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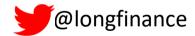


"Zest for Enlightenment"

Global Green Finance Index Global Launch

GGFI 12

Thursday, 26 October 2023 09:00 - 09:45 BST







Risk/Reward Managers 1 King William Street, London, EC4N 7AF United Kingdom tel: +44 (20) 7562-9562 www.zyen.com







Welcome & Introduction





Professor Michael Mainelli
Chairman
Z/Yen Group







Agenda



09:00 Welcome & Introduction

Professor Michael Mainelli, Chairman, Z/Yen Group

09:05 GGFI 12 Results

Mike Wardle, CEO, Z/Yen Group

09:20 Observations

Professor Michael Mainelli, Chairman, Z/Yen Group

09:30 Questions, Comments, And Answers

09:45 Close







GGFI 12 Results





Mike Wardle
Director, Head Of Indices
Z/Yen Group







Global Green Finance Index



- ♦ Launched in 2018 to track the development of green finance in financial centres of the world.
- ♦ GGFI 1 included 47 centres. GGFI 12 includes 94 centres.
- GGFI is intended to:
 - ➤ Encourage financial centres to enhance the range and depth of their green finance offering.
 - > Showcase best practice in green finance.
 - > Foster a race to the top.







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Factor Assessment Index



Completed Questionnaires: Each respondent rates only a proportion of the total number of financial centres

Questionnaire
8 financial centres rated

Questionnaire
5 financial centres rated

Questionnaire
7 financial centres rated

Questionnaire
14 financial centres rated

GGFI 12 uses 5,524 centre assessments from 773 respondents

Questionnaire
10 financial centres rated

Machine learning algorithm looks for relationships between assessments and instrumental factors Machine learning algorithm assigns ratings to unrated centres for each individual questionnaire response, based on analysis of instrumental factor/assessment relationship Complete assessments and predictions for all financial centres **Global Green Finance Index**

completed/updated

100+ instrumental factors on sustainability, business, human capital and infrastructure collected for all financial centres

Instrumental Factor
Instrumental Factor
Instrumental Factor
Instrumental Factor
Instrumental Factor

GGFI 12 uses 130 instrumental factors







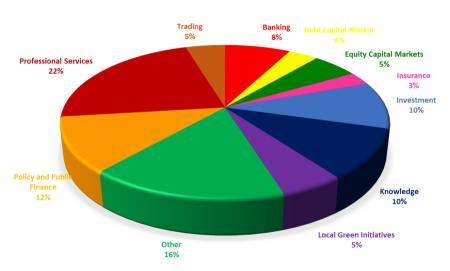
Respondents

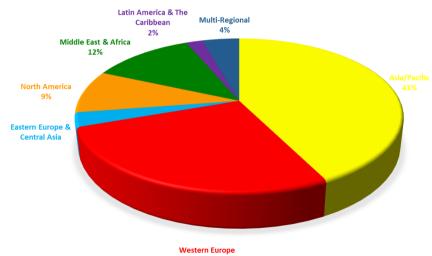


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Respondents By Sector

Respondents By Region







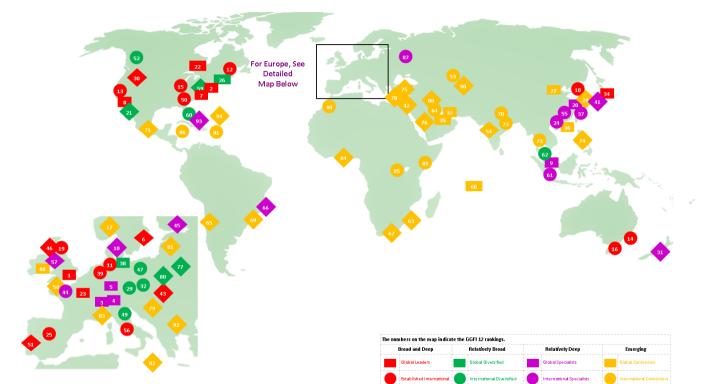




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The GGFI World











GGFI 12 Headlines



- London retained its first position in the index, with New York retaining second place.
- ➤ Geneva took third place, and Zurich and Singapore moved into the top 10, replacing Amsterdam and San Francisco.
- Western European centres take six of the top 10 places, with US centres taking three. Singapore enters the top 10 the only Asia/Pacific centre in this leading group.
- ➤ The margins separating centres at the top of the index continue to narrow in GGFI 12. Among the top 10 centres the spread of ratings is 20 out of 1,000.
- ➤ Following a large increase in GGFI 11, the average rating for centres rose just 1.28%, with 22 centres falling in the ratings.
- ➤ Policy & Regulatory Frameworks continue to be identified as the leading driver in the development of green finance, alongside International Initiatives.







Headlines – Top 20 Centres



Contro	GGFI 12		GGFI 11		Change In Change	
Centre	Rank	Rating	Rank	Rating	Rank	In Rating
London	1	631	1	642	0	▼ 11
New York	2	624	2	641	0	▼ 17
Geneva	3	623	4	620	1	▲3
Zurich	4	618	12	609	▲8	▲ 9
Luxembourg	5	616	5	616	0	0
Stockholm	6	615	3	621	▼3	▼ 6
Washington DC	7	614	9	612	▲ 2	▲2
Los Angeles	8	613	7	614	▼1	▼1
Singapore	9	612	11	610	▲ 2	▲2
Copenhagen	10	611	8	613	▼2	▼2
Amsterdam	11	610	6	615	▼5	▼ 5
Montreal	12	609	21	600	▲ 9	▲ 9
San Francisco	13	608	10	611	▼3	▼3
Sydney	14	607	13	608	▼1	▼1
Chicago	15	606	19	602	4	A 4
Melbourne	16	605	23	598	▲ 7	^ 7
Oslo	17	604	16	605	▼1	▼1
Seoul	18	603	15	606	▼3	▼ 3
Edinburgh	19	602	14	607	▼5	▼5
Shanghai	20	601	20	601	0	0







GGFI 12 Dimensions



Contro	De	epth	Qua	Quality		
Centre	Rank	Rating	Rank	Rating		
London	1	310	1	321		
New York	2	309	4	315		
Geneva	4	307	2	316		
Zurich	11	302	2	316		
Luxembourg	9	303	5	313		
Stockholm	3	308	11	307		
Washington DC	6	306	7	308		
Los Angeles	4	307	14	306		
Singapore	7	304	7	308		
Copenhagen	7	304	11	307		
Amsterdam	18	299	6	311		
Montreal	9	303	14	306		
San Francisco	14	301	11	307		
Sydney	11	302	17	305		
Chicago	23	298	7	308		
Melbourne	18	299	14	306		
Oslo	18	299	17	305		
Seoul	16	300	19	303		
Edinburgh	32	294	7	308		
Shanghai	16	300	21	301		







Relationship Between Depth & Quality











Ranking By Instrumental Factor Group



Rank	Factor Group							
Ivalik	Sustainability	Business	Human Capital	Infrastructure				
1	London	London	London	London				
2	New York	New York	Geneva	New York				
3	Singapore	Luxembourg	New York	Edinburgh				
4	Geneva	Geneva	Zurich	Stockholm				
5	Oslo	Singapore	Luxembourg	Washington DC				
6	Copenhagen	Zurich	Oslo	Los Angeles				
7	Zurich	Shanghai	Montreal	San Francisco				
8	Stockholm	Los Angeles	Shanghai	Geneva				
9	Montreal	Edinburgh	Beijing	Luxembourg				
10	Luxembourg	Beijing	Melbourne	Copenhagen				
11	Beijing	Amsterdam	Singapore	Zurich				
12	Washington DC	Oslo	Stockholm	Singapore				
13	San Diego	Stockholm	Los Angeles	Chicago				
14	Casablanca	Washington DC	Amsterdam	Montreal				
15	San Francisco	Chicago	Seoul	Oslo				
16	Edinburgh	Melbourne	Washington DC	Seoul				
17	Shanghai	Seoul	Sydney	San Diego				
18	Amsterdam	Copenhagen	Chicago	Paris				
19	Sydney	Busan	Copenhagen	Wellington				
20	Busan	Dubai	Toronto	Amsterdam				







Ranking By Industry Sector



	Rank	Policy	Knowledge	Capital Market	Investment	Professional
	1	London	London	New York	London	New York
	2	Geneva	Beijing	Beijing	New York	London
	3	Luxembourg	New York	Shanghai	Zurich	Dubai
	4	Singapore	Amsterdam	Los Angeles	Singapore	San Francisco
ĺ	5	Zurich	Singapore	Washington DC	Stockholm	Los Angeles
	6	Edinburgh	San Francisco	Dubai	Washington DC	Stockholm
	7	Beijing	Edinburgh	Chicago	Luxembourg	Washington DC
	8	Paris	Los Angeles	San Francisco	Oslo	Zurich
	9	Montreal	Shanghai	Shenzhen	Amsterdam	Sydney
	10	New York	Stockholm	London	Dubai	Beijing
	11	Copenhagen	Luxembourg	Abu Dhabi	Geneva	Luxembourg
	12	Amsterdam	Geneva	Boston	Chicago	Geneva
	13	Seoul	Chicago	Miami	Montreal	Singapore
	14	Los Angeles	Copenhagen	San Diego	Seoul	Copenhagen
	15	Chicago	Seoul	Singapore	San Diego	Amsterdam
	16	Melbourne	Washington DC	Melbourne	San Francisco	Montreal
	17	Shanghai	Zurich	Tokyo	Copenhagen	Seoul
	18	Stockholm	Oslo	Sydney	Melbourne	Atlanta
	19	Sydney	Montreal	Casablanca	Boston	Melbourne
	20	Shenzhen	Paris	Seoul	Abu Dhabi	Hong Kong







Headlines – Western Europe Top 20



Contro	GG	FI 12	GGI	GGFI 11		Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
London	1	631	1	642	0	▼11
Geneva	3	623	4	620	1	▲ 3
Zurich	4	618	12	609	▲8	A 9
Luxembourg	5	616	5	616	0	0
Stockholm	6	615	3	621	▼3	▼ 6
Copenhagen	10	611	8	613	▼2	▼2
Amsterdam	11	610	6	615	▼5	▼5
Oslo	17	604	16	605	▼1	▼ 1
Edinburgh	19	602	14	607	▼5	▼ 5
Paris	23	598	17	604	▼ 6	▼ 6
Madrid	25	596	30	581	▲ 5	▲ 15
Frankfurt	29	592	36	575	▲ 7	▲ 17
Munich	32	589	22	599	▼ 10	▼ 10
Hamburg	38	583	45	566	▲ 7	▲ 17
Brussels	39	582	39	572	0	▲ 10
Vienna	43	578	48	563	▲ 5	▲ 15
Jersey	44	577	53	553	▲ 9	▲ 24
Helsinki	45	576	24	597	▼21	▼21
Glasgow	46	575	46	565	0	▲10
Berlin	47	574	43	568	▼4	A 6







Headlines – Middle East & Africa



Contro	GGI	GGFI 12		GGFI 11		Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
Dubai	33	588	32	579	▼ 1	A 9
Abu Dhabi	35	586	33	578	▼2	▲8
Casablanca	40	581	38	573	▼2	▲8
Tel Aviv	42	579	56	550	▲ 14	▲ 29
Johannesburg	63	553	62	538	▼ 1	▲ 15
Doha	64	552	66	527	▲ 2	▲ 25
Cape Town	67	544	67	526	0	▲ 18
Mauritius	68	543	64	529	▼4	▲ 14
Riyadh	76	532	58	547	▼ 18	▼ 15
Lagos	84	520	79	493	▼ 5	▲ 27
Kigali	85	516	80	491	▼ 5	▲ 25
Bahrain	88	513	75	508	▼ 13	▲ 5
Nairobi	89	512	86	465	▼ 3	▲ 47







Headlines – Asia/Pacific



Contro	GG	FI 12	GGFI 11		Change In	Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
Singapore	9	612	11	610	▲ 2	▲ 2
Sydney	14	607	13	608	▼1	▼ 1
Melbourne	16	605	23	598	▲ 7	▲ 7
Seoul	18	603	15	606	▼ 3	▼3
Shanghai	20	601	20	601	0	0
Shenzhen	24	597	25	586	1	▲ 11
Beijing	27	594	27	584	0	1 0
Busan	28	593	26	585	▼2	▲8
Wellington	31	590	18	603	▼ 13	▼ 13
Tokyo	34	587	31	580	▼3	▲ 7
Hong Kong	36	585	37	574	1	▲ 11
Qingdao	37	584	35	576	▼2	▲8
Osaka	41	580	42	569	1	▲ 11
GIFT City-Gujarat	54	567	41	570	▼ 13	▼3
Guangzhou	55	566	44	567	▼ 11	▼ 1
Jakarta	61	560	60	545	▼ 1	▲ 15
Kuala Lumpur	62	558	55	551	▼7	▲ 7
New Delhi	70	540	59	546	▼ 11	▼ 6
Mumbai	72	538	65	528	▼7	▲ 10
Bangkok	73	537	71	516	▼2	▲21
Manila	74	536	New	New	New	New







Headlines – North America



Contro	GGI	FI 12	GGI	GGFI 11		Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
New York	2	624	2	641	0	▼ 17
Washington DC	7	614	9	612	A 2	A 2
Los Angeles	8	613	7	614	▼1	▼1
Montreal	12	609	21	600	▲ 9	▲ 9
San Francisco	13	608	10	611	▼3	▼3
Chicago	15	606	19	602	4	4
San Diego	21	600	New	New	New	New
Toronto	22	599	28	583	A 6	▲ 16
Boston	26	595	29	582	▲ 3	▲ 13
Vancouver	30	591	34	577	4	▲ 14
Atlanta	50	571	New	New	New	New
Calgary	52	569	40	571	▼ 12	▼2
Philadelphia	59	562	New	New	New	New
Miami	60	561	New	New	New	New







Eastern Europe & Central Asia



Contro	GGI	GGFI 12		GGFI 11		Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
Astana	53	568	52	554	▼1	1 4
Istanbul	75	533	68	525	▼7	▲8
Warsaw	77	531	72	514	▼ 5	▲ 17
Cyprus	78	530	New	New	New	New
Prague	80	528	77	501	▼3	▲ 27
Riga	81	527	82	489	1	▲ 38
Moscow	87	514	69	523	▼ 18	▼ 9
Almaty	90	511	81	490	▼ 9	▲21
Sofia	92	505	84	485	▼8	▲ 20









Latin America & The Caribbean



Contro	GGF	GGFI 12		GGFI 11		Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
Santiago	65	551	70	517	▲ 5	▲ 34
Rio de Janeiro	66	550	63	531	▼3	▲ 19
Sao Paulo	69	542	74	510	▲ 5	▲32
Mexico City	71	539	73	511	▲ 2	▲ 28
Cayman Islands	86	515	85	482	▼1	▲33
British Virgin Islands	91	509	78	497	▼ 13	▲ 12
Bahamas	93	503	New	New	New	New
Bermuda	94	499	83	488	▼11	▲ 11









Observations





Professor Michael Mainelli
Chairman
Z/Yen Group









Leading Financial Centres



Centre	Global Green Finance Index 12	Green Finance Depth	Green Finance Quality	Financial Centre Competitiveness
New York	2	2	4	1
London	1	1	1	2
Singapore	9	7	7	3
Hong Kong	36	54	21	4
San Francisco	13	14	11	5
Los Angeles	8	4	14	6
Shanghai	20	16	21	7
Washington DC	7	6	7	8
Chicago	15	23	7	9
Geneva	3	4	2	10
Seoul	18	16	19	11
Shenzhen	24	14	31	12
Beijing	27	18	32	13
Frankfurt	29	23	35	14
Paris	23	28	20	15
Luxembourg	5	9	5	16
Boston	26	29	26	17
Zurich	4	11	2	18
Amsterdam	11	18	6	19
Tokyo	34	48	21	20
Source	GGFI 12 Rank	GGFI 12 Depth Rank	GGFI 12 Quality Rank	GFCI 34 Rank





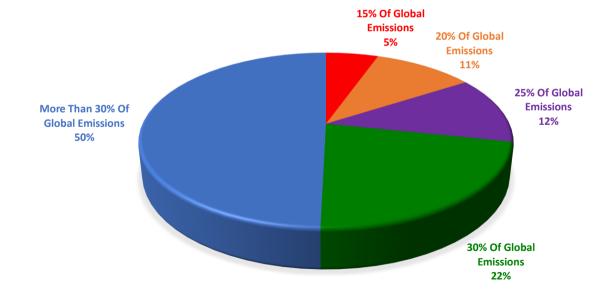


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Growth In Carbon Trading



- We asked respondents to the GGFI survey to assess the proportion of global emissions that they thought will be covered by carbon pricing schemes by 2030
- ♦ 80% of those responding consider that over 30% or more of emissions will be within carbon pricing schemes by 2030





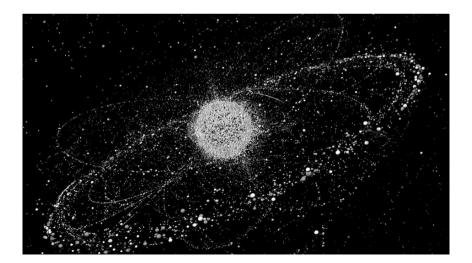




Space Debris



- ◆ Almost 40%, or 65 out of 169 targets, that underpin the 17 Sustainable Development Goals are directly taking advantage of geo-location and earth observation satellites
- ◆ Space debris is a growing problem, posing a risk to future operations
- Action is required to protect space, and the insurance industry and the nascent In-Orbit Servicing industry stand ready to facilitate that action.









Space Action



- The satellite insurance market presents unique challenges for insurers, especially with potential high risk of exposure for individual incidents.
- Time for operators, insurers, and government come together to consider alternative possibilities to provide effective coverage against the risks inherent in satellite operations.
- The City of London will be hosting a series of discussions on the concept of products provided by space protection insurers as part of The 695th Lord Mayor's Space Protection Initiative.









Key Messages



- ◆ Policy & Regulatory Frameworks continue to be identified as the leading driver in green finance, alongside International Initiatives. In the lead up to COP 28 in Dubai, this continues to highlight the importance of transnational cooperation in setting the framework for green finance
- There is increased interest in carbon pricing, and much more emissions trading schemes may be a much bigger part of the answer than ESG
- US centres have caught up with green finance and Asia/Pacific centres are close behind
- Centres which perform well in the GGFI are generally committed to environmental improvements across the economy as well as in finance and have a depth of sustainability skills







Comments, Questions & Answers









Thank You For Listening



Forthcoming Events

Thu, 26 Oct (11:00-11:45) Unlocking Cross-Border Credit In Europe:

Mifundo's Innovative Solution

Tue, 31 Oct (11:00-11:45) Fortified Futures: Tracing The Evolution Of

Security Systems

Wed, 1 Nov (11:00-11:45) Service Resilience And Software Risk

Thu, 02 Nov (11:00-11:45) Can Financial Engineering Save The Planet?

Visit https://fsclub.zyen.com/events/forthcoming-events/

Watch past webinars https://www.youtube.com/zyengroup

https://app.pzaz.tv/app/pzaz/store/zyentv







Global Green Finance Index 13



Global Green Finance Index 13: April 2024



Take the GGFI survey at

www.greenfinanceindex.net/survey/

Smart Centres Index 8: 23 November 2023













