China Construction Bank
Global Green Finance Index 17

April 2026

Sustainable Futures

中国建设银行
China Construction Bank

Beginning in March 2018, as part of its Long Finance initiative, Z/Yen published the first five editions of the Global Green Finance Index with the generous support of the MAVA Foundation, and more recently with support from Abu Dhabi Global Market. In 2026, the China Construction Bank offered sponsorship for the index, which is now retitled China Construction Bank Global Green Finance Index. With this support, we are pleased to present the seventeenth edition of the China Construction Bank Global Green Finance Index (CCB GGFI 17).

Z/Yen helps organisations make better choices - our clients consider us a commercial think-tank that spots, solves, and acts. Our name combines Zen and Yen - 'a philosophical desire to succeed' - in a ratio, recognising that all decisions are trade-offs. One of Z/Yen's specialisms is the development and publication of research combining factor analysis and professional assessments.

Long Finance is a Z/Yen initiative designed to address the question ***"When would we know our financial system is working?"*** This question underlies Long Finance's goal to improve society's understanding and use of finance over the long-term. In contrast to the short-termism that defines today's economic views the Long Finance time-frame is roughly 100 years.

China Construction Bank (CCB), a leading global financial institution headquartered in Beijing, offers comprehensive banking services across corporate, retail, and treasury sectors. As one of the world's largest banks, CCB is committed to sustainable development, actively promoting green finance initiatives to support low-carbon growth and environmentally responsible investment.

China Construction Bank London Branch (CCBLB), serves as CCB's key hub in the UK, facilitating financial cooperation between China and the UK. It plays an important role in advancing green finance initiatives such as green bonds and sustainable lending. As a designated RMB clearing bank in the UK, and the largest offshore RMB clearing centre outside Asia, CCBLB is central to enabling efficient cross-border RMB transactions and strengthening London's position as a global RMB hub.

The authors of this report, Mike Wardle, Simon Mills, and Professor Michael Mainelli, would like to thank Bikash Kharel, Sasha Davis, Lucas Djordjevic and the rest of the Z/Yen team for their contributions with research, modelling, and ideas.

Photo by Willy the Wizard on Unsplash

Foreword

As General Manager of China Construction Bank London Branch, I am delighted to support the China Construction Bank Global Green Finance Index, an initiative that reflects our long-standing and shared commitment to advancing sustainable finance worldwide. As one of the world's leading financial institutions, China Construction Bank has embedded green finance into its core strategy, actively promoting green lending, sustainable investment, and green bond issuance to support the transition to low-carbon economy.

At CCB London Branch, we are proud to extend this commitment internationally. Leveraging London's role as a global financial centre, we actively support cross-border green financing and facilitate capital flows into environmentally sustainable projects. At the same time, our position as a designated RMB clearing bank in the UK, with the largest RMB clearing volume outside of Asia, it enables us to connect global markets with China efficiently and securely, supporting clients' international green finance activities.

By sponsoring the China Construction Bank Global Green Finance Index, we reaffirm our dedication to innovation, transparency, and collaboration, while strengthening London's role as a global hub for both green finance and offshore RMB business.

Ms Ying Yan
General Manager
China Construction Bank Corporation London Branch

Summary

Overview

This is the seventeenth edition of the China Construction Bank Global Green Finance Index (CCB GGFI 17). The CCB GGFI is a factor assessment index, based on a range of instrumental factors - quantitative measures - and a worldwide survey of finance professionals' assessments on the quality and depth of green finance offerings in financial centres. CCB GGFI 17 features 92 financial centres. Taipei and Panama feature in the index for the first time.

There has been a strong rebound in confidence in the development of green finance in financial centres. Following two editions of the index where average ratings fell, in this edition of the index, the average rating was up 5.14% compared with CCB GGFI 16, with all centres improving in the ratings. The data on which the index is based predates the recent conflict in the Middle East and the future ranking of centres may be affected by the outcome of those events.

We continue to see strong performance from Western European centres, which reflects their history of developing green finance products and expertise. US centres have regained some of the reductions in ratings that they have suffered in the last two editions of the index. The general commitment of a city or jurisdiction to sustainability is a strong influence on the depth and quality of green finance in a financial centre.

Among those responding to the CCB GGFI survey, Sustainable Infrastructure Finance, Renewable Energy Investment, and Environment, Social, And Governance (ESG) Analytics are rated as the areas of green finance with most impact, while Sustainable Infrastructure Finance, Renewable Energy Investment, and Green Bonds are seen as the areas of most interest.

Policy and Regulatory Frameworks, Technological Change, Climate Change, and Tax Incentives are listed by respondents as the major drivers of green finance. These underline the importance of regulatory frameworks in green finance.

In the supplement to this edition of the CCB GGFI, we analyse developments in the field of energy storage.

Index Results

- London regained its leading position in the index, with Singapore moving into second place. Zurich fell to third position while Amsterdam overtook Geneva to take fourth position.
- Frankfurt and Vienna entered the top 10 in this edition of the index, replacing Stockholm and Brussels.
- Western European centres take nine of the top 10 places. Singapore is the only Asia/Pacific centre in this leading group.
- The margins separating centres at the top of the index are small. Among the top 10 centres the spread of ratings is just 24 points out of 1,000 in CCB GGFI 17.
- Eighteen centres rose 10 or more places in the rankings. Nine centres fell 10 or more places.

Western Europe

- Thirteen Western European centres feature in the top 20 in CCB GGFI 17.
- Vienna rose 17 rank places. Rome, Lisbon, and Dublin fell 10 or more rank places.
- The average rating among Western European centres rose 4.2%, the lowest rate of increase across the regions.

North America

- Los Angeles, and Minneapolis/St Paul take the leading positions in North America, with Toronto and Montreal in third and fourth position.
- Minneapolis/St Paul and Atlanta each rose 10 places in the index ranking.
- The average rating for centres in North America improved by 4.77%.

Asia/Pacific

- Singapore moved up one place to take second position globally and the leading position in the Asia/Pacific region. Tokyo rose 27 rank places, ahead of Seoul, and Sydney.
- Tokyo, Sydney, Osaka, Melbourne, Guangzhou, New Delhi, Jakarta, and Mumbai rose 10 or more places in the index ranking.
- The average increase in the ratings in Asia/Pacific was 6.22%.

Middle East & Africa

- Dubai continued to lead in the Middle East & Africa, in 36th place overall. Mauritius rose 14 rank places to take second place in the region, followed by Casablanca.
- As well as Mauritius, Riyadh, Johannesburg, Cape Town and Nairobi gained 10 or more places in the ranking. Tel Aviv and Bahrain fell more than 10 places.
- The average rating in the region rose 5.70%.

Latin America & The Caribbean

- Panama entered the index for the first time in CCB GGFI 17 and takes the leading place in the region, in 49th position globally. Sao Paulo overtook Santiago to take third position.
- Rio de Janeiro rose 13 places in the ranking, while Bermuda fell 10 places.
- The average rating in the region rose by 6.70%, the highest average improvement across the regions.

Eastern Europe & Central Asia

- Warsaw took the leading position in Eastern Europe & Central Asia, with Prague retaining second position.
- Cyprus rose 14 places in the global ranking, while Prague and Almaty fell over 10 places.
- The average rating in the region rose 4.97%.

CCB GGFI 17

CCB GGFI 17 was compiled using 132 instrumental factors. These quantitative measures are provided by third parties including the World Bank, the OECD, and the United Nations. Details can be found in Appendix 5.

The instrumental factors were combined with 4,088 financial centre assessments provided by respondents to the CCB GGFI online questionnaire. A breakdown of the 541 respondents is shown in Appendix 3. Further details of the methodology behind CCB GGFI 17 are in Appendix 4.

The 92 centres listed in CCB GGFI 17 are those which received a minimum of 25 assessments from survey respondents located outside of those centres. Assessments of respondents' home centres were excluded from the data, in order to avoid home centre bias.

CCB GGFI 17 Ranks And Ratings

Table 1 | CCB GGFI 17 Ranks And Ratings

Centre	CCB GGFI 17		CCB GGFI 16		Change In	Change In
	Rank	Rating	Rank	Rating	Rank	Rating
London	1	617	2	589	▲1	▲28
Singapore	2	607	3	586	▲1	▲21
Zurich	3	602	1	591	▼2	▲11
Amsterdam	4	599	5	580	▲1	▲19
Geneva	5	598	4	581	▼1	▲17
Paris	6	597	9	568	▲3	▲29
Luxembourg	7	596	7	570	0	▲26
Copenhagen	8	595	6	573	▼2	▲22
Frankfurt	9	594	11	566	▲2	▲28
Vienna	10	593	27	550	▲17	▲43
Stockholm	11	592	8	569	▼3	▲23
Los Angeles	12	591	20	557	▲8	▲34
Minneapolis / St Paul	13	590	23	554	▲10	▲36
Munich	14	589	16	561	▲2	▲28
Brussels	15	588	10	567	▼5	▲21
Oslo	16	587	14	563	▼2	▲24
Toronto	17	586	17	560	0	▲26
Tokyo	18	585	45	532	▲27	▲53
Montreal	19	584	13	564	▼6	▲20
Vancouver	20	583	19	558	▼1	▲25
New York	21	582	22	555	▲1	▲27
Madrid	22	581	15	562	▼7	▲19
Seoul	23	580	28	549	▲5	▲31
Sydney	24	579	34	543	▲10	▲36
Shanghai	25	578	33	544	▲8	▲34
Washington DC	26	577	24	553	▼2	▲24
Edinburgh	27	576	18	559	▼9	▲17
San Francisco	28	575	21	556	▼7	▲19
Busan	29	574	26	551	▼3	▲23
Osaka	30	573	46	531	▲16	▲42
Melbourne	31	572	48	529	▲17	▲43
Shenzhen	32	571	30	547	▼2	▲24
Glasgow	33	570	42	535	▲9	▲35
Milan	34	569	40	537	▲6	▲32
Rome	35	568	25	552	▼10	▲16
Dubai	36	567	37	540	▲1	▲27
Calgary	37	566	31	546	▼6	▲20
Beijing	38	565	32	545	▼6	▲20
Chicago	39	564	29	548	▼10	▲16
Taipei	40	563	New	New	New	New
Malta	41	562	44	533	▲3	▲29
Guangzhou	42	561	59	518	▲17	▲43
Hamburg	43	560	38	539	▼5	▲21
Atlanta	44	559	54	523	▲10	▲36
Hong Kong	45	558	41	536	▼4	▲22
Mauritius	46	557	60	517	▲14	▲40

Table 1 (continued) | CCB GGFI 17 Ranks And Ratings

Centre	CCB GGFI 17		CCB GGFI 16		Change In	Change In
	Rank	Rating	Rank	Rating	Rank	Rating
Lisbon	47	556	36	541	▼11	▲15
Berlin	48	555	43	534	▼5	▲21
Panama	49	554	New	New	New	New
Miami	50	553	56	521	▲6	▲32
Casablanca	51	552	50	527	▼1	▲25
Sao Paulo	52	551	53	524	▲1	▲27
Tel Aviv	53	550	39	538	▼14	▲12
Abu Dhabi	54	549	49	528	▼5	▲21
Riyadh	55	548	68	509	▲13	▲39
Doha	56	547	62	515	▲6	▲32
Warsaw	57	546	66	511	▲9	▲35
Kigali	58	545	65	512	▲7	▲33
Santiago	59	544	57	520	▼2	▲24
Boston	60	543	52	525	▼8	▲18
Rio de Janeiro	61	542	74	503	▲13	▲39
Johannesburg	62	541	77	500	▲15	▲41
Prague	63	540	51	526	▼12	▲14
Philadelphia	64	539	69	508	▲5	▲31
Monaco	65	538	73	504	▲8	▲34
Sofia	66	537	58	519	▼8	▲18
Jersey	67	536	61	516	▼6	▲20
Mexico City	68	535	72	505	▲4	▲30
Dublin	69	534	55	522	▼14	▲12
Cape Town	70	533	81	496	▲11	▲37
Astana	71	532	67	510	▼4	▲22
Guernsey	72	531	64	513	▼8	▲18
Nairobi	73	530	83	494	▲10	▲36
New Delhi	74	529	89	488	▲15	▲41
Moscow	75	528	80	497	▲5	▲31
Cyprus	76	527	90	487	▲14	▲40
Isle of Man	77	526	70	507	▼7	▲19
Jakarta	78	525	88	489	▲10	▲36
Bahamas	79	524	87	490	▲8	▲34
St Petersburg	80	523	85	492	▲5	▲31
Bangkok	81	522	82	495	▲1	▲27
Almaty	82	521	71	506	▼11	▲15
Mumbai	83	520	93	482	▲10	▲38
Istanbul	84	519	78	499	▼6	▲20
Bermuda	85	518	75	502	▼10	▲16
Liechtenstein	86	517	79	498	▼7	▲19
Bahrain	87	516	76	501	▼11	▲15
Kuala Lumpur	88	515	84	493	▼4	▲22
Cayman Islands	89	514	92	483	▲3	▲31
Lagos	90	513	86	491	▼4	▲22
Manila	91	512	91	486	0	▲26
British Virgin Islands	92	511	94	466	▲2	▲45

CCB GGFI Dimensions

The CCB GGFI ascertains the green finance performance of international financial centres by asking practitioners to rate them on two dimensions:

- The depth to which green finance has penetrated the business of the financial centre, i.e. the prevalence of green financial services and products within the financial centre in question.
- The quality of the green finance products and services on offer.

The purpose of tracking both aspects is to enable respondents to rate a financial centre independently from its market volumes. For example, if a centre adopts weak green labelling standards in a bid to boost volumes, this may show up in the index as a lower quality rating.

The additional data generated through this approach increases granularity. This allows the identification of trends and can assist policy makers to track the impacts of their decisions.

The detailed ratings of the dimensions for the top 15 centres are shown in table 2. Additional details are in Appendix 1.

Table 2 | Top 15 Centres - Rating Details For Depth And Quality Dimensions

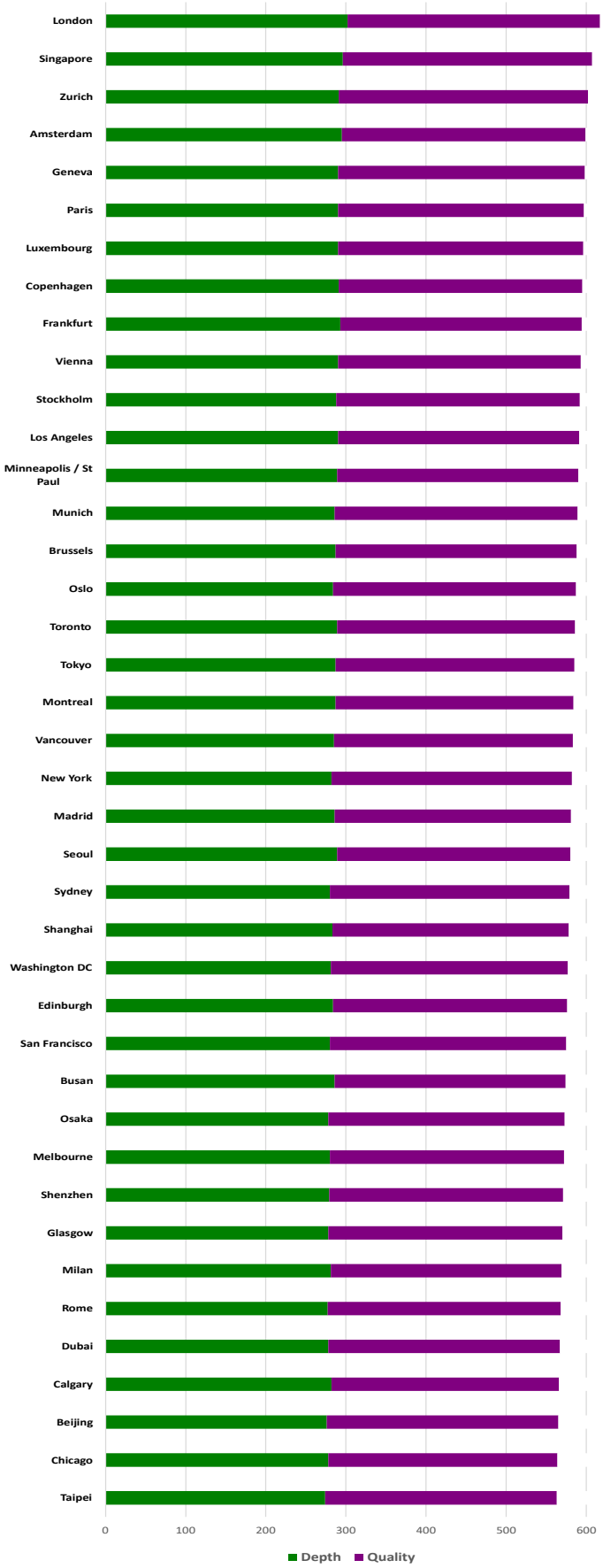
CCB GGFI 17 Rank	Centre	CCB GGFI Dimensions			
		Green Finance Depth		Green Finance Quality	
		Rank	Rating	Rank	Rating
1	London	1	302	1	315
2	Singapore	2	296	2	311
3	Zurich	5	291	2	311
4	Amsterdam	3	295	7	304
5	Geneva	7	290	4	308
6	Paris	7	290	5	307
7	Luxembourg	7	290	6	306
8	Copenhagen	5	291	7	304
9	Frankfurt	4	293	13	301
10	Vienna	7	290	10	303
11	Stockholm	15	288	7	304
12	Los Angeles	7	290	13	301
13	Minneapolis / St Paul	12	289	13	301
14	Munich	19	286	10	303
15	Brussels	16	287	13	301

Chart 1 shows the relationship between ratings of the depth and quality dimensions in the index and the generally close correlation between the assessments of each factor by respondents. Centres close to the trend line are balanced for depth and quality, centres further away have either a better rating for depth, or for quality. The relative score of Zurich, Oslo, Malta, Atlanta, Abu Dhabi, Guernsey, Cape Town, the Isle of Man, and Lichtenstein for green finance quality are high compared with their scores in depth. On the other side of the line, London, Amsterdam, Seoul, Busan, and Calgary have high relative scores for depth.

Chart 1 | Relationship Between Ratings Of Depth And Quality

Chart 2 on the following page shows the contribution of each of the dimensions to the overall rating for the top 40 centres in the CCB GGFI. London and Singapore came first and second on both measures. Zurich came equal second for green finance quality but fifth for green finance depth. Successful financial centres focused on green finance have both good quality products and services in their green markets, and depth of investment.

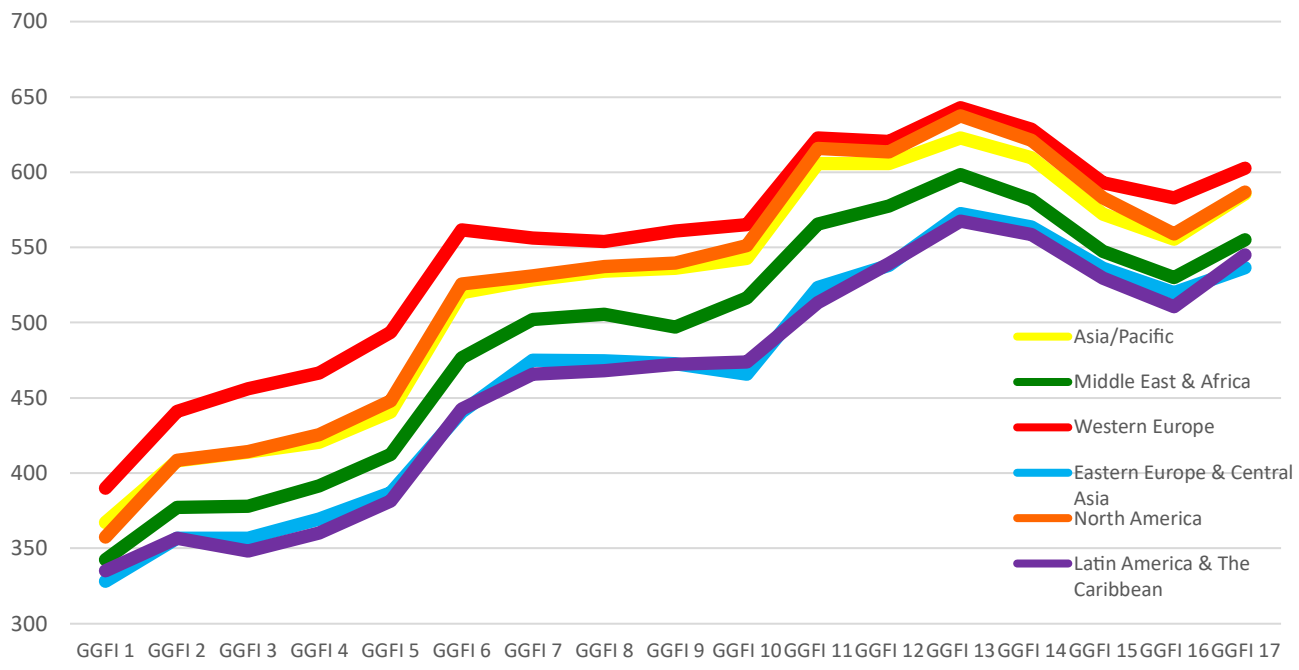
Chart 2 | The Contribution Of The Dimensions To The Overall Rating - CCB GGFI 17 Top 40 Centres



Regional Performance

The average rating of the top five centres in all regions improved, with Western Europe leading but with the leading North American and Asia/Pacific centres closing the gap slightly. The leading centres in Latin America and the Caribbean overtook Eastern Europe & Central Asia on this measure.

Chart 3 | Average Ratings Of The Top Five Centres In Each Region



"With the rise of green finance, there is an increasing demand for skilled professionals. Financial centres need to ensure a sufficient workforce with expertise in areas like risk management, environmental assessment, and sustainable investment strategies. Promoting relevant educational and training programs, through universities and industry workshops, can enhance professional capabilities. Additionally, cross-industry collaboration and knowledge sharing are effective ways to improve skills."

SENIOR MANAGER, BANK, SINGAPORE

Examination of the quality and depth dimensions demonstrates that on both measures, the average rating for the top five centres in all regions improved. In the depth scores, the leading centres in North America and Asia/Pacific improved compared with Western Europe. North America and Asia/Pacific score almost identically on these measures for both depth and quality. In both the depth and quality measure, the leading centres in Latin America & The Caribbean overtook centres in Eastern Europe & Central Asia.

Chart 4 | Average Ratings For Depth Of The Top Five Centres In Each Region

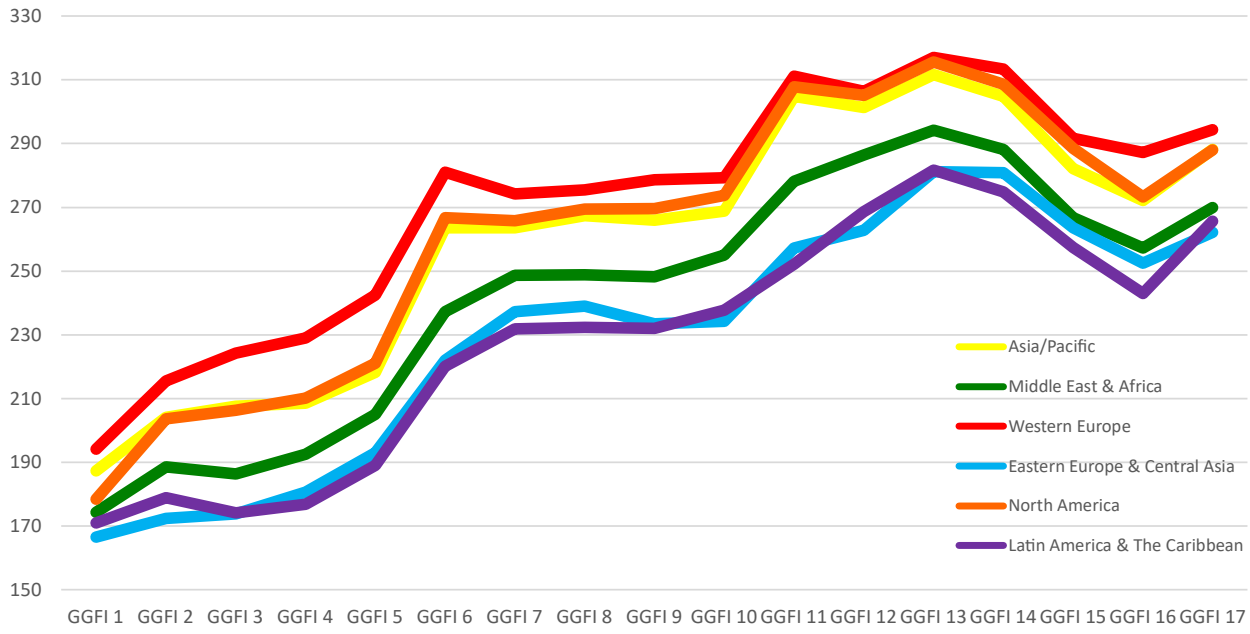
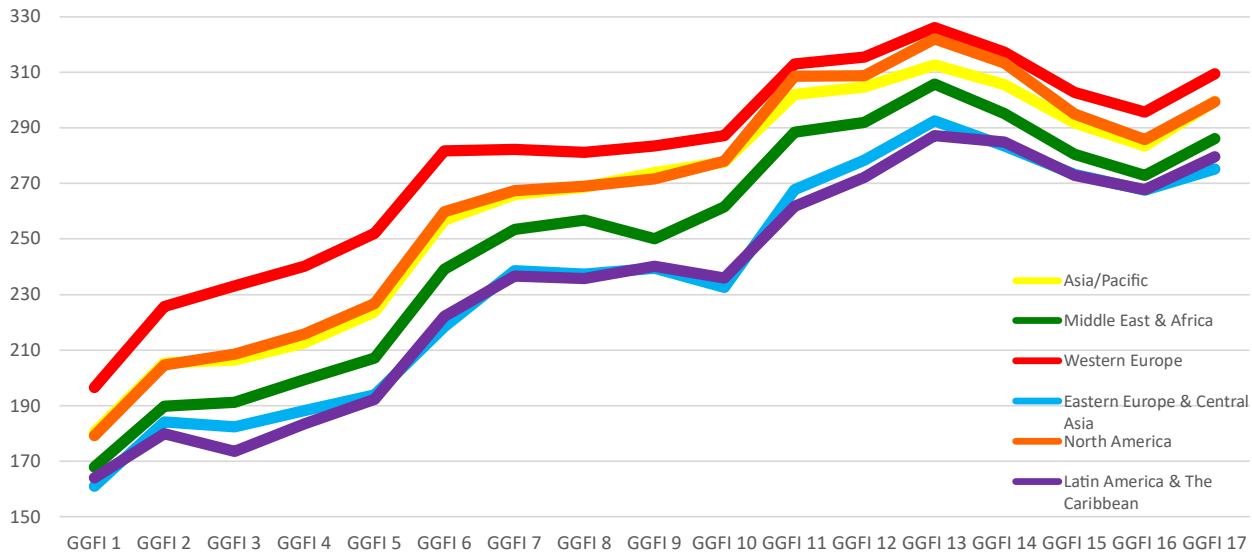


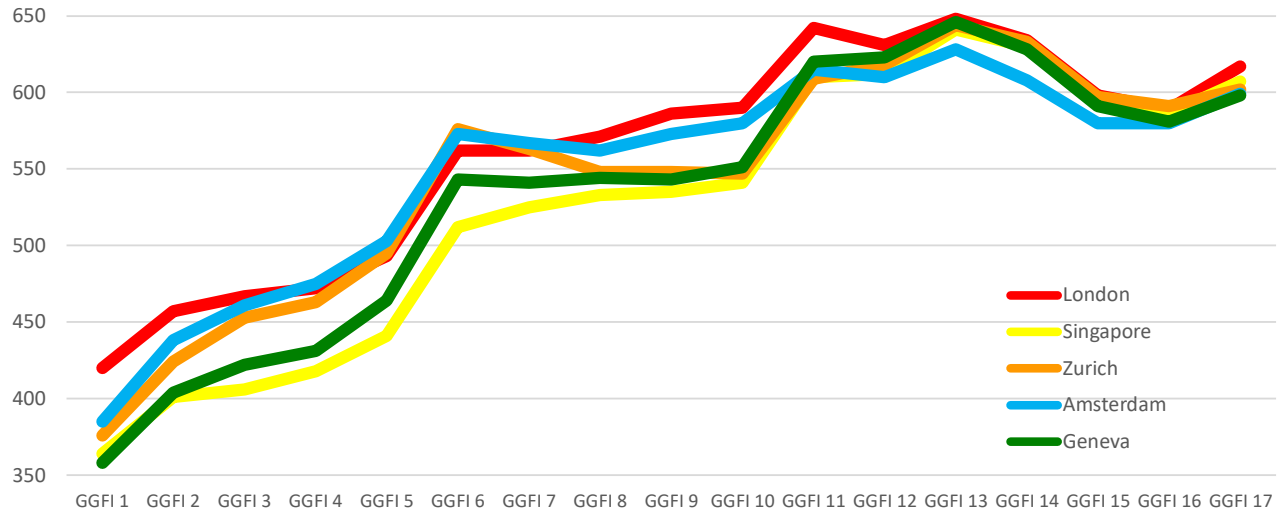
Chart 5 | Average Ratings For Quality Of The Top Five Centres In Each Region



Top Five Centres

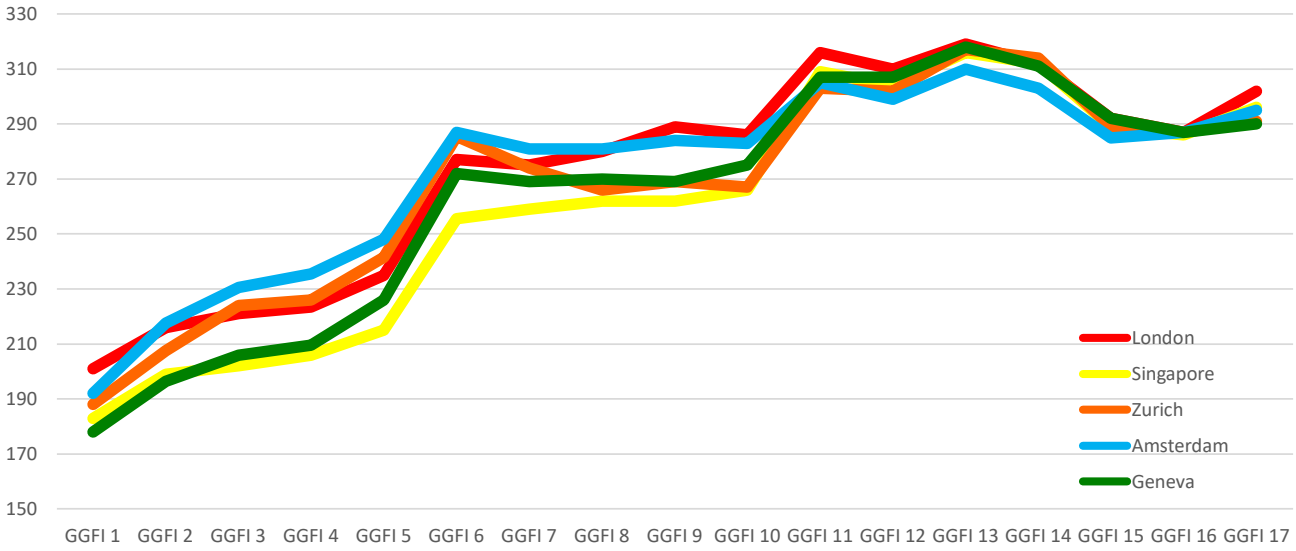
Competition at the top of the index continued to be tight, although London pulled away in first place. Only 19 rating points separate London in first position from Geneva in fifth.

Chart 6 | The Top Five Centres Over Time



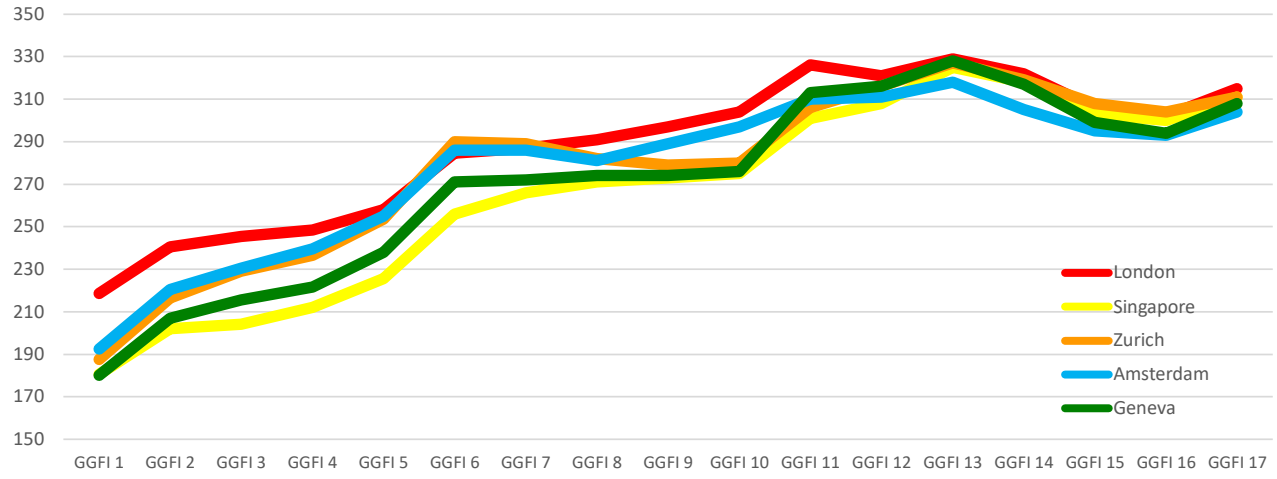
When the depth dimension is examined, London and Singapore pulled ahead, up 15 and 10 rating points respectively.

Chart 7 | Ratings For The Depth Dimension In The Top Five Centres Over Time



On the quality measure, London overtook Zurich, which is now in equal second place with Singapore. Geneva improved its rating the most on this measure within the top five centres.

Chart 8 | Ratings For The Quality Dimension In The Top Five Centres Over Time



"A clear regulatory framework is essential for guiding financial institutions towards investments in sustainable projects. Establishing standards, such as green bond certification, can enhance transparency and reduce greenwashing risks. Strengthening disclosure requirements for environmental risks and providing incentives for eco-friendly practices will further encourage financial institutions to adopt green finance initiatives."

ADMINISTRATOR, KNOWLEDGE SECTOR, ISTANBUL

Leading Financial Centres

It is notable that some leading financial centres perform less well than expected in the CCB GGFI, considering their performance in the Global Financial Centres Index (GFCI), which has been measuring financial centre competitiveness since 2007.

We can compare the centres which rank in the top 20 in the GFCI with their performance in the CCB GGFI. This shows some disconnection between the highest performing centres in the GFCI and performance on green finance in the CCB GGFI. In total, 10 centres feature in the top 20 in both measures with London and Singapore featuring in the top 10 in both indices.

Table 3 | Leading Financial Centres - Comparison of CCB GGFI And GFCI Rankings

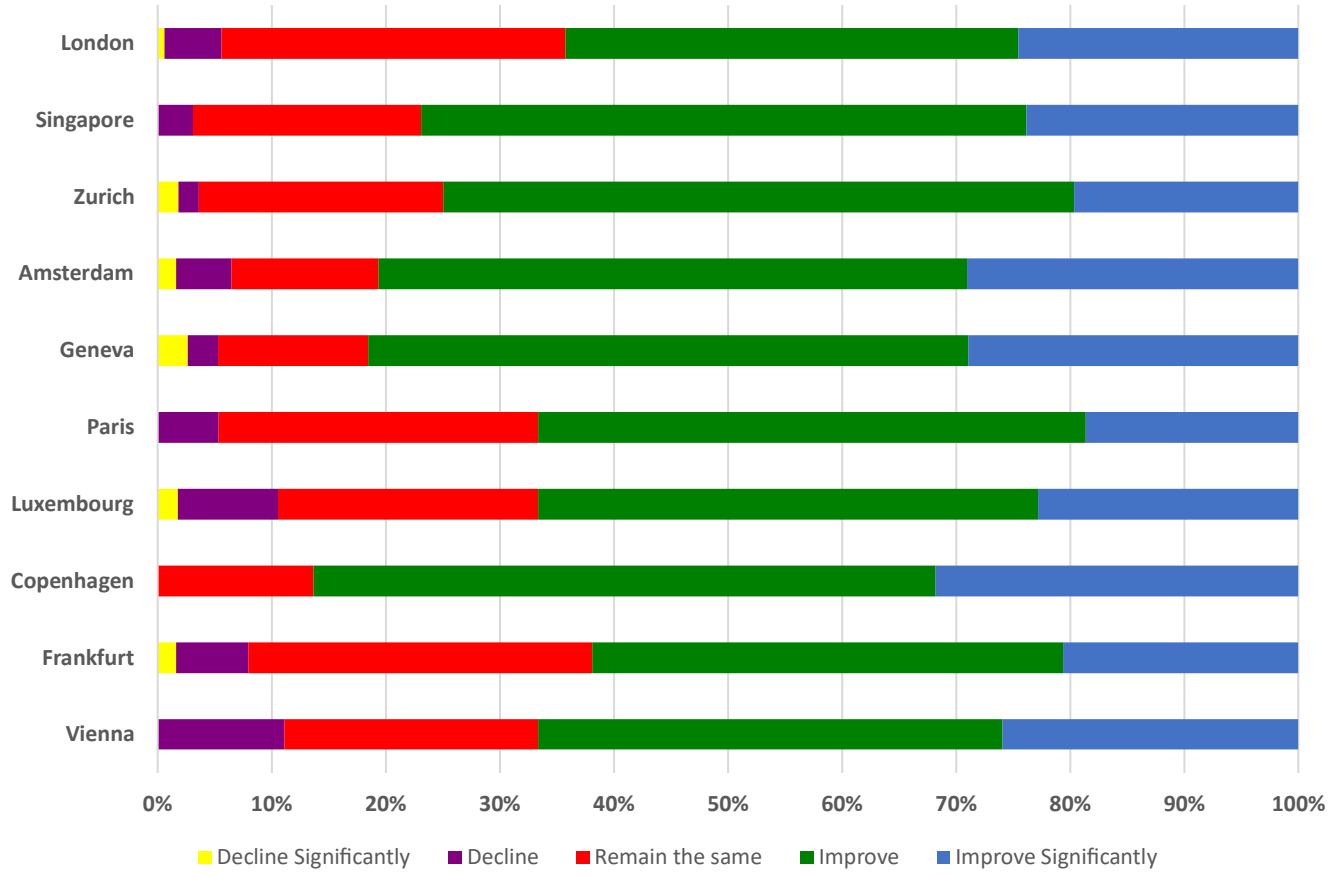
Centre	CCB Global Green Finance Index	Green Finance Depth	Green Finance Quality	Financial Centre Competitiveness
New York	21	26	17	1
London	1	1	1	2
Hong Kong	45	39	52	3
Singapore	2	2	2	4
San Francisco	28	30	24	5
Shanghai	25	25	24	6
Dubai	36	34	36	7
Seoul	23	12	33	8
Shenzhen	32	33	28	9
Tokyo	18	16	19	10
Zurich	3	5	2	11
Los Angeles	12	7	13	12
Boston	60	53	66	13
Chicago	39	34	44	14
Frankfurt	9	4	13	15
Luxembourg	7	7	6	16
Washington DC	26	28	23	17
Geneva	5	7	4	18
Paris	6	7	5	19
Amsterdam	4	3	7	20
Source	CCB GGFI 17 Rank	CCB GGFI 17 Depth Rank	CCB GGFI 17 Quality Rank	GFCI 39 Rank

CCB GGFI 17 Further Analysis

Expected Change In Centres

We asked respondents whether the centres they rated would improve, decline, or stay the same in relation to their green finance offering over the next two to three years. The results for the top 10 centres are displayed in Chart 9, showing high levels of confidence, with the majority of respondents predicting an improvement by all centres in this group, and with very high levels of confidence in Copenhagen, Geneva, and Amsterdam.

Chart 9 | Top 10 Centres - Expected Change In Green Finance Offering



"Collaboration between governments, financial institutions and technology providers is key to scaling green finance solutions."

SALES AND CUSTOMER SUPPORT SPECIALIST, PROFESSIONAL SERVICES FIRM, DUBAI

Instrumental Factors

The CCB GGFI is a factor assessment index, based on a worldwide survey of finance professionals' assessments on the quality and depth of green finance offerings in financial centres. These assessments are run through a statistical model which uses 132 instrumental factors relating to a range of aspects of financial centre competitiveness. These include measures of sustainability, the business environment, infrastructure, and human capital.

Table 4 shows the top 15 instrumental factors' correlation with the CCB GGFI ranking. The closest correlation is with the Safe Cities Index, the Urban Mobility Readiness Index, and the Global Cities Outlook Ranking.

Table 4 | Top 15 Instrumental Factors By R-Squared Correlation

Instrumental Factor	R Squared
Safe Cities Index	0.679
Urban Mobility Readiness Index	0.673
Global Cities Outlook Ranking	0.595
Quality Of Living City Rankings	0.581
IESE Cities In Motion Index	0.580
Legatum Prosperity Index	0.572
The Future Growth Report	0.546
Sustainable Cities Index	0.536
Blavatnik Index Of Public Administration	0.529
Sustainable Economic Development	0.515
Global Innovation Index	0.514
International IP Index	0.514
The Green Future Index	0.505
Logistics Performance Index	0.477
Energy Transition Index	0.474

"The development of green finance depends heavily on the availability of specialised skills. Financial centres require professionals with expertise in ESG analysis, climate risk assessment, sustainable investment strategies, and regulatory compliance. A shortage of such talent can slow product innovation and market growth, while targeted training programs and academic partnerships help build a skilled workforce to meet rising demand."

HEAD OF COMPLIANCE AND MLRO, BANK, MAURITIUS

Focusing only on the instrumental factors which relate to sustainability, the factors most closely correlated in terms of their R-Squared relationship with the CCB GGFI rankings are set out in Table 5. The leading factors continue to focus on cities as sustainable places and on the development of the green economy.

Table 5 | Top 15 Sustainability Instrumental Factors By R-Squared Correlation

Instrumental Factor	R Squared
Urban Mobility Readiness Index	0.673
Quality of Living City Rankings	0.581
IESE Cities In Motion Index	0.580
The Future Growth Report	0.546
Sustainable Cities Index	0.536
Sustainable Economic Development	0.515
The Green Future Index	0.505
Energy Transition Index	0.474
The Global Green Economy Index	0.442
Environmental Performance	0.431
Global Green Growth Index	0.431
Energy Sustainability Index	0.427
Global Sustainable Competitiveness Index	0.316
Climate Finance Vulnerability Index	0.292
Quality of Life Index	0.225

"Central banks and supervisors (via groups like the Network for Greening the Financial System) are increasingly influencing lending standards, stress testing, and capital requirements, making green finance part of core financial stability."

OPERATIONS SPECIALIST, INSURANCE FIRM, WARSAW

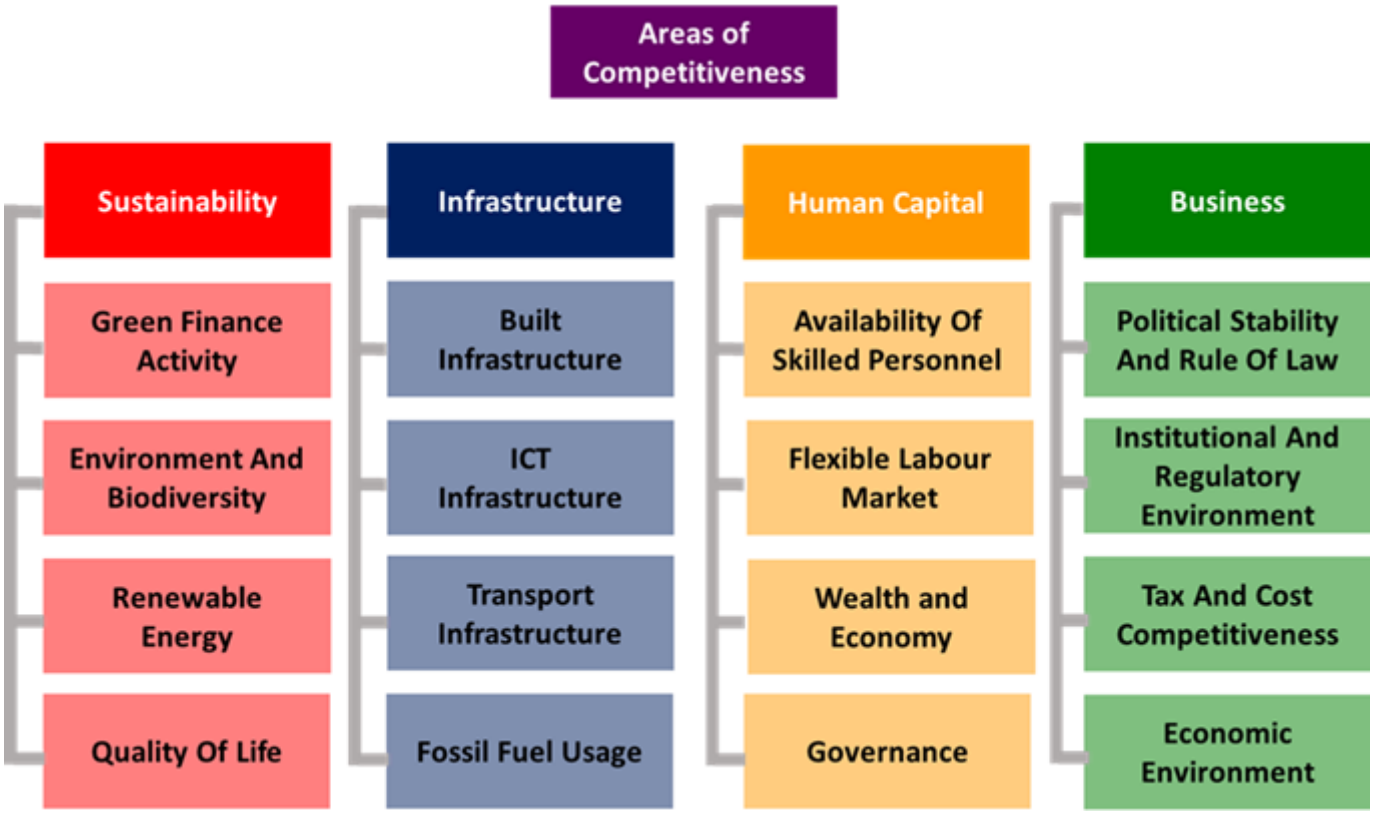
Areas Of Competitiveness

The instrumental factors used in the CCB GGFI model are grouped into four broad areas:

- Sustainability
- Infrastructure
- Human Capital
- Business

These areas, and the instrumental factor themes which comprise each area, are shown in Chart 10.

Chart 10 | CCB GGFI Areas Of Competitiveness



To assess how financial centres' green finance offerings perform against each of these areas, the CCB GGFI statistical model is run for each area of competitiveness separately, allowing a picture to be built of centres' strengths and weaknesses. The performance of the top ranked 15 centres in each of these areas is illustrated in table 6.

The leading centres in the index have strengths across all four areas of competitiveness, with London, Singapore, Zurich, and Stockholm sharing the top three positions. Some centres are strong in a particular area, for example, Copenhagen and Vienna in Sustainability, Vienna and Amsterdam in Business, or Munich and Frankfurt in Infrastructure.

Table 6 | Top 15 Centres By Area Of Competitiveness

Rank	Sustainability	Business	Human Capital	Infrastructure
1	London	London	London	London
2	Singapore	Singapore	Singapore	Zurich
3	Zurich	Zurich	Stockholm	Singapore
4	Copenhagen	Vienna	Geneva	Munich
5	Vienna	Amsterdam	Copenhagen	Frankfurt
6	Luxembourg	Geneva	Amsterdam	Oslo
7	Amsterdam	Paris	Luxembourg	Stockholm
8	Stockholm	Luxembourg	Brussels	Paris
9	Frankfurt	Copenhagen	Zurich	Toronto
10	Minneapolis / St Paul	Frankfurt	Paris	Amsterdam
11	Oslo	Stockholm	Frankfurt	Geneva
12	Geneva	Munich	Vienna	Copenhagen
13	Paris	Brussels	Munich	Montreal
14	Los Angeles	Oslo	Toronto	Luxembourg
15	Tokyo	Tokyo	Los Angeles	Vienna

Index Ranking For Sustainability

We can compare the overall index ranking with the ranking based on the sustainability area of competitiveness, using only the instrumental factors that have a direct relationship to sustainability. This analysis produces slightly different results to the main index, as shown in the comparison in Table 7. The plus and minus figures show the difference between the main index and the index calculated using only sustainability factors.

Where only sustainability factors are included in the analysis, London, Singapore, and Frankfurt retain their position. Vienna gains five places and Copenhagen gains four places, while Munich and Brussels drop out of the top 15.

Table 7 | Top 15 Centres Using All Factors And Only Sustainability Factors

Rank	All Factors	Sustainability Factors
1	London	London
2	Singapore	Singapore
3	Zurich	Zurich
4	Amsterdam	Copenhagen (+4)
5	Geneva	Vienna (+5)
6	Paris	Luxembourg (+1)
7	Luxembourg	Amsterdam (-3)
8	Copenhagen	Stockholm (+3)
9	Frankfurt	Frankfurt
10	Vienna	Minneapolis / St Paul (+3)
11	Stockholm	Oslo (+5)
12	Los Angeles	Geneva (-7)
13	Minneapolis / St Paul	Paris (-7)
14	Munich	Los Angeles (-2)
15	Brussels	Tokyo (+3)

"Taxation is emerging as a powerful and direct policy tool to complement disclosure and regulatory frameworks in green finance, though it remains less harmonised."

PROJECT MANAGER, BANK, LUXEMBOURG

Commentary On Factors

The CCB GGFI survey asks respondents to comment on factors that affect the uptake of green finance, and in particular on regulation, taxation, and the availability of skills. The responses are summarised in Table 8.

Table 8 | Commentary On Areas Of Competitiveness

Area Of Competitiveness	Number Of Mentions	Main Themes
Regulatory Environment	119	• Clear regulatory frameworks are essential for building investor confidence and directing capital toward sustainable projects. • Regulations vary significantly across countries and regions, with the EU leading and others like the US being more fragmented. Greater international harmonisation is needed to avoid inconsistency. • Government policy and incentives play a decisive role in driving green finance adoption.
The Availability Of Skills In Green Finance	113	• There is a significant and growing skills gap in green finance, with strong demand for professionals trained in ESG analysis, climate risk modelling, sustainable investment, and regulatory compliance. • Building expertise requires a multi-pronged approach — expanding university programmes, retraining existing finance professionals, and developing industry certification. • The shortage is especially acute in developing nations.
Taxation	110	• Tax incentives are widely seen as effective tools for attracting capital and accelerating green finance growth. • Carbon taxes and emissions trading schemes play a complementary role by making low-carbon investments more competitive and discouraging fossil fuel dependency, though these mechanisms remain inconsistent across jurisdictions. • Tax frameworks must be well-designed, transparent, and internationally harmonised.
Other	42	• Collaboration between governments, financial institutions, and the private sector through public-private partnerships is essential for scaling green finance, with international cooperation helping to align efforts and share best practices across borders. • Terminology standardisation and mandatory carbon reduction targets provide a common language and clear direction, reducing ambiguity, building market trust, and ensuring accountability across financial centres and industries. • Persistent barriers such as public resistance to change, limited political commitment, and gaps in data reliability must be addressed through education, strong leadership, and inclusive policy design.

Connectivity

One factor where financial centres' green finance performance differs is the extent to which centres are connected to other financial centres. One way of measuring this connectivity is to look at the number of assessments given to and received from other centres in the CCB GGFI survey. Charts 11 and 12 use Mauritius and Abu Dhabi as examples to contrast the different levels of connectivity that the two centres enjoy. Mauritius has a much broader range of connections across all regions of the world, while Abu Dhabi has strong connections with other regional centres. Both have good connections to the major centres of New York, London, Hong Kong, and Singapore.

Chart 11 | CCB GGFI 17 Connectivity – Mauritius

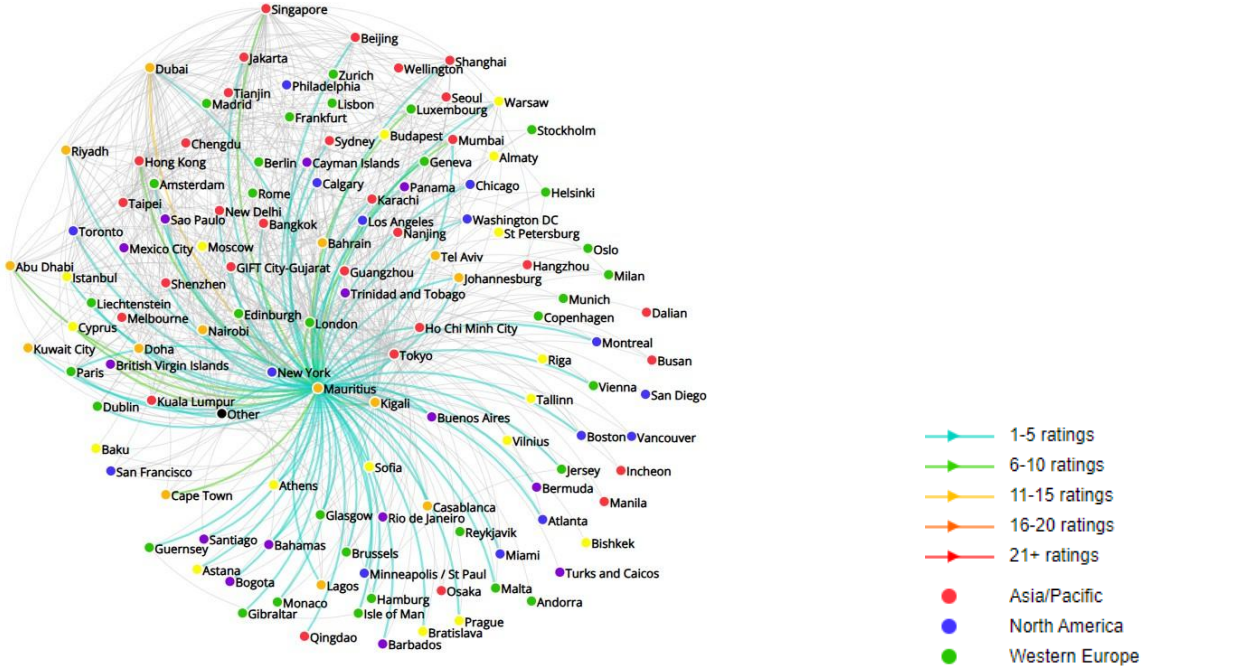
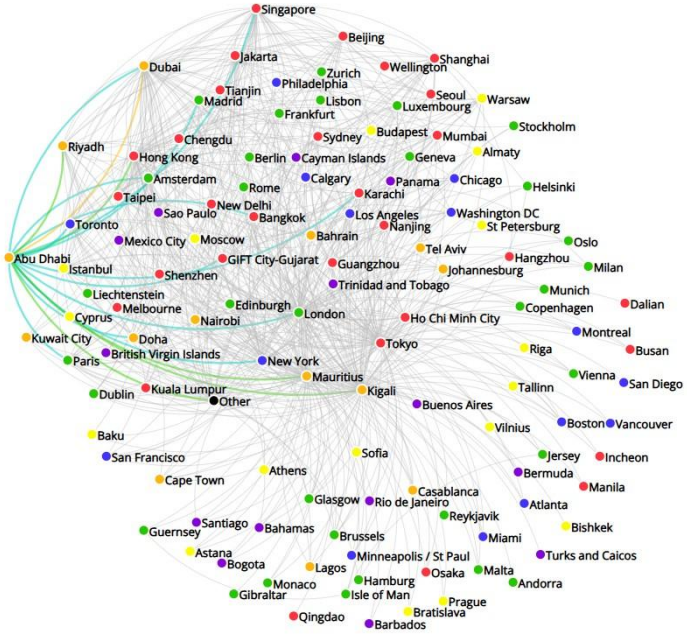


Chart 12 | CCB GGFI 17 Connectivity – Abu Dhabi



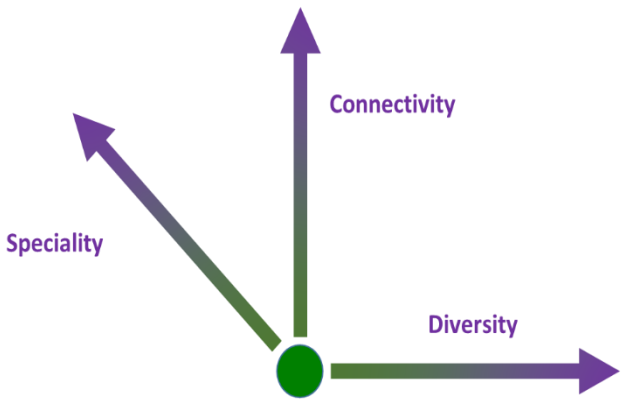
Financial Centre Profiles

We conduct further analyses based on three measures (axes) that determine a financial centre's profile in relation to three different dimensions.

'Connectivity' – the extent to which a centre is well known among CCB GGFI survey respondents, based on the number of 'inbound' assessment locations (the number of locations from which a particular centre receives assessments) and 'outbound' assessment locations (the number of other centres assessed by respondents from a particular centre).

'Diversity'– the instrumental factors used in the CCB GGFI model give an indication of a broad range of factors that influence the richness and evenness of factors that characterise any particular financial centre.

Chart 13 | CCB GGFI Dimensions



We consider this span of factors to be measurable in a similar way to that of the natural environment. We therefore use a combination of biodiversity indices (calculated on the instrumental factors) to assess a centre's diversity. This takes account of the range of factors against which the centre has been assessed – the 'richness' of the centre's business environment; and the 'evenness' of the distribution of that centre's scores. A high score means that a centre is well diversified; a low diversity score reflects a less rich business environment.

'Speciality' – the depth within a financial centre of green finance and sustainability. A centre's 'speciality' or performance is calculated from the difference between the overall index rating and the ratings when the model is calculated based only on sustainability factors.

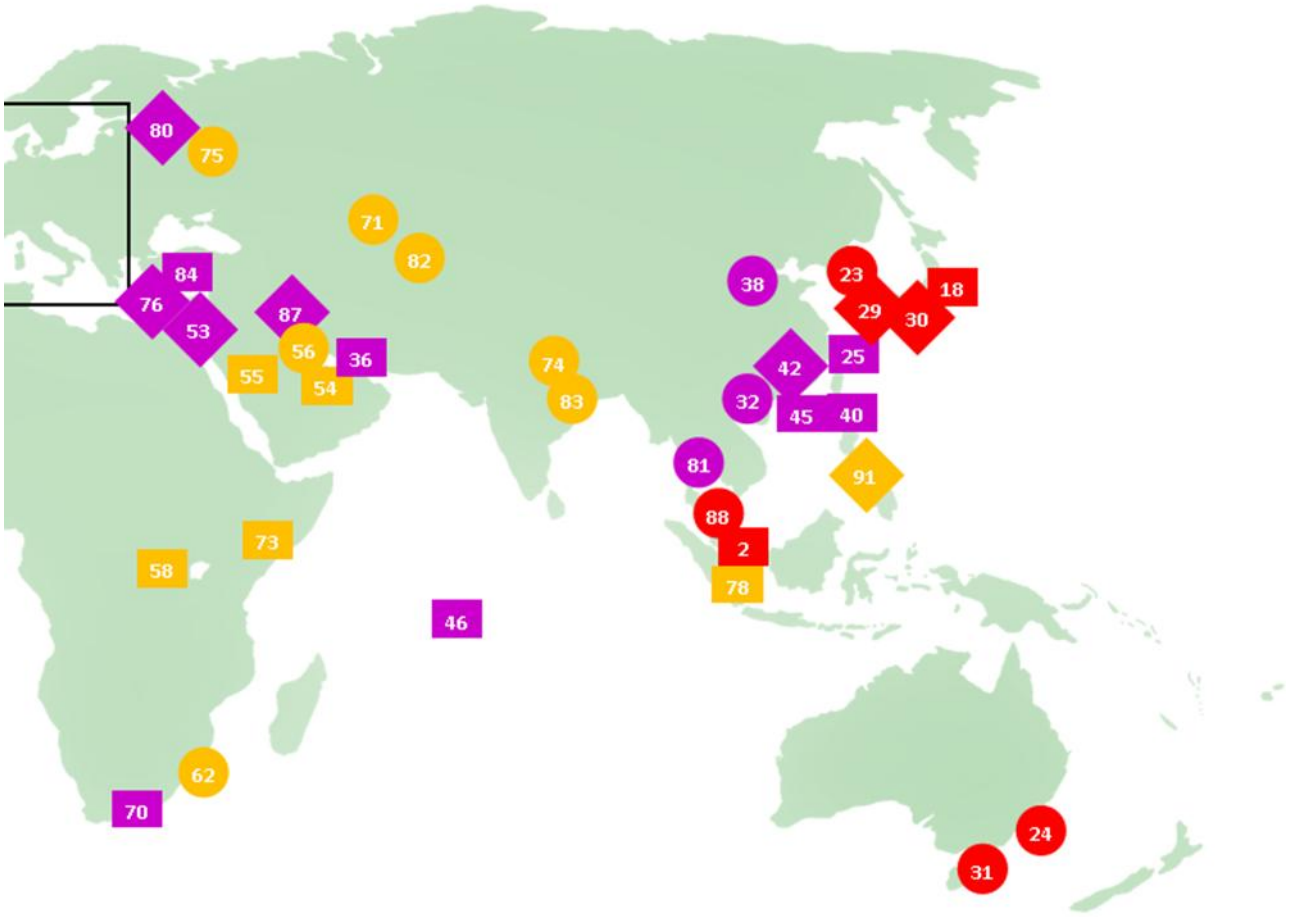
In Table 9, 'Diversity' (Breadth) and 'Speciality' (Depth) are combined on one axis to create a two-dimensional table of financial centre profiles. The 92 centres in CCB GGFI 17 are assigned a profile on the basis of a set of rules for the three measures: how well connected a centre is, how broad its services are, and how specialised it is.

The Global Leaders (in the top left of the table) have both broad and deep green finance activity and are connected with a greater range of other financial centres. Other leading centres are profiled as Established International Centres.

Table 9 | Financial Centre Profiling

	Broad and Deep	Relatively Broad	Relatively Deep	Emerging
	Global Leaders	**Global Diversified**	**Global Specialists**	**Global Contenders**
Global	London	Warsaw*	Shanghai	Abu Dhabi*
	Singapore		Dubai	Riyadh*
	Paris		Taipei (New)	Kigali*
	Toronto*		Hong Kong	Nairobi*
	Tokyo*		Mauritius	Jakarta*
	New York		Cape Town*	
			Istanbul*	
	Established International	**International Diversified**	**International Specialists**	**International Contenders**
International	Amsterdam	Zurich*	Geneva	Doha*
	Frankfurt*	Dublin*	Luxembourg*	Johannesburg
	Los Angeles		Shenzhen	Mexico City*
	Munich		Beijing*	Astana
	Brussels		Panama (New)	New Delhi*
	Madrid		Bangkok	Moscow
	Seoul		Cayman Islands*	Cyprus*
	Sydney			Isle of Man*
	Washington DC*			Almaty*
	Edinburgh*			Mumbai
	San Francisco			
	Melbourne*			
	Rome			
	Chicago*			
	Berlin			
	Santiago*			
	Boston*			
	Kuala Lumpur			
	Established Players	**Local Diversified**	**Local Specialists**	**Evolving Centres**
Local	Stockholm*	Copenhagen*	Malta	Sofia*
	Minneapolis / St Paul*	Vienna*	Guangzhou	Bermuda*
	Oslo*		Casablanca	Lagos
	Montreal		Sao Paulo*	Manila*
	Vancouver		Tel Aviv	British Virgin Islands
	Busan		Rio de Janeiro	
	Osaka*		Monaco	
	Glasgow*		Jersey	
	Milan*		Guernsey*	
	Calgary		Bahamas	
	Hamburg*		St Petersburg*	
	Atlanta*		Liechtenstein	
	Lisbon		Bahrain	
	Miami*			
	Prague			
	Philadelphia*			
	*** An asterisk denotes a change since CCB GGFI 16**			

The CCB GGFI 17 World – Centres In The Index



The numbers on the map indicate the CCB GGFI 17 rankings.							
Broad and Deep		**Relatively Broad**		**Relatively Deep**		**Emerging**	
	Global Leaders		Global Diversified		Global Specialists		Global Contenders
	Established International		International Diversified		International Specialists		International Contenders
	Established Players		Local Diversified		Local Specialists		Evolving Centres

Energy Storage – The Missing Piece Of The Net-Zero Puzzle

Background

Geopolitical events (as of April 2026) have seen extreme volatility in global crude oil prices. This volatility has led to spikes in energy costs which are impacting on the global economy. This impact will fall across all sectors, from transport and industry to food production, with some commentators predicting that the impacts could surpass those of the oil shocks of the 1970's[1].

Photo Of Kuwaiti Oil Well Fire, March 1991 By EdJF

The history of civilization is the history of energy use, from muscle and wood, through steam and coal, to oil and electrons.

In 1900, world electricity generation totalled about 66.4 terawatt-hours (TWh)[2] , serving a population of around 1.6 billion people[3] (although the vast majority did not have access to electrical power). In 2026, global energy generation exceeded 30,856 TWh[4] serving a population of 8.3 billion, and while access to power is considered a basic necessity, today, nearly 4.6 billion people still do not have access to a sufficient level of energy to enable satisfactory human development (particularly in terms of health and education), whilst 730 million lack access to electricity entirely[5].

Global electricity demand surged by 4.4% in 2024[6], well above the 3.4% growth in global GDP[7]. The surge was driven by climate change-related record temperatures, as well as the march of electrification and digitalisation, but for the first time, renewable energy outpaced fossil fuels[8] meeting 83% of the global increase in electricity demand.

Globally, low carbon energy sources (renewables and nuclear) provided 40.9% of the world's electricity generation, with projections that low carbon sources will overtake fossil fuels as a source of energy generation by the end of 2026[6]. Economically, and from an energy security perspective, it is highly likely that this acceleration will continue apace as countries seek to insulate their economies from events outside of their control.

[1] NIESR (Accessed 19.03.26) ***Possible Effects on UK Inflation in 2026 of the US-Iran Conflict*** https://niesr.ac.uk/blog/possible-effects-uk-inflation-2026-us-iran-conflict#:~:text=The%20economic%20impact%20of%20the,shock%20of%20the%20early%201970s

[2] Boston University (Accessed 20.03.26) ***World Electricity Generation Since 1900*** https://visualizingenergy.org/world-electricity-generation-since-1900/

[3] Worldometer (Accessed 19.03.26) ***World Population By Year*** https://www.worldometers.info/world-population/world-population-by-year/

[4] IEA 2026 ***Global Energy Review 2025*** https://www.iea.org/reports/global-energy-review-2025/global-trends

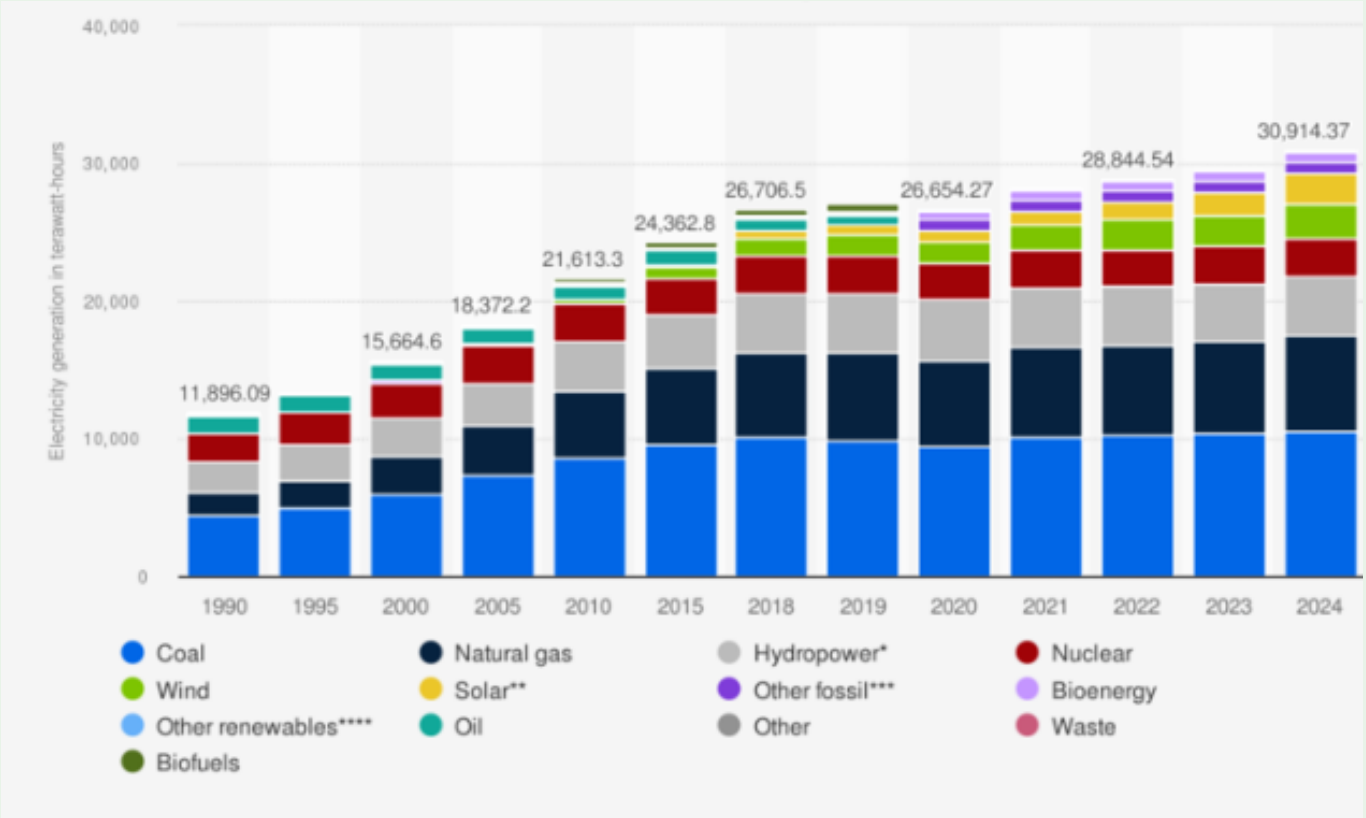
[5] IEA 2026 (Accessed 20.03.26) ***Access To Electricity Stagnates, Leaving Globally 730 Million In The Dark*** https://www.iea.org/commentaries/access-to-electricity-stagnates-leaving-globally-730-million-in-the-dark

[6] IEA 2025 Electricity Mid-Year Update 2025 https://www.iea.org/reports/electricity-mid-year-update-2025/demand-global-electricity-use-to-grow-strongly-in-2025-and-2026

[7] IMF (Accessed 03.04.2026) https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/OEMDC/ADVEC/WEOWORLD

[8] Ember 2025 ***Global Electricity Mid-Year Insights 2025*** https://ember-energy.org/latest-insights/global-electricity-mid-year-insights-2025/

Figure 1 | World Electricity Generation By Source 1900-2024



Source: Statista

Furthermore, the rapid growth of AI is fundamentally altering energy demand patterns, as data centres for AI training and inference can consume as much power as a small city. Global data centre electricity consumption is projected to double by 2030, reaching approximately 3% of global demand[9] - data centres could account for 32% of Ireland's electricity usage by late 2026 leading to local moratoria on new builds unless paired with on-site generation[10].

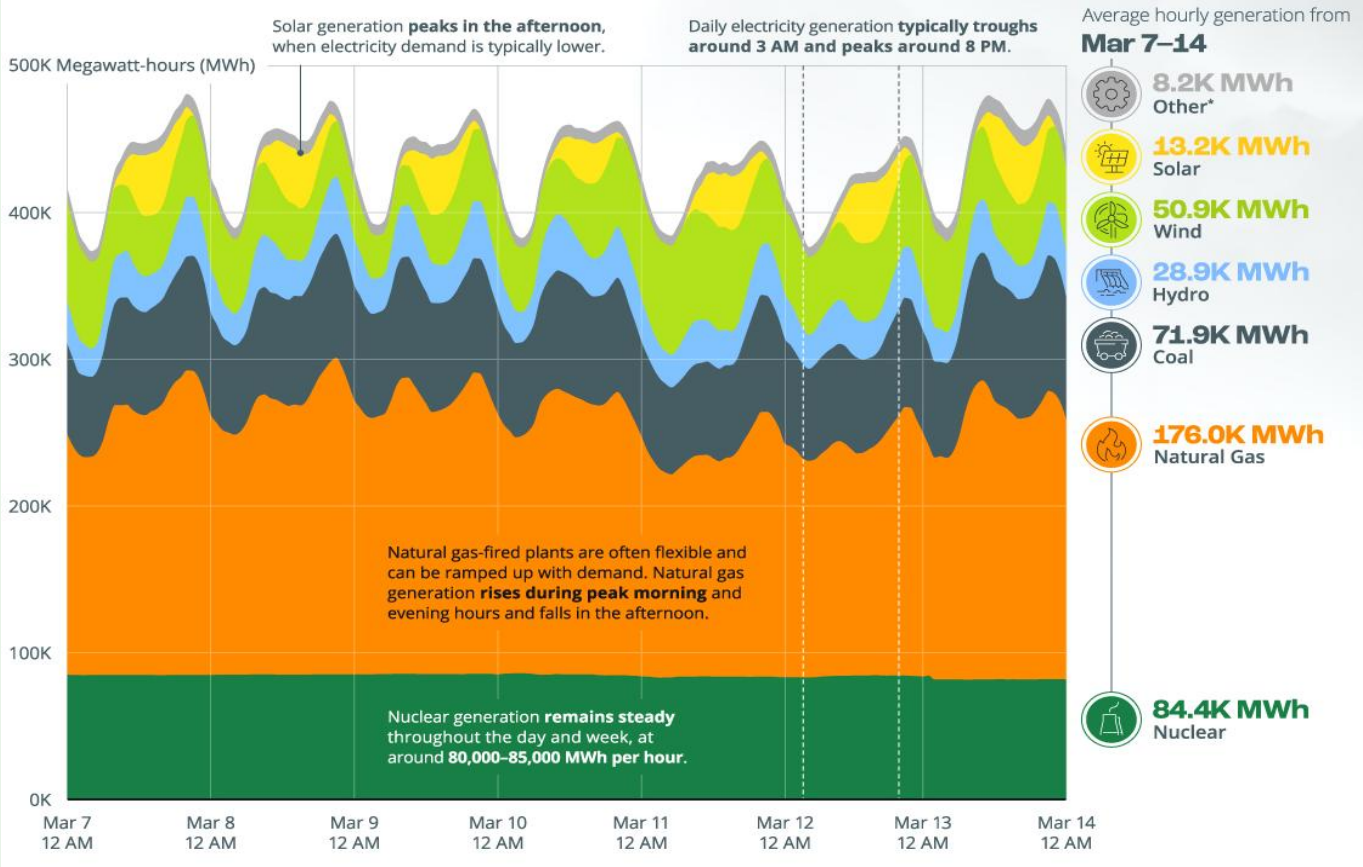
The Challenge

The problem with using renewables to power national grids, is that traditional grids are legacy infrastructure which were designed for centralised power generation from coal and gas. These can provide base load and dispatchable generation (sources of electricity that can be programmed on demand at the request of power grid operators).

Renewable energy generation is intermittent and unpredictable, dependent on weather conditions and time of day[11]. This can lead to a supply-demand mismatch: Peak generation for renewables (e.g., midday sun) often does not align with peak demand (e.g., evening heating and lighting).

[9] IEA 2025 ***Energy Demand From AI*** https://www.iea.org/reports/energy-and-ai/energy-demand-from-ai
[10] KPMG (Accessed 21.03.26) ***Ireland's Data Centre Policy Reset*** https://kpmg.com/ie/en/insights/energy-utilities-telecoms/irelands-data-centre-policy-reset.html
[11] Pommeret A & Schubert K ***2022 Optimal energy transition with variable and intermittent renewable electricity generation*** Journal of Economic Dynamics and Control Volume 134, January 2022, 104273 https://www.sciencedirect.com/science/article/abs/pii/S0165188921002086

Figure 2 | Energy Generation By Source & Time (USA 2023)



Source: Decarbonisation Channel

Furthermore, traditional rotating turbines (such as those in fossil fuel power stations or hydro-electric plants) provide "inertia" that naturally stabilises grid frequency. Renewables often use inverters that do not provide this, making the grid more sensitive to sudden disturbances and potentially prone to blackouts, whilst the stochastic nature of renewables output (e.g., gusts of wind or clouds changing generation rates) can lead to voltage instability, which can damage electrical equipment if not carefully managed.

Finally, while fossil fuel power stations were originally sited in response to demand, and as such tend to be in proximity to large population centres, renewable projects are often in remote locations (e.g., offshore wind), straining existing networks, which already suffer significant (up to 9%) transmission losses[12]. Many grids lack the capacity to handle new projects; in the UK, some renewable sites face wait times of 10 to 15 years to connect[13].

Upgrading grids to handle renewables requires massive investment in new pylons, cables, and substations as well as the integration of smart technologies. A key requirement of this upgrade is going to be large scale investment in energy storage technologies.

[12] UKPN (Accessed 21.03.26) ***Distribution Network Energy Losses*** https://www.ukpowernetworks.co.uk/distribution-network-energy-losses

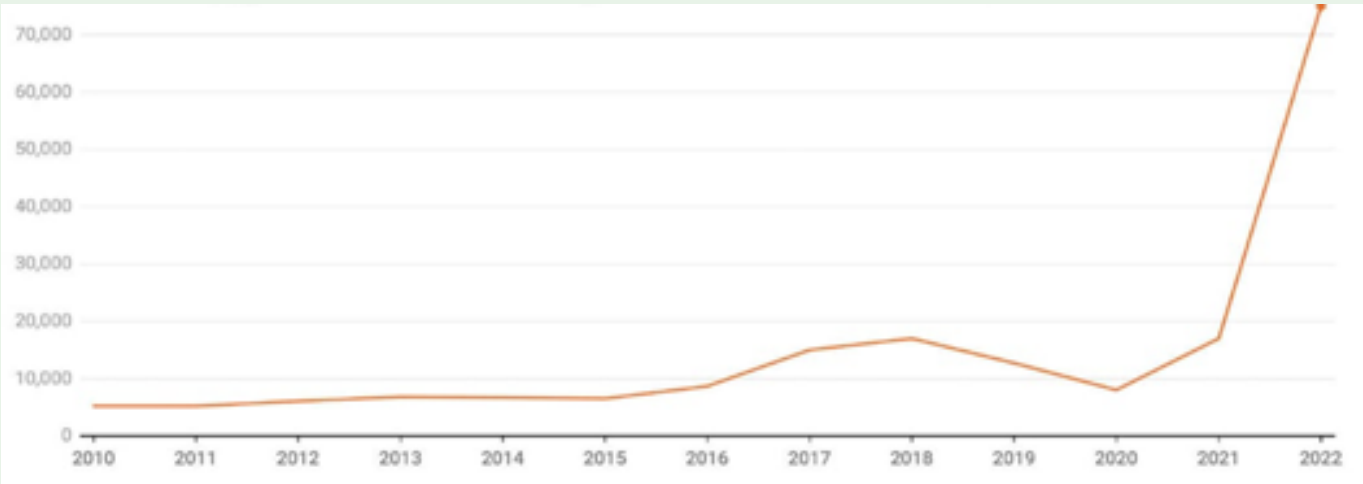
[13] Department for Energy Security and Net Zero 2025 ***Clean Energy Projects Prioritised For Grid Connections*** https://www.gov.uk/government/news/clean-energy-projects-prioritised-for-grid-connections#:~:text=So%2Dcalled%20'zombie'%20projects,the%20government's%20Plan%20for%20Change

Energy Storage Technologies

- **Batteries:** Lithium Iron Phosphate (LFP) is the most common technology, with several firms repurposing used electric vehicle batteries to form energy storage arrays (see Redwood Energy, Connected Energy and Powervault). Advances in solid-state batteries (which replaces the liquid or gel electrolyte in conventional lithium-ion batteries with a solid material, such as ceramic, glass, or sulfide) offer significantly higher energy density, improved safety, and longer lifespans although this technology is still in its infancy and it will take a while for costs to come down.

  Cheaper alternatives to lithium such as Sodium-Ion[14], Nickel-Manganese-Cobalt, and Iron-Air Batteries[15] are also emerging as potential mass energy storage technologies.

Figure 3 | Price Of Battery Grade Lithium Carbonate USD/Tonne



Source: US Geological Survey

- **Pumped Hydro:** This remains the largest source of global storage capacity (approx. 160 GW[16]), primarily used for long-duration daily balancing. Dinorwig power station in Wales is an excellent example of this type of instillation. However, pumped hydro is expensive and suffers geographical constraints.

- Compressed **Gas Storage**: There are several ways of doing this:
  - ***Liquid Air Energy Storage (LAES)*** is a long duration energy storage technology that uses surplus power to liquify air at -194°C; when demand peaks, the air is expanded to drive turbines. The Carrington facility, which is currently under construction at Trafford Energy Park will be the world's largest example of this technology.
  - ***CO_2 Batteries*** use excess energy from the local grid (such as that supplied by solar power) to compress and liquify carbon dioxide, storing it in steel tanks. When baseline power is needed, the CO_2 is decompressed and used to run turbines. The CO_2 is kept within a closed loop system and stored in low pressure containers when not in use. A large scale demonstration project is currently operating in Sardinia.

[14] Iberdrola (Accessed 22.03.26) ***Sodium-ion batteries: the revolution in renewable energy storage*** https://www.iberdrola.com/sustainability/environment/energy-efficiency/sodium-ion-batteries
[15] Form Energy (Accessed 22.03.26) ***Battery Technology*** https://formenergy.com/technology/battery-technology/
[16] IEA (Accessed 22.03.26) **Grid-scale Storage** https://www.iea.org/energy-system/electricity/grid-scale-storage

One of the principal advantages of this technology is that carbon dioxide liquefies under high pressure at ambient temperature (unlike air). The principal disadvantage is the significant scale of the plant and associated storage.

EnergyDome CO_2 Battery, Sardinia

- **Thermal Storage:** This utilises materials like molten salts, phase change materials, reversible chemical reactions, or solids such as sand or concrete to store excess renewable energy as heat for later electricity generation or industrial use. However, although this energy can be converted from heat back to electricity, its most efficient use is in the utilisation of that heat for industrial or domestic purposes.

- **Gravity Energy Storage:** This uses the potential energy gained by raising heavy loads during surplus generation periods, to power generators by lowering these loads when the energy is required. A demonstrator project was connected to the Swiss grid by Energy Vault in 2020, but a large scale project has yet to materialise. Scotland-headquartered energy storage company Gravitricity which planned to use disused mineshafts to store potential energy, entered administration in October 2025[17].

The Current Economic & Regulatory Landscapes

One of the most significant issues facing deregulated electricity markets, such as that of the UK, is that the "baseload market" has largely disappeared or become obsolete because electricity markets have shifted from prioritising constant, inflexible generation to rewarding flexibility and low marginal costs. Although the need for baseload remains, legacy infrastructure, such as coal and nuclear plants, is increasingly becoming uneconomic due to competition from renewables.

[17] Green M 2026 ***Gravitricity wound up voluntarily with under £8k assets*** https://www.solarpowerportal.co.uk/energy-storage/gravitricity-wound-up-voluntarily-with-under-8k-assets

Solar and wind have near-zero fuel costs, and extremely low maintenance costs. When these sources are available, they frequently generate enough power to drive market prices near zero, forcing inflexible "baseload" plants to either pay to operate or shut down, losing money in either scenario.

Modern grids need resources that can ramp up and down quickly (flexible generation) to follow the fast-changing supply from solar/wind and demand fluctuations. Traditional baseload plants (coal/nuclear) are designed to run at full output constantly and cannot adapt quickly, making them unsuitable for modern grid requirements. Baseload plants have high capital expenditure requirements and, as their operating hours are displaced by cheaper renewables, they cannot generate enough revenue to repay their construction costs, making them risky investments. This risk is compounded as grids often use a merit order system where only the price at the time of delivery matters. In this system, low-cost renewable generators win most auctions, breaking the traditional business model where "baseload" suppliers could guarantee a steady, profitable supply.

However, the low cost of renewables does not mean that consumer receive cheap electricity. Electricity generators bid into the system, starting with the cheapest sources and moving upward until demand is met. The price paid to all generators is then the price offered by the final generator required to meet demand, which in near enough 97% of cases in the UK in the last year was a gas-fired power station[18]. This is because gas power stations are currently critical to the running of a grid due to the supply-demand mismatch described in an earlier section.

Around the world policy makers are waking up to this issue:

- **China:** Remains the global leader in energy storage, accounting for over 50% of annual installations in 2025[19]. Policies are heavily driven by mandatory renewable-storage coupling at the provincial level and strong government targets, such as achieving 40GW+ of battery storage by end-2025.
- **United States:** The 2022 Inflation Reduction Act (IRA) continues to be the primary driver, offering investment tax credits (ITC) for stand-alone storage, which fuelled a 53% surge in 2025[20]. Despite potential policy headwinds, large-scale projects remain strong, supported by state-level mandates and grid-firming requirements.
- **European Union:** Focuses on the "Fit for 55" package and the Electricity Market Design reform. The EU Battery Regulation (2026-2027) introduces strict sustainability, carbon footprint, and recycling requirements ("battery passport"). Germany is leading in distributed storage, supported by high retail tariffs, while Spain is pushing aggressive targets of 22.5 GW by 2030[21].
- **United Kingdom:** Is focusing on long-duration energy storage (LDES) with a new cap-and-floor mechanism set to start in 2025–2026 to encourage investment[22].
- **Australia:** Driven by the Capacity Investment Scheme (CIS)[23] and successful state-level auctions, with high growth in large-scale storage to replace aging coal capacity.

[18] Murphy R 2026 ***Why gas sets the price of electricity, and why the economics behind it makes no sense*** https://www.taxresearch.org.uk/Blog/2026/03/17/why-gas-sets-the-price-of-electricity-and-why-the-economics-behind-it-makes-no-sense/

[19] Darmani A & Weis A 2026 ***Global energy storage market surpasses 100 GW annual installation milestone in 2025*** https://www.woodmac.com/news/opinion/global-energy-storage-market-surpasses-100-gw-annual-installation-milestone-in-2025/

[20] Ford N 2026 ***Battery storage outlook boosted by thirst for firm power*** https://www.reuters.com/business/energy/battery-storage-outlook-boosted-by-thirst-firm-power--reeii-2026-02-03/

[21] Energy Storage Europe (Accessed 23.03.26) ***Market Analyses*** https://energystorageeurope.eu/publications/market-analyses/

[22] Clean Growth Fund 2025 (Accessed 23.03.26) ***Emerging Opportunities for UK Long Duration Energy Storage*** https://www.cleangrowthfund.com/news/emerging-opportunities-for-uk-long-duration-energy-storage/#:~:text=The%20role%20for%20LDES%20in,decarbonise%20overall%20operations%20(4).

[23] Australian Government 2025 ***Capacity Investment Scheme*** https://www.dcceew.gov.au/energy/renewable/capacity-investment-scheme

What More Can Be Done To Encourage Investment?

There are a number of steps that policy makers can take to encourage investment in energy storage projects. These include:

1. Market and Regulatory Reforms

- **Implementing Revenue Stability Mechanisms:** Introducing "cap and floor" schemes to provide a revenue floor for developers (e.g., in long-duration storage), ensuring bankability while allowing taxpayers to share in high profits.
- **Removing Double Taxation:** Abolishing inconsistencies in grid tariffs that treat storage as both a generator and a consumer, which results in double taxation that affects the attractiveness of project economics.
- **Reforming Market Rules (Addressing "Skip Rates")**: Updating grid balancing rules to prioritise battery usage over traditional fossil fuel generators, reducing "skip rates" - where batteries are passed over for dispatch.
- **Redefining Storage In Regulation**: Formally defining energy storage as a unique asset class - distinct from generation or consumption - to allow proper, simplified network fees and faster permitting.
- **Valuing "Flexibility" In Markets**: Shifting market designs away from purely energy-based compensation toward rewarding speed of response, duration, and reliability, essential for high-renewable grids.

2. Financial Incentives and Risk Mitigation

- **De-risking Investments**: Using government guarantees, carbon contracts for difference (CCfDs), or public-private partnerships (e.g., using multilateral banks in emerging markets) to crowd in private capital.
- **Incentivising Long-Duration Energy Storage (LDES)**: Specifically funding LDES technologies (pumped hydro, flow batteries, compressed air) to meet the demand for multi-day storage, as lithium-ion is less suitable for this role.
- **Tax Credit Transferability:** Enabling the transferability of investment tax credits (like those in the US Inflation Reduction Act) to allow developers to monetise incentives faster and reduce project risk.
- **Supporting Behind-the-Meter (BTM) Storage:** Offering rebates, grants, or tax incentives for residential and commercial battery systems to reduce upfront costs for businesses and homes.

3. Infrastructure and Technology Upgrades

- **Streamlining Grid Connections**: Reducing the "gridlock" and long queue times for connecting new storage projects, which currently ties up capital and limits deployment.
- **Accelerating Digitalisation and Smart Grid Integration**: Using materials technology, AI, and digital tools for optimised storage trading, reduced transmission loss, real-time grid monitoring, and AI-driven bidding to maximize revenue stacking (using batteries for ancillary, capacity, and arbitrage simultaneously).

- **Supporting Battery "Second-Life Initiatives":** Creating policies that simplify and reward the repurposing of electric vehicle (EV) batteries for grid-scale storage, reducing waste and material costs.
- **Diversifying Storage Technologies**: Encouraging R&D in alternative chemistries (e.g., LFP, solid-state, iron-chromium) to avoid over-reliance on a single supply chain. Encouraging the development of non-stochastic renewable technologies such as tidal power.

4. Strategic Planning and Public Engagement

- **Anticipatory Grid Planning:** Transition from reactive grid upgrades to forward-looking planning that integrates storage as a non-wire alternative to costly transmission expansion.

By implementing these measures, policymakers can accelerate the transition from the around 85 GW of global battery capacity in 2023 to the roughly 1,200 GW required by 2030 to meet net-zero goals.

The Role Of Financial Centres

Financial centres can encourage and accelerate the growth of the power storage sector in a number of ways:

- They can lobby Policy Makers and lead multi-stakeholder groups to develop strategies for electricity market regulatory reforms as well as assisting in the development of regulatory roadmaps.
- They can raise awareness of the importance of the sector with respect to green transition dynamics, both domestically and internationally.
- They can support the development of new financial instruments, such as performance-related green bonds which can assist governments in investing in grid infrastructure.
- Finally, as significant electricity users in and of themselves - data centres and AI are playing an increasingly important role in financial services - they can lead by example and encourage the building of on-site energy storage for data centres and server farms within their jurisdiction.

Conclusions

Energy storage is the missing piece of the jigsaw in the energy transition, allowing the decoupling of national grids from fossil fuel energy sources. The rapid speed of technological development, the economics of renewable energy, and pressure from an increasingly unstable geo-political environment means that governments are likely to invest heavily in energy storage infrastructure over the next decade. Financial centres, as respected, politically neutral bodies are in the perfect position to assist in this field.

Regional Analysis

In our analysis of the CCB GGFI data, we look at six regions of the world to explore their financial centres' green finance depth and quality.

Alongside the ranks and ratings of centres, we investigate the average assessments received by regions and centres in more detail.

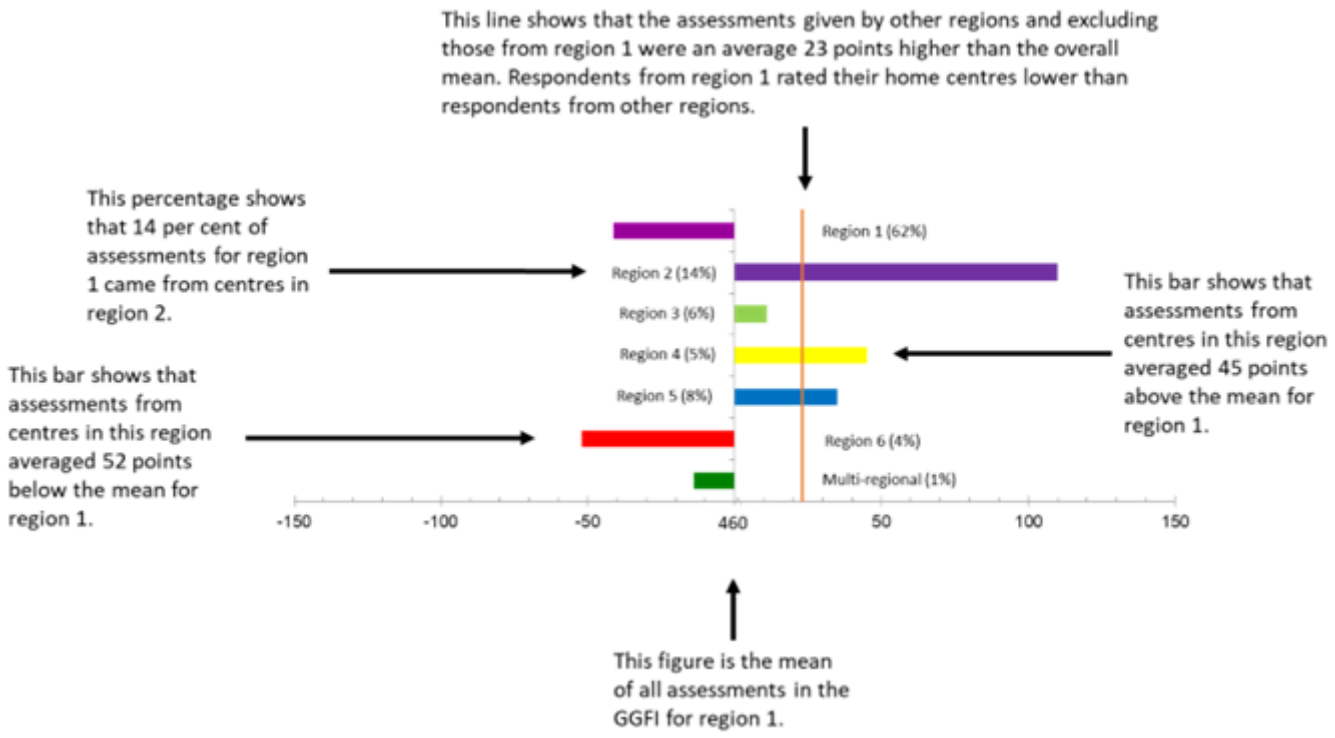
We display this analysis in charts, either for a region or an individual centre. These charts show:

- the mean assessment provided to that region or centre;
- the difference in the mean assessment when home region assessments are removed from the analysis;
- the difference between the mean and the assessments provided by other regional centres; and
- the proportion of assessments provided by each region.

Chart 14 shows an example of this analysis. Coloured bars to the left of the vertical axis indicate that respondents from that region gave lower than average assessments. Bars to the right indicate respondents from that region gave higher than average assessments. Assessments given to a centre by people based in that centre are excluded to remove 'home' bias.

The additional vertical axis (in orange) shows the mean of assessments when assessments from the home region are removed. The percentage figure noted by each region indicates the percentage of the total number of assessments that are from that region.

Chart 14 | Example: Assessments Compared With The Mean For A Region



North America

- Los Angeles and Minneapolis/St Paul recovered ground in North America to take the leading positions in the region, with Toronto in third place.
- Atlanta also improved 10 places, while other US centres had mixed results.
- North American centres were rated above average by people from Asia/Pacific and the Middle East & Africa and those with a multi-regional presence.

Table 10 | North American Centres In CCB GGFI 17

Centre	CCB GGFI 17		CCB GGFI 16		Change In	Change In
	Rank	Rating	Rank	Rating	Rank	Rating
Los Angeles	12	591	20	557	▲8	▲34
Minneapolis / St Paul	13	590	23	554	▲10	▲36
Toronto	17	586	17	560	0	▲26
Montreal	19	584	13	564	▼6	▲20
Vancouver	20	583	19	558	▼1	▲25
New York	21	582	22	555	▲1	▲27
Washington DC	26	577	24	553	▼2	▲24
San Francisco	28	575	21	556	▼7	▲19
Calgary	37	566	31	546	▼6	▲20
Chicago	39	564	29	548	▼10	▲16
Atlanta	44	559	54	523	▲10	▲36
Miami	50	553	56	521	▲6	▲32
Boston	60	543	52	525	▼8	▲18
Philadelphia	64	539	69	508	▲5	▲31

Chart 15 | Top Five North American Centres Ratings Over Time

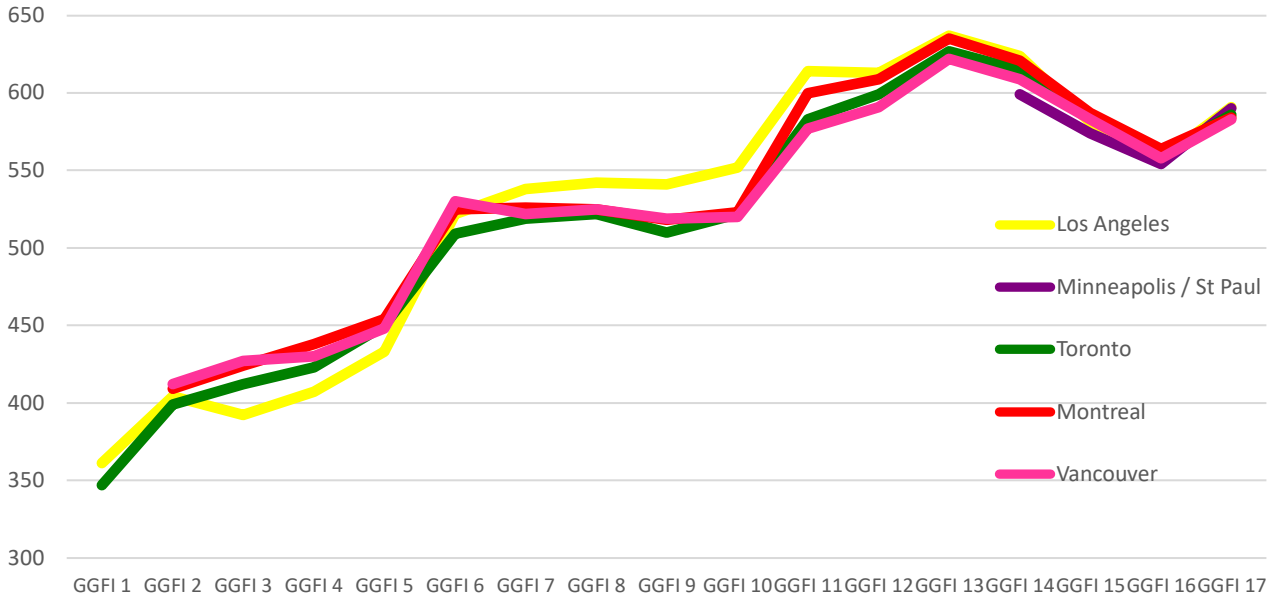


Chart 16 | North American Regional Assessments - Difference From The Mean

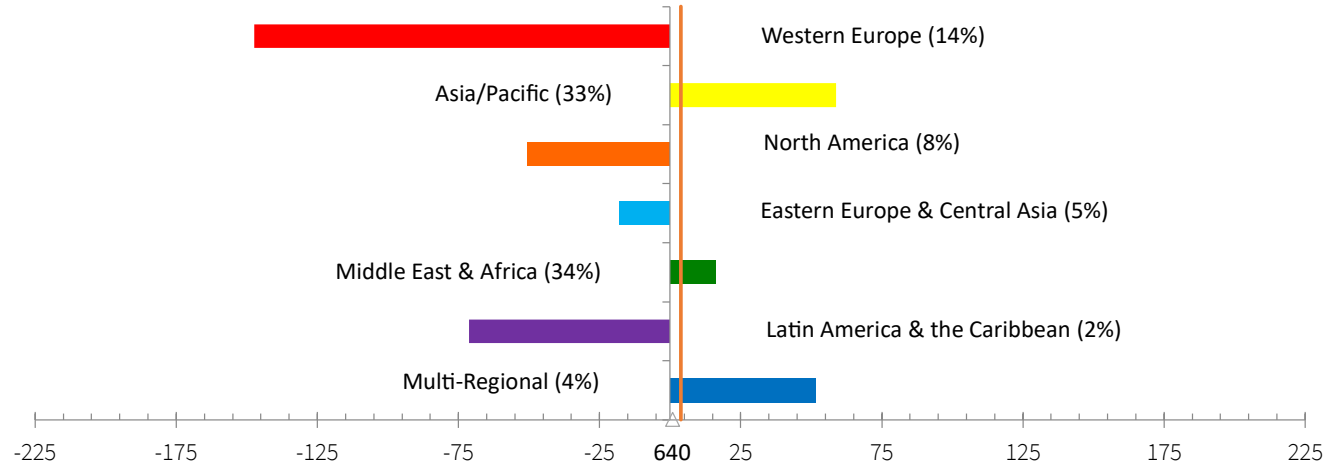


Chart 17 | Regional Assessments For Los Angeles - Difference From The Mean

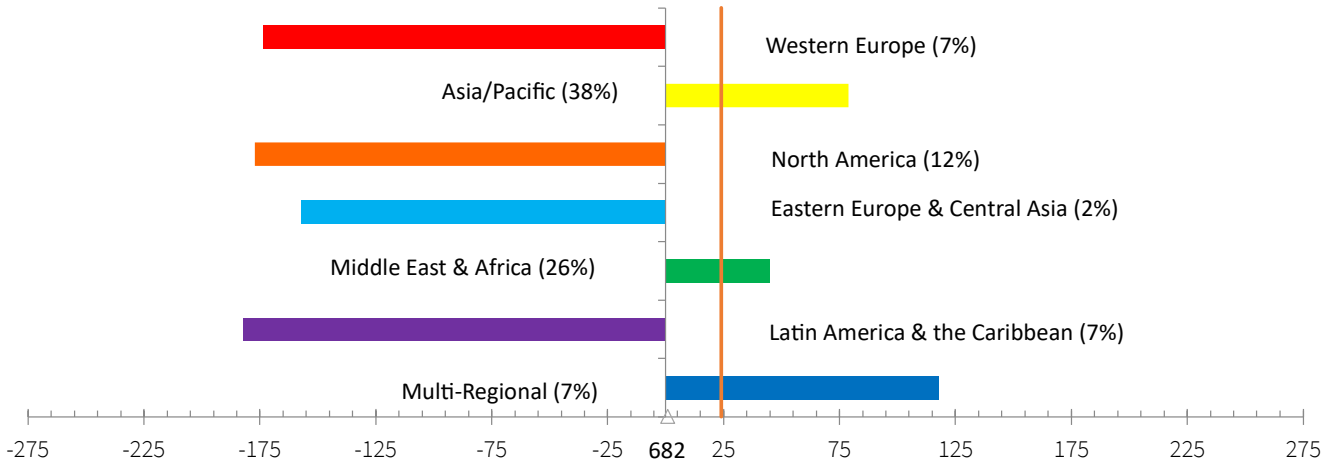
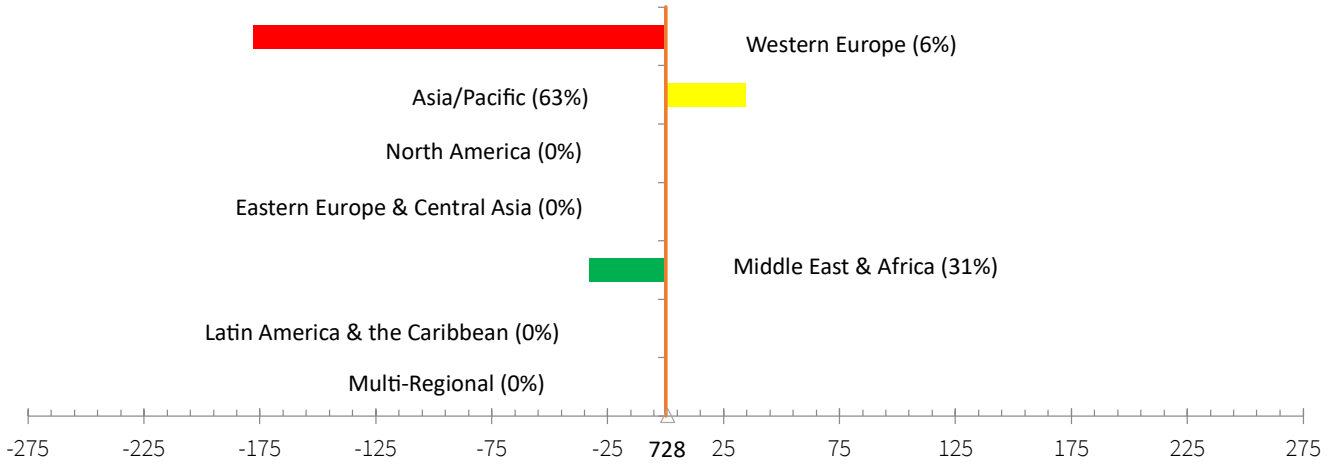


Chart 18 | Regional Assessments For Minneapolis/St Paul - Difference From The Mean



Middle East & Africa

- Dubai leads in the region and rose one place globally. Mauritius and Casablanca have overtaken Tel Aviv and Abu Dhabi in this edition of the index.
- Most centres in the region improved in the rankings, with Mauritius, Riyadh, Johannesburg, Cape Town, and Nairobi up 10 or more places.
- Respondents from Asia/Pacific, and those with a multi-regional background rated Middle East & African centres higher than average.

Table 11 | Middle Eastern & African Centres In CCB GGFI 17

Centre	CCB GGFI 17		CCB GGFI 16		Change In	Change In
	Rank	Rating	Rank	Rating	Rank	Rating
Dubai	36	567	37	540	▲1	▲27
Mauritius	46	557	60	517	▲14	▲40
Casablanca	51	552	50	527	▼1	▲25
Tel Aviv	53	550	39	538	▼14	▲12
Abu Dhabi	54	549	49	528	▼5	▲21
Riyadh	55	548	68	509	▲13	▲39
Doha	56	547	62	515	▲6	▲32
Kigali	58	545	65	512	▲7	▲33
Johannesburg	62	541	77	500	▲15	▲41
Cape Town	70	533	81	496	▲11	▲37
Nairobi	73	530	83	494	▲10	▲36
Bahrain	87	516	76	501	▼11	▲15
Lagos	90	513	86	491	▼4	▲22

Chart 19 | Top Five Middle East & Africa Centre Ratings Over Time

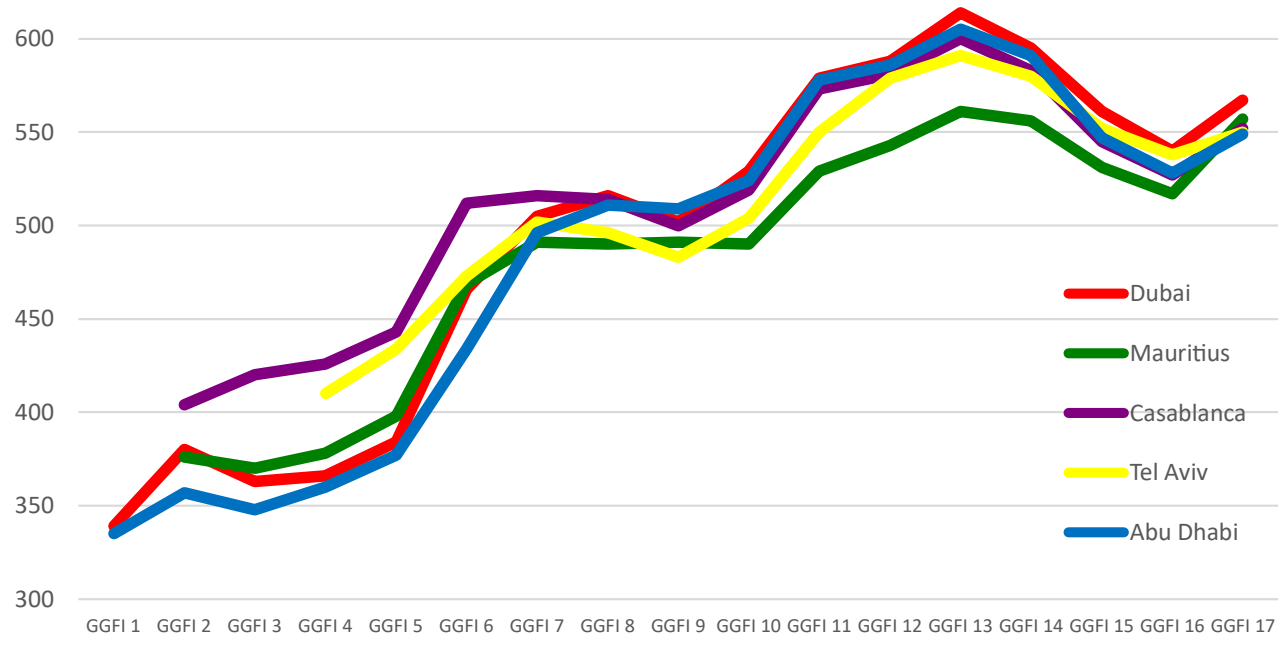


Chart 20 | Middle East & Africa Regional Assessments - Difference From The Mean

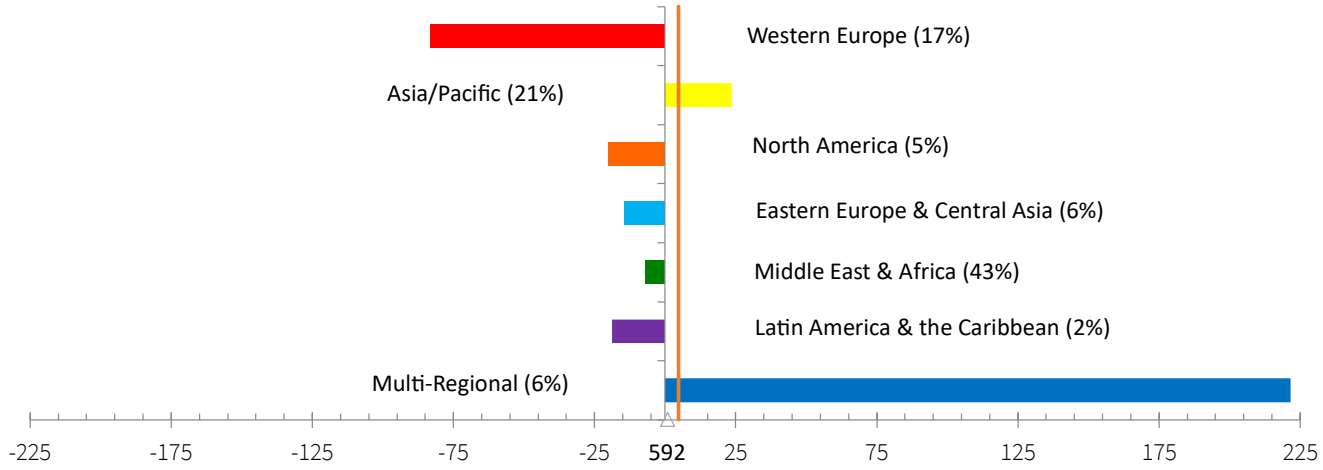


Chart 21 | Regional Assessments For Dubai - Difference From The Mean

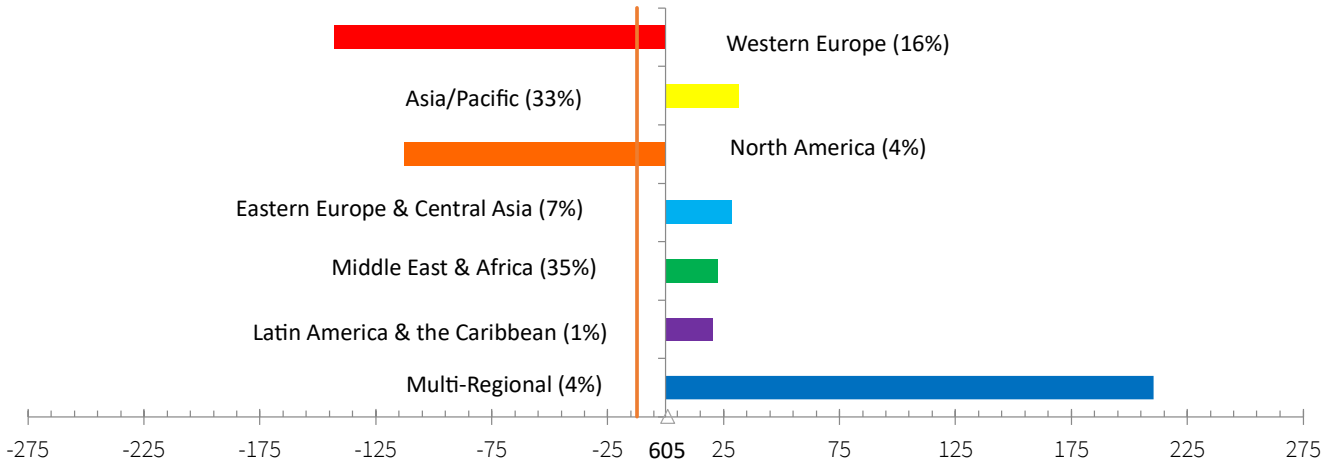
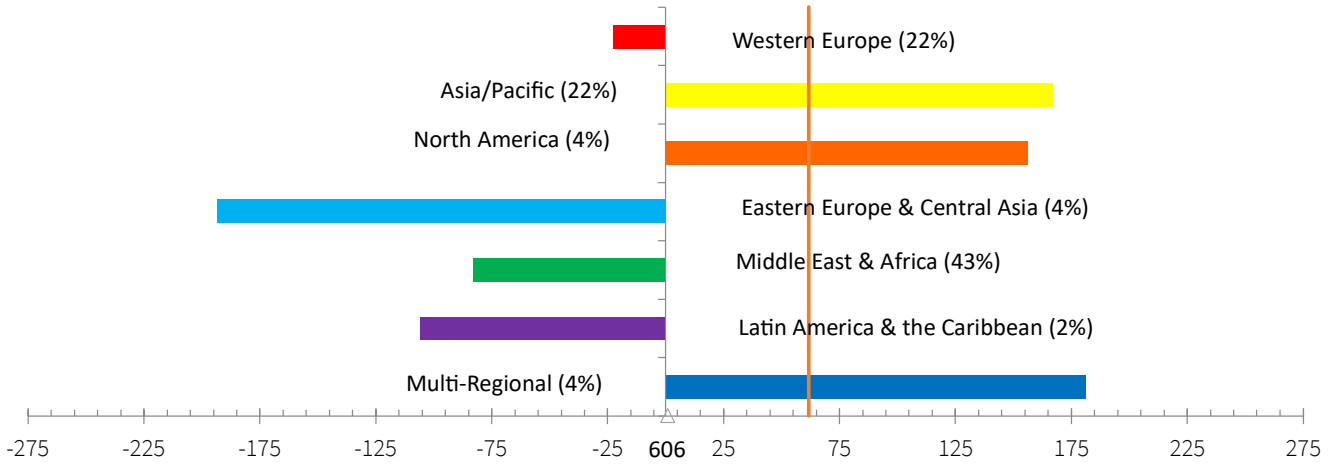


Chart 22 | Regional Assessments For Mauritius - Difference From The Mean



Asia/Pacific

- Singapore continued to lead the region, now in second place globally. Tokyo and Seoul are second and third in the region.
- Tokyo, Sydney, Osaka, Melbourne, Guangzhou, New Delhi, Jakarta, and Mumbai all improved 10 or more places, while Taipei entered the index for the first time.
- Respondents from Western Europe and the Middle East & Africa rated centres in Asia/Pacific below average.

Table 12 | Top 15 Asia/Pacific Centres In CCB GGFI 17

Centre	CCB GGFI 17		CCB GGFI 16		Change In	Change In
	Rank	Rating	Rank	Rating	Rank	Rating
Singapore	2	607	3	586	▲1	▲21
Tokyo	18	585	45	532	▲27	▲53
Seoul	23	580	28	549	▲5	▲31
Sydney	24	579	34	543	▲10	▲36
Shanghai	25	578	33	544	▲8	▲34
Busan	29	574	26	551	▼3	▲23
Osaka	30	573	46	531	▲16	▲42
Melbourne	31	572	48	529	▲17	▲43
Shenzhen	32	571	30	547	▼2	▲24
Beijing	38	565	32	545	▼6	▲20
Taipei	40	563	New	New	New	New
Guangzhou	42	561	59	518	▲17	▲43
Hong Kong	45	558	41	536	▼4	▲22
New Delhi	74	529	89	488	▲15	▲41
Jakarta	78	525	88	489	▲10	▲36

Chart 23 | Top Asia/Pacific Centre Ratings Over Time

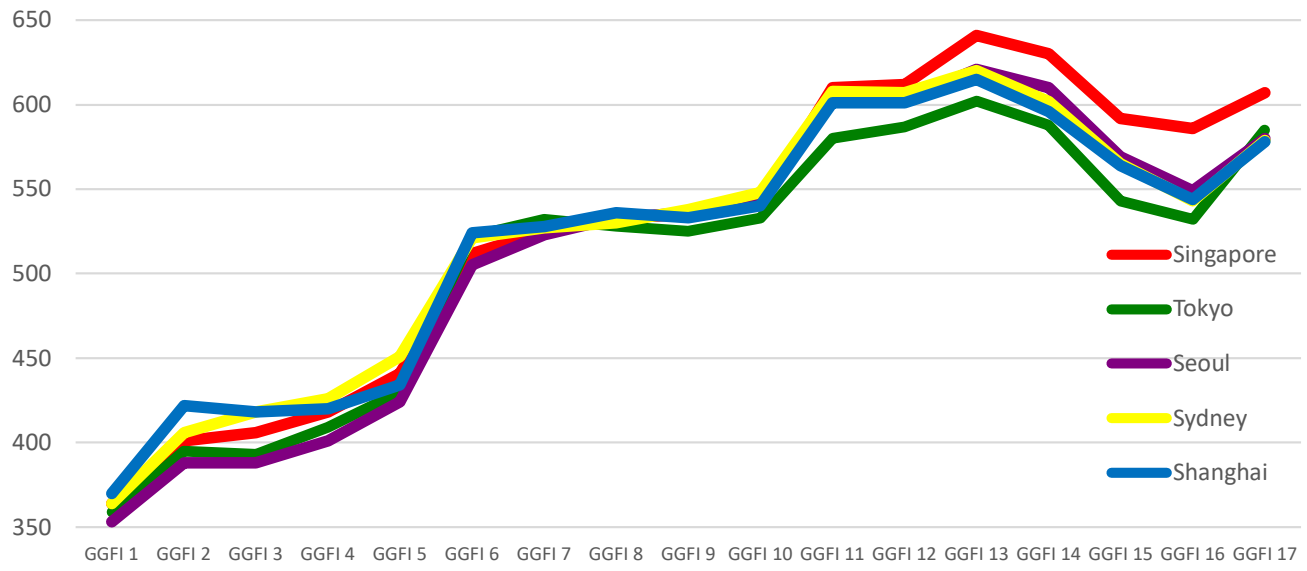


Chart 24 | Asia/Pacific Regional Assessments - Difference From The Mean

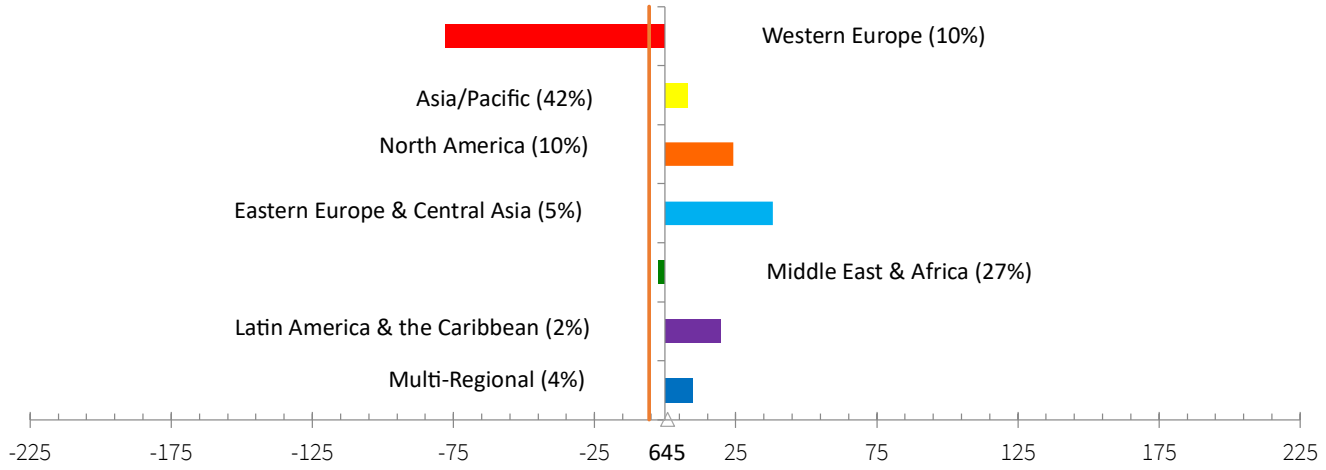


Chart 25 | Regional Assessments For Singapore - Difference From The Mean

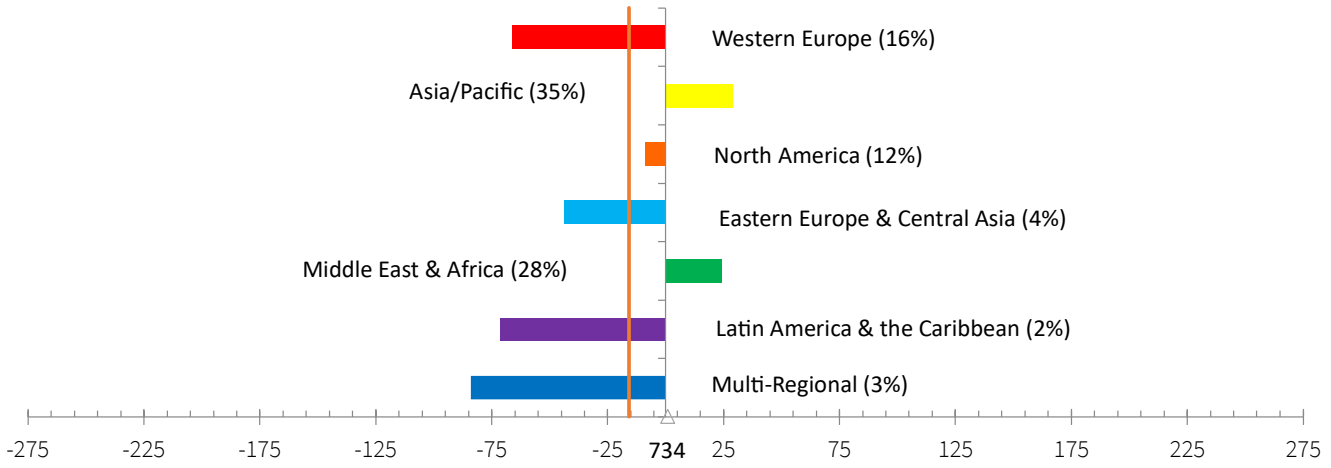
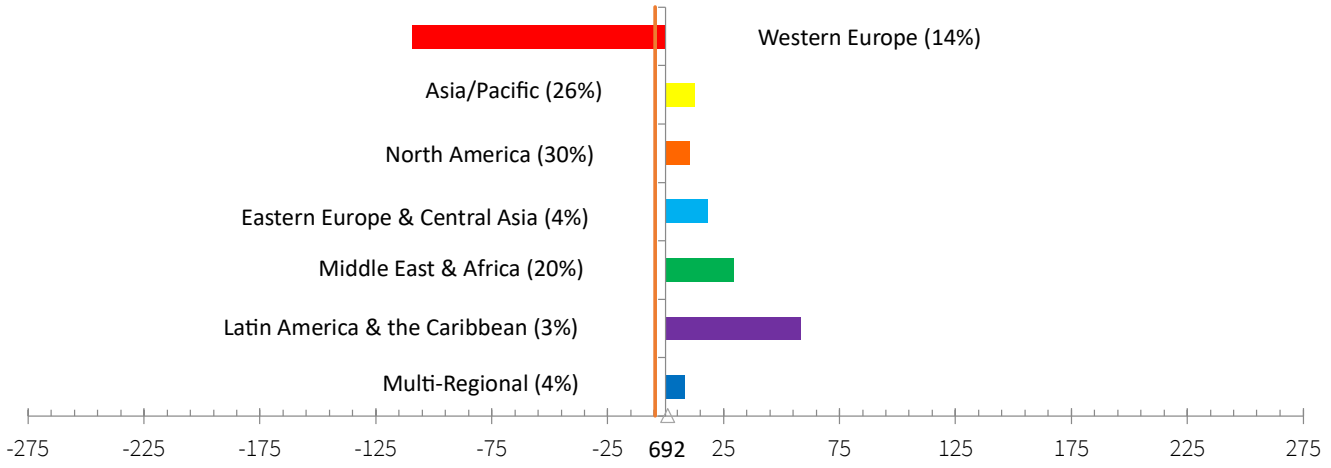


Chart 26 | Regional Assessments For Tokyo - Difference From The Mean



Eastern Europe & Central Asia

- Warsaw rose nine places to lead in the region. Prague remains in second place in the region but fell 12 rank places.
- Cyprus rose 14 rank places, while Almaty fell 11.
- Respondents from Western Europe, Asia/Pacific, North America, and Latin America & The Caribbean, rated Eastern European & Central Asia centres lower than average.

Table 13 | Eastern European & Central Asia Centres In CCB GGFI 17

Centre	CCB GGFI 17		CCB GGFI 16		Change In	Change In
	Rank	Rating	Rank	Rating	Rank	Rating
Warsaw	57	546	66	511	▲9	▲35
Prague	63	540	51	526	▼12	▲14
Sofia	66	537	58	519	▼8	▲18
Astana	71	532	67	510	▼4	▲22
Moscow	75	528	80	497	▲5	▲31
Cyprus	76	527	90	487	▲14	▲40
St Petersburg	80	523	85	492	▲5	▲31
Almaty	82	521	71	506	▼11	▲15
Istanbul	84	519	78	499	▼6	▲20

Chart 27 | Top Five Eastern Europe & Central Asia Centre Ratings Over Time

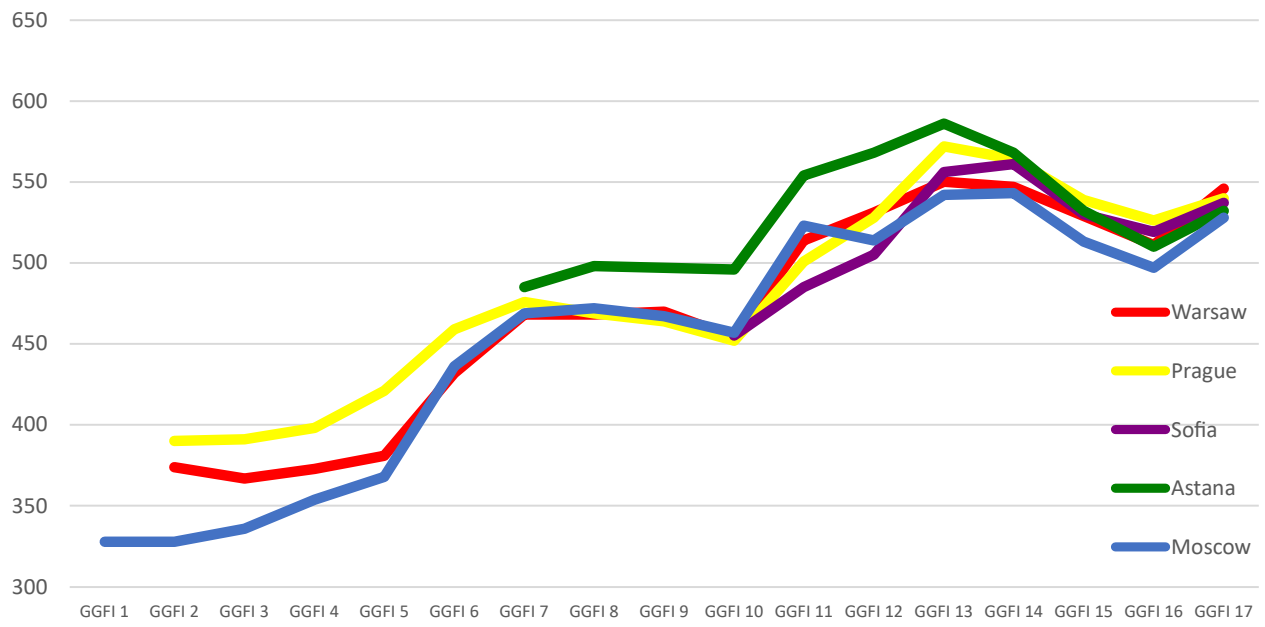


Chart 28 | Eastern Europe & Central Asia Regional Assessments - Difference From The Mean

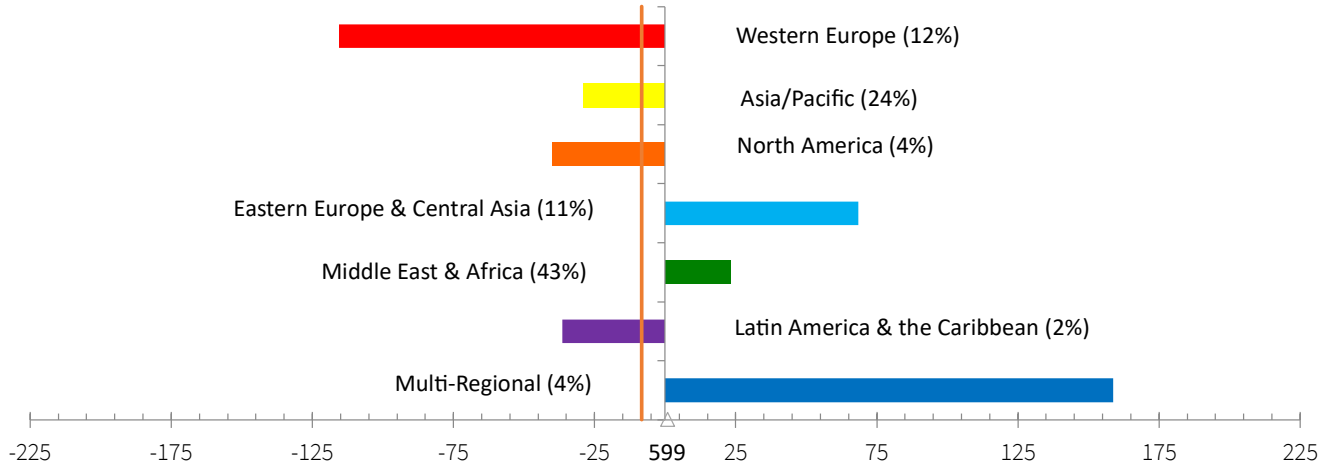


Chart 29 | Regional Assessments For Warsaw - Difference From The Mean

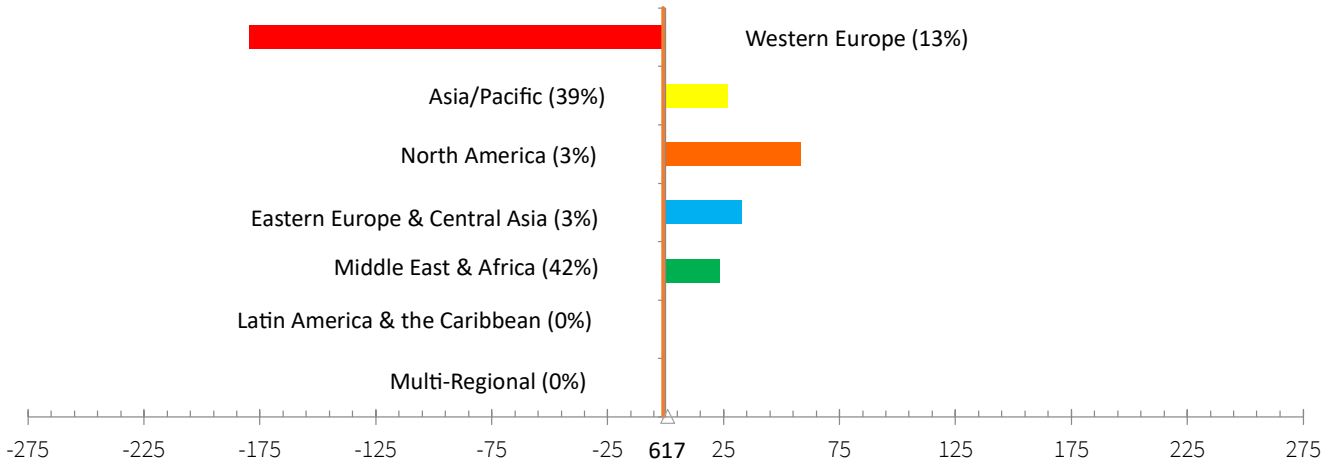
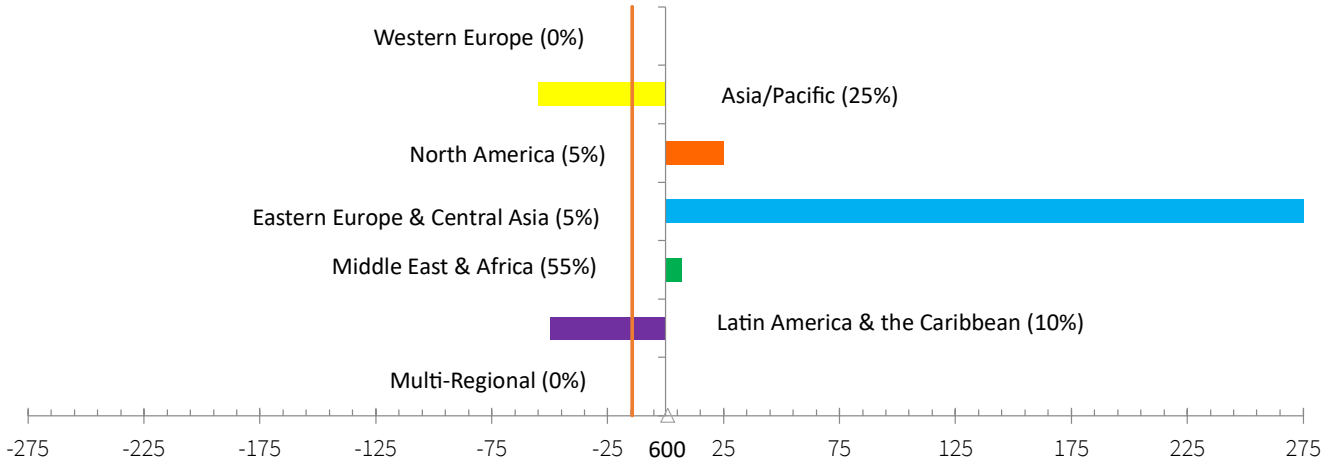


Chart 30 | Regional Assessments For Prague - Difference From The Mean



Latin America & The Caribbean

- Panama entered the index for the first time and took the lead in the region in 49th position. Sao Paulo is in second place followed by Santiago.
- Rio de Janeiro rose 13 places in the rankings.
- Respondents from Western Europe, Asia/Pacific and North America rated Latin America & The Caribbean centres below average.

Table 14 | Latin American & Caribbean Centres In CCB GGFI 17

Centre	CCB GGFI 17		CCB GGFI 16		Change In	Change In
	Rank	Rating	Rank	Rating	Rank	Rating
Panama	49	554	New	New	New	New
Sao Paulo	52	551	53	524	▲1	▲27
Santiago	59	544	57	520	▼2	▲24
Rio de Janeiro	61	542	74	503	▲13	▲39
Mexico City	68	535	72	505	▲4	▲30
Bahamas	79	524	87	490	▲8	▲34
Bermuda	85	518	75	502	▼10	▲16
Cayman Islands	89	514	92	483	▲3	▲31

Chart 31 | Top Five Latin American & Caribbean Centre Ratings Over Time

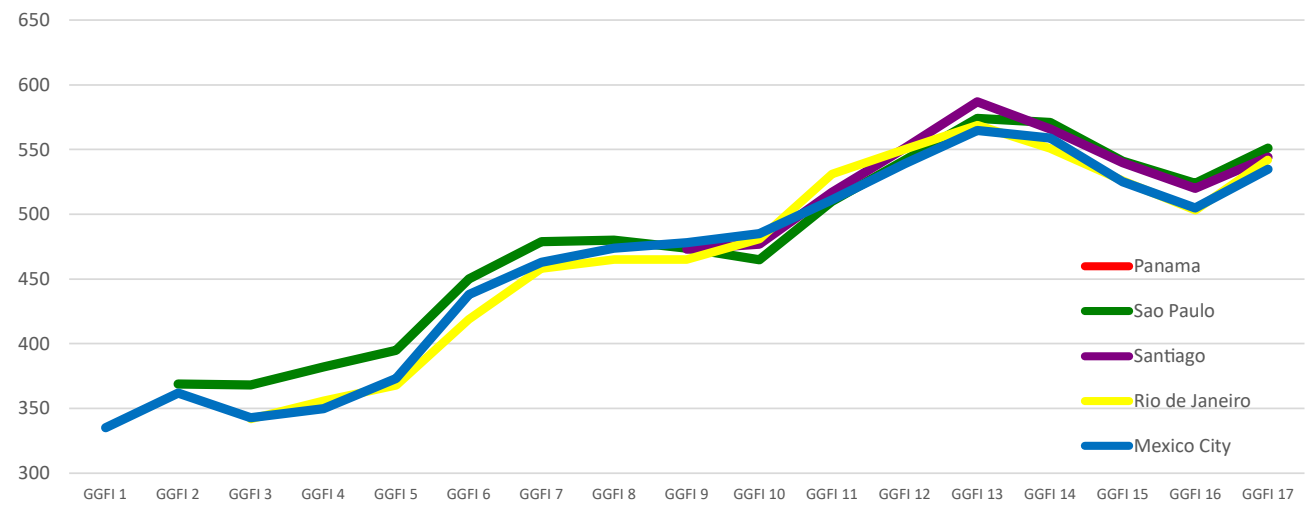


Chart 32 | Latin American & Caribbean Regional Assessments - Difference From The Mean

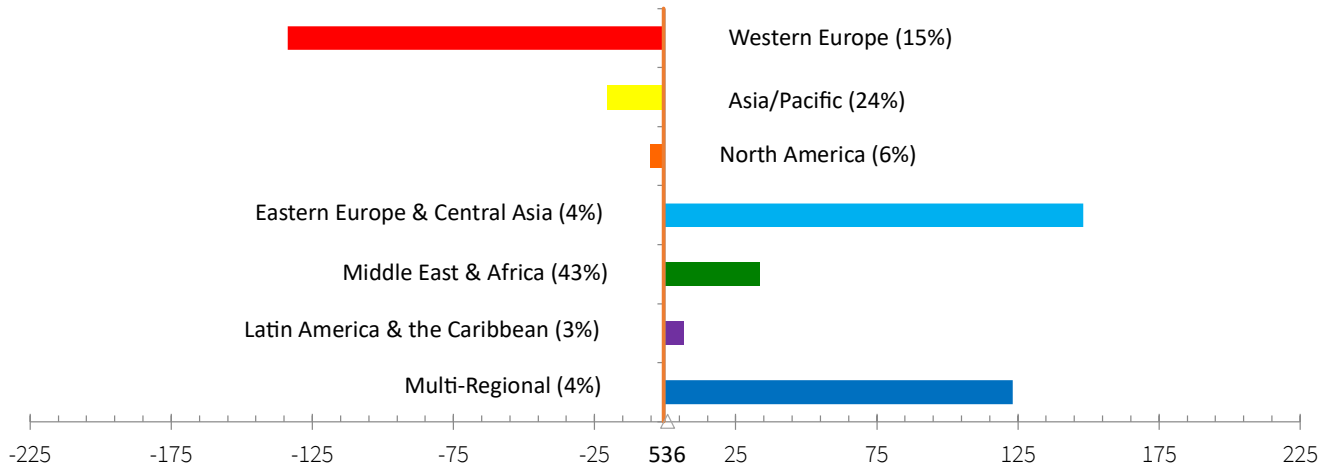


Chart 33 | Regional Assessments For Panama - Difference From The Mean

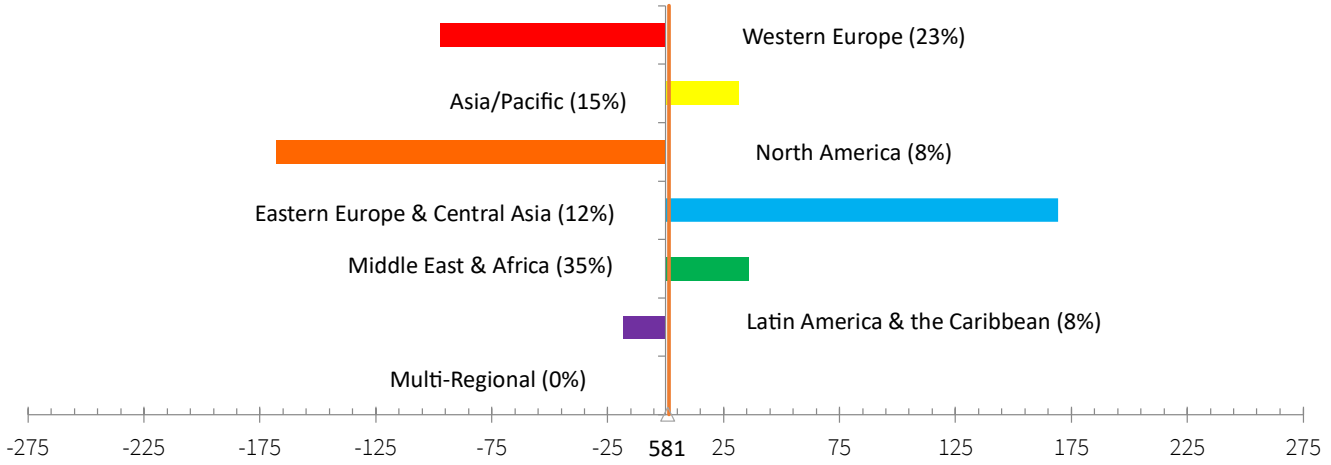
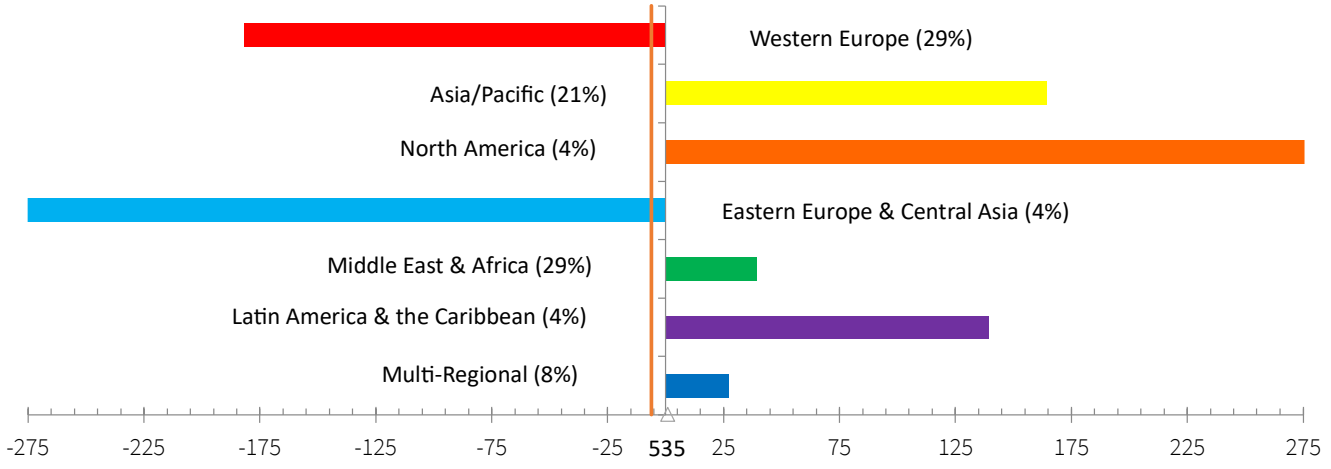


Chart 34 | Regional Assessments For Sao Paulo - Difference From The Mean



Western Europe

- London has returned to the top place in the region and world, with Zurich in second place in the region. They are followed by Amsterdam, Geneva, and Paris.
- Nine Western European centres feature in the world top ten and Vienna rose 17 places to take 10th place globally.
- Respondents from Western Europe and the Middle East & Africa rated Western European centres lower than average.

Table 15 | Top 15 Western European Centres In CCB GGFI 17

Centre	CCB GGFI 17		CCB GGFI 16		Change In	Change In
	Rank	Rating	Rank	Rating	Rank	Rating
London	1	617	2	589	▲1	▲28
Zurich	3	602	1	591	▼2	▲11
Amsterdam	4	599	5	580	▲1	▲19
Geneva	5	598	4	581	▼1	▲17
Paris	6	597	9	568	▲3	▲29
Luxembourg	7	596	7	570	0	▲26
Copenhagen	8	595	6	573	▼2	▲22
Frankfurt	9	594	11	566	▲2	▲28
Vienna	10	593	27	550	▲17	▲43
Stockholm	11	592	8	569	▼3	▲23
Munich	14	589	16	561	▲2	▲28
Brussels	15	588	10	567	▼5	▲21
Oslo	16	587	14	563	▼2	▲24
Madrid	22	581	15	562	▼7	▲19
Edinburgh	27	576	18	559	▼9	▲17

Chart 35 | Top Five Western European Centre Ratings Over Time

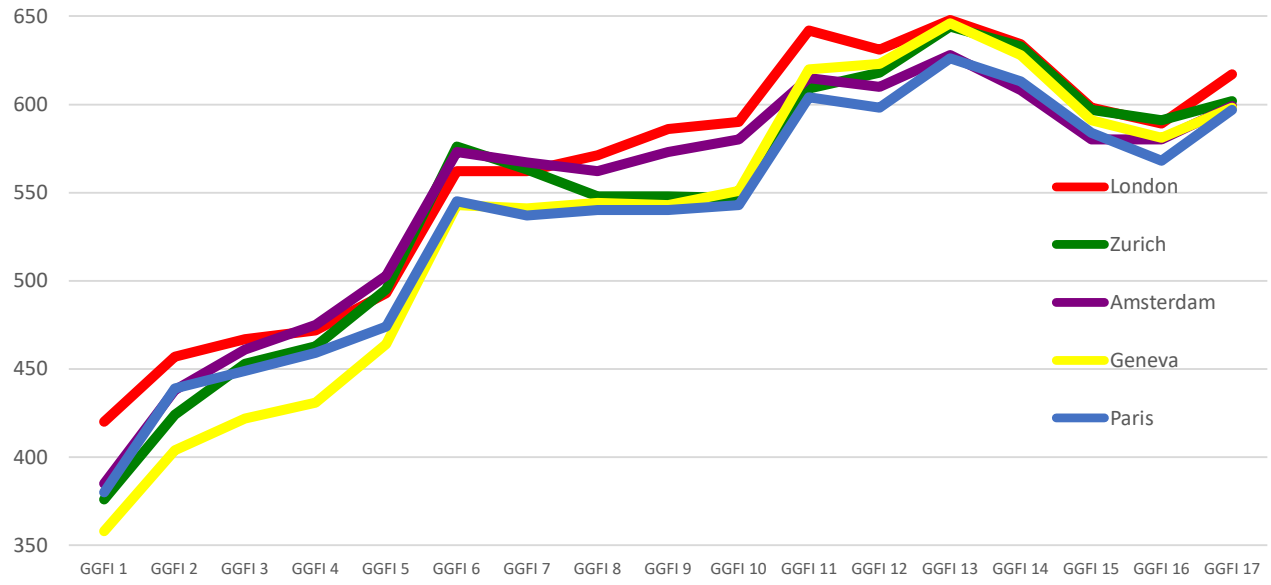


Chart 36 | Western European Regional Assessments - Difference From The Mean

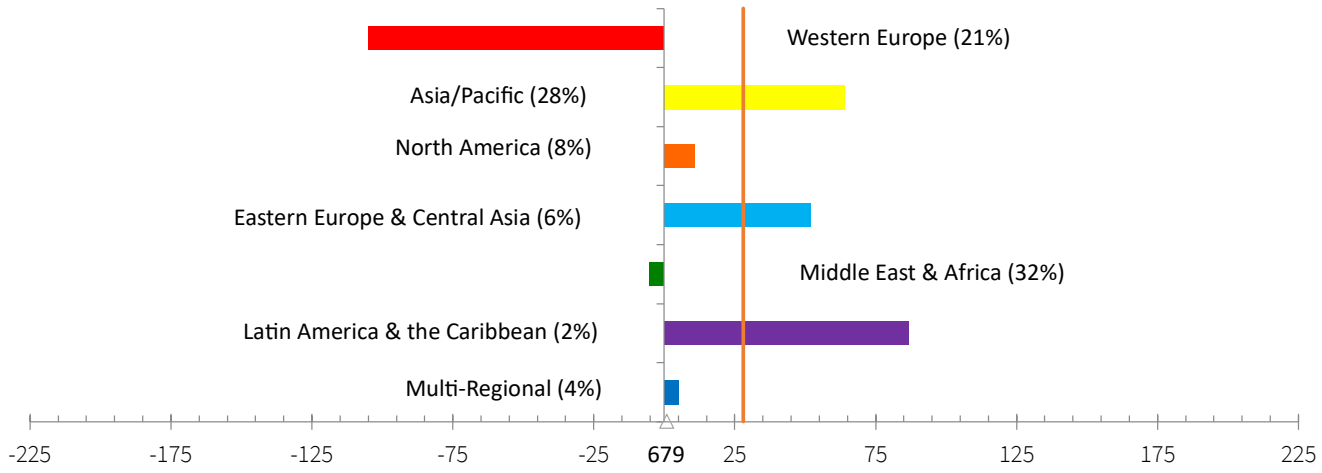


Chart 37 | Regional Assessments For London - Difference From The Mean

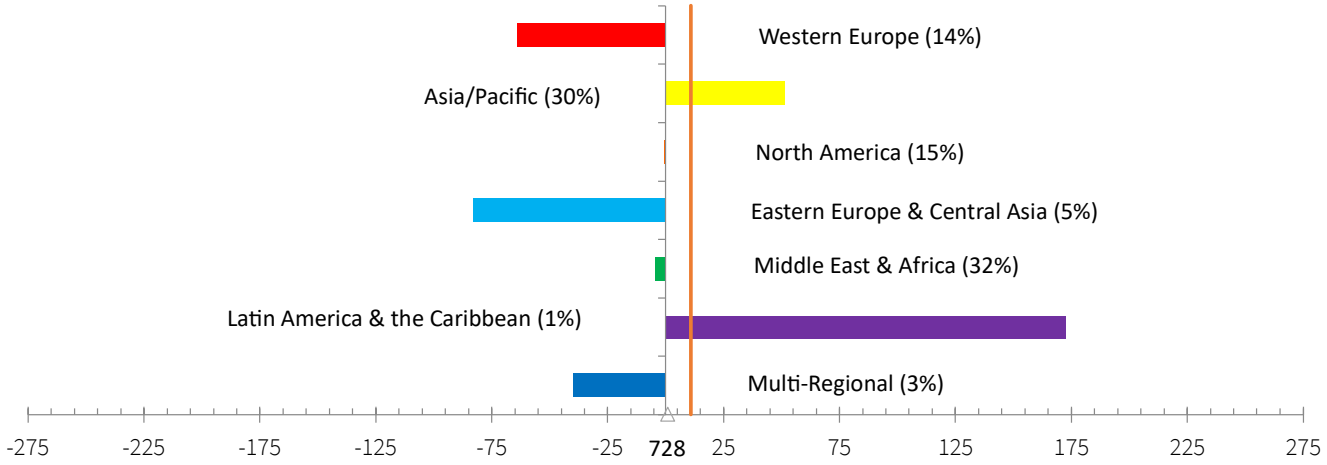
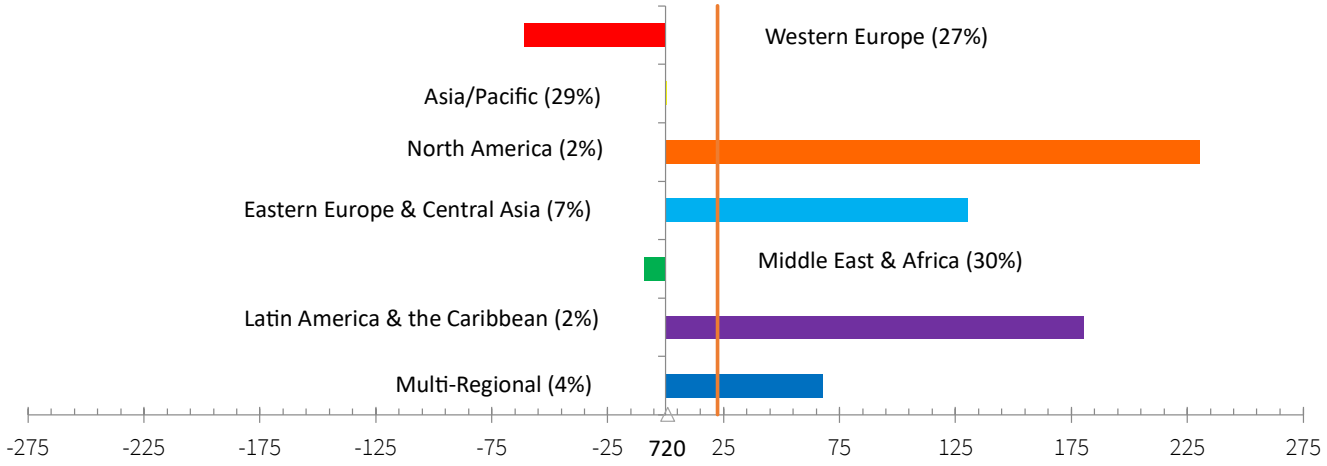


Chart 38 | Regional Assessments For Zurich - Difference From The Mean

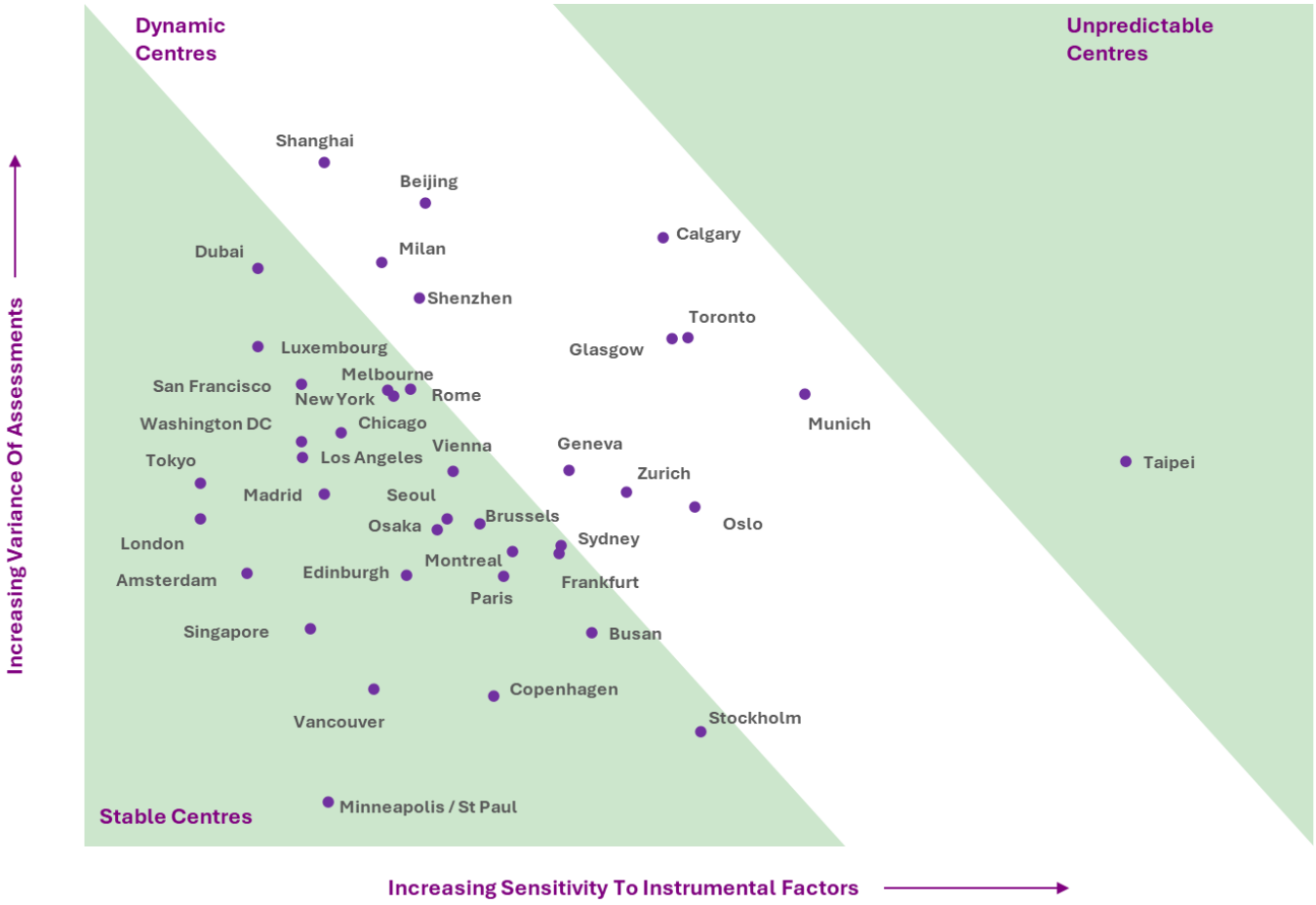


Stability

The CCB GGFI model allows for an analysis of the stability of financial centres in the index, which can be useful for centres when assessing their development strategies. Chart 39 contrasts the 'spread' or variance of the individual assessments given to the top 40 centres in CCB GGFI 17, with sensitivity to changes in the instrumental factors.

The chart shows three bands of financial centres. Most centres in the top 40 fall in the stable or dynamic areas. The stable centres in the bottom left have a lower sensitivity to change and demonstrate greater consistency in their CCB GGFI ratings.

Chart 39 | Stability In Assessments And Instrumental Factors



"Establishing training institutions focused on green finance skill development and transfer could be an added advantage in promoting and creating awareness on green finance."

MANAGING DIRECTOR, PROFESSIONAL SERVICES FIRM, LAGOS

Industry Sectors

We can analyse the differing assessments provided by respondents working in various industry sectors by building the index separately using the responses provided only from those industries. This analysis allows a relative measure of the sectoral strengths and weaknesses for each centre.

Table 16 illustrates separate sub-indices for the Policy, Knowledge, Capital Markets, and Professional Services sectors. The table shows how the index ranking varies according to industry sector. The leading centres in the index generally feature in the higher ranks of the industry sector sub-indices. However, Singapore leads in the policy sub-index and among those working in professional services. Copenhagen leads for those in the knowledge sector, and London for capital markets.

Table 16 | CCB GGFI 17 Industry Sector Sub-Indices - Top 15

Rank	Industry Sub-Sector			
	Policy	Knowledge	Capital Markets	Professional Services
1	Singapore	Copenhagen	London	Singapore
2	Frankfurt	Amsterdam	Geneva	London
3	London	London	Singapore	Copenhagen
4	Geneva	Brussels	Zurich	Amsterdam
5	Amsterdam	Stockholm	Paris	Paris
6	Luxembourg	Zurich	Stockholm	Vienna
7	Zurich	Paris	Copenhagen	Frankfurt
8	Copenhagen	Oslo	Vienna	Zurich
9	Vienna	Vienna	Munich	Geneva
10	Paris	Luxembourg	Oslo	Luxembourg
11	Stockholm	Geneva	Amsterdam	Stockholm
12	Los Angeles	Vancouver	Toronto	Brussels
13	Minneapolis / St Paul	Montreal	Tokyo	Oslo
14	Munich	Singapore	Montreal	Los Angeles
15	Dubai	Munich	Frankfurt	Toronto

Taking the sectoral analysis further, we can also calculate the index using the responses only from those working directly in green finance in financial services organisations. The results are shown in table 17.

Table 17 | CCB GGFI 17 Using Responses Only From Respondents Working Directly In Green Finance

Centre	Rating	Adjusted Rank	CCB GGFI 17 Rank	Difference
London	617	1	1	0
Singapore	604	4	2	-2
Zurich	595	10	3	-7
Amsterdam	598	7	4	-3
Geneva	588	13	5	-8
Paris	581	19	6	-13
Luxembourg	591	12	7	-5
Copenhagen	604	4	8	4
Frankfurt	601	6	9	3
Vienna	609	3	10	7
Stockholm	598	7	11	4
Los Angeles	579	20	12	-8
Minneapolis / St Paul	576	22	13	-9
Munich	610	2	14	12
Brussels	585	18	15	-3
Oslo	588	13	16	3
Toronto	597	9	17	8
Tokyo	574	23	18	-5
Montreal	588	13	19	6
Vancouver	593	11	20	9
New York	570	28	21	-7
Madrid	587	17	22	5
Seoul	588	13	23	10
Sydney	573	26	24	-2
Shanghai	561	36	25	-11
Washington DC	561	36	26	-10
Edinburgh	568	30	27	-3
San Francisco	564	34	28	-6
Busan	574	23	29	6
Osaka	557	40	30	-10
Melbourne	574	23	31	8
Shenzhen	565	33	32	-1
Glasgow	577	21	33	12
Milan	561	36	34	-2
Rome	555	43	35	-8
Dubai	550	50	36	-14
Calgary	572	27	37	10
Beijing	568	30	38	8
Chicago	554	44	39	-5
Taipei	557	40	40	0
Malta	554	44	41	-3
Guangzhou	551	48	42	-6
Hamburg	568	30	43	13
Atlanta	562	35	44	9
Hong Kong	544	58	45	-13
Mauritius	543	61	46	-15

Centre	Rating	Adjusted Rank	CCB GGFI 17 Rank	Difference
Lisbon	535	67	47	-20
Berlin	570	28	48	20
Panama	548	54	49	-5
Miami	550	50	50	0
Casablanca	544	58	51	-7
Sao Paulo	538	65	52	-13
Tel Aviv	560	39	53	14
Abu Dhabi	531	71	54	-17
Riyadh	549	52	55	3
Doha	540	63	56	-7
Warsaw	557	40	57	17
Kigali	526	73	58	-15
Santiago	547	55	59	4
Boston	551	48	60	12
Rio de Janeiro	545	56	61	5
Johannesburg	536	66	62	-4
Prague	544	58	63	5
Philadelphia	552	46	64	18
Monaco	516	86	65	-21
Sofia	549	52	66	14
Jersey	545	56	67	11
Mexico City	542	62	68	6
Dublin	552	46	69	23
Cape Town	518	82	70	-12
Astana	521	79	71	-8
Guernsey	533	69	72	3
Nairobi	524	76	73	-3
New Delhi	535	67	74	7
Moscow	520	80	75	-5
Cyprus	539	64	76	12
Isle of Man	530	72	77	5
Jakarta	533	69	78	9
Bahamas	522	77	79	2
St Petersburg	508	92	80	-12
Bangkok	510	91	81	-10
Almaty	522	77	82	5
Mumbai	515	87	83	-4
Istanbul	518	82	84	2
Bermuda	518	82	85	3
Liechtenstein	526	73	86	13
Bahrain	511	90	87	-3
Kuala Lumpur	525	75	88	13
Cayman Islands	514	88	89	1
Lagos	518	82	90	8
Manila	519	81	91	10
British Virgin Islands	514	88	92	4

CCB GGFI 17 Interest, Impact, And Drivers Of Green Finance

In addition to requesting ratings of depth and quality for financial centres, the CCB GGFI questionnaire asks additional questions concerning the development of green finance. Among the topics covered are:

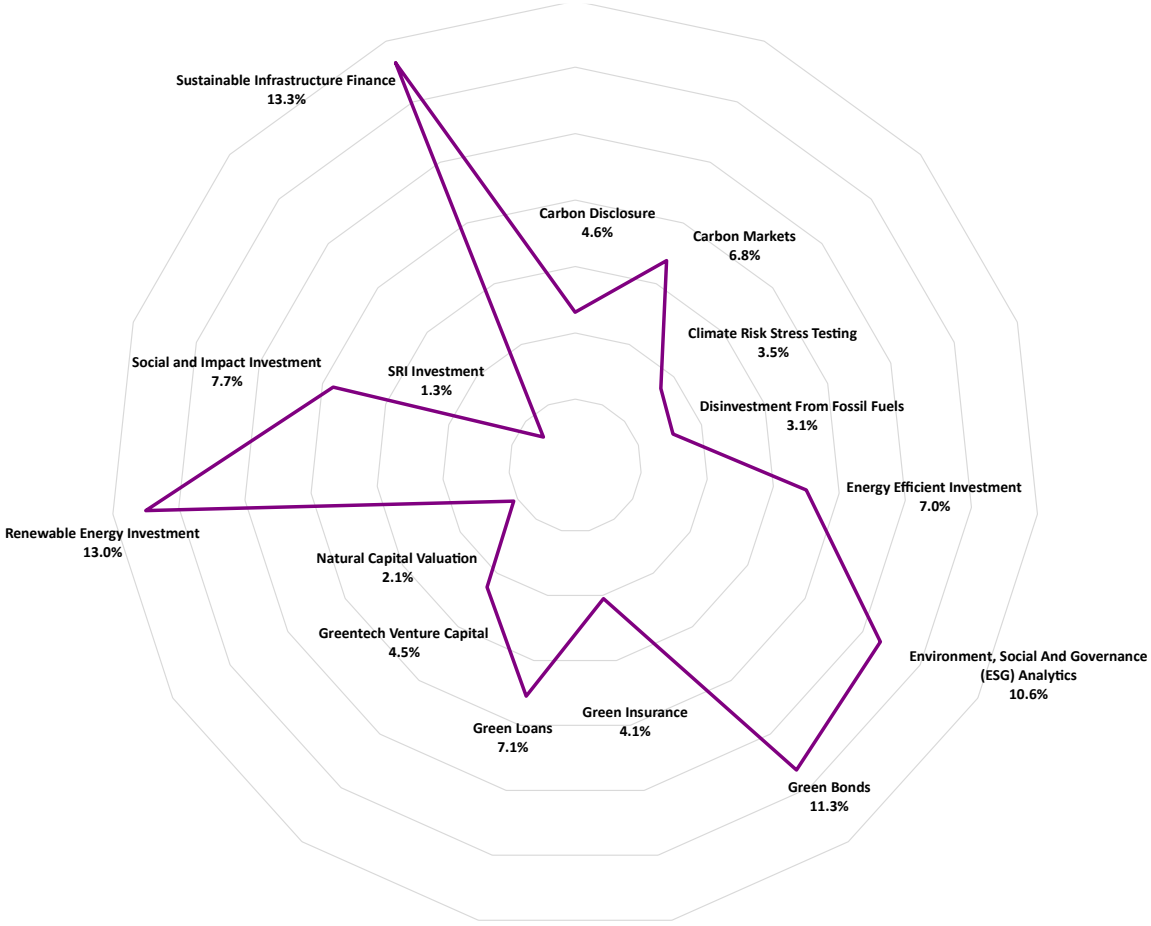
- The areas of green finance considered most interesting by respondents;
- The areas of green finance which respondents consider to have the greatest impact on sustainability; and
- Factors driving the development of green finance.

Areas Of Interest In Green Finance And Areas With The Most Impact

We asked respondents to identify the areas of green finance which they considered most interesting and separately the areas of green finance they consider have the most impact on sustainability. The results are shown in Charts 40 and 41.

With respect to interest, Sustainable Infrastructure Finance, Renewable Energy Investment, and Green Bonds are the leading issues mentioned by our respondents. The areas considered least interesting are SRI Investment and Natural Capital Valuation.

Chart 40 | Interest - Percentage Of Total Mentions



Sustainable Infrastructure Finance, Renewable Energy Investment, and Environment, Social And Governance (ESG) Analytics are rated as the areas of green finance with most impact. Again, SRI Investment and Natural Capital Valuation are ranked lowest on this measure by our respondents.

Chart 41 | Impact - Percentage Of Total Mentions

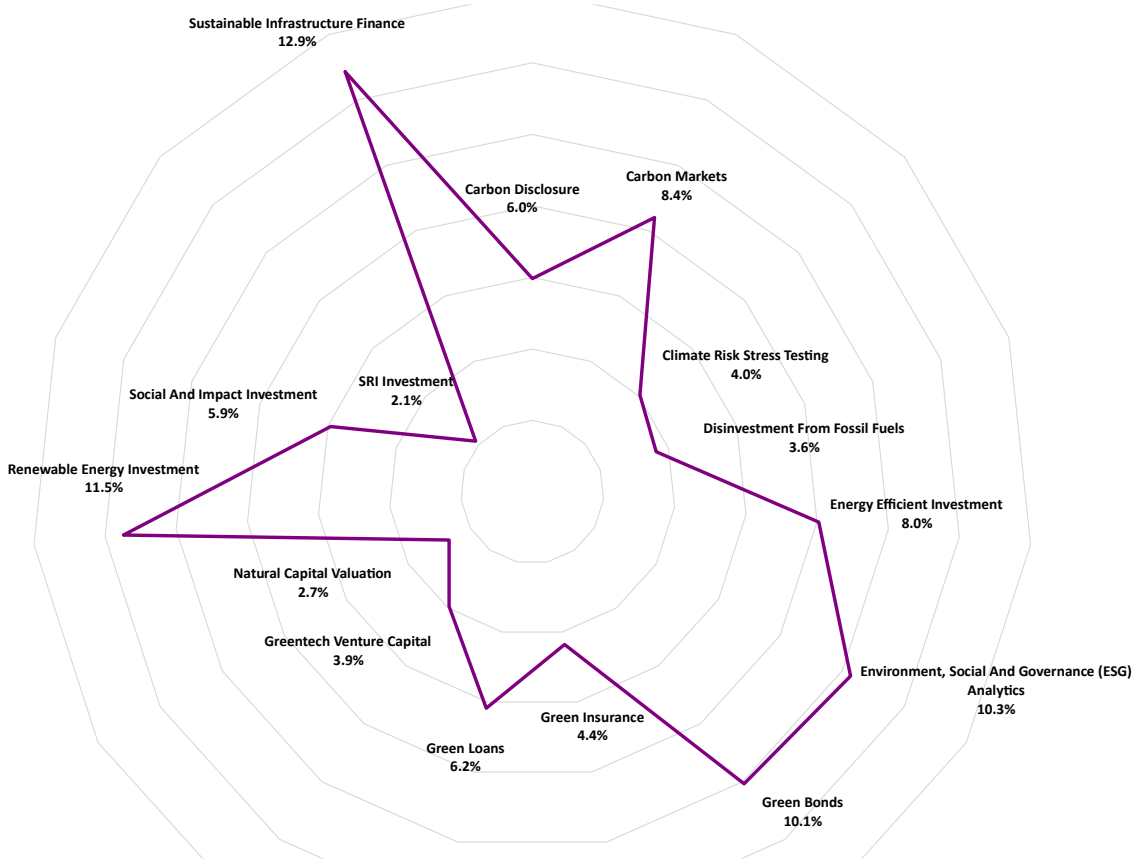
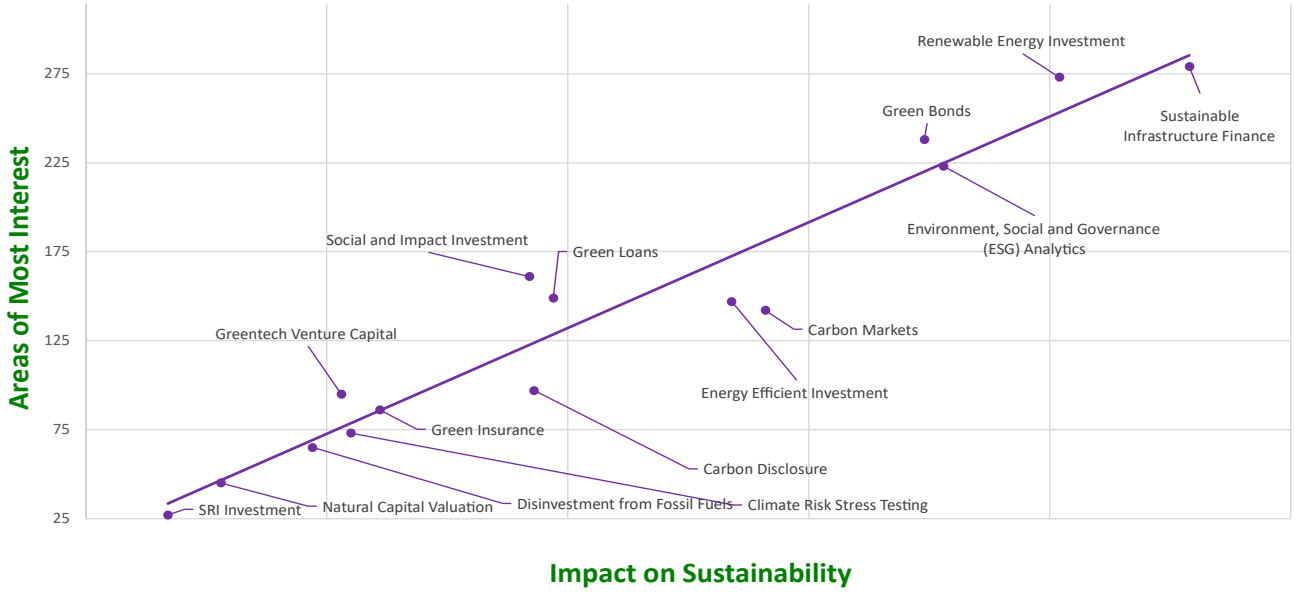
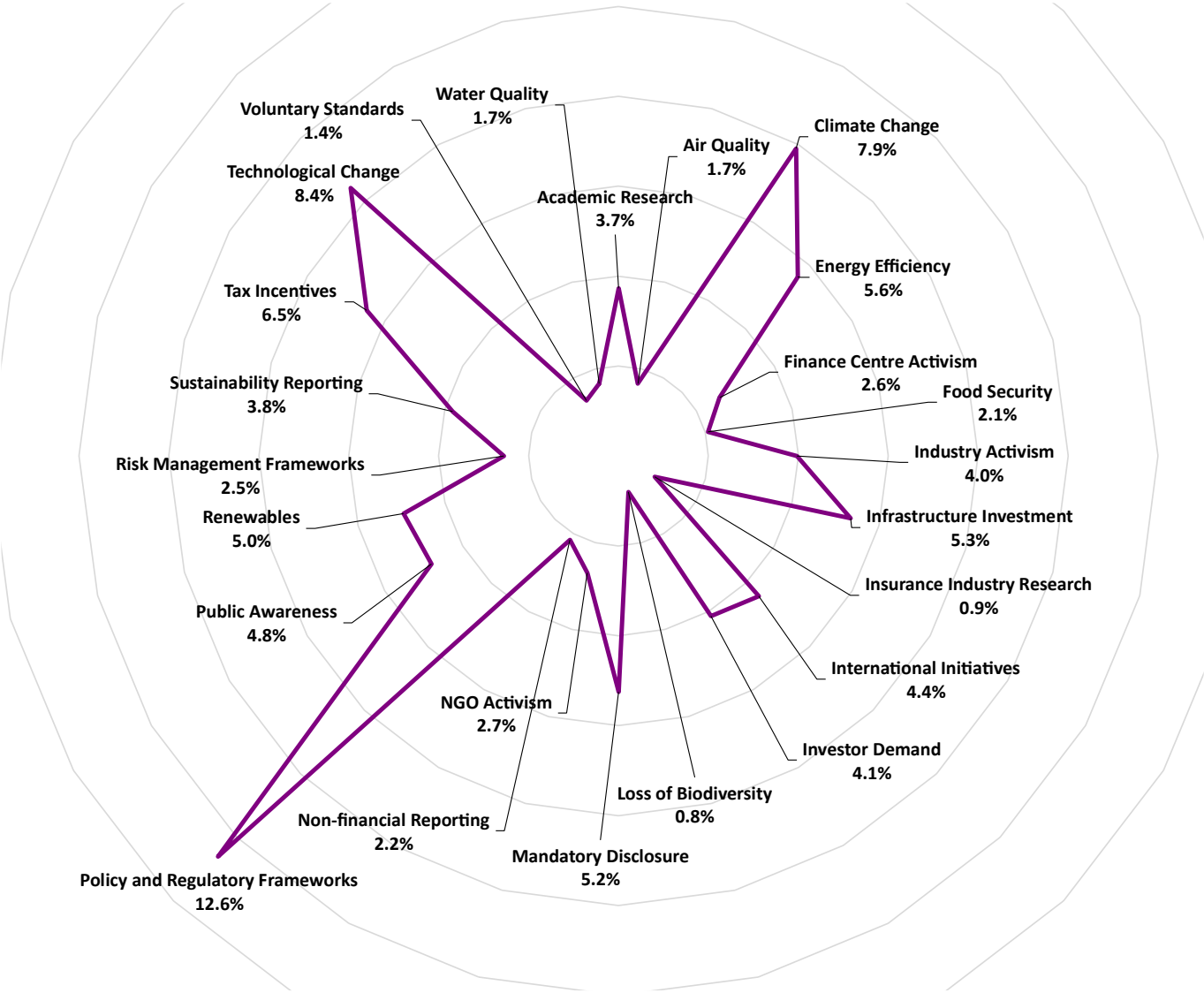


Chart 42 | The Correlation Between Interest And Impact



Policy and Regulatory Frameworks, Technological Change, Climate Change, and Tax Incentives are seen as the most important drivers of green finance. Loss of Biodiversity, Insurance Industry Research, and Voluntary Standards are mentioned least frequently. These results underline the continuing importance of regulatory frameworks in the development of green finance.

Chart 43 | Drivers - Percentage Of Total Mentions



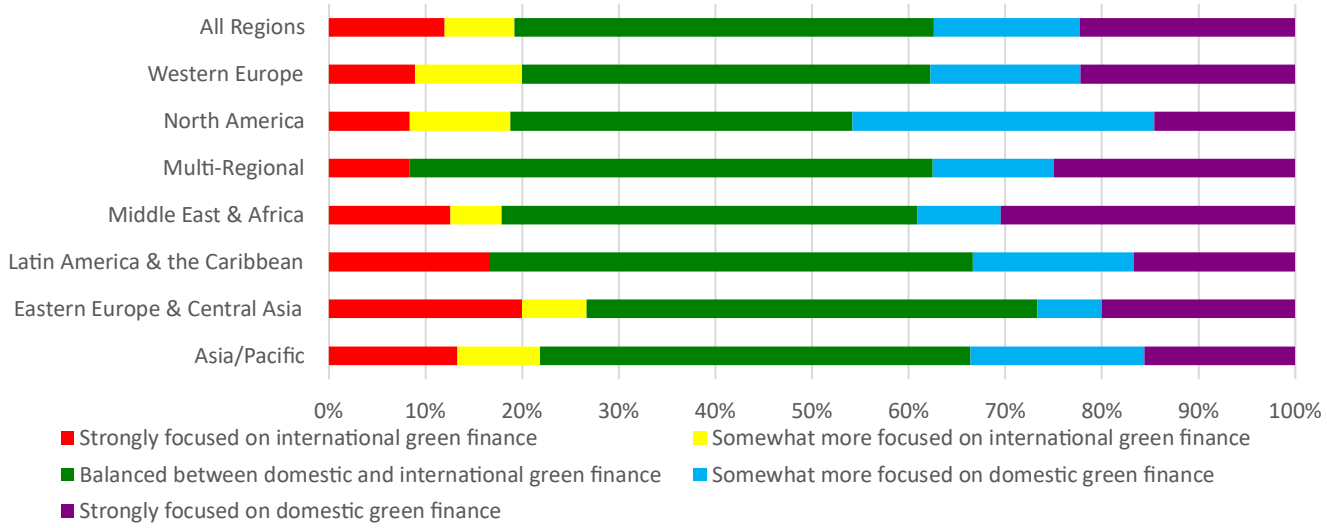
Balance Of Domestic And International Focus

One of the features of green finance is the extent to which financial activity is international or focused on the domestic economy. We asked respondents to the CCB GGFI survey for their experience in their own home centre and to assess the balance of green finance activity.

Overall, 37% of respondents judged that green finance in their centre was strongly or somewhat more focused on their domestic market, for example, raising money to deliver energy efficient housing locally. This is a reduction from the 50% that took this view in CCB GGFI 16. Just over 40% responses suggested a balance between a domestic and international focus. Only 19% said that their local centre was somewhat or strongly focused on international green finance. However, there were strong regional differences, with over 40% of respondents in North America reporting that the focus is on domestic markets. In Eastern Europe & Central Asia, less than 30% of respondents said that their focus was on domestic markets.

Respondents from the Asia/Pacific, Eastern Europe & Central Asia, and from Western Europe were most likely to say that the green finance in their centre was focused strongly or somewhat on international activity, for example, raising funds for the development of hydro-electric power in another country.

Chart 44 | Focus Of Green Finance – Domestic/International



We asked respondents to identify the reasons for the focus that they experienced in their own markets. 80% of those responding identified policy and regulatory frameworks as the main driver behind the focus in their centre, responding to government and regulatory incentives.

Appendix 1: Assessment Details

Table 18 | Details Of CCB GGFI 17 Assessments By Centre

Centre	CCB GGFI 17		Assessments		
	Rank	Rating	Number	Average	Std Dev
London	1	617	180	728	197
Singapore	2	607	130	734	180
Zurich	3	602	56	720	201
Amsterdam	4	599	63	753	189
Geneva	5	598	38	726	205
Paris	6	597	76	691	188
Luxembourg	7	596	57	691	224
Copenhagen	8	595	22	768	170
Frankfurt	9	594	63	684	192
Vienna	10	593	27	677	205
Stockholm	11	592	17	699	165
Los Angeles	12	591	42	682	207
Minneapolis / St Paul	13	590	16	729	154
Munich	14	589	27	626	216
Brussels	15	588	41	612	196
Oslo	16	587	12	723	199
Toronto	17	586	53	656	225
Tokyo	18	585	131	692	203
Montreal	19	584	26	661	192
Vancouver	20	583	27	675	171
New York	21	582	147	620	216
Madrid	22	581	30	637	201
Seoul	23	580	42	630	197
Sydney	24	579	45	681	193
Shanghai	25	578	66	645	252
Washington DC	26	577	48	643	209
Edinburgh	27	576	38	628	189
San Francisco	28	575	36	640	218
Busan	29	574	16	643	180
Osaka	30	573	27	676	196
Melbourne	31	572	24	657	217
Shenzhen	32	571	35	688	231
Glasgow	33	570	26	599	225
Milan	34	569	21	671	237
Rome	35	568	21	628	217
Dubai	36	567	136	605	236
Calgary	37	566	16	621	240
Beijing	38	565	87	645	246
Chicago	39	564	40	602	210
Taipei	40	563	63	768	206
Malta	41	562	15	647	245
Guangzhou	42	561	25	681	210
Hamburg	43	560	13	642	139
Atlanta	44	559	20	678	233
Hong Kong	45	558	113	589	206
Mauritius	46	557	54	606	234

Centre	CCB GGFI 17		Assessments		
	Rank	Rating	Number	Average	Std Dev
Lisbon	47	556	13	637	210
Berlin	48	555	45	675	217
Panama	49	554	26	581	256
Miami	50	553	18	570	202
Casablanca	51	552	27	519	210
Sao Paulo	52	551	24	536	244
Tel Aviv	53	550	18	606	237
Abu Dhabi	54	549	91	595	251
Riyadh	55	548	55	591	262
Doha	56	547	57	605	227
Warsaw	57	546	31	617	193
Kigali	58	545	67	740	210
Santiago	59	544	21	573	208
Boston	60	543	33	631	230
Rio de Janeiro	61	542	24	598	265
Johannesburg	62	541	40	565	200
Prague	63	540	20	600	203
Philadelphia	64	539	14	648	189
Monaco	65	538	21	656	212
Sofia	66	537	12	677	199
Jersey	67	536	17	603	169
Mexico City	68	535	42	594	217
Dublin	69	534	26	559	243
Cape Town	70	533	40	551	181
Astana	71	532	16	436	210
Guernsey	72	531	16	496	205
Nairobi	73	530	51	584	226
New Delhi	74	529	33	563	258
Moscow	75	528	40	650	204
Cyprus	76	527	27	540	227
Isle of Man	77	526	13	568	226
Jakarta	78	525	23	493	234
Bahamas	79	524	25	556	253
St Petersburg	80	523	23	725	228
Bangkok	81	522	47	545	226
Almaty	82	521	14	622	272
Mumbai	83	520	42	548	231
Istanbul	84	519	57	570	202
Bermuda	85	518	13	546	185
Liechtenstein	86	517	13	616	250
Bahrain	87	516	35	519	201
Kuala Lumpur	88	515	36	556	178
Cayman Islands	89	514	35	431	225
Lagos	90	513	17	468	269
Manila	91	512	15	533	259
British Virgin Islands	92	511	24	444	234

Table 19 | Details Of Ratings For The CCB GGFI Dimensions By Centre

Centre	Overall Rank	Depth Rating	Quality Rating
London	1	302	315
Singapore	2	296	311
Zurich	3	291	311
Amsterdam	4	295	304
Geneva	5	290	308
Paris	6	290	307
Luxembourg	7	290	306
Copenhagen	8	291	304
Frankfurt	9	293	301
Vienna	10	290	303
Stockholm	11	288	304
Los Angeles	12	290	301
Minneapolis / St Paul	13	289	301
Munich	14	286	303
Brussels	15	287	301
Oslo	16	284	303
Toronto	17	289	297
Tokyo	18	287	298
Montreal	19	287	297
Vancouver	20	285	298
New York	21	282	300
Madrid	22	286	295
Seoul	23	289	291
Sydney	24	280	299
Shanghai	25	283	295
Washington DC	26	281	296
Edinburgh	27	284	292
San Francisco	28	280	295
Busan	29	286	288
Osaka	30	278	295
Melbourne	31	280	292
Shenzhen	32	279	292
Glasgow	33	278	292
Milan	34	281	288
Rome	35	277	291
Dubai	36	278	289
Calgary	37	282	284
Beijing	38	276	289
Chicago	39	278	286
Taipei	40	274	289
Malta	41	270	292
Guangzhou	42	275	286
Hamburg	43	273	287
Atlanta	44	269	290
Hong Kong	45	276	282
Mauritius	46	269	288
Lisbon	47	273	283
Berlin	48	270	285
Panama	49	271	283
Miami	50	271	282
Casablanca	51	270	282
Sao Paulo	52	268	283
Tel Aviv	53	265	285
Abu Dhabi	54	262	287
Riyadh	55	267	281
Doha	56	266	281
Warsaw	57	264	282
Kigali	58	264	281
Santiago	59	262	282
Boston	60	267	276
Rio de Janeiro	61	262	280
Johannesburg	62	264	277
Prague	63	261	279
Philadelphia	64	264	275
Monaco	65	259	279
Sofia	66	261	276
Jersey	67	261	275
Mexico City	68	265	270
Dublin	69	262	272
Cape Town	70	254	279
Astana	71	263	269
Guernsey	72	251	280
Nairobi	73	256	274
New Delhi	74	255	274
Moscow	75	258	270
Cyprus	76	260	267
Isle of Man	77	252	274
Jakarta	78	258	267
Bahamas	79	254	270
St Petersburg	80	255	268
Bangkok	81	252	270
Almaty	82	262	259
Mumbai	83	257	263
Istanbul	84	257	262
Bermuda	85	249	269
Liechtenstein	86	248	269
Bahrain	87	250	266
Kuala Lumpur	88	250	265
Cayman Islands	89	248	266
Lagos	90	253	260
Manila	91	250	262
British Virgin Islands	92	250	261

Appendix 2: Interest, Impact, And Drivers Details

Table 20 | Areas Of Green Finance With The Greatest Impact

Area Of Green Finance	Number Of Mentions	Percentage Of Total
Sustainable Infrastructure Finance	254	12.9%
Renewable Energy Investment	227	11.5%
Environment, Social And Governance (ESG) Analytics	203	10.3%
Green Bonds	199	10.1%
Carbon Markets	166	8.4%
Energy Efficient Investment	159	8.0%
Green Loans	122	6.2%
Carbon Disclosure	118	6.0%
Social And Impact Investment	117	5.9%
Green Insurance	86	4.4%
Climate Risk Stress Testing	80	4.0%
Greentech Venture Capital	78	3.9%
Disinvestment From Fossil Fuels	72	3.6%
Natural Capital Valuation	53	2.7%
SRI Investment	42	2.1%
Totals	**1,976**	**100.0%**

Table 21 | Areas Of Green Finance Of Most Interest To Respondents

Area Of Green Finance	Number Of Mentions	Percentage Of Total
Sustainable Infrastructure Finance	279	13.3%
Renewable Energy Investment	273	13.0%
Green Bonds	238	11.3%
Environment, Social And Governance (ESG) Analytics	223	10.6%
Social and Impact Investment	161	7.7%
Green Loans	149	7.1%
Energy Efficient Investment	147	7.0%
Carbon Markets	142	6.8%
Carbon Disclosure	97	4.6%
Greentech Venture Capital	95	4.5%
Green Insurance	86	4.1%
Climate Risk Stress Testing	73	3.5%
Disinvestment From Fossil Fuels	65	3.1%
Natural Capital Valuation	45	2.1%
SRI Investment	27	1.3%
Totals	**2,100**	**100.0%**

Table 22 | Drivers Of Green Finance

Driver	Number of Mentions	Percentage Of Total
Policy and Regulatory Frameworks	257	12.6%
Technological Change	172	8.4%
Climate Change	161	7.9%
Tax Incentives	132	6.5%
Energy Efficiency	115	5.6%
Infrastructure Investment	109	5.3%
Mandatory Disclosure	107	5.2%
Renewables	101	5.0%
Public Awareness	98	4.8%
International Initiatives	90	4.4%
Investor Demand	84	4.1%
Industry Activism	81	4.0%
Sustainability Reporting	78	3.8%
Academic Research	76	3.7%
NGO Activism	55	2.7%
Finance Centre Activism	53	2.6%
Risk Management Frameworks	52	2.5%
Non-financial Reporting	44	2.2%
Food Security	42	2.1%
Water Quality	34	1.7%
Air Quality	34	1.7%
Voluntary Standards	29	1.4%
Insurance Industry Research	19	0.9%
Loss of Biodiversity	17	0.8%
Totals	**2,040**	**100.0%**

Appendix 3: Respondents' Details

Table 23 | Respondents By Industry Sector

Industry Sector	Number Of Respondents	Percentage Of Respondents
Banking	154	28.47%
Debt Capital Market	19	3.51%
Equity Capital Markets	10	1.85%
Insurance	24	4.44%
Investment	54	9.98%
Knowledge	57	10.54%
Local Green Initiatives	32	5.91%
Policy and Public Finance	54	9.98%
Professional Services	92	17.01%
Trading	29	5.36%
Other	16	2.96%
Total	**541**	**100.00%**

Table 24 | Respondents By Engagement In Green Finance

Engagement In Green Finance	Number Of Respondents	Percentage Of Respondents
Working Full-time On Green Finance	117	21.63%
Working Part-time On Green Finance	98	18.11%
Interested in Green Finance	278	51.39%
Other/not given	48	8.87%
Total	**541**	**100.00%**

Table 25 | Respondents By Region

Region	Number Of Respondents	Percentage Of Respondents
Asia/Pacific	165	30.50%
Western Europe	90	16.64%
Eastern Europe & Central Asia	24	4.44%
North America	57	10.54%
Middle East & Africa	160	29.57%
Latin America & The Caribbean	14	2.59%
Multi-Regional	31	5.73%
Total	**541**	**100.00%**

Table 26 | Respondents By Size Of Organisation

Size Of Organisation	Number Of Respondents	Percentage Of Respondents
<100	164	30.31%
100-500	70	12.94%
500-1000	28	5.18%
1000-2000	27	4.99%
2000-5000	32	5.91%
>5000	169	31.24%
Other/not given	51	9.43%
Total	**541**	**100.00%**

Table 27 | Respondents By Gender

Gender	Number Of Respondents	Percentage Of Respondents
Female	127	23.48%
Male	375	69.32%
Other	3	0.55%
Prefer Not To Say/Not Given	36	6.65%
Total	**541**	**100.00%**

Table 28 | Respondents By Age

Age Band	Number Of Respondents	Percentage Of Respondents
18-30	77	14.23%
30-45	218	40.30%
45-60	158	29.21%
60+	48	8.87%
Other/not given	40	7.39%
Total	**541**	**100.00%**

Appendix 4: Methodology

The CCB GGFI provides ratings of the green finance offering of financial centres. The process involves taking two sets of ratings – one from survey respondents and one generated by a statistical model – and combining them into a single rating.

For the first set of ratings, the financial centre assessments, respondents use an online questionnaire to rate the depth and quality of each financial centre's green finance offering, using a 10 point scale ranging from little depth/very poor to mainstream/excellent. Responses are sought from a range of individuals drawn from the financial services sector, non-governmental organisations, regulators, universities, and trade bodies.

For the second set of ratings, we use a database of indicators, or Instrumental Factors, that contain quantitative data about each financial centre. We use a machine learning algorithm to investigate the correlation between the financial centre assessments and these Instrumental Factors, to predict how each respondent would have rated the financial centres they do not know. These 132 Instrumental Factors draw on data from a range of different sources covering sustainability, business, human capital, and infrastructure, including telecommunications and public transport. A full list of the Instrumental Factors used in the model is in Appendix 5.

The respondents' actual ratings as well as their predicted ratings for the centres they did not rate, are then combined into a single table to produce the ranking. We add the results for depth and quality to produce the CCB GGFI.

Factors Affecting The Inclusion Of Centres In The CCB GGFI

The questionnaire lists a total of 130 financial centres which can be rated by respondents. The questionnaire also asks whether there are financial centres that will improve their green finance offering significantly over the next two to three years. Centres which are not currently within the questionnaire and which receive a number of mentions in response to this question will be added to the questionnaire for future editions.

We give a financial centre a CCB GGFI rating and ranking if it receives a statistically significant minimum number of assessments from individuals based in other geographical locations - at least 25 in CCB GGFI 17. This means that not all 130 centres in the questionnaire receive a ranking.

We also remove centres from the rankings, if over a 24 month period, a centre has not received a minimum number of assessments.

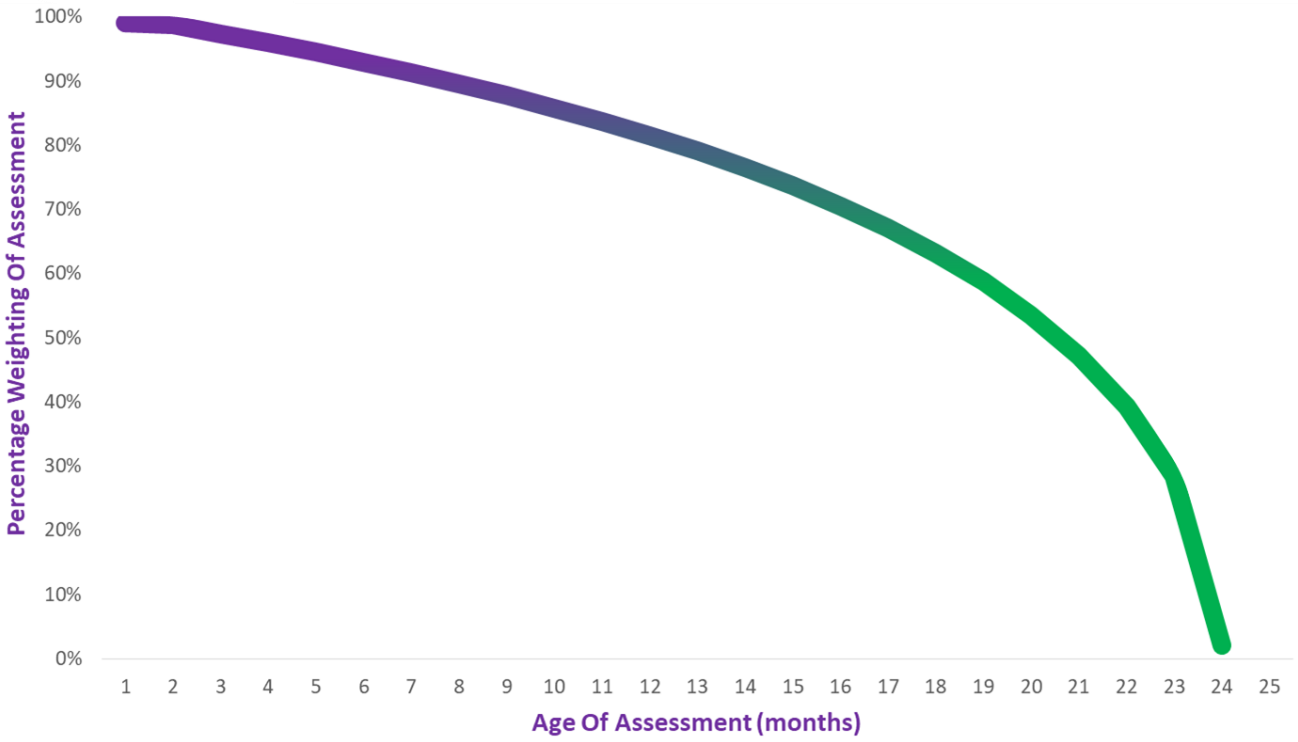
Financial Centre Assessments

Financial centre assessments are collected via an online questionnaire which runs continuously and which is at greenfinanceindex.net/survey/. A link to this questionnaire is emailed to a target list of respondents at regular intervals. Other interested parties can complete the questionnaire by following the link given in CCB GGFI publications.

In calculating the CCB GGFI:

- the score given by a respondent to their home centre, and scores from respondents who do not specify a home centre, are excluded from the model – this is designed to prevent home bias;
- financial centre assessments are included in the CCB GGFI model for 24 months after they have been received – we consider that this is a period during which assessments maintain their validity; and
- financial centre assessments from the month when the CCB GGFI is created will be given full weighting with earlier responses given a reduced weighting on a logarithmic scale as shown in Chart 45 - this recognises that older ratings, while still valid, are less likely to be up-to-date.

Chart 45 | Reduction In Weighting As Assessments Get Older



Instrumental Factor Data

For the instrumental factors, we have the following data requirements:

- data series should come from a reputable body and be derived by a sound methodology; and
- data series should be readily available (ideally in the public domain) and be regularly updated.

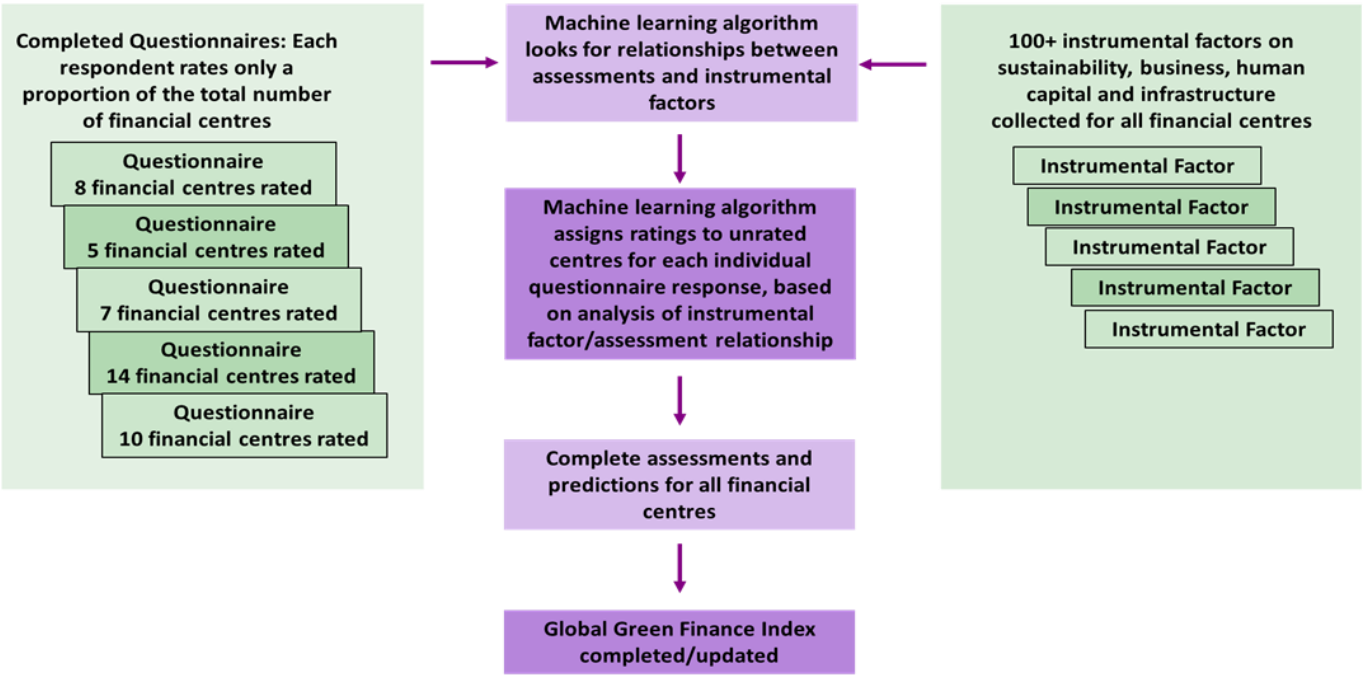
The rules on the use of instrumental factor data in the model are as follows:

- updates to the indices are collected and collated every six months;
- no weightings are applied to indices;
- indices are entered into the CCB GGFI model as directly as possible, whether this is a rank, a derived score, a value, a distribution around a mean or a distribution around a benchmark;
- if a factor is at a national level, the score will be used for all centres in that country; nation-based factors will be avoided if financial centre (city)-based factors are available;
- if an index has multiple values for a city or nation, the most relevant value is used;
- if an index is at a regional level, the most relevant allocation of scores to each centre is made (and the method for judging relevance is noted); and
- if an index does not contain a value for a particular financial centre, a blank is entered against that centre (no average or mean is used).

The details of the methodology can be accessed at https://www.longfinance.net/programmes/financial-centre-futures/global-green-finance-index/ggfi-methodology/.

The process of creating the CCB GGFI is outlined in Chart 46.

Chart 46 | The CCB GGFI Process



Appendix 5: Instrumental Factors

Table 29 | Sustainability Instrumental Factor Correlation With CCB GGFI Ratings

Instrumental Factors	R-squared
Urban Mobility Readiness Index	0.673
Quality Of Living City Rankings	0.581
IESE Cities In Motion Index	0.580
The Future Growth Report	0.546
Sustainable Cities Index	0.536
Sustainable Economic Development	0.515
The Green Future Index	0.505
Energy Transition Index	0.474
The Global Green Economy Index	0.442
Environmental Performance Index	0.431
Global Green Growth Index	0.431
Energy Sustainability Index	0.427
Global Sustainable Competitiveness Index	0.316
Climate Finance Vulnerability Index	0.292
Quality Of Life Index	0.225
Share Of Wind And Solar In Electricity Production	0.188
Pollution Index	0.186
Stock Exchanges With A Green Bond Segment (Y/N)	0.152
Share Of Renewables In Electricity Production	0.110
City Commitment To Carbon Reduction (Individual Action)	0.093
Sovereign Green Bond (Y/N)	0.082
Proportion Of Population Using Safely-Managed Drinking-Water Services (%)	0.078
Energy Intensity Of GDP	0.060
Protected Land Area % Of Land Area	0.035
Buildings Energy Efficiency Policies Database (Y/N)	0.035
Forestry Area	0.024
Territorial Per Capita (tCO_2/person)	0.011
City Commitment To Carbon Reduction (Cooperative Action)	0.002
Average Precipitation In Depth (mm Per Year)	0.001
Sustainable Stock Exchanges (Y/N)	0.000

Table 30 | All Instrumental Factor Correlation With CCB GGFI Ratings - Highest 30 Factors

Instrumental Factors	R-squared
Safe Cities Index	0.679
Urban Mobility Readiness Index	0.673
Global Cities Outlook Ranking	0.595
Quality Of Living City Rankings	0.581
IESE Cities In Motion Index	0.580
Legatum Prosperity Index	0.572
The Future Growth Report	0.546
Sustainable Cities Index	0.536
Blavatnik Index of Public Administration	0.529
Sustainable Economic Development	0.515
Global Innovation Index	0.514
International IP Index	0.514
The Green Future Index	0.505
Logistics Performance Index	0.477
Energy Transition Index	0.474
Adjusted Net National Income Per Capita	0.469
The Global Green Economy Index	0.442
Agility Emerging Markets Logistics Index	0.438
The Global Financial Centres Index	0.438
Environmental Performance Index	0.431
Global Green Growth Index	0.431
Cost Of Living City Rankings	0.428
Energy Sustainability Index	0.427
Government Effectiveness	0.425
World Talent Rankings	0.416
Regulatory Quality	0.393
Innovation Cities Global Index	0.388
Travel & Tourism Development Index	0.385
Open Government	0.382
OECD Country Risk Classification	0.372

Table 31 | Sustainability Factors

Instrumental Factor	Source	Website	Updated
Average Precipitation In Depth (mm Per Year)	World Bank	http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators&series=AG.LND.PRCP.MM	N
Buildings Energy Efficiency Policies Database (Y/N)	IEA	https://www.iea.org/policies	Y
City Commitment To Carbon Reduction (Cooperative Action)	UNFCCC	https://climateaction.unfccc.int/Actors	N
City Commitment To Carbon Reduction (Individual Action)	UNFCCC	https://climateaction.unfccc.int/Actors	N
Territorial Per Capita (tCO_2/person)	Global Carbon Project	https://globalcarbonatlas.org/emissions/carbon-emissions/	Y
Energy Intensity Of GDP	Enerdata Statistical Yearbook	https://yearbook.enerdata.net/	Y
Energy Transition Index	World Economic Forum	https://www.weforum.org/publications/series/fostering-effective-energy-transition/	N
Environmental Performance Index	Yale University	https://epi.yale.edu/	N
Forestry Area	World Bank	http://databank.worldbank.org/data/reports.aspx?source=2&series=AG.LND.FRST.ZS&country=	Y
Global Green Growth Index	GGGI	https://ggindex-simtool.gggi.org/	Y
Global Sustainable Competitiveness Index	Solability	https://solability.com/the-global-sustainable-competitiveness-index	Y
IESE Cities In Motion Index	IESE	http://citiesinmotion.iese.edu/indicecim/?lang=en	N
Pollution Index	Numbeo	https://www.numbeo.com/pollution/rankings.jsp	Y
Proportion Of Population Using Safely-Managed Drinking-Water Services (%)	WHO	https://www.sdg6data.org/en/indicator/6.1.1	Y
Protected Land Area % Of Land Area	World Bank	http://databank.worldbank.org/data/reports.aspx?source=2&series=ER.LND.PTLD.ZS&country=	Y
Quality Of Life Index	Numbeo	http://www.numbeo.com/quality-of-life/rankings.jsp	Y
Quality Of Living City Rankings	Mercer	https://mobilityexchange.mercer.com/Insights/quality-of-living-rankings	N
Share Of Renewables In Electricity Production	Enerdata Statistical Yearbook	https://yearbook.enerdata.net/	Y
Share Of Wind And Solar In Electricity Production	Enerdata Statistical Yearbook	https://yearbook.enerdata.net/	Y
Sovereign Green Bond (Y/N)	Climate Bonds	https://www.climatebonds.net/2021/11/cop26-briefing-sovereign-green-bond-issuance-takes-start-long-boom	N
Stock Exchanges With A Green Bond Segment (Y/N)	CBI	https://www.climatebonds.net/green-bond-segments-stock-exchanges	N
Sustainable Cities Index	Arcadis	https://www.arcadis.com/en/global/our-perspectives/sustainable-cities-index-2018/citizen-centric-cities/	N
Sustainable Economic Development	Boston Consulting Group	https://www.bcg.com/en-gb/publications/2021/prioritizing-societal-well-being-seda-report	N
Sustainable Stock Exchanges (Y/N)	UN Sustainable Stock Exchange Initiative	https://sseinitiative.org/exchanges-filter-search/	Y
Energy Sustainability Index	World Energy Council	https://trilemma.worldenergy.org/	N
Urban Mobility Readiness Index	Oliver Wyman	https://www.oliverwymanforum.com/mobility/urban-mobility-readiness-index/ranking.html	N
The Green Future Index	MIT Technology Review	https://www.technologyreview.com/2023/04/05/1070581/the-green-future-index-2023/	N
The Global Green Economy Index	Dual Citizen	https://dualcitizeninc.com/global-green-economy-index/	N
The Future Growth Report	WEF	https://www.weforum.org/publications/the-future-of-growth-report/	N
Climate Finance Vulnerability Index	Center on Global Energy Policy	https://clifvi.org/	N

Table 32 | Human Capital Factors

Instrumental Factor	Source	Website	Updated
Average Wages	OECD	https://data.oecd.org/earnwage/average-wages.htm	N
Adjusted Net National Income Per Capita	World Bank	https://data.worldbank.org/indicator/NY.ADJ.NNTY.PC.CD	N
Corruption Perception Index	Transparency International	https://www.transparency.org/en/cpi/2024	N
Cost Of Living City Rankings	Mercer	https://www.mercer.com/insights/total-rewards/talent-mobility-insights/cost-of-living/	N
Crime Index	Numbeo	http://www.numbeo.com/crime/rankings.jsp#	Y
Educational Attainment, At Least Bachelor's Or Equivalent, Population 25+, Total (%)	World Bank	https://data.worldbank.org/indicator/SE.TER.CUAT.BA.ZS	Y
Working hours	International Labour Organization	https://ilostat.ilo.org/topics/working-time/	Y
English proficiency	Education First	https://www.ef.com/wwen/epi/	Y
GDP Per Person Employed (Constant 2017 PPP $)	World Bank	https://databank.worldbank.org/reports.aspx?source=world-development-indicators&series=SL.GDP.PCAP.EM.KD	Y
Global Cities Index	AT Kearney	https://www.kearney.com/service/national-transformations-institute/gcr/2025-full-report	Y
Global Health Security Index	Nuclear Threat Initiative, Johns Hopkins Center for Health Security, and Economist Impact	https://www.ghsindex.org/	N
Global Innovation Index	WIPO	https://www.wipo.int/gii-ranking/en/rank	Y
Global Peace Index	Institute for Economics & Peace	https://www.visionofhumanity.org/maps/#/	N
Global Skills Index	Coursera	https://www.coursera.org/skills-reports/global	N
Global Terrorism Index	Institute for Economics & Peace	https://www.visionofhumanity.org/maps/global-terrorism-index/#/	Y
Good Country Index	Good Country Party	https://index.goodcountry.org/	N
Government Effectiveness	World Bank	https://www.worldbank.org/en/publication/worldwide-governance-indicators	Y
Gross Tertiary Graduation Ratio	The World Bank Gender Data Portal	https://genderdata.worldbank.org/en/indicator/se-ter-cmpl-zs	Y
Health Care Index	Numbeo	http://www.numbeo.com/health-care/rankings.jsp	Y
Henley Passport Index	Henley Partners	https://www.henleypassportindex.com/passport	Y
Homicide Rates	UNODC	https://dataunodc.un.org/dp-intentional-homicide-victims	N
Household Net Financial Wealth	OECD	https://stats.oecd.org/Index.aspx?DataSetCode=BLI	N
Human Development Index	UNDP	https://hdr.undp.org/content/human-development-report-2025	Y
Human Freedom Index	Cato Institute	https://www.cato.org/human-freedom-index/2025	Y
Individual Income Tax Rates	PWC	https://taxsummaries.pwc.com/quick-charts/personal-income-tax-pit-rates	Y
Innovation Cities Global Index	2ThinkNow Innovation Cities	https://innovation-cities.com/world-city-rankings/	N
International IP Index	U.S. Chamber of Commerce	https://www.uschamber.com/intellectual-property/2025-ip-index	N
Legatum Prosperity Index	Legatum Institute	https://index.prosperity.com/	N
Life expectancy at birth, total	World Bank	https://data.worldbank.org/indicator/SP.DYN.LE00.IN	Y
Number Of High Net Worth Individuals	Capgemini	https://www.worldwealthreport.com/	N
Number of Meetings	ICCA	https://iccaworld.aflip.in/652217d068.html	N
OECD Country Risk Classification	OECD	https://www.oecd.org/content/dam/oecd/en/topics/policy-sub-issues/country-risk-classification/cre-crc-current-english.pdf	Y
Open Government	World Justice Project	http://worldjusticeproject.org/rule-of-law-index	Y
Patent Applications, Residents	World Bank	https://data.worldbank.org/indicator/IP.PAT.RESD?end=2020&start=1980	Y
People Near Services	ITDP	https://pedestriansfirst.itdp.org/	N
Taxes on Earnings and Gains (% Of GDP)	OECD	https://www.oecd.org/en/publications/revenue-statistics-2025_3a264267-en.html	Y
Political Stability And Absence Of Violence/Terrorism	World Bank	https://www.worldbank.org/en/publication/worldwide-governance-indicators	Y

Table 32 | (Continued) Human Capital Factors

Instrumental Factor	Source	Website	Updated
Press Freedom Index	Reporters Without Borders (RSF)	https://rsf.org/en/index?year=2025	N
Prime International Residential Index	Knight Frank	https://www.knightfrank.com/wealthreport	N
Proportion Of Seats Held By Women In National Parliament	World Bank	https://data.worldbank.org/indicator/SG.GEN.PARL.ZS	Y
Purchasing Power Index	Numbeo	https://www.numbeo.com/quality-of-life/rankings.jsp	Y
Ratio of Female To Male Labor Force Participation Rate	World Bank	https://data.worldbank.org/indicator/SL.TLF.CACT.FM.ZS	Y
Regulatory Quality	World Bank	https://www.worldbank.org/en/publication/worldwide-governance-indicators	Y
Tax Revenue As Percentage Of GDP	World Bank	https://databank.worldbank.org/reports.aspx?source=2&series=GC.TAX.TOTL.GD.ZS&country=#	Y
Travel & Tourism Development Index	World Economic Forum	https://www.weforum.org/publications/series/travel-tourism-development-index/	N
World Talent Rankings	IMD	https://www.imd.org/centers/wcc/world-competitiveness-center/rankings/world-talent-ranking/	Y
Forbes Billionaires	Forbes	https://www.forbes.com/billionaires/	New
Urban Proportion (%)	United Nations	https://desapublications.un.org/publications/world-urbanization-prospects-2025-summary-results	New

Table 33 | Business Factors

Instrumental Factor	Source	Website	Updated
Broad Stock Index Levels	The World Federation of Stock Exchanges	https://focus.world-exchanges.org/issue/february-2026/market-statistics	Y
Capitalisation Of Stock Exchanges	The World Federation of Stock Exchanges	https://focus.world-exchanges.org/issue/february-2026/market-statistics	Y
Common Law Countries	CIA	https://www.cia.gov/the-world-factbook/field/legal-system/	N
Corporate Tax Rates	PWC	https://taxsummaries.pwc.com/quick-charts/corporate-income-tax-cit-rates	Y
Country Brand Ranking	Bloom Consulting	https://www.bloom-consulting.com/en/country-brand-ranking	N
Democracy Index	The Economist	https://www.eiu.com/n/global-themes/democracy-index/	N
Domestic Credit To Private Sector (% Of GDP)	World Bank	https://data.worldbank.org/indicator/FS.AST.PRVT.GD.ZS	Y
Economic Freedom	The Heritage Foundation	https://www.heritage.org/index/ranking	N
External Positions Of Central Banks As A Share Of GDP	The Bank for International Settlements	https://data.bis.org/topics/LBS/tables-and-dashboards/BIS,LBS_A2,1.0	Y
FATF AML Effectiveness	FATF	http://www.fatf-gafi.org/publications/mutualevaluations/documents/assessment-ratings.html	Y
FDI Inward Stock (In Million Dollars)	UNCTAD	https://unctad.org/publication/world-investment-report-2024	Y
Financial Secrecy Index	Tax Justice Network	http://www.financialsecrecyindex.com/	N
Foreign Direct Investment Inflows	UNCTAD	https://unctadstat.unctad.org/datacentre/dataviewer/US.FdiFlowsStock	Y
GINI Index	World Bank	https://data.worldbank.org/indicator/SI.POV.GINI	Y
Global Business Complexity Index	TMF Group	https://www.tmf-group.com/en/news-insights/publications/global-business-complexity/	N
Global Connectedness Index	DHL	https://www.dhl.com/global-en/microsites/core/global-connectedness/report.html	N
Global Services Location	AT Kearney	https://www.kearney.com/service/digital/gsli	N
Government Debt As % Of GDP	IMF	https://www.imf.org/external/datamapper/GGXWDG_NGDP@WEO/OEMDC/ADVEC/WEOWORLD	Y
Jurisdictions Participating In The Convention On Mutual Administrative Assistance In Tax Matters	OECD	https://www.oecd.org/ctp/exchange-of-tax-information/Status_of_convention.pdf	Y
Level of Internet Freedom	Freedom House	https://freedomhouse.org/country/scores?type=fotn	Y
Net External Positions Of Banks	The Bank for International Settlements	https://data.bis.org/topics/LBS/tables-and-dashboards/BIS,LBS_A3,1.0	Y
Number Of Tax Treaties	ICTD	https://www.treaties.tax/en/data/	N

Table 33 | (Continued) Business Factors

Instrumental Factor	Source	Website	Updated
Open Budget Survey	International Budget Partnership	https://internationalbudget.org/open-budget-survey/rankings	N
Percentage Of Firms Using Banks To Finance Investment	World Bank	http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators&series=IC.FRM.BNKS.ZS	Y
Real Interest Rate	World Bank	https://databank.worldbank.org/reports.aspx?source=world-development-indicators&series=FR.INR.RINR	Y
Safe Cities Index	The Economist	https://impact.economist.com/projects/safe-cities/	N
The Global Financial Centres Index	Z/Yen	https://www.longfinance.net/programmes/financial-centre-futures/global-financial-centres-index/	Y
The Global Fintech Index	Findexable	https://findexable.com/	N
Total Net Assets Of Regulated Open-End Funds	Investment Company Institute	http://www.icifactbook.org/	N
TRACE Bribery Risk Matrix	Trace International	https://matrixbrowser.traceinternational.org/	N
Value Of Bond Trading	The World Federation of Stock Exchanges	https://statistics.world-exchanges.org/ReportGenerator/Generator#	Y
Value Of Share Trading	The World Federation of Stock Exchanges	https://focus.world-exchanges.org/issue/february-2026/market-statistics	Y
Volume Of Share Trading	The World Federation of Stock Exchanges	https://statistics.world-exchanges.org/ReportGenerator/Generator#	Y
World Competitiveness Scoreboard	IMD	https://www.imd.org/centers/wcc/world-competitiveness-center/rankings/world-competitiveness-ranking/rankings/wcr-rankings/#_tab_List	N
Blavatnik Index Of Public Administration	University of Oxford	https://index.bsg.ox.ac.uk/posts/overall_results/	N
Liner Shipping Connectivity Index	World Bank	http://databank.worldbank.org/data/reports.aspx?source=2&series=IS.SHP.GCNW.XQ	Y
Global Cities Outlook Ranking	Kearney	https://www.kearney.com/service/national-transformations-institute/gcr/2025-full-report	Y
World's Best Cities	Best Cities	https://www.worldsbestcities.com/rankings/worlds-best-cities/	New
Business Entry	World Bank	https://www.worldbank.org/en/businessready	New
Business Location	World Bank	https://www.worldbank.org/en/businessready	New
Financial Services	World Bank	https://www.worldbank.org/en/businessready	New

Table 34 | Infrastructure Factors

Instrumental Factor	Source	Website	Updated
Agility Emerging Markets Logistics Index	Agility	https://emli.agility.com/overall-rankings/	N
INRIX Traffic Scorecard	INRIX	http://inrix.com/scorecard/	Y
International Construction Cost Index	Arcadis	https://www.arcadis.com/en/knowledge-hub/perspectives/global/international-construction-costs	N
JLL Real Estate Transparency Index	Jones Lang LaSalle	https://www.jll.co.uk/en/trends-and-insights/research/global-real-estate-transparency-index	N
Logistics Performance Index	World Bank	http://lpi.worldbank.org/international/global	N
Metro Network Length	Metro Bits	https://mic-ro.com/metro/table.html	Y
Railways Per Land Area	CIA	https://www.cia.gov/the-world-factbook/field/railways/	N
Refined Oil Products Production	Enerdata Statistical Yearbook	https://yearbook.enerdata.net/	Y
Roadways Per Land Area	CIA	https://www.cia.gov/the-world-factbook/about/archives/2024/field/roadways/country-comparison/	N
Smart City Index	IMD	https://www.imd.org/smart-city-observatory/smart-city-index/	N
Telecommunication Infrastructure Index	UN	https://publicadministration.un.org/egovkb/en-us/Data-Center	N
TomTom Traffic Index	TomTom	https://www.tomtom.com/en_gb/traffic-index/ranking/	N
International Trade	World Bank	https://www.worldbank.org/en/businessready	New

Vantage Financial Centres

Vantage Financial Centres is an exclusive network of financial centres around the world looking for a deeper understanding of financial centre competitiveness. Members receive enhanced access to CCB GGFI and GFCI data, marketing opportunities, and training for centres seeking to enhance their profile and reputation.

Scottish Financial Enterprise

Scottish Financial Enterprise (SFE) is the representative body for Scotland's financial services industry.

Our member companies range in size from global organisations headquartered in Scotland, to international companies with substantial operations in Scotland through to small, locally-based fintechs and support companies drawn from all areas of financial and related professional services.

SFE's vision is to promote a stronger, more inclusive and sustainable financial and related professional services industry that can play its part in solving the big challenges of our time, both locally and globally.

https://www.sfe.org.uk/

HK FINANCIAL SERVICES DEVELOPMENT COUNCIL 香港金融發展局

Supported by the industry, the Financial Services Development Council (FSDC) is a high-level, cross-sectoral advisory body to the Hong Kong Special Administrative Region Government.

FSDC formulates proposals to promote the further development of Hong Kong's financial services industry and to map out the strategic direction for the development. As of March 2020, 110 of the 137 policy recommendations had been adopted by the Government and relevant regulators since FSDC's inception in 2013. On top of research, FSDC also carries out market promotion and human capital development functions.

Among others, FSDC focuses on topics including Mainland and international connectivity, green and sustainable finance, FinTech, as well as asset and wealth management.

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CHINA DEVELOPMENT INSTITUTE CDI

Approved by the China's State Council, China Development Institute (CDI) was founded in 1989 with 116 representatives from the government, academia and business in China. Being an independent think tank, CDI is committed to develop policy solutions via research and debates that help to advance China's reform and opening-up. After years of development, CDI has become one of the leading think tanks in China. CDI focuses on the studies of open economy and innovation-driven development, regional economy and regional development, industrial policies and industrial development, urbanization and urban development, business strategies and investment decision-making. Via conducting research, CDI provides policy recommendations for the Chinese governments at various levels and develops consultation for corporate sectors at home and abroad. CDI organizes events in different formats that evokes dialogue among scholars, government officials, business people and civil society members around the globe. Based in Shenzhen, Southern China, CDI has one hundred and sixty staff, with an affiliated network that consists of renowned experts from different fields.

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www.cdi.org.cn

AIFC

The Astana International Financial Centre (AIFC) is a leading financial hub in the Central Asian and Eastern European region, integrating advanced capabilities and best practices from prominent financial centres around the world. It is the first in the region to establish a comprehensive legal framework designed to attract, protect, and facilitate investment, grounded in business-friendly laws that reflect the principles, norms, and precedents of the law of England and Wales, as well as the standards of the world's leading financial centres.

The AIFC offers its participants and investors exceptional conditions and opportunities, including an independent judiciary, an IOSCO-recognised regulatory framework, a diverse range of financial services and instruments, streamlined visa and employment procedures, and tax benefits for licensed companies. More than 5,400 companies from 90 countries, including the United States, the United Kingdom, the EU, China, Türkiye, Singapore and more, are registered within the AIFC. Since its inception, investments facilitated through the AIFC platform have exceeded $21.5 billion, highlighting its key role in driving economic growth and development in Kazakhstan.

www.aifc.kz

Vantage Financial Centres

Please find out more at: **www.vantagefinancialcentres.net** or by contacting Mike Wardle at **mike_wardle@zyen.com**

CASABLANCA FINANCE CITY
القطب المالي للدار البيضاء

Casablanca Finance City is an African financial and business hub located at the crossroads of continents. Recognized as the leading financial center in Africa, and partner of the largest financial centers in the world, CFC has built a strong and thriving community of members across four major categories: financial companies, regional headquarters of multinationals, service providers and holdings.

CFC offers its members an attractive value proposition and a premium "Doing Business" support that fosters the deployment of their activities in Africa. Driven by the ambition to cater to its community, CFC is committed to promoting its members expertise across the continent, while enabling fruitful business and partnership synergies through its networking platform.

Selma Bennis at Selma.Bennis@cfca.ma
www.casablancafinancecity.com

SEOUL METROPOLITAN GOVERNMENT

Seoul is a rising star among the financial cities of the world. It is already one of the top 10 cities in the world based on various indices, and it has many more opportunities to offer as a financial hub and great growth potential. Seoul believes global financial companies are our true partners for growth. There are many incentives provided to global financial companies that enter into Seoul, such as the financial incentives provided when moving into IFC, so that we can all jointly work towards the growth and development of the financial market.

It is sure that Seoul will become a top star of global financial hubs in the near future! Pay close attention to Seoul's potentials and pre-emptively gain a foothold in the Seoul financial hub. Seoul is the gateway to Northeast Asia and the world.

Sangwoon Jeong at smallmoves77@gmail.com
www.seoul.go.kr/main/index.jsp

TWSE

The Taiwan Stock Exchange (the TWSE) started operations on February 9, 1962. The TWSE is responsible for operating and advancing the domestic securities market. TWSE primary business operations include listing, trading, settlement and surveillance. These comprise listing promotion and review, post-listing supervision and corporate governance, maintaining market trading and order, plus securities firms' services, investor protection, clearing and settlement operations, as well as safeguarding against market defaults and monitoring of illegal transactions. The TWSE provides comprehensive services to the securities market.

In line with the policy of the Financial Supervisory Commission (FSC) to promote Taiwan into the premier Asian Asset Management Center and advance the diversity and prosperity of the capital market, the TWSE will collaborate with its stakeholders to pursue four major goals aimed at building a world-class capital market and supporting industrial transformation: Establishing the Preferred Fundraising Platform for Enterprises; Leading the Path to Net-Zero Sustainability; Driving Product Internationalization; and Technology-Driven Innovation for Inclusive Finance.

https://www.twse.com.tw/en/

Kigali International Financial Centre

Kigali International Financial Centre, KIFC, is Rwanda's financial centre facilitating international investment and cross-border transactions in Africa. KIFC was established in 2020 and positions Rwanda as a preferred financial jurisdiction for investments into Africa by providing an attractive destination for investors, with a robust legal and regulatory framework fully compliant with international standards and competitive tax structures, including a network of double tax treaties.

KIFC attracts regional and international investors such as Pan-African based investment funds, asset managers and administrators, regional holding structures, foundations, and global trading firms.

In addition, with its niche focus on Fintech, KIFC offers FinTechs a framework to pilot their business models in a controlled environment before expanding into the wider African market.

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Vantage Financial Centres

Vantage Financial Centres is an exclusive network of financial centres around the world looking for a deeper understanding of financial centre competitiveness. Members receive enhanced access to CCB GGFI and GFCI data, marketing opportunities, and training for centres seeking to enhance their profile and reputation.

Financial Services Commission MAURITIUS

Established in 2001, the Financial Services Commission, Mauritius ('FSC') is the integrated regulator for the non-bank financial services sector and global business and is mandated to license, regulate, and supervise the conduct of business activities in the non-bank financial services sector and global business.

Our vision is to be an internationally recognised financial supervisor committed to the sustained development of Mauritius as a sound and competitive financial services centre. The FSC aims to:

- promote the development, fairness, efficiency and transparency of financial institutions and capital markets;
- suppress crime and malpractices so as to provide protection to members of the public investing in non-banking financial products; and
- ensure the soundness and stability of the financial system in Mauritius.

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DIFC

Dubai International Financial Centre (DIFC) is one of the world's most advanced financial centres, and the leading financial hub for the Middle East, Africa and South Asia (MEASA) region, which comprises 72 countries with an approximate population of 3 billion and a nominal GDP of US$ 7.7 trillion.

DIFC is home to an internationally recognised, independent regulator and a proven judicial system with an English common law framework, as well as the region's largest financial ecosystem of more than 24,000 professionals working across over 2,300 active registered companies – making up the largest and most diverse pool of industry talent in the region. The Centre's vision is to drive the future of finance. Today, it offers one of the region's most comprehensive FinTech and venture capital environments, including cost-effective licensing solutions, fit-for-purpose regulation, innovative accelerator programmes, and funding for growth-stage start-ups.

Comprising a variety of world-renowned retail and dining venues, a dynamic art and culture scene, residential apartments, hotels and public spaces, DIFC continues to be one of Dubai's most sought-after business and lifestyle destinations.

Twitter @DIFC
www.difc.ae

TABF Taiwan Academy of Banking and Finance

The Taiwan Academy of Banking and Finance (TABF) is the foremost non-profit institution serving Taiwan's banking industry, and a trusted platform promoting the development and advancement of Taiwan's financial services. Advised by the Financial Supervisory Commission (FSC), it was established in 2000 through the merger of the Banking Institute of the Republic of China (BIROC) and the Banking and Finance Institute (BFI), and remains committed to fostering a modern, resilient, and inclusive financial system for a changing world.

TABF brings together stakeholders across the industry to provide opportunities for talent development, knowledge sharing, and networking. Working closely with both domestic and international partners, TABF provides customized and innovative financial training and certification solutions for the banking sector. Furthermore, it has also been working to improve the financial wellness of the public through financial literacy education, aiming to shape a banking sector that serves all of society.

In a nutshell, TABF is a unique and comprehensive platform committed to fostering a sustainable and inclusive banking industry, making it an essential organization in Taiwan and a valuable partner for the global financial community.

Busan Finance Center

Since 2009 Busan Metropolitan City has been developing a financial hub specialising in maritime finance and derivatives. With its strategic location in the center of the southeast economic block of Korea and the crossroads of a global logistics route, Busan envisions growing into an international financial city in Northeast Asia. Busan Finance Center (BFC) will continue to develop and implement measures to promote Busan as the financial hub and bolster the local financial industry, while working together with various local economic players to pursue sustainable growth of the financial sector including FinTech. These efforts will enable BFC to play a leading role in taking Busan to the next level and become the international financial center and maritime capital of Northeast Asia.

BFC offers an attractive incentive package to global financial leaders and cooperation network of Busan Metropolitan City, and Busan Finance Center will support you to identify opportunities in Busan, one of the fastest developing cities in Asia.

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Z/Yen helps organisations make better choices - our clients consider us a commercial think-tank that spots, solves and acts. Our name combines Zen and Yen - 'a philosophical desire to succeed' - in a ratio, recognising that all decisions are trade-offs. One of Z/Yen's specialisms is the development and publication of research combining factor analysis and perception surveys.

THE CHINA CONSTRUCTION BANK GLOBAL GREEN FINANCE INDEX

www.greenfinanceindex.net

The China Construction Bank Global Green Finance Index provides a measure of how financial centres are responding to the challenge of developing a sustainable economy, enabling centres to compare their performance with their peers, improve policy makers' understanding of the drivers of green growth, and assist them in shaping the financial system to support sustainability goals.

SUSTAINABLE FUTURES

https://www.longfinance.net/programmes/sustainable-futures/

The sustainable futures programme focuses on ways in which the financial system supports the transition to a sustainable economic model. Alongside the CCB GGFI, the programme supports the **London Accord**, a free to access collection of over 700 environmental social and governance research reports from over 120 financial services, NGO, academic and policy making institutions.

PUBLISHED BY LONG FINANCE AND FINANCIAL CENTRE FUTURES

www.longfinance.net

Long Finance is a Z/Yen initiative designed to address the question **"When would we know our financial system is working?"** This question underlies Long Finance's goal to improve society's understanding and use of finance over the long-term. In contrast to the short-termism that defines today's economic views the Long Finance timeframe is roughly 100 years.

www.financialcentrefutures.net

Financial Centre Futures is a programme within the Long Finance initiative that initiates discussion on the changing landscape of global finance. Financial Centre Futures comprises the Global Green Finance Index and other research publications that explore major changes to the way we will live and work in the financial system of the future.