



#### The Global Green Finance Index



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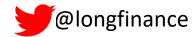


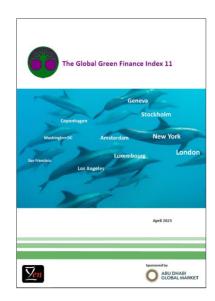
"Zest for Enlightenment"

### Global Green Finance Index Global Launch

### **GGFI 11**

Thursday, 20 April 2023 09:00 – 09:45 BST





#### Z/Yen Group Limited

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 11 Results

Mike Wardle, CEO, Z/Yen Group

#### 09:20 Observations

Professor Michael Mainelli, Chairman, Z/Yen Group

09:35 Questions, Comments, And Answers

09:45 Close







### **GGFI 11 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 11 includes 86 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.









### **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

Questionnaire
10 financial centres rated

GGFI 11 uses 4,498 centre assessments from 633 respondents

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 11 uses 150 instrumental factors





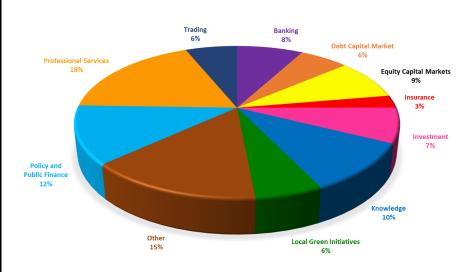


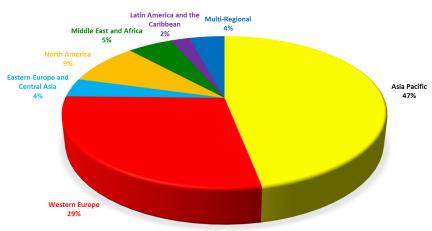
# Respondents



#### **Respondents By Sector**













### **Headlines**



- London retained its first position in the index, with New York moving up one place to take second place.
- Washington moved into the top 10, replacing Sydney.
- Western European centres take six of the top 10 places, with US centres taking the other four top 10 places.
- ➤ The margins separating centres at the top of the index continue to be tight in GGFI 11. Among the top 10 centres the spread of ratings is 31 out of 1,000, compared to 42 out of 1,000 in GGFI 10.
- ➤ Confidence in green finance appears to be strong, with all centres improving their rating in GGFI 11, and the average rating up just over 10% compared with GGFI 10.
- The number of centres in the index has increased to 86 with Lagos and Kigali.





# **Headlines – Top 20 Centres**



Centre	G	GFI 11	GGFI 10		Change In	Change In
centre	Rank	Rating	Rank	Rating	Rank	Rating
London	1	642	1	590	<b>&gt;</b> 0	▲ 52
New York	2	641	3	578	<b>1</b>	<b>▲</b> 63
Stockholm	3	621	8	550	▲ 5	<b>▲</b> 71
Geneva	4	620	7	551	▲ 3	<b>▲</b> 69
Luxembourg	5	616	4	554	<b>▼</b> -1	<b>▲</b> 62
Amsterdam	6	615	2	580	<b>▼</b> -4	<b>▲</b> 35
Los Angeles	7	614	6	552	<b>▼</b> -1	<b>▲</b> 62
Copenhagen	8	613	9	549	<b>1</b>	<b>▲</b> 64
Washington DC	9	612	15	542	<b>▲</b> 6	<b>▲</b> 70
San Francisco	10	611	5	553	<b>▼</b> -5	▲ 58
Singapore	11	610	16	541	▲ 5	<b>▲</b> 69
Zurich	12	609	11	547	<b>▼</b> -1	<b>▲</b> 62
Sydney	13	608	10	548	<b>▼</b> -3	▲ 60
Edinburgh	14	607	22	535	<b>A</b> 8	<b>▲</b> 72
Seoul	15	606	12	546	<b>▼</b> -3	▲ 60
Oslo	16	605	13	544	<b>▼</b> -3	<b>▲</b> 61
Paris	17	604	14	543	<b>▼</b> -3	<b>▲</b> 61
Wellington	18	603	19	538	<b>1</b>	<b>▲</b> 65
Chicago	19	602	26	531	<b>▲</b> 7	<b>▲</b> 71
Shanghai	20	601	17	540	▼ -3	▲ 61







# **GGFI 11 Dimensions**



Control	De	epth	Quality		
Centre	Rank	Rating	Rank	Rating	
London	2	316	1	326	
New York	1	319	2	322	
Stockholm	3	314	6	307	
Geneva	8	307	3	313	
Luxembourg	4	312	14	304	
Amsterdam	12	305	4	310	
Los Angeles	8	307	6	307	
Copenhagen	14	304	5	309	
Washington DC	8	307	10	305	
San Francisco	6	308	17	303	
Singapore	5	309	20	301	
Zurich	15	303	8	306	
Sydney	12	305	17	303	
Edinburgh	17	302	10	305	
Seoul	6	308	23	298	
Oslo	8	307	23	298	
Paris	18	299	10	305	
Wellington	18	299	14	304	
Chicago	22	296	8	306	
Shanghai	15	303	23	298	







# **Relationship Between Depth & Quality**











# **Ranking By Instrumental Factor Group**



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







# **Ranking By Industry Sector**



	Rank	Policy	Knowledge	Capital Market	Investment	Professional
	1	London	London	New York	London	London
	2	Singapore	New York	Washington DC	Amsterdam	New York
	3	Luxembourg	San Francisco	Los Angeles	Zurich	Stockholm
	4	Geneva	Amsterdam	San Francisco	Shanghai	Luxembourg
Ī	5	Zurich	Stockholm	Sydney	Washington DC	San Francisco
	6	Oslo	Copenhagen	Paris	Singapore	Oslo
	7	Stockholm	Los Angeles	London	Geneva	Seoul
	8	San Francisco	Singapore	Singapore	Seoul	Amsterdam
	9	Paris	Paris	Shanghai	Oslo	Sydney
	10	Sydney	Edinburgh	Beijing	Luxembourg	Singapore
	11	New York	Luxembourg	Tokyo	Beijing	Geneva
	12	Los Angeles	Oslo	Dubai	Stockholm	Los Angeles
	13	Copenhagen	Zurich	Chicago	Copenhagen	Copenhagen
	14	Seoul	Geneva	Hong Kong	Los Angeles	Munich
	15	Wellington	Chicago	Shenzhen	Helsinki	Paris







# **Headlines – Western Europe**



Combina	Centre GGFI 11		GG	FI 10	Change In	Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
London	1	642	1	590	0	52
Stockholm	3	621	8	550	5	71
Geneva	4	620	7	551	3	69
Luxembourg	5	616	4	554	-1	62
Amsterdam	6	615	2	580	-4	35
Copenhagen	8	613	9	549	1	64
Zurich	12	609	11	547	-1	62
Edinburgh	14	607	22	535	8	72
Oslo	16	605	13	544	-3	61
Paris	17	604	14	543	-3	61
Munich	22	599	30	527	8	72
Helsinki	24	597	29	528	5	69
Madrid	30	581	39	518	9	63
Frankfurt	36	575	40	517	4	58
Brussels	39	572	43	514	4	58
Berlin	43	568	42	515	-1	53
Hamburg	45	566	51	499	6	67
Glasgow	46	565	53	497	7	68
Rome	47	564	49	505	2	59
Vienna	48	563	55	495	7	68
Guernsey	49	562	52	498	3	64
Dublin	50	561	45	512	-5	49
Lisbon	51	556	36	521	-15	35
Jersey	53	553	56	493	3	60
Milan	54	552	58	491	4	61
Isle of Man	57	549	72	463	15	86
Liechtenstein	61	544	66	478	5	66
Malta	76	507	71	464	-5	43







## **Headlines – Middle East & Africa**



Combina	GGI	GGFI 11		GGFI 10		Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
Dubai	32	579	28	529	-4	50
Abu Dhabi	33	578	33	524	0	54
Casablanca	38	573	38	519	0	54
Tel Aviv	56	550	50	504	-6	46
Riyadh	58	547	48	507	-10	40
Johannesburg	62	538	64	482	2	56
Mauritius	64	529	59	490	-5	39
Doha	66	527	68	472	2	55
Cape Town	67	526	62	486	-5	40
Bahrain	75	508	61	487	-14	21
Lagos	79	493	New	New	New	New
Kigali	80	491	New	New	New	New
Nairobi	86	465	77	456	-9	9







# **Headlines – Asia/Pacific**



Contro	GGI	111	GG	GGFI 10		Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
Singapore	11	610	16	541	5	69
Sydney	13	608	10	548	-3	60
Seoul	15	606	12	546	-3	60
Wellington	18	603	19	538	1	65
Shanghai	20	601	17	540	-3	61
Melbourne	23	598	18	539	-5	59
Shenzhen	25	586	20	537	-5	49
Busan	26	585	21	536	-5	49
Beijing	27	584	23	534	-4	50
Tokyo	31	580	24	533	-7	47
Qingdao	35	576	31	526	-4	50
Hong Kong	37	574	41	516	4	58
GIFT City-Gujarat	41	570	44	513	3	57
Osaka	42	569	32	525	-10	44
Guangzhou	44	567	27	530	-17	37
Kuala Lumpur	55	551	46	510	-9	41
New Delhi	59	546	80	453	21	93
Jakarta	60	545	60	489	0	56
Mumbai	65	528	69	467	4	61
Bangkok	71	516	57	492	-14	24







## **Headlines – North America**



Combra	GGI	GGFI 11		GGFI 10		Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
New York	2	641	3	578	1	63
Los Angeles	7	614	6	552	-1	62
Washington DC	9	612	15	542	6	70
San Francisco	10	611	5	553	-5	58
Chicago	19	602	26	531	7	71
Montreal	21	600	34	523	13	77
Toronto	28	583	35	522	7	61
Boston	29	582	25	532	-4	50
Vancouver	34	577	37	520	3	57
Calgary	40	571	47	509	7	62



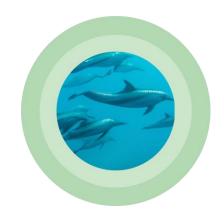




# **Eastern Europe & Central Asia**



Combra	GG	GGFI 11		FI 10	Change In	Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
Astana	52	554	54	496	2	58
Istanbul	68	525	73	462	5	63
Moscow	69	523	76	457	7	66
Warsaw	72	514	79	454	7	60
Prague	77	501	81	452	4	49
Almaty	81	490	75	458	-6	32
Riga	82	489	82	448	0	41
Sofia	84	485	78	455	-6	30





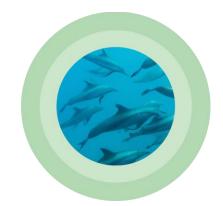




## **Latin America & The Caribbean**



Combus	GGF	GGFI 11		GGFI 10		Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
Rio de Janeiro	63	531	65	481	2	50
Santiago	70	517	67	477	-3	40
Mexico City	73	511	63	485	-10	26
Sao Paulo	74	510	70	465	-4	45
British Virgin Islands	78	497	74	461	-4	36
Bermuda	83	488	84	438	1	50
Cayman Islands	85	482	83	440	-2	42







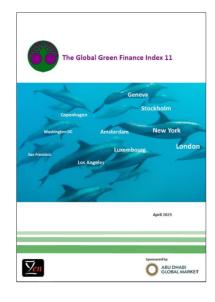


## **Observations**





Professor Michael Mainelli Chairman Z/Yen Group









# **Leading Financial Centres**



Centre	Global Green Finance Index 11	Green Finance Depth	Green Finance Quality	Financial Centre Competitiveness
New York	2	1	2	1
London	1	2	1	2
Singapore	11	5	20	3
Hong Kong	37	35	39	4
San Francisco	10	6	17	5
Los Angeles	7	8	6	6
Shanghai	20	15	23	7
Chicago	19	22	8	8
Boston	29	34	23	9
Seoul	15	6	23	10
Washington DC	9	8	10	11
Shenzhen	25	23	39	12
Beijing	27	26	31	13
Paris	17	18	10	14
Sydney	13	12	17	15
Amsterdam	6	12	4	16
Frankfurt	36	35	34	17
Munich	22	24	10	18
Luxembourg	5	4	14	19
Zurich	12	15	8	20
Sauras	GGFI 11	GGFI 11 Depth	GGFI 11 Quality	GFCI 33
Source	Rank	Rank	Rank	Rank



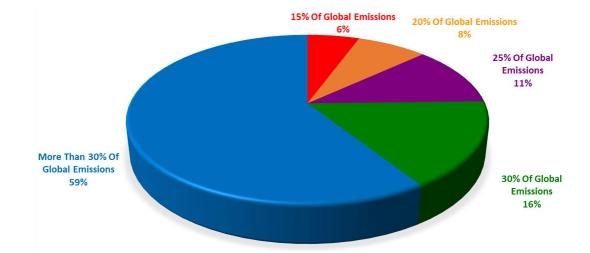




## **Growth In Carbon Trading**



- 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
- ♦ The highest percentage of respondents (59%) considered that over 30% of emissions will be within carbon pricing schemes by 2030









#### **The Carbon Transition**



- Carbon Transition fundamental changes required to move society and the global economy to a low carbon pathway
- ♦ Gaps:
  - ➤ Implementation achieving agreed goals
  - > Ambition not making enough difference
- Tools and techniques include carbon trading, carbon accounting and policy performance bonds
- ♦ Financial Centres are part of the solution
  - Promoting investment in critical sectors and technologies
  - > Investigating innovative financial products and services
  - Identifying and ameliorating transition risk exposure
  - Lobbying for regulations and standards on carbon accounting to ensure that carbon costs are factored into valuations and risk assessments







# **Key Messages**



- There is increased interest in carbon pricing, and much more emissions trading schemes may be a bigger part of the answer than ESG
- Policy performance bonds focusing on outcome delivery rather than use of proceeds are gaining traction
- 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**

Wed, 26 Apr (11:00-11:45) How Al Could Shape Our Built Environment

For The Better - But Also For Worse

Thu, 27 Apr (08:00-09:30) The Future Of Green Hydrogen - BizTech

Huìhuà Chat

Thu, 27 Apr (11:00-11:45) Esop Sofa: Hot Topics In Employee Share

Ownership – Newspad Review VI

Tue, 02 May (10:00-10:45) Harnessing Markets To Deliver Paris

Visit <a href="https://fsclub.zyen.com/events/forthcoming-events/">https://fsclub.zyen.com/events/forthcoming-events/</a>

Watch past webinars <a href="https://www.youtube.com/zyengroup">https://www.youtube.com/zyengroup</a>

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### **Global Green Finance Index 12**



#### **Global Green Finance Index 12:** October 2023



Take the GGFI survey at www.greenfinanceindex.net/survey/

Smart Centres Index 7: 25 May 2023

Global Financial Centres Index 34: September 2023











