of income equality and outstanding natural environment, suggest retirees may enjoy a good quality of life in the country.



- 1. Updated data not available, 2014 data used.
- Indicator added in 2014.

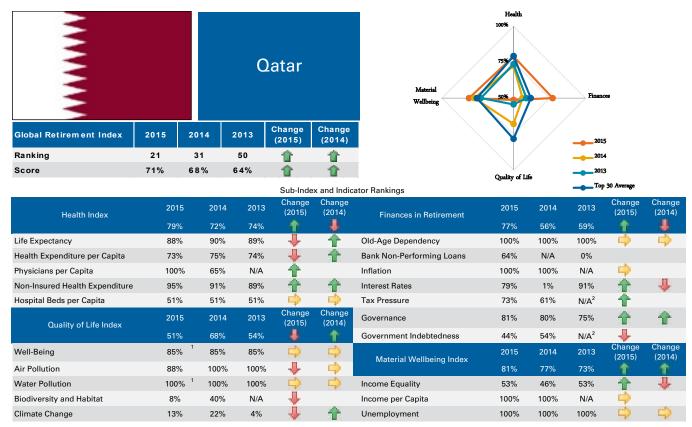
## 21. Qatar

Qatar improves its ranking to 21st position in this year's GRI. Qatar demonstrated significant economic resilience after the 2008 crisis and has established itself as one of the most solid economies in the Gulf Region. Located in the Middle East, the country has become an economic hub between developed and emerging markets with increasing opportunities for growth. However, the country faces environmental problems, which translated into a decreased score in the Quality of Life sub-index.

The strong economic performance of the country is underpinned by GDP growth of 6.3%\* on the back of the expansion of its non-hydrocarbon sector. Some of the main contributors to growth in the non-hydrocarbon sector were the services sector, construction and manufacturing. However the hydrocarbon sector still makes up a major part of the economy for the world's largest exporter of liquefied natural gas (LNG). The hydrocarbon sector shrank in 2014 mainly because of the moratorium on further production in the North Field (the world's largest natural gas deposit along with Iran's South Pars) that the government imposed to assess the reservoir and it will likely remain till the end of 2015. Further, the government's National Development Strategy (2011-16) called for more diversification and expansion of non-hydrocarbon sector so as to ensure sustainability and decreased reliance on the hydrocarbon sector. This will be valuable for retirees in the long run as it provides Qatar with different sources of revenue other than oil

Qatar improved significantly in the Finances in Retirement sub-index partly due to a favorable interest rate environment (real interest rates increased from -0.3% to 4.09% this year) and extremely low tax pressure (only 2.9% of GDP). Inflation has been moderate at around 3% in 2014. Qatar's incredibly high national income per capita (\$123,860) and a mere 0.5% unemployment rate push it higher in the Material Wellbeing sub-index.

Qatar should continue its spectacular run in 2015 as well. Growth should be higher with further expansion in the non-hydrocarbon sector. The construction sector has a lot on its plate with the Doha metro and the FIFA World Cup 2022 among many other big-ticket projects. The Barzan gas-to-liquids project should also propel the economy towards further growth. Although the Qatar economy has been fairly immune from the sluggish global growth, the recent fall in oil prices may pose threats to the economy particularly because a lot of the liquefied natural gas is tied to oil prices. Strong economic growth and a favorable economic climate in general in 2015 should improve prospects for retirees.



<sup>\*</sup> Qatar Economic Outlook 2014–2015, Ministry of Development Planning and Statistics, Qatar

<sup>1.</sup> Updated data not available, 2014 data used.

<sup>2.</sup> Indicator added in 2014

# 22. United Kingdom

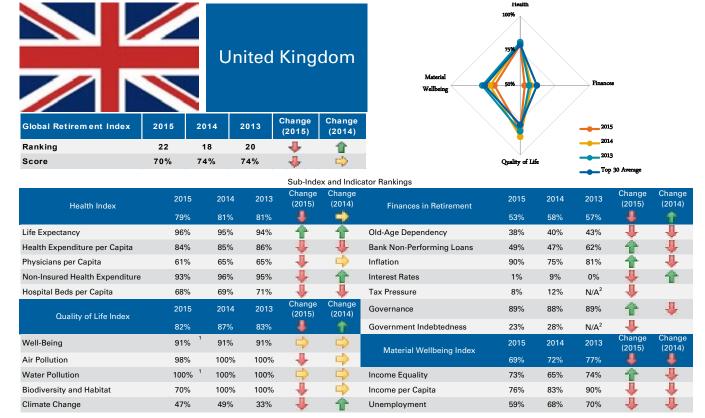
The United Kingdom loses four spots in this year's GRI, taking it backwards to 22nd place. Nonetheless, the U.K.'s performance has remained fairly consistent when compared to last year, but intense competitions for the top spots has seen it fall slightly in the rankings. In this line, the country's performance in the Health sub-index remains satisfactory with an effective and well-funded universal healthcare system contributing to a high life expectancy, despite a relative shortage of healthcare professionals.

The U.K. has experienced a 'stronger-than-most' economic recovery in 2014 after several years of stagnant growth following the financial crisis with consistent growth over the last year. However an extended period of low interest rates made it difficult for retirees to save. Consumer spending increased showing an upswing in general consumer sentiment. This was probably helped by the fact that inflation remained low and wages finally rose slightly above inflation in the final months of 2014 although pay growth in general has been pretty subdued. This is a cause for concern since it implies real incomes have failed to keep up with improving fundamentals and the benefits of the recovery are still to reach the wider working population. However the same can hardly be said for retirees in the U.K. – median income among pensioner households was only 7% lower than working-age households in 2012-13, compared to 17% in 2007-08, implying a significant increase in incomes in retiree households.\*

Another engine of growth in the U.K. has been the services sector which enjoyed steady growth. Other sectors like construction and production are also showing signs of recovery. The performance of exports, on the other hand, was lackluster at best. But this is a common problem facing most European countries since euro zone growth in general has been weak, causing a ripple effect across Europe.

Inflationary pressures will likely remain low given the lower prices of oil. This should prove to be beneficial not only for retirees but also for the U.K. economy which should receive a boost in consumer spending, thus providing the U.K. economy an impetus for further growth. Decreased geopolitical tensions in Europe combined with expected economic recovery for certain countries may provide a much needed stimulus to the export sector.

Despite the rosier outlook, the welfare of U.K. retirees might still face some headwinds in 2015 as low projected inflation might postpone a much awaited rise in interest rates that will affect retiree savings negatively. Moreover, the government has struggled to meet its deficit reduction targets and the debt stands at well over 90% of GDP and rising, which could put further pressure on retirement income and public spending programs that benefit retirees.



<sup>\*</sup> Chris Belfield et al., 'Living Standards, Poverty and Inequality in the UK: 2014', Institute or Fiscal Studies, July 2014

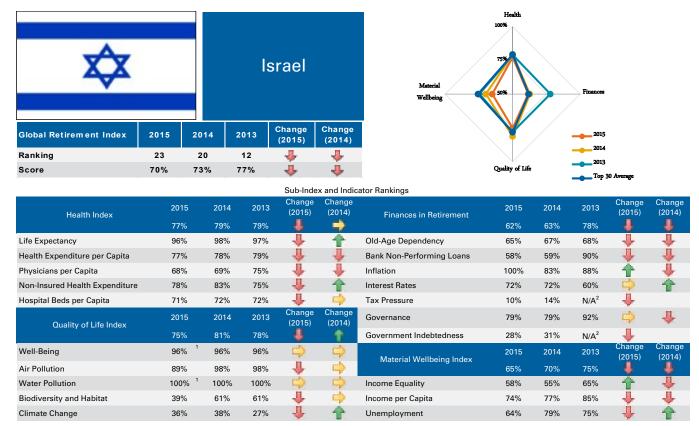
<sup>1.</sup> Updated data not available, 2014 data used.

<sup>2.</sup> Indicator added in 2014

## 23. Israel

Israel drops three places in this year's GRI to rest in 23rd position.

While the economy suffered a slight slowdown owing to the Gaza conflict in 2014, growth projections are optimistic for the coming year with domestic demand and production getting back to normalcy. The Bank of Israel cut interest rates twice to counteract dampening of economic activity because of the Gaza conflict. Unemployment is lower than many countries including the U.S. which is a surprise given the amount of unrest the nation has been facing. Israel also has high levels of sovereign debt (approximately 75% of debt to GDP ratio) that is putting further pressure on the pensions system and continues to affect retiree finances. Furthermore, Israel slipped in the Quality of Life/Natural Environment Index, although it maintains a strong position in the wellbeing, and water and sanitation indicators.

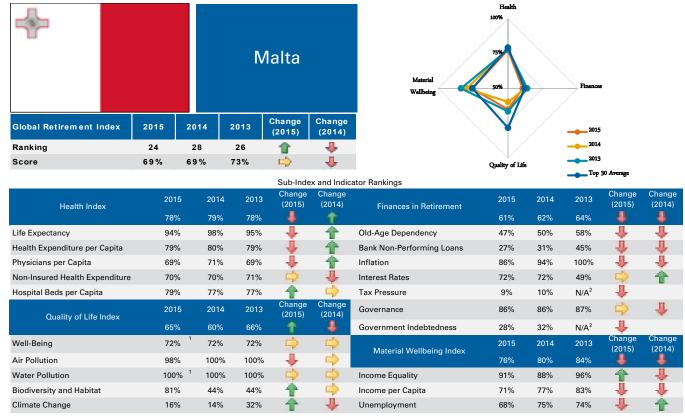


- 1. Updated data not available, 2014 data used.
- Indicator added in 2014.

## 24. Malta

With an upward movement of four spots in the overall rankings, Malta performs well to rank 24th in 2015.

Malta's strong GDP growth of almost 3% is set to continue through 2015. Inflation is at benign levels as in most other euro countries and unemployment is also expected to decline. Over 30% of Malta's GDP comes from tourism, and although austerity measures in many European countries have prevented people from traveling farther afield for their holidays, it may have increased the number of Europeans traveling as far as Malta. This has perhaps buffered Malta's income per capita (more than \$1,000 higher than 2014) and unemployment rate (6.4%) against the effect of a still-recovering European economic area. The fact that much of Malta's debt is held in domestic banks is the primary factor contributing to the country's relative stability in the financial crisis.



- 1. Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

## 25. United Arab Emirates

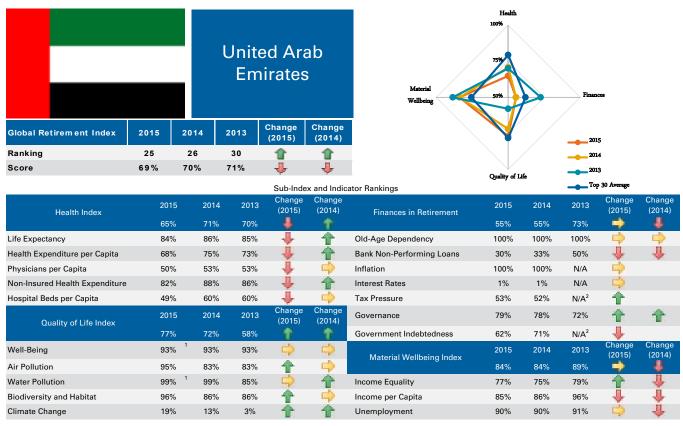
The UAE climbs one place in the rankings and continues to enjoy a spot in the top 30 countries for retirement in 2015. It outperforms the average top 30 nations in the Material Wellbeing sub-index given its high income per capita (\$58,000 in 2015). The UAE finds its scores down on all the indicators in the Health Index – however that may not necessarily reflect worsening conditions as much as the fact that it did not improve as much as other similar countries.

A resurgent real estate sector leads the way in getting the economy back on track. The UAE economy is expected to have finished 2014 with growth in excess of 4%\* and is expected to improve on this performance in 2015. While oil revenues may have slowed due to a drop in price, non-oil sectors are reporting strong growth. The non-hydrocarbon sector grew about 5.5% in 2014 with manufacturing and real estate being the main contributors to growth. The hydrocarbons sector did not perform as well but that did not stifle growth because of the government's efforts at diversification and finding alternative sources of revenue. Retirees will benefit from the diversification in the economy in the long run in terms of economic security.

The country's performance in the Finances in Retirement sub-index was consistent. It tops the rankings in the old age dependency ratio and inflation indicators, suggesting that it will not face the same demographic challenges as many other developed nations will, at least in the foreseeable future. The tax burden has dropped to 6.1% of GDP, outperforming average top 30 countries, and the government is also not highly indebted, compared to other nations in the GRI.

The UAE's inflation was under control especially after rental and house sales prices, which make up about 40% of CPI, fell around the second and third quarters. Meanwhile the UAE's exports increased by about 6% from 2013 although imports rose as well. However the country still posted a current account surplus.

The United Arab Emirates looks set to continue its solid performance in the coming year. The economy should expect similar growth with further growth in the non-hydrocarbon sector. The upcoming Expo 2020 should provide further stimulus to the economy by bolstering the construction and tourism sectors. The drop in oil prices may decrease its oil revenues and there may be a slowdown in the hydrocarbon sector on account of weak demand and an oversupplied market, but the country seems ready to withstand a prolonged period of lower oil prices. Good economic performance backed by high quality of life gives retirees in the UAE a leg up compared to other nations.



<sup>\*</sup> United Arab Emirates: 2014 Article IV Consultation—Staff Report, IMF, July 2014

<sup>1.</sup> Updated data not available, 2014 data used.

<sup>2.</sup> Indicator added in 2014.

## 26. Kuwait

Kuwait increased its overall score to 69% and moved up 14 places this year to make its debut in the top 30 ranked nations in the GRI. The country's retirees benefit from solid financial conditions as they do in other gulf economies such as in the United Arab Emirates. These include low government debt, an accumulation of financial surpluses over several years, the continuation of the current account surplus and Kuwait's important presence in international investment fields, all of which are a sound basis for retiree financial security and continued support from public services.

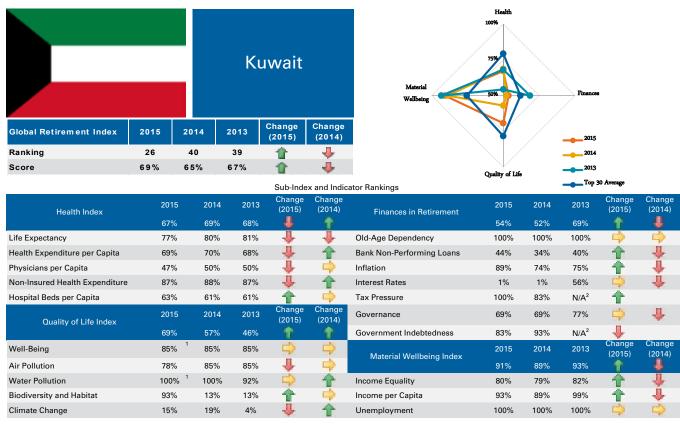
The country has seen quite a bit of political instability with six elections over a period of seven years up to 2013, which has had some bearing on the economy. However with a new government in place, Kuwait should be able to match up to its neighbors' economic performance. After a sharp decline in growth last year, Kuwait has seen a recovery in GDP growth and is projected to grow at about 1.3% this year with non-oil sector and private consumption spending driving growth. Non-oil growth is slated to increase at a pace of 3.5% in 2014.\* Again, oil revenues will fail to match up to the performance of the non-oil sector.

While Kuwait posted a budget surplus of 26% of GDP, continuing to have a fiscal surplus will prove to be a challenge with a decrease in oil revenues. Add to that increased wages and salaries which also put considerable pressure on the budget given that a majority of the workers in Kuwait are public sector employees. The government has decided to implement reforms regarding oil subsidies and public sector wage reform which should consolidate public finances further.

The economic outlook for Kuwait's economy is positive, providing a sound economy for people to retire in. Oil revenues may decline in the coming year especially with the decline in oil prices and excess supply of oil in the global market but non-oil growth should see an increase in growth. The construction sector should see an increase in the coming year with the government set to implement some big projects as part of its development plan.

Kuwait performed exceedingly well in the Material Wellbeing sub-index, with a score of 91%. It has the world's second highest score for income per capita (\$88,170) and a low unemployment rate of 1.5%.

The country's scores in the Health and the Quality of Life/Natural Environment sub-indices are however not as outstanding, with the exception of a good coverage ratio for health expenditure (almost 85%). In order to improve retiree welfare in both the short run and the long run, further investment and improvement of healthcare services as well as environmental protection measures might be needed.



<sup>\*</sup> Kuwait: 2014 Article IV Consultation—Staff Report, IMF, December 2014

<sup>1.</sup> Updated data not available, 2014 data used.

Indicator added in 2014.

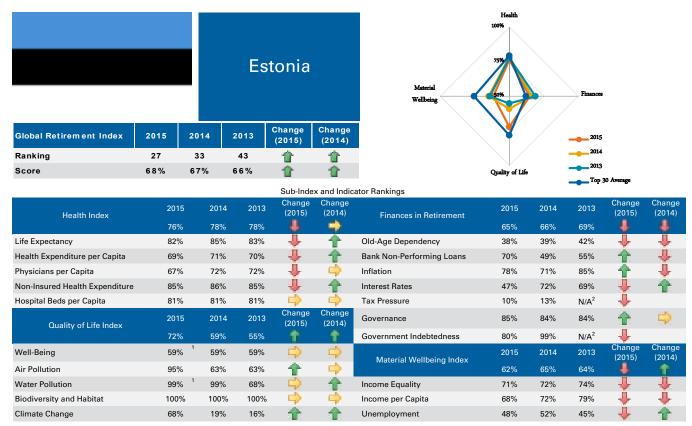
## 27. Estonia

Estonia's overall score increases to 68% and its ranking in this year's GRI is now 27th. In recent years, Estonia has been one of the fastest-growing economies in the European Union.

With the Russian and Finnish economies weakening and political tensions persisting in Ukraine, Estonia's economy failed to grow as expected. However, inflation is decreasing providing some relief to retirees. Unemployment is also projected to fall which should bode well for the economy.

Estonia's ranking in the Health sub-index has been relatively stable, as it has decreased only slightly in the indicators. The scores for Material Wellbeing have been negatively affected by a lower level of income equality and a rising unemployment rate (10% in 2015).

However, in terms of the Quality of Life/Natural Environment sub-index, Estonia improves its performance with good levels of air quality and a decrease in exposure to PM2.5.



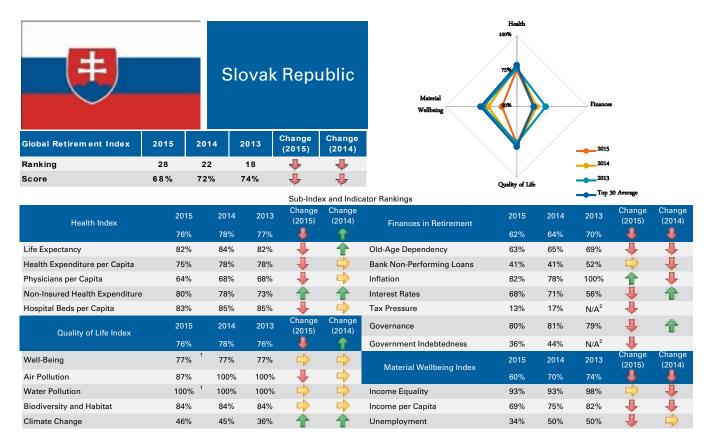
- 1. Updated data not available, 2014 data used.
- Indicator added in 2014.

# 28. Slovak Republic

The Slovak Republic falls six places in the 2015 GRI. Until the financial crisis, the country experienced steady economic growth, benefiting from Foreign Direct Investment (FDI) from a number of European countries and the U.S. In more recent years, it suffered from a drop in investment from the U.S. and major European nations such as Italy and France.

As its export sector starts to gain strength along with increase in domestic demand, the Slovakian economy looks to get back to its pre-crisis levels of growth. However, there are headwinds to the recovery with inflation venturing into negative territory and unemployment persisting at around 14%. The high unemployment rate, coupled with rising income inequality, results in a decrease for the country's score in the Material Wellbeing sub-index.

Despite decreased scores on the Health Index, its performance is fairly stable with marginally declining scores in the indicators.



- 1. Updated data not available, 2014 data used.
- Indicator added in 2014.

# 29. Italy

Italy drops six positions in the 2015 GRI with a ranking just inside the top 30 (in 29th position). It follows the trend set by other Southern European nations, with high rankings in the Health and the Quality of Life/Natural Environment sub-indices, but struggling with retiree financial security and material wellbeing. With high life expectancy (increases from 82 to 83 years in 2015) and relatively high health expenditure per capita, Italian retirees also benefit from a well-staffed healthcare system (rises from 3.5 to 4 physicians per 1,000 people this year).

The country continues to face economic slack, persistent in Italy for the past two decades. Inflation remained low throughout the year which helped realize real income gains but raised concerns for corporate hiring and the economy moving into a deflationary spiral in general. The economy is expected to have contracted by 0.3% in 2014 with negative growth throughout the first three quarters. Export growth was mediocre with muted external demand from the euro zone perhaps as a result of the rising geopolitical tensions in Eastern Europe.

Although income inequality is declining in Italy, the country continues to struggle with a high rate of unemployment which has now risen above 12%. In an attempt to slacken the rigid labor market laws, the government is set to impose labor market reforms including overhauling the contracts system which offers unreserved protection to workers, thereby making it easier for companies to hire as well as fire workers. However, it has prompted unease among labor unions with concerns of weakened employment protection.

Since the outbreak of the sovereign debt crisis in Europe, Italy has suffered serious economic and financial difficulties, with a surge in private debt and a sovereign debt crisis in 2009/10. Italy's government debt now stands at above 130% of GDP. With negative growth and low inflation, it is becoming increasingly difficult for Italy to stabilize the debt situation which might not bode well for retirees since higher government debt would have adverse effects on pension payments.

There is potential for the Italian economy to pick up in 2015 despite the numerous challenges that lie in its way. Exports may see modest growth on account of slightly better economic and monetary conditions across Europe. Labor market reforms, if implemented, should bring down unemployment, which coupled with promises of tax cuts should have a positive effect on consumer spending and in turn spur overall economic growth, paving the way for a healthy economy where retirees can live without the fear of economic instability.



- 1. Updated data not available, 2014 data used.
- Indicator added in 2014

# 30. Singapore

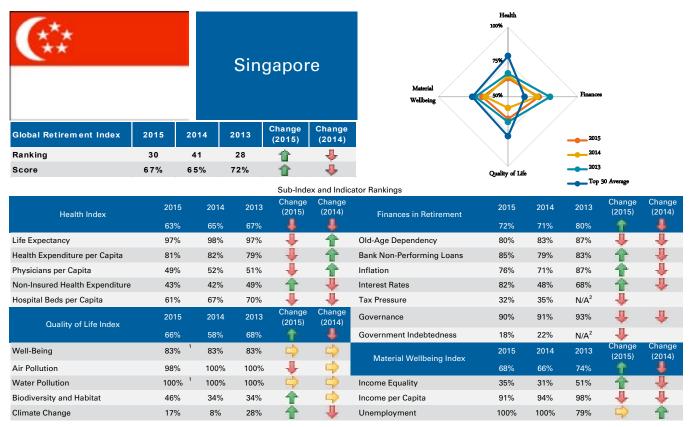
With an increase in its overall score, Singapore manages to climb 11 places in the rankings to enter the top 30 performers in this year's GRI. This is not surprising given Singapore performed better than or similar to last year in three of the four sub-indices. In terms of the Health sub-index, Singapore remains relatively static, with a high life expectancy of 82 years. The country's score in the Quality of Life/Natural Environment sub-index increased and can do so further with greater efforts in climate change.

Singapore's economy performed well in 2014 with growth slowing in the second quarter but making a strong comeback of 3.1% (q-o-q) in the third quarter. Services have become an important part of the Singaporean economy contributing more than half of GDP. While transport services remain the biggest services exports, share of financial services exports has increased over the years with 14% share in 2013.\* Singapore's financial sector is an important part of its economy contributing about 11% to its GDP in 2013.\*

Inflation decreased to 2.4% from 4.5% providing respite to retiree finances. Interest rates also rose, causing Singapore to go up in the Finances in Retirement Index. Retirees in Singapore also benefit from the nation's outstanding financial system, as signaled by its banks strong balance sheets.

Income inequality in Singapore is a cause for concern – the country has one of the highest Gini coefficients among developed countries. This is ironic given that Singapore has the world's third highest income per capita (rose from \$61,100 to \$76,850 last year) and a low unemployment rate (2.8% in 2014). Wages have not been able to keep up with the high living costs in Singapore. The Singapore government is wary of this – in 2013, they introduced a Wage Credit Scheme where the government would cofund 40% of wage increases given to employees earning below \$4,000 monthly. The stricter labor laws moderating inflow of foreign workers should also help drive up wages.

The economic outlook for Singapore looks optimistic. With global growth slated to pick up in 2015, albeit moderately, exports should receive a boost and given that export-oriented sectors like manufacturing, finance and wholesale trade make up about 55% of the economy, this should also provide some momentum to them. With a relatively positive economic outlook that promises retirees economic security and an all-round progress in this year's GRI, Singapore makes for a great retirement destination.



<sup>\*</sup> Economic Survey of Singapore Second Quarter 2014, Ministry of Trade and Industry, August 2014.

<sup>1.</sup> Updated data not available, 2014 data used.

Indicator added in 2014

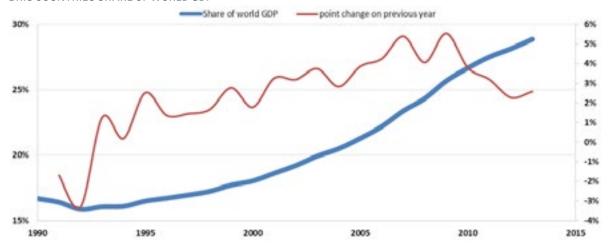
# The Emerging Economies: Getting better for retirees?

One cannot talk about future trends in retiree welfare without paying special attention to the world's emerging powers. Not only do these countries account for a rapidly increasing share of GDP, due to above average "catch-up" economic growth, but they will also be home to a huge proportion of the world's retirees.

The BRIC nations (Brazil, Russia, India and China) have been touted as future world powers with their economies growing at more than 3% a year since 2001. The latest data reveals that BRIC countries account for 28.9% of the world's GDP.

However, there are existing and future headwinds that these giants – to varying degrees – will need to navigate. According to data from the World Bank, BRIC countries are still seeing their share of global output grow (in purchasing power parity terms), albeit at a slower growth rate.

#### BRIC COUNTRIES SHARE OF WORLD GDP

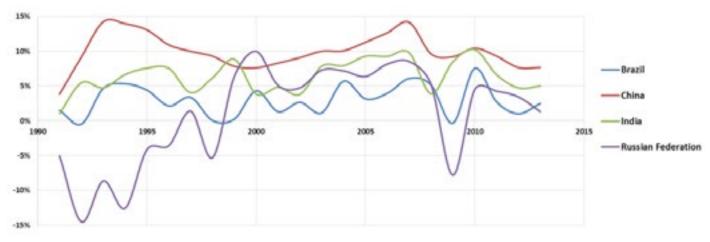


Source: World Bank (2014), World Development Indicators 2014. Washington, DC. http://databank.worldbank.org/data/download/WDI\_excel.zip

The graph clearly shows that, from 2001 to 2011, output produced by BRIC countries grew at more than 3% a year. However, this remarkably rapid growth slowed after the 2008 global crisis, and dropped below 3% since 2012.

This finding is consistent across all four countries: growth rates after 2008 are far below where they were at their high-water marks. Although China's growth rate was more than 14% in 2007, it was down to a healthy, yet much lower, 7.7% in 2013. Russia experienced negative growth of -8% in 2009 and only recovered to 1.3% in 2013.

### GDP GROWTH RATE FOR BRIC

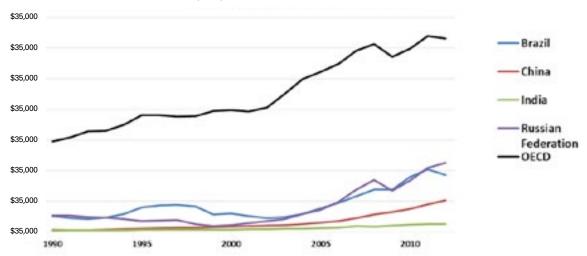


 $Source: World \ Bank \ (2014), \ World \ Development \ Indicators \ 2014. \ Washington, DC. \ http://databank.worldbank.org/data/download/WDI\_excel.zip$ 

The "catch-up" period before the crisis has shaken the world, but as the BRIC economies converge with those of their developed counterparts, these growth strategies might become unsustainable and domestic demand will have to play a more important role in their economic models.

Notably, fast-growing GDP may not necessarily translate into income per capita growth rates that are equal to or greater than those developed nations. Russia and Brazil are about \$20,000 below OECD average level on net national income per capita, while China and India are only doing worse, actually increasing the gap with their developed counterparts.

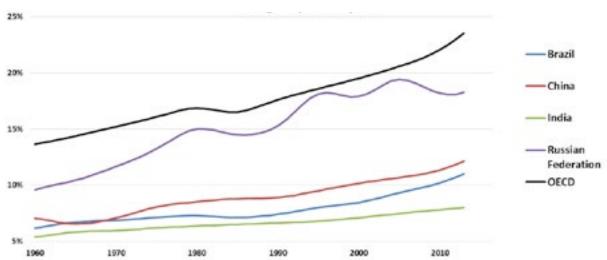
#### NET NATIONAL INCOME PER CAPITA (US\$)



 $Source: World \ Bank \ (2014), World \ Development \ Indicators \ 2014. \ Washington, DC. \ http://databank.worldbank.org/data/download/WDI\_excel.zip$ 

As a potentially crucial part of this convergence process, emerging economies will have to consider implementing some sort of safety net in order to reduce the level of inequality generated by rapid economic growth, increase future economic potential and reduce the need to save for "a rainy day", thus increasing consumption.

#### **OLD AGE DEPENDENCY RATIO**



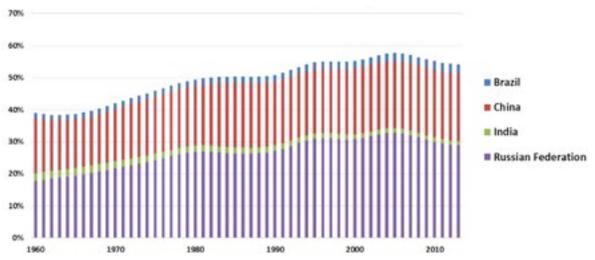
Source: World Bank (2014), World Development Indicators 2014. Washington, DC. http://databank.worldbank.org/data/download/WDI\_excel.zip

The provision of old-age insurance, in the way of pensions and healthcare for retirees, is most probably going to be one of the priorities, and therefore one of the pillars, of any new welfare state. This will undoubtedly play a major role in determining the level of welfare of retirees in these countries and ultimately their desirability as retirement destinations.

While the retirement issue might not seem a pressing one, as the BRIC nations have young populations relative to their developed country counterparts, this is likely to change rapidly given decreasing fertility rates and higher life expectancy, which will result in a demographic inflection point and rapidly aging populations. In fact, recent data captures the trend that old-age dependency ratios for BRIC countries have drastically increased. Russia has the highest ratio among the four, and China just rose above the world average in 2013.

Data from the World Bank also shows that more than half of the world population aged 65 and above comes from BRIC countries.

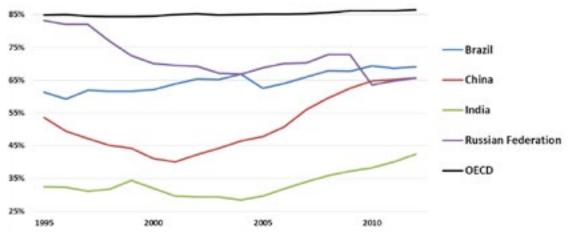
#### BRIC COUNTRIES SHARE OF WORLD POPULATION AGES 65 AND ABOVE



Source: World Bank (2014), World Development Indicators 2014. Washington, DC. http://databank.worldbank.org/data/download/WDI\_excel.zip

As an important indicator to examine the retirement security system, insured ratio of health expenditure could provide some insights. All the BRIC countries have a health expenditure coverage ratio below OECD average. Although there has been rapid growth in the past ten years for China and India, it's still a major challenge for BRIC countries to install future retirees and provide them an efficient and qualified healthcare system, especially under the countries' population aging conditions.

### **INSURED HEALTH EXPENDITURES**



Source: World Bank (2014), World Development Indicators 2014. Washington, DC. http://databank.worldbank.org/data/download/WDI\_excel.zip

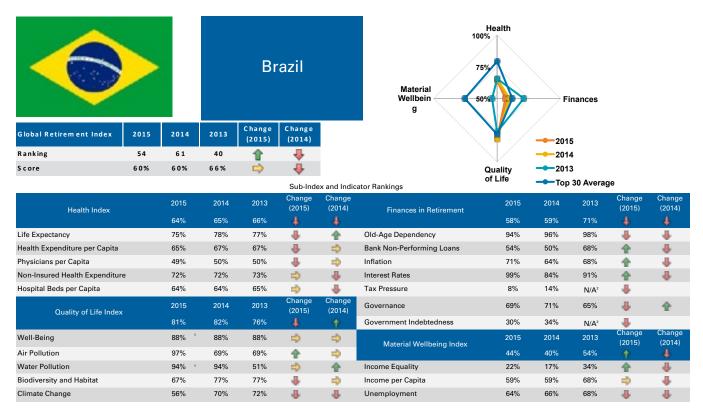
As BRIC countries are becoming home to a rapidly increasing proportion of the world's retirees, the issue of retiree welfare will be crucial in the BRIC nations in the coming years. As will be explained shortly in detail, each of the BRIC countries faces its own challenges, as well as the common issues illustrated above.

## Brazil

Maintaining an overall score of 60%, Brazil's performance during the last year has been relatively steady but enough to see it elevate seven places in this year's GRI to now occupy 54th position.

Brazil's economy, while better than many countries, has performed inconsistently over the last few years. GDP was lower than expected this year. Inflation remained higher than its 4.5% target, as a result of which the central bank hiked interest rates which was good for retirees. While the country's position in terms of income per capita and income equality improved compared to last year, it still has a long way to go. Also, policy makers have struggled to improve the financial system, especially for retirees. With continued fears of slowing GDP growth, rising tax pressure and government debt, the current economic climate needs to improve to provide retirees a better life.

On a more positive note, Brazil has increased its score in the Quality of Life/Natural Environment sub-index and fares better than China and India in the Health category with respectable levels of health expenditure per capita.



- 1. Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

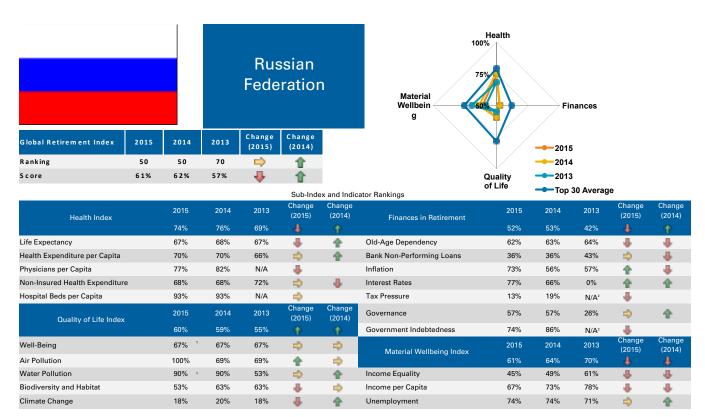
## Russia

Russia maintains its position at 50 in this year's GRI (with a decrease in each sub-index), after rising 20 positions last year. This places Russia as the highest-performing BRIC nation, followed by Brazil in 54th place. Russia performs well in the Health sub-index and has a respectable position compared to the top 30 in the outstanding amount of care available to patients, with top levels of physicians and hospital beds per capita.

Russia had a rough year with heightened geopolitical tensions courtesy of the Ukraine conflict. Economic activity barely managed to grow at around 0.9%. Although its economy has been stimulated by a record-breaking volume of international trade in recent times, Russia has been hard hit by Western sanctions during the present year following its military action in Ukraine. This has also been recently impacted by the drop-off in the price of oil globally – a critical ingredient of Russia's growth over the past decade.

As a result of these challenges, Russia's score in the Material Wellbeing and the Finances in Retirement category has dropped. Despite this, however, the country was able to hold its ground on key indicators and keep the statistics roughly at the same level as last year.

The country still faces important challenges, including instability caused by regional conflicts and high levels of corruption.



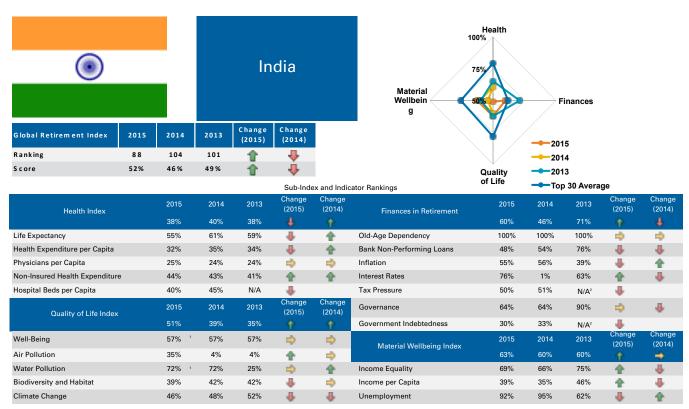
- 1. Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

## India

India is the worst-ranking BRIC nation in this year's GRI, although it has moved up 16 positions to 88th place in 2015. It enhanced its performance in the Finances in Retirement, Material Wellbeing and Quality of Life/Natural Environment sub-indices. However, it continues its mediocre performance in the health category.

Although there is a general consensus around India's potential as an economic powerhouse among emerging nations, this has been overshadowed by slowing growth, a lack of investment in infrastructure and stubbornly high levels of overall poverty. However, corporate confidence is on the rise with a new government in place. With structural reforms on the horizon, the outlook for next year is optimistic. India performs well on the income equality measure and it easily outperforms all the other BRICs. In addition, India enjoys the lowest level of unemployment among these nations.

The Health sub-index still lags behind most countries and there is a low level of health expenditure. The number of physicians per capita, albeit improved from last year, stands at only 0.7 per 1,000 people. Pollution and environmental indicators are low in India, and similar to China, severely affect populations of the larger cities where there are extremely high levels of water and air pollution.



Updated data not available, 2014 data used.

<sup>2.</sup> Indicator added in 2014.

## China

China drops three places in this year's GRI to 72. China's performance in the Finances in Retirement category was commendable but is let down by its performance in the Material Wellbeing sub-index.

Sustained economic growth and investment in infrastructure has been beneficial for long-term economic prospects and for retirees in China. The second largest economy grew at about 7.3% this year, which while lower than in previous years is still higher than most countries. However, China's inflation rate decreased to a comfortable 2.6% and interest rates have been at a favorable range over the last two years. The Finances in Retirement sub-index is almost at par with the average of the top 30 performers, an impressive result for one of the emerging economies. In terms of Material Wellbeing, income inequality has been steadily increasing and the country is among the worst performers in this indicator. As in the other emerging economies, high levels of income inequality are one of the most important threats to future retirees. However, Chinese retirees are able to benefit from relatively low tax pressures.

The most serious threat to China's ranking in GRI is the continued disregard towards the environment and pollution by policy makers. Despite improved performance from last year, China is one of the worst-ranking nations for air pollution and climate change, which can deteriorate the life of retirees, especially the inhabitants of larger cities.



- Updated data not available, 2014 data used.
- 2. Indicator added in 2014.

#### PERFORMANCE BY SUB-INDEX

### The Health Index

Performance in the Health sub-index remained fairly static over the last two years. Most movements in the rankings, both in the top and bottom 30, have been small (with a few exceptions) and 28 countries kept their rankings in the top 30 for the three past years. This may be because improvements in health provision and especially life expectancy tend to take place slowly over a number of years, so scores in this sub-index will not show drastic changes. In fact, this year Austria remains at the top.

#### TOP 30 IN HEALTH SUB-INDEX

CHANGES IN 2015
Increase
Constant
Decrease
COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

Country	Ranking 2015	Ranking 2014	Ranking 2013	Trend in Ranking	Score 2015	Score 2014	Score 2013
Austria	1	1	1		88%	90%	90%
Germany	2	2	3		87%	88%	87%
France	3	3	2		86%	88%	88%
Luxembourg	4	8	6		84%	85%	85%
Japan	5	10	8		84%	84%	84%
Netherlands	6	7	5		84%	86%	85%
Norway	7	4	4		84%	86%	85%
Switzerland	8	5	9		83%	86%	84%
Greece	9	13	16		82%	83%	83%
Denmark	10	12	14		82%	83%	83%
Belgium	11	6	12	•	82%	86%	83%
Italy	12	19	20		82%	82%	82%
Australia	13	11	22		81%	84%	81%
Sweden	14	15	17		81%	83%	82%
Czech Republic	15	14	13	<del></del>	81%	83%	83%
Iceland	16	9	7		81%	85%	85%
Finland	17	18	18	<del></del>	81%	82%	82%
Spain	18	16	19		80%	83%	82%
United States	19	21	23		80%	81%	81%
Cuba	20	17	15		80%	83%	83%
United Kingdom	21	22	21		79%	81%	81%
Qatar	22	30	39		79%	72%	74%
Slovenia	23	23	25		78%	80%	80%
Ireland	24	20	10	•	78%	82%	83%
Malta	25	28	28		78%	79%	78%
New Zealand	26	26	11	-	78%	79%	83%
Israel	27	25	27		77%	79%	79%
Croatia	28	27	30		77%	79%	78%
Portugal	29	24	24		77%	80%	80%
Slovak Republic	30	29	35		76%	78%	77%

Of the top 20 from last year, only one country dropped out of the list, Ireland, falling four places this year. The country fell to the 24th place from the 20th place in 2014. Ireland also decreased its overall performance in the GRI, with decreased scores in all the sub-indices. The drop in Ireland's health category is mostly due to a smaller number of physicians, which is consistent with the country's increasing unemployment rate. Iceland has also fallen significantly, from 9th to 16th – remaining in the top 20 and improving its overall performance in the GRI, but still decreasing its Health sub-index score by 4%. This was mostly due to the decrease in hospital beds. Furthermore, the WB had not updated the 2007 data until this year, so now the ranking is fairer.

When it comes to the bottom 30 countries in the Health sub-index, the number of countries which have improved their rankings in 2015 (18 of them) is greater than the number that have reported a low ranking this year (9). However, the general change in score has been negative. The highest score for the health category is merely 26% this year, compared to 59% in 2013 and 53% in 2014, and the number of countries which have a score of under 20% has increased to 17.

### **BOTTOM 30 IN HEALTH SUB-INDEX**

CHANGES IN 2015
Increase
Constant
Decrease
COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

Country	Ranking 2015	Ranking 2014	Ranking 2013	Trend in Ranking	Score 2015	Score 2014	Score 2013
Mauritania	121	121	130		26%	29%	25%
Yemen, Rep.	122	126	126		26%	27%	
Zambia	123	125	114	• • • •	26%	28%	
Uganda	124	127	119		24%	27%	
Iran, Islamic Rep.	125	90	77		24%	53%	59%
Nigeria	126	123	129		24%	28%	28%
Senegal	127	129	134		22%	24%	23%
Cameroon	128	131	123	• • • •	22%	24%	35%
Afghanistan	129	137	146		21%	22%	17%
Lesotho	130	128	116		21%	24%	39%
Benin	131	134	141		20%	23%	21%
Cote d'Ivoire	132	136	144		20%	22%	20%
Togo	133	135	139		20%	23%	22%
Madagascar	134	132	133		20%	23%	23%
Ethiopia	135	133	140		19%	23%	22%
Burkina Faso	136	138	138		19%	21%	22%
Malawi	137	139	143		18%	21%	20%
Liberia	138	140	147		18%	21%	17%
Guinea	139	142	142		18%	20%	21%
Zimbabwe	140	144	120		18%	19%	36%
Mozambique	141	143	145		17%	19%	18%
Burundi	142	141	122		17%	20%	36%
Myanmar	143	130	135		17%	24%	23%
Tanzania	144	145	107	~	16%	17%	45%
Niger	145	148	148		13%	15%	13%
Central African Republic	146	146	131		13%	17%	25%
Chad	147	147	132		12%	16%	24%
Congo, Dem. Rep.	148	122	136		11%	28%	23%
Mali	149	150	150		9%	11%	6%
Sierra Leone	150	149	149		8%	13%	10%

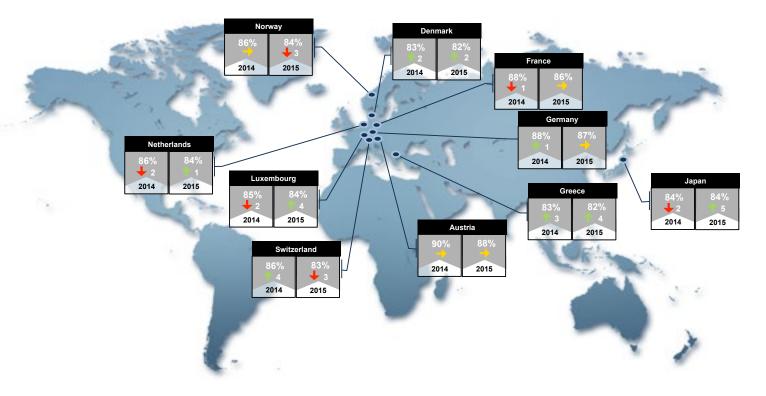
Twenty-four countries remain in the bottom 30 for three consecutive years. Notably, Iran has fallen significantly from the 77th place in 2013.

None of the Western, European or more economically developed countries are in the bottom 30 on the Health sub-index. With the exception of Myanmar/Burma, the Republic of Yemen, the Islamic Republic of Iran, and Afghanistan, the countries at the bottom of this ranking are all in Africa. With Health index scores as low as 8%, compared to Austria's 88% at the other end of the scale, the health conditions of people living in bottom 30 countries can be considered quite distressing from a humanitarian perspective. Needless to say, these scores make all of these countries undesirable retirement locations.

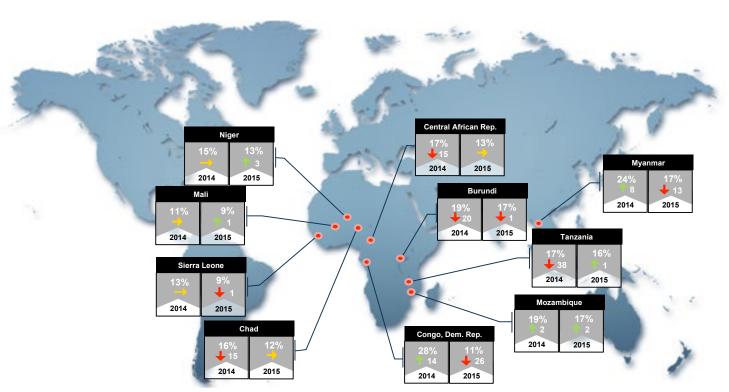
Countries in the top and bottom 10 of the Health sub-index show quite a lot of movement, mostly up the ranks. However, some retained their positions – Austria, Germany, and France are still top three for the health category.

The maps below show how concentrated both the top and bottom 10 countries are. All of the top 10 are in Europe, except for Japan due to its first position in the life expectancy and hospital beds per capita indicators. At the same time, nine of the bottom 10 countries in the Health sub-index are in Africa, as observed earlier.

### TOP 10 COUNTRIES IN THE HEALTH SUB-INDEX



## BOTTOM 10 COUNTRIES IN THE HEALTH SUB-INDEX



## Finances in Retirement Index

The Finances in Retirement sub-index shows interesting changes in 2015 compared to the last two years. The drastic movement on behalf of some countries is partly because the score is sensitive to negative interest rates, which pose a strong threat for retirees aiming to maintain the value of their investment and savings. For example, this is the case for Qatar and Namibia in 2014, and Turkey in 2015.

Secondly, unlike those in the Health sub-index, indicators in the finance category change easily over shorter periods of time. Government policy towards the banking industry (the case for Iceland) or raising money by issuing public debt (the case for Guyana) could impact the indicators within a year. In this way, the score for this sub-index explains the current financial situation worldwide, and changes in the following year should be expected.

#### TOP 30 IN FINANCES IN RETIREMENT SUB-INDEX

CHANGES IN 2015
Increase
Constant
Decrease
COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

Country	Ranking 2015	Ranking 2014	Ranking 2013	Trend in Ranking	Score 2015	Score 2014	Score 2013
Qatar	1	88	70		77%	56%	59%
Chile	2	1	34		75%	76%	67%
Australia	3	2	13		73%	74%	73%
Singapore	4	7	3		72%	71%	80%
Switzerland	5	6	1		70%	71%	83%
New Zealand	6	5	88		70%	72%	53%
Costa Rica	7	3	8		69%	73%	75%
Korea, Rep.	8	11	65		69%	68%	60%
Malaysia	9	13	54		69%	68%	63%
Bahrain	10	4	94		68%	73%	51%
Canada	11	8	17	• • • •	68%	69%	72%
Mauritius	12	9	6		68%	69%	76%
Botswana	13	10	81		66%	68%	56%
United States	14	22	28		65%	65%	69%
Indonesia	15	23	49		65%	65%	64%
Dominican Republic	16	38	56		65%	63%	63%
Estonia	17	20	29		65%	66%	69%
Namibia	18	107	41		65%	52%	66%
Peru	19	17	12		64%	67%	73%
Guyana	20	89	79		64%	56%	56%
Lithuania	21	49	53		64%	62%	64%
Paraguay	22	36	32		64%	63%	68%
Guatemala	23	28	42	• • •	64%	64%	66%
Sweden	24	14	9		64%	68%	74%
Panama	25	15	2		64%	68%	81%
Mexico	26	16	16		64%	67%	72%
Colombia	27	29	27	• • • •	64%	64%	69%
Uruguay	28	21	10		63%	65%	74%
Philippines	29	47	69		63%	62%	59%
Rwanda	30	33	31		63%	63%	68%

Also, internationally, economies have been undergoing a lot of change, with high inflation rates in some countries, and others taking drastic measures to pull up low interest rates (such as Argentina and Ukraine). The top 30 displays an interesting range of countries. For once, Qatar, rather than a Western European or North American country, tops the rankings of a sub-index, jumping 87 places since 2014.

While the overall scores at the top of the Finances in Retirement sub-index has increased marginally, the score for the bottom decreased. While in 2014 the highest score achieved was 76% (and 83% for 2013), in 2015 the top score achieved was 77%. As for the lowest, in 2014, it was 29% for Sudan and this year, it is 26%, still for Sudan. This suggests the countries with better finances have, on average, done the same or marginally better but the worst ones have become even direr.

The bottom 30 in the Finances in Retirement sub-index mostly consist of those countries which also performed badly in 2014. Of these countries, 23 are among the bottom 30 for 2014 as well. Although the number of countries which improved their rankings (15 of them) is greater than the number that have fallen in rank (10), more countries have a score under 40% (14 countries) than last year (11 countries). This further supports the argument that the bottom countries are only getting worse. All of the bottom 30 countries are developing countries, except for Ukraine and Greece.

#### BOTTOM 30 IN FINANCES IN RETIREMENT SUB-INDEX

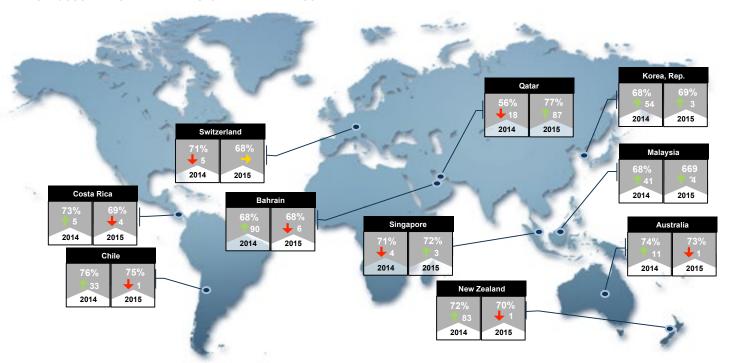
CHANGES IN 2015
Increase
Constant
Decrease
COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
20% - 30%
10% - 20%
0% - 10%

Country	Ranking 2015	Ranking 2014	Ranking 2013	Trend in Ranking	Score 2015	Score 2014	Score 2013
Pakistan	121	127	135		48%	46%	38%
Ukraine	122	121	129				
Ghana	123	123	98			47%	50%
Turkey	124	63	57	_		60%	62%
Greece	125	111	74			51%	58%
Congo, Dem. Rep.	126	130	138				
Yemen, Rep.	127	112	147			51%	28%
Benin	128	129	80	-			56%
Burkina Faso	129	126	123				
Senegal	130	132	48	_			65%
Tunisia	131	131	76	-			57%
Cambodia	132	136	105				
Niger	133	134	84	-			54%
Argentina	134	133	73	-			58%
Kazakhstan	135	143	96	-			51%
Cote d'Ivoire	136	144	103	-			
Nepal	137	140	148				28%
Togo	138	139	92				52%
Uzbekistan	139	141	142				
Ethiopia	140	142	141				
Turkmenistan	141	146	144				
Syrian Arab Republic	142	100	114			53%	
Belarus	143	148	122				
Cuba	144	138	134				
Iran, Islamic Rep.	145	93	110			55%	
Venezuela, RB	146	120	125			49%	
Guinea	147	149	145				
Myanmar	148	145	133				
Zimbabwe	149	104	136			53%	
Sudan	150	150	143	• • • •	26%	29%	

Turkey drops 61 places, mainly due to its negative interest rate this year. However, Turkey has not experienced the greatest fall in the Finances in Retirement sub-index. That dubious honor goes to Madagascar, which has dropped from 25th place in 2014 to 110th place this year (a fall of 85 places) and a difference in score of 13% compared to last year. This drop was largely driven by its six-fold increase in government debt compared to last year. Finland and Austria also experienced a difference in their score on the sub-index of 13% and 10% respectively compared with last year (both affected by a negative interest rate in 2015).

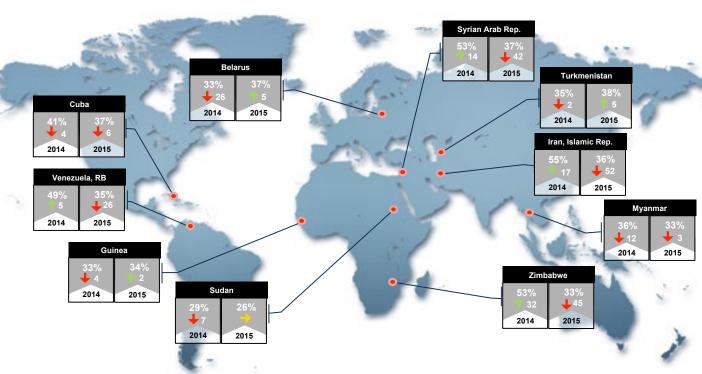
Taking a look at the most and least desirable places in which to retire in terms of their finances, this sub-index shows the top 10 are somewhat better spread out, globally, than those in the Health sub-index. There are two Latin American countries (Chile and Costa Rica), three Asian (Singapore, South Korea, and Malaysia), two Middle Eastern (Qatar and Bahrain), two in Oceania (Australia and New Zealand), and only one in Europe (Switzerland).

#### TOP 10 COUNTRIES IN THE FINANCES IN RETIREMENT SUB-INDEX



Of the bottom 10 countries in the sub-index, three are in Africa (Guinea, Zimbabwe, and Sudan), four in Asia (Syria, Turkmenistan, Iran, and Myanmar), two in Latin America (Cuba and Venezuela), and one in Europe (Belarus).

### BOTTOM 10 COUNTRIES IN THE FINANCES IN RETIREMENT SUB-INDEX



It is interesting to note the differences between the scores in the Finances in Retirement sub-index and the overall GRI rankings. Three of the countries (Chile, Costa Rica, and Malaysia) in the top 10 in the Finances in Retirement sub-index do not even make the top 30 in the GRI.

# Quality of Life/Natural Environment Index

The Quality of Life sub-index is especially interesting. If one has sufficient wealth and security, then the factors measured by the Quality of Life sub-index will impact a retiree's daily life directly in terms of well-being, air and water quality, and climate change.

In this sub-index, movement in the top 30 appears to have been positive in terms of the number of countries which improved their rankings (16 of them). No country's score has improved by more than 6% or fallen by more than 5%, suggesting a certain measure of stability within this sub-index. Switzerland tops the sub-index for the third year in a row, with a score of 91%.

#### TOP 30 IN QUALITY OF LIFE SUB-INDEX

CHANGES IN 2015
Increase
Constant
Decrease
COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

Country	Ranking 2015	Ranking 2014	Ranking 2013	Trend in Ranking	Score 2015	Score 2014	Score 2013
Switzerland	1	1	1		91%	95%	92%
Denmark	2	3	8		91%	87%	82%
Costa Rica	3	7	11		90%	86%	82%
Sweden	4	5	4		89%	87%	85%
Norway	5	2	2		88%	89%	87%
Finland	6	16	19		87%	83%	78%
Iceland	7	10	3		86%	85%	86%
Austria	8	8	7		86%	86%	83%
Belize	9	17	17		86%	83%	79%
Panama	10	22	24		84%	81%	75%
New Zealand	11	6	5		84%	87%	84%
Netherlands	12	13	10		83%	83%	82%
United Kingdom	13	4	6	• • • •	82%	87%	83%
Germany	14	11	12		82%	85%	80%
Brazil	15	19	21		81%	82%	76%
Canada	16	14	16	• • • •	81%	83%	79%
Venezuela, RB	17	12	14		81%	84%	79%
Colombia	18	25	31		81%	80%	72%
Italy	19	15	13		80%	83%	80%
Australia	20	18	25		80%	82%	75%
France	21	9	9		80%	85%	82%
Slovenia	22	37	35		79%	73%	70%
Chile	23	26	27		79%	79%	74%
Mexico	24	33	40		78%	75%	68%
United States	25	24	26		78%	80%	74%
Luxembourg	26	23	18	•	78%	80%	78%
Spain	27	27	22		77%	79%	76%
Jamaica	28	44	50		77%	71%	64%
United Arab Emirates	29	40	60		77%	72%	58%
Guatemala	30	35	45		77%	74%	67%

The top 30 has a range of countries from diverse regions and with different levels of economic development, given that many countries with relatively low economic development levels are considered to be unspoiled in terms of natural beauty and have temperate or even tropical climates. In the top 30 this year such countries are Costa Rica, Belize, Panama, Brazil, Venezuela, Colombia, Chile, Jamaica, and Guatemala. Some of these countries receive high scores for well-being despite having a long way to go before being the ideal retirement country.

The bottom 30 countries in the Quality of Life/Natural Environment sub-index have small changes in their performance except for Lebanon, which has dropped dramatically since 2013 with a decrease in all the indicators. In terms of movement up and down the rankings, the bottom 30 has a roughly equal number of improvers and those who fell through the ranks.

The countries towards the very bottom of the list tended to remain in fairly stable positions. Tragically, many of the countries are, or have recently been, war zones – for instance, Syria, the Democratic Republic of Congo, Sudan, Central African Republic, Mali, Yemen, Iraq, Afghanistan, Lebanon, and Libya. This suggests that political and social upheaval is captured in this sub-index largely through the Wellbeing (Happiness) indicator.

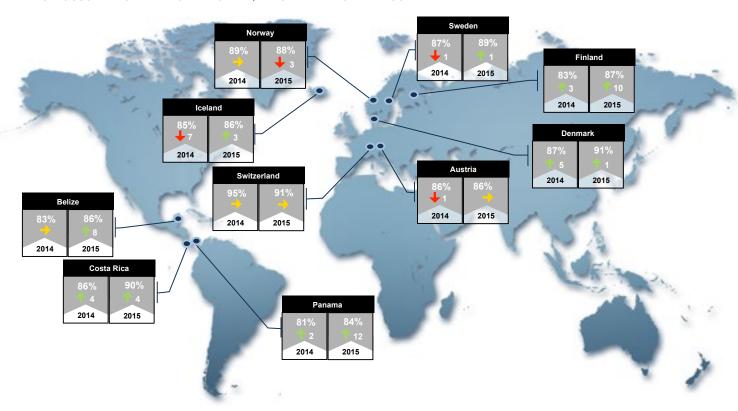
#### BOTTOM 30 IN QUALITY OF LIFE SUB-INDEX

Increase
Constant
Decrease
COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

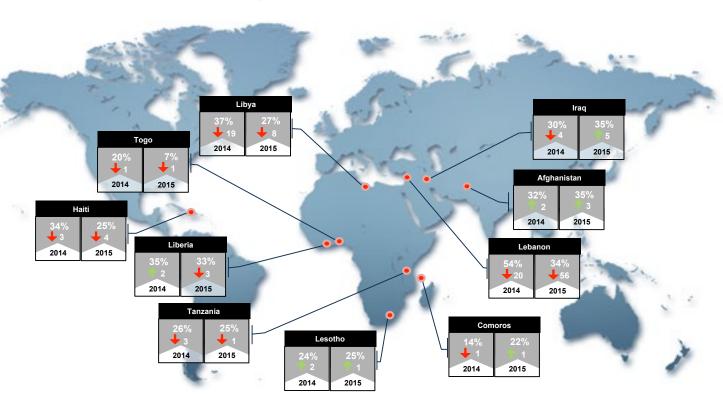
Country	Ranking 2015	Ranking 2014	Ranking 2013	Trend in Ranking	Score 2015	Score 2014	Score 2013
Syrian Arab Republic	121	136	129	-	46%	37%	34%
Rwanda	122	112	122				36%
Angola	123	117	115				39%
Botswana	124	127	117	• • •			38%
Guinea	125	125	132	• • • •			
Madagascar	126	124	138				31%
Congo, Dem. Rep.	127	130	131	• • • •			
Sudan	128	126	120				37%
Central African Republic	129	128	135				
Burundi	130	121	133				33%
Niger	131	139	140				28%
Congo, Rep.	132	133	134				33%
Nepal	133	132	127				
Bahrain	134	107	128	-			34%
Mali	135	140	145				23%
Yemen, Rep.	136	135	137				31%
Benin	137	138	130				
Bosnia and Herzegovina	138	134	123				36%
Chad	139	143	141				26%
Sierra Leone	140	144	146				23%
Iraq	141	146	142			30%	25%
Afghanistan	142	145	147				21%
Lebanon	143	87	67	_		54%	56%
Liberia	144	141	143				25%
Libya	145	137	118		27%		
Haiti	146	142	139		25%		29%
Lesotho	147	148	150		25%	24%	12%
Tanzania	148	147	144		25%	26%	23%
Comoros	149	150	149		22%	14%	13%
Togo	150	149	148		7%	20%	19%

When mapping the performance of the top and bottom 10 in this sub-index, one can see that although the top 10 countries are concentrated around Western Europe, there are outliers in Costa Rica, Belize, and Panama. Those in the bottom 10 are mostly focused in Africa, or otherwise are countries which have recently gone through war, such as Iraq and Afghanistan.

### TOP 10 COUNTRIES IN THE QUALITY OF LIFE/NATURAL ENVIRONMENT SUB-INDEX



### BOTTOM 10 COUNTRIES IN THE QUALITY OF LIFE/NATURAL ENVIRONMENT SUB-INDEX



# Material Wellbeing Index

The Material Wellbeing sub-index measures factors such as individual income, the availability of jobs (unemployment levels) and income inequality. For the third year running, Norway tops the ranking in this index, with a score of 95%. Because this measure tends to primarily take into account unemployment and income levels, small, oil-rich states such as Kuwait, the United Arab Emirates and Qatar feature in the top 10.

It is presumably income inequality, relative to other countries, and high unemployment levels (8.1% in 2015) that keep the United States out of the top 30 this year. Just one in three (10 countries) of the top 30 have fallen through the ranks, though by no more than six places (Sweden, Czech Republic, and Slovenia). Four countries rise by more than 10 places – Qatar (12 places, from 21st to 9th place), Cuba (13 places, from 24th to 11th), Azerbaijan (13 places, from 40th to 27th), and Singapore (12 places, from 41st to 29th). Cuba and Azerbaijan have benefited from large increase in national income, Qatar has decreased its income inequality and Singapore enjoys the third highest income per capita with unemployment rate at merely 2.8%.

#### TOP 30 IN MATERIAL WELLBEING SUB-INDEX

CHANGES IN 2015
Increase
Constant
Decrease
COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

Country	Ranking 2015	Ranking 2014	Ranking 2013	Trend in Ranking	Score 2015	Score 2014	Score 2013
Norway	1	1	1	• • •	95%	97%	97%
Kuwait	2	4	3		91%	89%	93%
Switzerland	3	5	9		85%	87%	88%
Luxembourg	4	2	2	•	84%	89%	95%
United Arab Emirates	5	8	5	· · ·	84%	84%	89%
Austria	6	3	4	• • •	84%	89%	90%
Korea, Rep.	7	11	6		83%	83%	88%
Iceland	8	9	20		81%	83%	81%
Qatar	9	21	36		81%	77%	73%
Netherlands	10	6	6		81%	86%	88%
Cuba	11	24	19	•	80%	76%	82%
Germany	12	13	13		79%	82%	85%
Denmark	13	10	10	• • •	78%	83%	86%
Saudi Arabia	14	22	39		77%	77%	72%
Japan	15	20	11	• • •	76%	78%	85%
Belgium	16	12	22		76%	82%	80%
Finland	17	15	14		76%	81%	84%
Australia	18	19	15	• • • •	76%	78%	84%
Malta	19	18	15	• • •	76%	80%	84%
Sweden	20	14	12		75%	82%	85%
Kazakhstan	21	29	28		75%	73%	76%
Czech Republic	22	16	17		74%	80%	84%
Slovenia	23	17	21		73%	80%	81%
Canada	24	25	23		72%	76%	80%
Romania	25	27	27		71%	74%	76%
New Zealand	26	26	25		70%	75%	77%
Azerbaijan	27	40	32		69%	66%	74%
United Kingdom	28	31	26	-	69%	72%	77%
Singapore	29	41	34		68%	66%	74%
Ukraine	30	35	39		67%	68%	72%

Scores have not changed significantly. The greatest increase or decrease was of 7% in the case of Sweden (down from 82% to 75%) and Slovenia (from 80% to 73%), as both countries are experiencing record-breaking high levels of unemployment (8% for Sweden and 8.8% for Slovenia).

The last 30 countries in the Material Wellbeing sub-index have mostly seen their scores fall, quite dramatically, since last year. The greatest difference in scores has been 24% for Serbia (from 56% to 32%), mostly due to the country's rising unemployment rate to 24% in 2015. Many others come in with a difference of 23% (Macedonia, from 35% to 14%), or 22% (Greece, from 59% to 37%). The rankings of up to 21 countries fell due to the poor performance of certain other countries. However nine countries were able to hold last year's position in the rankings or improve on it.

#### BOTTOM 30 IN MATERIAL WELLBEING SUB-INDEX

CHANGES IN 2015
Increase
Constant
Decrease
COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

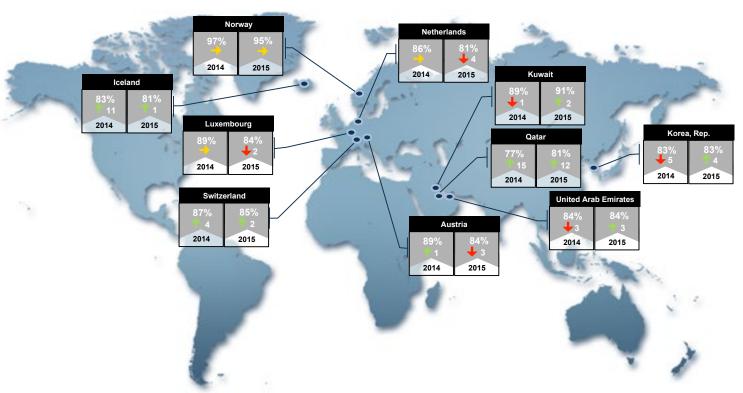
Country	Ranking 2015	Ranking 2014	Ranking 2013	Trend in Ranking	Score 2015	Score 2014	Score 2013
Chad	121	136	122		37%	16%	42%
Greece	122	57	42	_		59%	71%
Yemen, Rep.	123	109	104	$\overline{}$			52%
Sudan	124	114	133			37%	36%
Spain	125	65	63	-		57%	64%
Uganda	126	117	107				52%
Honduras	127	116	114				
Zimbabwe	128	150	150			3%	2%
Serbia	129	68	66	-		56%	64%
Rwanda	130	120	139				
Guyana	131	107	118		29%		
Niger	132	147	131		29%	8%	
Togo	133	138	129		27%	16%	
Mozambique	134	128	146		25%	22%	18%
Bosnia and Herzegovina	135	101	106		25%		52%
Zambia	136	129	128		24%	21%	
Botswana	137	133	76	-	22%	18%	61%
Haiti	138	144	142		22%	11%	24%
Burundi	139	146	134		21%	8%	
Namibia	140	132	147		20%	18%	8%
Liberia	141	135	143		20%	17%	23%
Lesotho	142	145	137		16%	11%	34%
Macedonia, FYR	143	113	115		14%	37%	
Congo, Dem. Rep.	144	149	148		14%	6%	8%
Malawi	145	142	130		13%	12%	
Mauritania	146	121	125		11%	30%	
Djibouti	147	143	143		11%	11%	23%
Comoros	148	148	145		10%	7%	20%
Central African Republic	149	140	124		10%	15%	41%
South Africa	150	139	126		8%	15%	40%

All of the countries listed in the bottom 30 are developing countries, except for Greece and Spain, both of which are experiencing severe domestic crisis and decreasing in all indicators for the Material Wellbeing sub-index. Most of the others, apart from four (Yemen, Honduras, Bosnia and Herzegovina, Haiti) are in Africa. Although three fewer African countries are included in the bottom 30 than last year, over half of the countries in Africa are in the bottom 30 in the Material Wellbeing sub-index. This indicates that although the quality of life on the continent may be improving, in economics terms, people's conditions are not promising.

The range between the top score in the Material Wellbeing sub-index and the bottom one is 87%, signaling an extreme discrepancy of material wealth between the richest and poorest countries.

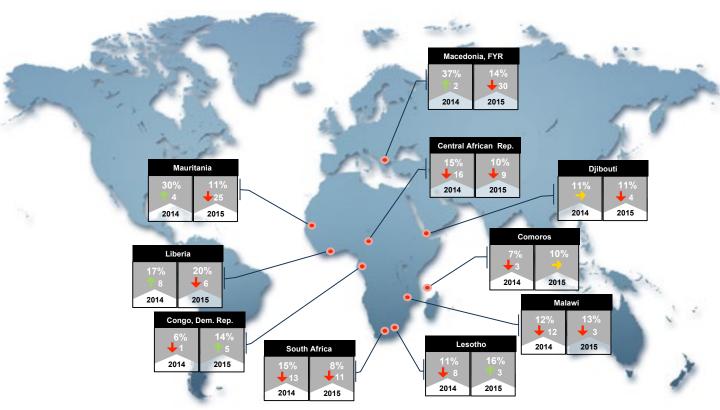
When viewed on a world map, we can see the familiar concentration of the top 10 countries in the sub-index in North and West Europe, together with three Asian countries and Cuba.

#### TOP 10 COUNTRIES IN THE MATERIAL WELLBEING SUB-INDEX



Africa, for instance, is a continent of red dots and downwards-pointing arrows, to indicate all of these countries have fallen in relative material wellbeing. Those countries relying on tourism, aid, or trade with other affected countries as their only sources of income will have suffered more in the aftermath of the slow and tentative recovery of Western Europe and North America since 2007.

### BOTTOM 10 COUNTRIES IN THE MATERIAL WELLBEING SUB-INDEX



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#### APPENDIX A

# Methodology

The Natixis CoreData Global Retirement Index is a composite welfare index which combines 20 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 in Retirement Index
Material Wellbeing in Retirement Index
Quality of Life/Natural Environment Index
Finances in Retirement Index

### Constructing the Indicators

The first step in expanding the index is to construct the 20 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) 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:

 $\label{eq:lower_performance} \textit{Indicator} = \frac{\textit{Observed value - lower performance benchmark}}{\textit{Target - lower performance benchmark}}$ 

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

Again, following Emerson et al. (2012),<sup>11</sup> most indicators are transformed into logarithms<sup>12</sup> 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 a decreasing marginal welfare benefits, such as income.

Once the indicators have been created they are aggregated by obtaining their geometric mean<sup>13</sup> to obtain the thematic indices. The geometric mean offers a number of advantages over the arithmetic mean;<sup>14</sup> this will be discussed later in this chapter.<sup>15</sup>

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 with the geometric mean of the following indicators:
  - a) Life expectancy at birth Index: obtained using data from the World Bank (WB)'s World Development Indicators (WDI) 2014. The target for this indicator is the sample maximum which is equal to 83.10 years, and the low performance benchmark is equal to 45.33 years, a figure observed as the sample minimum.
  - b) Health expenditure per capita Index: obtained using data on health expenditure per capita, PPP (constant 2005 international \$) from WB's WDI 2014. The target set for this indicator is the sample maximum, equal to \$8895.12 USD, and the low performance benchmark is equal to the sample minimum of \$23.58. The indicator is transformed into logarithms, as the marginal returns to extra expenditure are decreasing.
  - c) Physicians per 1,000 people Index: this indicator is calculated using data from the WB's WDI of 2014. The

Where: t = target or sample maximum

m = lower performance benchmark or sample minimum

x = value of the variable

<sup>11</sup> Emerson, J.W., A. Hsu, M.A. Levy, A. de Sherbinin, V. Mara, D.C. Esty, and M. Jaiteh (212), 2012 Environmental Performance Index and Pilot Trend Environmental Performance Index. New Haven: Yale Center for Environmental Law and Policy.

<sup>12</sup> 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:

target set for this index is equal to the sample maximum, this is 7.739 physicians for every 1,000 people, and the low performance benchmark is equal to 0. This indicator undergoes a logarithms transformation when calculated (alpha value of 1 added before transformation applied).

- d) 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 health expenditure (% of total health expenditure), included in the WB's WDI 2014. The target for this indicator is equal to 0%, which means that all of the population is covered by health insurance, and the low performance benchmark is equal to the sample maximum of 96.52%.
- e) Hospital beds Index: obtained using data on the number of hospital beds for every 1,000 people included in the WB's WDI 2014. The sample maximum 13.65 hospital beds for every 1,000 people is used as target, and the sample minimum of 0.1 is used as the low performance benchmark. This indicator is presented in logarithmic form, multiplied by 10 before transformation to facilitate calculation.
- 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 2014. 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, that is US\$123,860, and the low performance benchmark is equal to US\$730, which is equal to US\$2 per day which is widely used as a level of income that allows for a minimum subsistence level. Logarithms 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 the WB's WDI 2014 and completed with data from the CIA World Factbook and the Organization for Economic Co-operation and Development (OECD) database. The target is set at a score of 24.82, which is the sample minimum. The low performance benchmark is set at 65.02, which is the sample maximum. The index is presented in a logarithmic form
- c) Unemployment Index: a measure of unemployment was 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 economics problems and it is likely that this will impact 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 31% which is the sample maximum when excluding one outlier (Djibouti, 59%). The index undergoes a logarithmic transformation and the raw data used for this index was sourced from the WB's WDI 2014 and the CIA World Factbook.
- 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

<sup>13</sup> 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 =  $\sqrt[n]{X_1 \times X_2 \times ... + \times X_n}$ 

<sup>14</sup> 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 = x<sub>1</sub> × x<sub>2</sub> × ... + x x<sub>n</sub>

<sup>15</sup> See Constructing the Global Retirement Index on page 75.

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 (2014 Update). The target level is set equal to the maximum on the scale used by the indicators; this 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.
- c) 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 (% of working age population) from the WB's WDI 2014. 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 2 workers for every old age dependent.
- d) 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 2014 and 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 59.22%. This indicator undergoes a logarithmic transformation when calculated.
- e) Real interest rate Index: this is included as higher interest rates will increase the returns to investment

- and saving, and in turn increases 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 2014 and is completed from the OECD.<sup>18</sup> The target is 20% and the low performance benchmark is 0%. The data is multiplied by 100 before logarithmic transformation is applied.
- f) 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 is from country statistical agencies, central banks, and ministries of finance, economy which measures the total taxes collected as percentage of GDP. The target for this index is 0% of GDP, while the low performance benchmark was set at the sample maximum of 48.1% of GDP. This indicator is calculated in logarithmic form.
- g) 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 WB's WDI 2014 and completed with data from International Monetary Fund's Financial Soundness Indicators and Global Financial Stability Report, if there is more recent data available. The target is set at 0.4%, while the low performance benchmark is set at 31.7%.
- h) 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 Index of Economic Freedom 2014 and undergoes a logarithmic transformation to construct the index. The target level is set equal to the sample minimum of 3.6% and the low performance benchmark is the sample maximum of 237.92%.
- **4. Quality of Life and Natural Environment 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.
  - **a) Happiness Index:** this is elaborated on the basis of the Happy Planet Index 2012, which asks individuals in differ-

<sup>16</sup> This is the median poverty line for all developing countries, as compared with the \$1.25 (PPP) measure, which is the average national policy line for the poorest 10-20 countries. Source: World Bank, International Comparison Program (ICP) 2005, press release 26th August 2008, available: http://www.worldbank.org/en/news/press-release/2008/09/16/new-data-show-14-billion-live-less-us125-day-progress-against-poverty-remains-strong. Accessed: 19th November, 2013.

<sup>17</sup> Latest data on annual consumer price inflation and 10-year government bond interest rate are used to calculate real interest rate (= nominal interest rate - inflation). Accessed: Oct 28th. 2014.

<sup>18</sup> Long-term interest rate of 2013 of Luxembourg and Slovenia are obtained from OECD. Real interest rates are calculated by subtracting inflation from indicator d.

ent countries about their level of happiness and satisfaction with past, present and future life. The indicator is present in the logarithmic form. The target is set at the sample maximum, which is an average score of 7.8, and the low performance benchmark is set at the sample minimum of 2.6.

- 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. The factors selection method follows that in GRI 2014, by reference to the Environmental Performance Index (EPI) 2014.<sup>19</sup>
- c) Air quality Index: this is constructed as the average of household air quality, which is measured by percentage of population using solid fuel as the primary cooking fuel, and population weighted exposure to PM2.5. The data is obtained from EPI 2014.
- d) Water and sanitation Index: captures the level of infrastructure providing people with access to improved drinking water and access to an improved source of sanitation. This index is calculated as the average of the two indicators (after logarithms transformation). The benchmark selection is based on that in EPI 2012. Target is 100% percentage of population with access for both indicators, and the low performance benchmark is 36% (1st percentile) for access to drinking water index and 11.4% (5th percentile) for access to sanitation index. The data used is observed from World Health Organization Global Health Observatory Data Repository.
- e) 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 takes in indicators that measure biome protection, critical habitat protection, and marine protection. The data is obtained from EPI 2014.
- f) Climate change and energy Index: this index is included due to the fact that the impacts of climate change will dramatically affect human health, water resources, agriculture, and ecosystems. Following the methodology in that in EPI 2012, the index is calculated as 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). The data is sourced from US Energy Information Administration.

<sup>19</sup> The 2014 Environmental Performance Index is a joint project between the Yale Center for Environmental Law & Policy and the Center for International Earth Information Network at Columbia University.

# 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)<sup>20</sup> 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, as for example a fall in the level of health cannot be assumed to be offset by an increase in the level of income of 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 complementary, would also be problematic, as it would assume that the only way of increasing well-being 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, as 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 150 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.

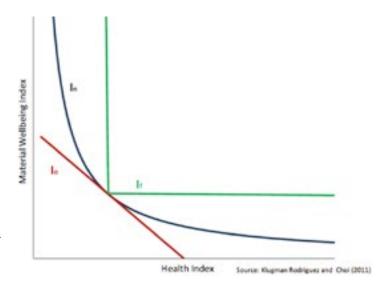
The chart graphically shows the three cases:

1. Perfect substitutability (lo): 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 4 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 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.



## Framework

Index	Sub-Index	Policy Category Weight (% of Index)	Indicators	Indicator Weight (% of Sub-Index)	Data Source
	Life Expectancy Index	GEOMEAN	Life expectancy at birth	1	World Bank WDI 2014
	Health Expenditure Per Capita Index	GEOMEAN	Health expenditure per capita, PPP (constant 2005 international \$)	1	World Bank WDI 2014
Health Index	Physicians per 1000 People Index	GEOMEAN	Physicians per 1,000 people	1	World Bank WDI 2014
	Non-Insured Health Expenditure Index	GEOMEAN	Out-of-pocket health expenditure (% of total health expenditure)	1	World Bank WDI 2014
	Hospital Beds Index	GEOMEAN	Hospital beds per 1,000 people	1	World Bank WDI 2014
	Income Equality Index	GEOMEAN	GINI Index	1	World Bank WDI 2014, CIA World Factbook, OE
Material Wellbeing Index	Income per Capita Index	GEOMEAN	GNI per capita, PPP (Current International USD\$)	1	World Bank WDI 2014
	Unemployment Index	GEOMEAN	Unemployment (%of total labor force)	1	World Bank WDI 2014, CIA World Factbook
	Institutional Strength Index	0.50	Average of World Bank Gover- nance Indicators	1	World Bank Worldwide Governance Indicators
			Age dependency ratio, old (% of working age population)	GEOMEAN	World Bank WDI 2014
Finances in			Bank Nonperforming loans to total gross loans (%)	GEOMEAN	IMF Financial Soundness Indicators, IMF Globa Report, World Bank WDI 2014
Retirement Index	Investment Environ- ment Index	0.5	Inflation, consumer prices (% annual)	GEOMEAN	World Bank WDI 2014
			Real interest rate (%)	GEOMEAN	World Bank WDI 2014
			Public Debt (% of GDP)	GEOMEAN	World Bank WDI 2014
			Tax Burden (% of GDP)	GEOMEAN	Country statistical agencies, central banks, and economy
	Air Quality Index	0.125 GEOMEAN	Household Air Quality	0.5	Environmental Performance Index 2014
	All Quality Huck	0.123 GLOWILAN	Air Pollution - Average Exposure to PM2.5	0.5	Environmental Performance Index 2014
	Water and Sanitation	0.125 GEOMEAN	Access to drinking water	0.5	WHO Global Health Observatory Data Reposito
	Index	J. I LO GEOWILAN	Access to sanitation	0.5	WHO Global Health Observatory Data Reposito
	Rindiversity and U. L.		Biome protection	0.5	Environmental Performance Index 2014
Quality of life /	Biodiversity and Habi- tat Index	0.125 GEOMEAN	Marine protection	0.25	Environmental Performance Index 2014
Environmental Index			Critical habitat protection	0.25	Environmental Performance Index 2014
illuca.			CO2 per capita	0.33	US Energy Information Administration (IEA), W
	Climate Change & Energy Index	0.125 GEOMEAN	CO2 per GDP	0.33	US Energy Information Administration (IEA), We
			CO2 emissions per electricity generation	0.165	US Energy Information Administration (IEA)
			Renewable electricity	0.165	US Energy Information Administration (IEA)
	Happiness Index	0.5 GEOMEAN	Happy Planet Index	1	Happy Planet Index (2012)

	Latest Data Available	Target	Low performance benchmark	Statistical transformation
	2012	Sample Maximum (83.10 years, Japan)	Sample Minimum (45.33 years, Sierra Leone)	none
	2012	Sample Maximum (\$8895.12, USA)	Sample Minimum (\$23.58, Congo, Dem. Rep.)	natural logarithm
	2012, 2011, 2010	Sample Maximum (7.739, Qatar)	0	natural logarithm alpha 1 added
	2012	0%	Sample Maximum (96.52%, Haiti)	none
	2012, 2011, 2010	Sample Maximum (13.65, Japan)	Sample Minimum (0.1, Mali and Iran, Islamic Rep.)	natural logarithm
D	Between 2008 and 2013 depending on Country	Sample Minimum (24.82, Ukraine)	Sample Maximum (South Africa, 65.02)	natural logarithm
	2013	Sample Maximum (\$123,860, Qatar)	\$730 (\$2 per day)	natural logarithm
	2012	3% Unemployment	Sample Maximum (31%, Macedonia, FYR) (excluding Djibouti, 59%)	natural logarithm
014	2013	Maximum on Scale (2.5)	Minimum on Scale (-2.5)	natural logarithm
	2013	10%	50%	natural logarithm
Financial Stability	2014, 2013	0.4%	31.7%	natural logarithm
	2013	2%	Sample Maximum (59.22%, Belarus)	natural logarithm
	2014, 2013	20%	0%	natural logarithm
	2013	Sample Minimum (3.6%, Saudi Arabia)	Sample Maximum (237.92%, Japan)	natural logarithm
ministries of finance,	2013	0%	Sample Maximum (48.1%, Denmark)	natural logarithm
	2010	0% of population using solid fuels as primary cooking fuel	100%	none
	2012	10 ug/m3	49.92 ug/3	natural logarithm
,	2012	100% of population with access	36%	none
	2012	100% of population with access	11.40%	none
	2012	17% weighted average of biomes protected	0	none
	2012	10% of country's terrestrial seas and exclusive economic zone protected	0	natural logarithm
	2012	100% of critical habitats protected	0	none
ld Bank WDI 2014	2012	1262 kg CO2 eq.(Estimated value associated with 50% reduction in global GHG emissions by 2050, against 1990 levels)	19588.33059	natural logarithm
ld Bank WDI 2014	2012	0.07642 kg CO2 eq. (Estimated value associated with 50% reduction in global GHG emissions by 2050, against 1990 levels)	1.532823116	natural logarithm
	2012, 2011	0 grammes CO2 per KWh	845.3289722	natural logarithm
	2012, 2011	100% electricity from renewable sources	0	none
	2012	Sample Maximum (7.8, Denmark)	Sample Minimum (2.8, Togo)	natural logarithm

APPENDIX B

FULL RANKINGS: GLOBAL RETIREMENT INDEX 2015 (1ST – 40TH)

COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

Rank	Country	Health Index	Finances in Retirement Index	Quality of Life Index	Material Wellbeing Index	Global Retirement Index
1	Switzerland	83%	70%	91%	85%	82%
2	Norway	84%	63%	88%	95%	81%
3	Australia	81%	73%	80%	76%	77%
4	Iceland	81%	63%	86%	81%	77%
5	Netherlands	84%	62%	83%	81%	77%
6	Sweden	81%	64%	89%	75%	77%
7	Denmark	82%	59%	91%	78%	77%
8	Austria	88%	53%	86%	84%	76%
9	Germany	87%	59%	82%	79%	76%
10	New Zealand	78%	70%	84%	70%	75%
11	Luxembourg	84%	58%	78%	84%	75%
12	Canada	76%	68%	81%	72%	74%
13	Finland	81%	55%	87%	76%	74%
14	Korea, Rep.	75%	69%	67%	83%	73%
15	Czech Republic	81%	61%	76%	74%	73%
16	Belgium	82%	58%	75%	76%	72%
17	Japan	84%	54%	75%	76%	71%
18	France	86%	57%	80%	66%	71%
19	United States	80%	65%	78%	64%	71%
20	Slovenia	78%	57%	79%	73%	71%
21	Qatar	79%	77%	51%	81%	71%
22	United Kingdom	79%	53%	82%	69%	70%
23	Israel	77%	62%	75%	65%	70%
24	Malta	78%	61%	65%	76%	69%
25	United Arab Emirates	65%	55%	77%	84%	69%
26	Kuwait	67%	54%	69%	91%	69%
27	Estonia	76%	65%	72%	62%	68%
28	Slovak Republic	76%	62%	76%	60%	68%
29	Italy	82%	50%	80%	63%	67%
30	Singapore	63%	72%	66%	68%	67%
31	Uruguay	75%	63%	69%	58%	66%
32	Ireland	78%	59%	72%	58%	66%
33	Poland	73%	62%	67%	61%	66%
34	Panama	65%	64%	84%	51%	65%
35	Costa Rica	61%	69%	90%		65%
36	Chile	62%	75%	79%	48%	65%
37	Malaysia	58%	69%	70%	62%	64%
38	Saudi Arabia	60%	53%	70%	77%	64%
39	Cyprus	68%	53%	76%	61%	64%
40	Lithuania	76%	64%	61%	56%	64%

## FULL RANKINGS: GLOBAL RETIREMENT INDEX 2015 (41ST – 80TH)

COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

Rank	Country	Health Index	Finances in Retirement Index	Quality of Life Index	Material Wellbeing Index	Global Retirement Index
41	Trinidad and Tobago	58%	62%	73%	63%	64%
42	Mexico	62%	64%	78%	53%	64%
43	Cuba	80%	37%	68%	80%	63%
44	Croatia	77%	55%	72%	52%	63%
45	Romania	71%	54%	57%	71%	63%
46	Mauritius	57%	68%	65%	59%	62%
47	Portugal	77%	58%	64%	51%	62%
48	Thailand	50%	62%	70%	67%	62%
49	Peru	56%	64%	70%	57%	61%
50	Russian Federation	74%	52%	60%	61%	61%
51	Latvia	70%	62%	64%	51%	61%
52	Hungary	75%	55%	54%	63%	61%
53	Ecuador	57%	60%	76%	51%	60%
54	Brazil	64%	58%	81%		60%
55	Spain	80%	59%	77%	36%	60%
56	Azerbaijan	57%	63%	50%	69%	59%
57	Ukraine	67%		57%	67%	59%
58	Argentina	76%		73%	52%	59%
59	Belize	52%	62%	86%	43%	59%
60	Belarus	75%	37%	64%	66%	59%
61	Colombia	62%	64%	81%	37%	58%
62	Vietnam	51%	56%	63%	62%	58%
63	Mongolia	62%	55%	54%	61%	58%
64	Jordan	63%	59%	57%	53%	58%
65	Bulgaria	71%	56%	51%	54%	58%
66	Moldova	62%	54%	53%	60%	57%
67	Turkey	67%	47%	63%	55%	57%
68	Bahrain	61%	68%	39%	66%	57%
69	Algeria	57%	56%	59%	56%	57%
70	El Salvador	56%	48%	73%	53%	57%
71	Albania	55%	52%	69%	52%	57%
72	China	63%	62%		54%	56%
73	Kazakhstan	66%	41%	50%	75%	56%
74	Guatemala	44%	64%	77%		56%
75	Dominican Republic	57%	65%	65%		56%
76	Greece	82%	46%	72%	37%	56%
77	Paraguay	51%	64%	62%	48%	56%
78	Bolivia		59%	72%	51%	56%
79	Sri Lanka	47%	57%	53%	64%	55%
80	Armenia	59%	61%	57%	44%	55%

### FULL RANKINGS: GLOBAL RETIREMENT INDEX 2015 (81ST – 120TH)

COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

Rank	Country	Health Index	Finances in Retirement Index	Quality of Life Index	Material Wellbeing Index	Global Retirement Index
81	Philippines	45%	63%	62%	50%	55%
82	Indonesia		65%	66%	57%	54%
83	Venezuela, RB	51%	35%	81%	57%	54%
84	Jamaica		55%	77%		53%
85	Kyrgyz Republic	57%	56%	53%		53%
86	Nicaragua	43%	54%	72%		53%
87	Tunisia	58%	44%	57%	50%	52%
88	India	38%	60%	51%	63%	52%
89	Georgia	60%	63%	47%	40%	52%
90	Libya	65%	62%	27%	62%	51%
91	Lao PDR		58%	58%	60%	51%
92	Morocco	42%	59%	52%		50%
93	Serbia	68%	49%	57%	32%	50%
94	Lebanon	69%	51%		50%	50%
95	Egypt, Arab Rep.		50%	47%	54%	49%
96	Honduras		59%	74%	33%	49%
97	Pakistan	35%		55%	62%	49%
98	Turkmenistan	56%		55%		49%
99	Tajikistan	49%		50%		48%
100	Uzbekistan	56%	38%		46%	47%
101	Iraq	42%	59%		53%	46%
102	Bangladesh	30%	54%	50%	54%	46%
103	Guyana		64%	58%	29%	45%
104	Namibia		65%	65%	20%	45%
105	Syrian Arab Republic				46%	45%
106	Cambodia	31%	42%	49%	58%	44%
107	Nigeria	24%	57%	54%		44%
108	Congo, Rep.	29%	61%	40%	49%	43%
109	Ghana	27%	47%	50%	51%	42%
110	Angola	27%	53%	46%		42%
111	Cameroon	22%	57%	52%	48%	42%
112	Bosnia and Herzegovina	66%	50%		25%	41%
113	Kenya	29%	55%		37%	41%
114	Nepal	34%	40%		54%	41%
115	Rwanda	28%	63%		32%	40%
116	Macedonia, FYR	68%	57%	47%	14%	40%
117	Uganda	24%	56%	53%	35%	40%
118	Zambia	26%	59%	68%	24%	40%
119	Iran, Islamic Rep.	24%		52%		37%
120	Cote d'Ivoire	20%	40%	52%	46%	37%

## FULL RANKINGS: GLOBAL RETIREMENT INDEX 2015 (121ST – 150TH)

COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

Rank	Country	Health Index	Finances in Retirement Index	Quality of Life Index	Material Wellbeing Index	Global Retirement Index
121	Botswana	29%	66%	45%	22%	37%
122	Senegal	22%				36%
123	Afghanistan	21%	51%			
124	Madagascar	20%	51%			
125	Yemen, Rep.	26%				
126	Burkina Faso	19%				
127	Ethiopia	19%				
128	Benin	20%				
129	Myanmar	17%	33%	57%	44%	
130	South Africa	50%	62%	54%	8%	
131	Mozambique	17%	60%		25%	
132	Djibouti		57%	53%	11%	
133	Zimbabwe	18%		60%		
134	Sudan	28%	26%			
135	Haiti	35%	56%	25%	22%	
136	Guinea	18%				
137	Tanzania	16%	55%	25%		
138	Chad	12%	56%		37%	
139	Malawi	18%	55%	63%	13%	30%
140	Mauritania	26%	55%	51%	11%	30%
141	Mali	9%	55%		39%	30%
142	Burundi	17%			21%	29%
143	Liberia	18%	57%		20%	29%
144	Niger	13%			29%	28%
145	Sierra Leone	8%	49%	36%	47%	28%
146	Lesotho	21%	56%	25%	16%	26%
147	Comoros	27%	58%	22%	10%	24%
148	Congo, Dem. Rep.	11%	45%		14%	23%
149	Central African Republic	13%	52%	41%	10%	23%
150	Togo	20%	38%	7%	27%	19%

## GRI 2015 VS. GRI 2014, 2013 (1ST – 40TH)

CHANGES IN 2015
Increase
Constant
Decrease
COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

Country	Ranking 2015	Ranking 2014	Ranking 2013	Trend in Ranking	Score 2015	Score 2014	Score 2013
Switzerland	1	1	2		82%	84%	87%
Norway	2	2	1		81%	84%	78%
Australia	3	5	11		77%	79%	73%
Iceland	4	11	23		77%	77%	80%
Netherlands	5	13	7		77%	77%	82%
Sweden	6	4	4		77%	79%	79%
Denmark	7	6	8		77%	79%	81%
Austria	8	3	5		76%	81%	78%
Germany	9	7	9	• • • •	76%	79%	73%
New Zealand	10	9	22		75%	78%	84%
Luxembourg	11	10	3	• • • •	75%	78%	77%
Canada	12	14	13		74%	77%	81%
Finland	13	8	6	• • • •	74%	78%	72%
Korea, Rep.	14	17	27		73%	74%	74%
Czech Republic	15	16	17		73%	75%	77%
Belgium	16	12	14		72%	77%	77%
Japan	17	27	15		71%	69%	78%
France	18	15	10	• • • •	71%	76%	74%
United States	19	19	19	$\leftarrow$	71%	73%	76%
Slovenia	20	21	16		71%	73%	64%
Qatar	21	31	50		71%	68%	74%
United Kingdom	22	18	20		70%	74%	77%
Israel	23	20	12	• • • •	70%	73%	73%
Malta	24	28	26	• • • •	69%	69%	71%
United Arab Emirates	25	26	30	$\cdots$	69%	70%	67%
Kuwait	26	40	39		69%	65%	66%
Estonia	27	33	43		68%	67%	74%
Slovak Republic	28	22	18		68%	72%	74%
Italy	29	23	21	$\leftarrow$	67%	72%	72%
Singapore	30	41	28		67%	65%	70%
Uruguay	31	35	34	$\cdots$	66%	66%	64%
Ireland	32	24	48	-	66%	71%	70%
Poland	33	30	36	$\longrightarrow$	66%	68%	72%
Panama	34	38	29		65%	66%	71%
Costa Rica	35	37	31		65%	66%	68%
Chile	36	36	37		65%	66%	64%
Malaysia	37	47	49		64%	64%	65%
Saudi Arabia	38	45	46		64%	65%	73%
Cyprus	39	25	24		64%	71%	67%
Lithuania	40	44	38	• • • •	64%	65%	65%

## GRI 2015 VS. GRI 2014, 2013 (41ST – 80TH)

CHANGES IN 2015
Increase
Constant
Decrease
COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

Country	Ranking 2015	Ranking 2014	Ranking 2013	Trend in Ranking	Score 2015	Score 2014	Score 2013
Trinidad and Tobago	41	52	85		64%	62%	54%
Mexico	42	42	42		64%	65%	66%
Cuba	43	46	54		63%	64%	63%
Croatia	44	32	35		63%	67%	70%
Romania	45	48	58		63%	63%	62%
Mauritius	46	54	44	• • •	62%	62%	66%
Portugal	47	34	32		62%	67%	71%
Thailand	48	56	63		62%	61%	59%
Peru	49	63	57		61%	60%	62%
Russian Federation	50	50	70		61%	62%	57%
Latvia	51	49	65		61%	63%	58%
Hungary	52	43	45		61%	65%	66%
Ecuador	53	51	51		60%	62%	64%
Brazil	54	61	40		60%	60%	66%
Spain	55	29	25	-	60%	69%	73%
Azerbaijan	56	68	93		59%	58%	52%
Ukraine	57	60	72		59%	60%	57%
Argentina	58	58	41		59%	60%	66%
Belize	59	62	56		59%	60%	62%
Belarus	60	59	47		59%	60%	65%
Colombia	61	91	77		58%	53%	55%
Vietnam	62	71	79		58%	57%	55%
Mongolia	63	66	103		58%	58%	
Jordan	64	67	60		58%	58%	61%
Bulgaria	65	53	61		58%	62%	60%
Moldova	66	70	76		57%	57%	56%
Turkey	67	55	59		57%	61%	62%
Bahrain	68	57	92	-	57%	60%	52%
Algeria	69	78	98		57%	54%	
El Salvador	70	75	52		57%	55%	64%
Albania	71	65	55	$\leftarrow$	57%	59%	63%
China	72	69	73		56%	57%	57%
Kazakhstan	73	76	66		56%	55%	58%
Guatemala	74	83	62		56%	54%	59%
Dominican Republic	75	73	69		56%	56%	58%
Greece	76	39	33	_	56%	65%	70%
Paraguay	77	89	67		56%	53%	58%
Bolivia	78	84	71		56%	54%	57%
Sri Lanka	79	86	91		55%	53%	52%
Armenia	80	93	80		55%	52%	54%

## GRI 2015 VS. GRI 2014, 2013 (81ST – 120TH)

CHANGES IN 2015
Increase
Constant
Decrease
COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

Country	Ranking 2015	Ranking 2014	Ranking 2013	Trend in Ranking	Score 2015	Score 2014	Score 2013
Philippines	81	82	82	• • • •	55%	54%	54%
Indonesia	82	92	84		54%	52%	54%
Venezuela, RB	83	64	64		54%	59%	59%
Jamaica	84	77	68		53%	55%	58%
Kyrgyz Republic	85	87	78	• • • •	53%	53%	55%
Nicaragua	86	79	95		53%	54%	52%
Tunisia	87	85	74	• • • •	52%	53%	56%
India	88	104	101		52%		49%
Georgia	89	90	89	• • •	52%	53%	53%
Libya	90	80	88	• • • •	51%	54%	53%
Lao PDR	91	95	100		51%	51%	
Morocco	92	97	87			50%	53%
Serbia	93	74	75			56%	56%
Lebanon	94	72	53			56%	63%
Egypt, Arab Rep.	95	88	94			53%	52%
Honduras	96	98	97			49%	50%
Pakistan	97	102	107	• • •			46%
Turkmenistan	98	125	142				29%
Tajikistan	99	96	117		48%	51%	39%
Uzbekistan	100	100	105			49%	47%
Iraq	101	106	115				40%
Bangladesh	102	105	112				43%
Guyana	103	101	83		45%	48%	54%
Namibia	104	111	131				35%
Syrian Arab Republic	105	103	102				47%
Cambodia	106	107	108				45%
Nigeria	107	119	120		44%		38%
Congo, Rep.	108	131	127				36%
Ghana	109	110	111		42%	41%	43%
Angola	110	109	129				35%
Cameroon	111	108	106				46%
Bosnia and Herzegovina	112	99	96				51%
Kenya	113	124	113		41%		42%
Nepal	114	114	118				39%
Rwanda	115	113	109			40%	44%
Macedonia, FYR	116	94	81			51%	54%
Uganda	117	112	104			40%	47%
Zambia	118	116	110				44%
Iran, Islamic Rep.	119	81	86			54%	54%
Cote d'Ivoire	120	128	126			33%	36%

## GRI 2015 VS. GRI 2014, 2013 (121ST – 150TH)

CHANGES IN 2015
Increase
Constant
Decrease
COLOR SCALE
90% - 100%
80% - 90%
70% - 80%
60% - 70%
50% - 60%
40% - 50%
30% - 40%
20% - 30%
10% - 20%
0% - 10%

Country	Ranking 2015	Ranking 2014	Ranking 2013	Trend in Ranking	Score 2015	Score 2014	Score 2013
Botswana	121	121	90	$\leftarrow$			52%
Senegal	122	136	114				40%
Afghanistan	123	135	144				28%
Madagascar	124	123	135				32%
Yemen, Rep.	125	117	132				
Burkina Faso	126	122	123				37%
Ethiopia	127	129	134				
Benin	128	132	124				37%
Myanmar	129	120	121				
South Africa	130	115	99				49%
Mozambique	131	127	138				
Djibouti	132	134	122				38%
Zimbabwe	133	150	150			20%	20%
Sudan	134	126	133				34%
Haiti	135	137	130			30%	
Guinea	136	142	140			27%	30%
Tanzania	137	130	116			33%	
Chad	138	141	137			27%	32%
Malawi	139	133	119				
Mauritania	140	118	136		30%		32%
Mali	141	143	145		30%	26%	26%
Burundi	142	147	125		29%	22%	36%
Liberia	143	138	146		29%	29%	26%
Niger	144	148	143		28%	21%	29%
Sierra Leone	145	139	147		28%	28%	24%
Lesotho	146	144	139		26%	24%	31%
Comoros	147	149	148		24%	21%	22%
Congo, Dem. Rep.	148	145	149		23%	24%	22%
Central African Republic	149	140	128		23%	28%	36%
Togo	150	146	141		19%	23%	30%

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