

The Global Green Finance Index 1

Summary Report

MARCH 2018









Foreword

Over the last 24 years of conservation philanthropy, the MAVA Foundation has supported more than 850 projects to bring human activity in harmony with nature. We are pleased to add the Global Green Finance Index (GGFI) to this list, in partnership with Finance Watch and Z/Yen, as part of our programme to contribute to the creation of a more sustainable global economic system.

Great strides have been made by pioneering organisations over the last two decades and green finance is becoming a mainstream economic activity. The MAVA Foundation believes that in the coming years the profile of this field is set to grow rapidly.

From tackling global threats such as climate change, to delivering new opportunities in risk management and the financing of technological innovation, financial services have a critical role in achieving the Sustainable Development Goals. As the markets for green finance continue to grow, the field has the potential to drive a shift towards an economy that ensures human prosperity and a healthy planet.

In policy terms it is often remarked that "what you measure is what you get". This new index that measures how 'green' financial centres are will help catalyse movement towards supporting an economy that respects planetary limits and supports sustainable development.

In commissioning the Global Green Finance Index, the MAVA Foundation is seeking to establish a programme which will:

- provide insight on what makes a financial centre 'green' or not;
- promote a race to the top in green finance; and
- spread best practice in green finance and green financial centres.

In pursuit of these goals the GGFI will be published twice a year with a significant online presence. We hope that the GGFI will give policy makers insight into the growth and competitiveness of green financial centres over time, and encourage the sharing of best practices between the more established and innovative players and other centres.

We are particularly excited that smaller and more specialised centres, such as Hamburg and San Francisco, and financial centres with strong policy frameworks around green finance, such as Paris, Luxembourg and centres in China, have performed well in this first index. The findings in this report show greener finance can follow its own path of development and that today's strategic policymaking will be crucial for shaping tomorrow's green financial centres.

André Hoffman

President MAVA *Fondation pour la Nature*

Introduction

Welcome to the inaugural Global Green Finance Index, the first edition in a series which will chart the progress of the world's financial centres towards a financial system that delivers sustainable development, and values people and the planet as much as profit. This gazette highlights some of the headline findings of our research.

The GGFI seeks to measure perceptions of the quality and depth of green financial products across the world's financial centres.

For the purposes of the GGFI, Green Finance refers to any financial instrument or financial services activity - including insurance, equity, bonds, commodity and derivatives trading, analytical or risk management tools – which results in positive change for the environment and society over the long term (sustainability).

Measuring the progress of green finance in the world's financial centres presents a significant challenge, and is currently the subject of a number of international research programmes including:

- UNEP FI's Positive Impact Initiative;
- UNEP's Financial Centres For Sustainability Initiative:
- Climate KIC, I4CE and PwC's Benchmark; and
- UN PRI's Sustainable Stock Exchanges Initiative.

The GGFI is intended to complement these by using advanced statistical techniques to bridge the gaps in existing data by combining quantitative factors with the perceptions of financial services professionals and other experts.

Survey data for the GGFI is gathered on a continual basis and the intention is to publish updates twice a year. The index will therefore be sensitive to real -time changes in the international policy environment and developments in financial services markets.

The GGFI, in combination with the other measurement initiatives listed above will allow the identification of trends, and potentially enable policy makers to track the impacts of their decisions and identify and fill data gaps.

A full report with in depth analysis is available at www.greenfinanceindex.net/GGFI1/Report.



GGFI 1 Summary And Headlines

The Global Green Finance Index is based on a worldwide survey of finance professionals' views on the quality and depth of green finance offerings across 108 international financial centres.

The online survey is at http://survey.greenfinanceindex.net/. Please take a moment to fill it in if you have not already done so: the survey is running continuously, and the more responses are collected, the more significant the results.

The 47 centres listed in this first edition of the Index (GGFI 1) are those which received a minimum of ten assessments from survey respondents. Assessments of respondents' home centres were excluded from the data in order to avoid home centre bias.

The assessments were combined with 113 Instrumental factors to give an overall rating for each centre. These instrumental factors are quantitative measures provided by third parties including Corporate Knights, the Carbon Bonds Initiative, the World Health Organisation, the United Nations Environment Programme Finance Initiative and the World Bank among others.

We received 1,790 ratings from 337 individual respondents over 2 months, from 15 December 2017 to 5 February 2018. The survey runs continuously online, and will be sampled every six months in order to generate further editions of the index.

Top Five Centres for Green Finance Penetration

London Luxembourg Copenhagen Amsterdam Paris

- The ratings for penetration of green finance in a centre's overall financial offering range between 333 and 402 out of 1000. This is equivalent to between three and four out of ten on a ten point scale. These assessments are higher than the very low historical market data on penetration and suggests that survey respondents may perceive green finance as being more prevalent than it is.
- The ratings for quality given to centres range between 322 and 437 out of 1,000. The generally low assessments given to centres by respondents, particularly for penetration, indicate that the green finance sector commands a relatively small share of global finance and there is significant room for growth in the range and quality of products on offer.

Top Five Centres for Green Finance Quality

London Amsterdam Brussels Hamburg Paris

- Narrow margins separate ranked centres. 115 points separate the top and bottom centres in the quality index (the equivalent of one point on an assessment scale of one to ten) and a mere 69 points separate them in the penetration index. As further editions of the index are published, rankings are likely to be sensitive to change because of the narrow margins between ratings.
- Western Europe does well, featuring 9 of the top 10 centres for quality and 7 of the top 10 for penetration. Twenty-one of the 47 centres in the index are in Western Europe.
- San Francisco and Washington come equal at tenth place in the ranking as the top North American centres for quality. San Francisco is also the top North American centre for penetration.

Who Responded to the Questionnaire?

Banking 13%

Debt Capital Markets 4%

Equity Capital Markets 5%

Insurance 2%

Investment 10%

Knowledge 22%

Local Green Initiatives 1%

Policy and Public Finance 11%

Professional Services 25%

Trading 1%

Other 6%

Top Regional Centres for Penetration and Quality

Western Europe - London

Asia Pacific - Shenzhen (P) - Shanghai (Q)

North America - San Francisco

Middle East and Africa - Cape Town (P) -Johannesburg (Q)

Latin America and the Caribbean -

Mexico City

Eastern Europe and Central Asia - Moscow

- Shanghai and Shenzhen were top in the Asia Pacific region for quality and penetration respectively. Chinese centres all performed well and were closely clustered in terms of ratings.
- Johannesburg is the top ranked centre in The Middle East and Africa for quality, with Cape **Town just below.** Cape Town is the top centre in this region for penetration.
- Mexico City and Moscow were the only centres to achieve sufficient assessments to be listed in the Latin America and the Caribbean and **Eastern Europe and Central Asian regions.**
- The index appears to demonstrate an element of centre specialism. Centres which have demonstrated significant leadership on green finance, such as Paris, Luxembourg, Shanghai and Shenzhen have achieved high ranking in the index.

Conclusions

The conclusions we reach are as follows:

- Green finance is perceived as being more prevalent than the data suggests and the market in green finance is immature.
- Respondents recognise the importance of policy frameworks and investor demand in fuelling the growth of green finance markets.
- There is a disconnection between some areas of high impact, such as disinvestment from fossil fuels, and areas of interest and activity, suggesting a potential role for policy action.

- There is a narrow range in the ratings of financial centres meaning that the index is reactive to changes in policy and market conditions.
- The relative positions of financial centres show that financial centres can pull ahead of more dominant rivals through specialisation, encouraged by policy frameworks.
- The level of response we had to our survey from the global finance community demonstrates a high level of interest in this area.

Future Prospects

We asked respondents to identify which financial centres they thought would become more significant over the next two to three years. Table 1 shows the top five centres mentioned.

It is notable that both Paris and Frankfurt, as the top centres mentioned, have developed strong leadership to promote green finance and have created a policy framework which is likely to enhance the scope and range of opportunities in green finance.

Table 1 | The Five Centres Likely to Become More Significant

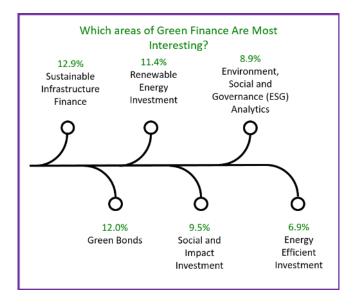
| Centre | Number of Mentions |
|-----------|--------------------|
| Paris | 19 |
| Frankfurt | 12 |
| New York | 11 |
| Singapore | 10 |
| London | 9 |

GGFI 1 Interest In And Impact Of Green Finance

Areas of Interest

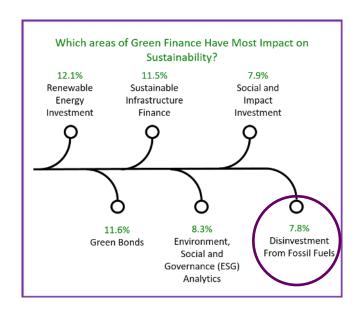
From the list of options given in the survey:

- Green bonds and renewable energy investment scored highly as areas of interest in green finance, as did emerging areas such as Sustainable Infrastructure Finance and Energy Efficiency.
- Established areas such as Social and Impact Investment and ESG analytics also did well.



Areas of Impact

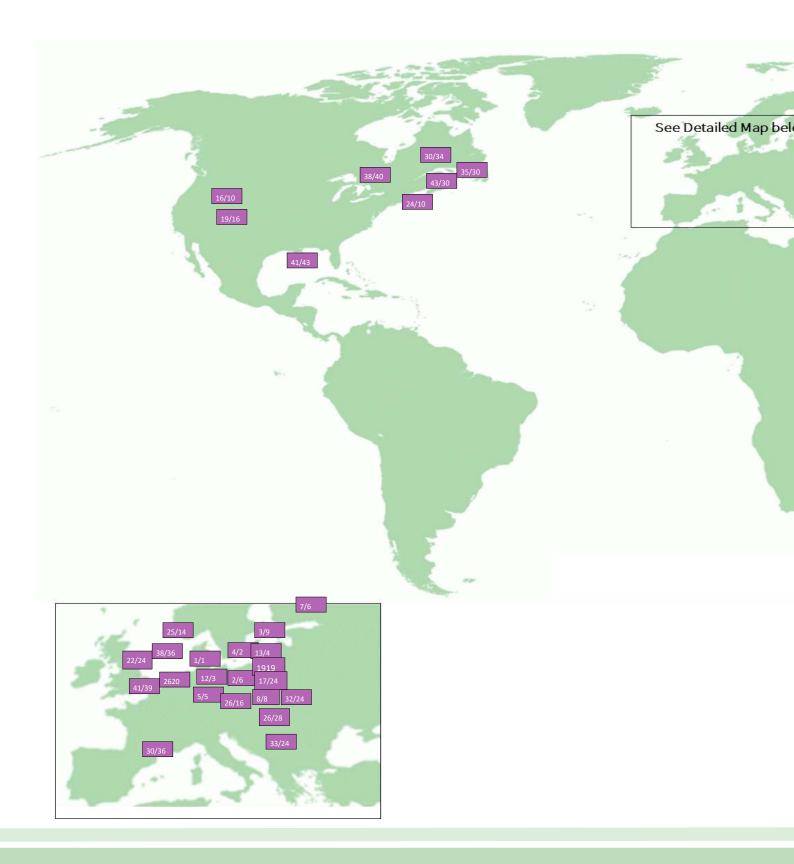
- With respect to views on the areas of green finance with the greatest impact on sustainable development, Renewable Energy Investment, Green Bonds and Sustainable Infrastructure Finance were rated highest.
- ESG analytics, Social and Impact Investment and Disinvestment from Fossil Fuels were also ranked highly. The inclusion of Divestment from Fossil Fuels amongst the highest rankings in areas of impact contrasts with "areas of interest" where it received considerably less attention.



Correlation Between Interest and Impact

• There was a close correlation between interest and impact suggesting that, with the exception of Disinvestment from Fossil Fuels, the financial professionals working within green finance are driven to focus their attention on the areas they consider will have the most beneficial impact on sustainable development.

The GGFI 1 World





The numbers on the map indicate the rankings first for penetration and second for quality in GGFI 1

GGFI 1: The Results

Table 2 | Ranks and Ratings of Green Finance Penetration

| Centre | GGFI 1 | |
|---------------|--------|--------|
| | Rank | Rating |
| London | 1 | 402 |
| Luxembourg | 2 | 389 |
| Copenhagen | 3 | 385 |
| Amsterdam | 4 | 384 |
| Paris | 5 | 381 |
| Shenzhen | 6 | 380 |
| Stockholm | 7 | 379 |
| Guangzhou | 8= | 376 |
| Zurich | 8= | 376 |
| Shanghai | 10= | 375 |
| Beijing | 10= | 375 |
| Brussels | 12 | 374 |
| Hamburg | 13 | 370 |
| Sydney | 14 | 367 |
| Singapore | 15 | 366 |
| San Francisco | 16 | 365 |
| Munich | 17= | 364 |
| Seoul | 17= | 364 |
| Los Angeles | 19= | 361 |
| Frankfurt | 19= | 361 |
| Tokyo | 19= | 361 |
| Dublin | 22 | 360 |
| Hong Kong | 23 | 359 |
| Washington DC | 24 | 358 |

| Centre | GGFI 1 | |
|--------------|--------|--------|
| | Rank | Rating |
| Edinburgh | 25 | 357 |
| Milan | 26= | 356 |
| Jersey | 26= | 356 |
| Geneva | 26= | 356 |
| Cape Town | 29 | 355 |
| Toronto | 30= | 353 |
| Madrid | 30= | 353 |
| Vienna | 32 | 351 |
| Rome | 33= | 350 |
| Johannesburg | 33= | 350 |
| Boston | 35 | 348 |
| Kuala Lumpur | 36= | 346 |
| Dubai | 36= | 346 |
| Isle of Man | 38= | 343 |
| Chicago | 38= | 343 |
| Abu Dhabi | 38= | 343 |
| Mexico City | 41= | 342 |
| Guernsey | 41= | 342 |
| New York | 43 | 341 |
| Mumbai | 44= | 335 |
| Bangkok | 44= | 335 |
| New Delhi | 46= | 333 |
| Moscow | 46= | 333 |

Table 3 | Ranks and Ratings of Green Finance Quality

| Contro | GGFI 1 | |
|---------------|--------|--------|
| Centre | Rank | Rating |
| London | 1 | 437 |
| Amsterdam | 2 | 385 |
| Brussels | 3 | 383 |
| Hamburg | 4 | 381 |
| Paris | 5 | 379 |
| Stockholm | 6= | 378 |
| Luxembourg | 6= | 378 |
| Zurich | 8 | 375 |
| Copenhagen | 9 | 374 |
| San Francisco | 10= | 369 |
| Washington DC | 10= | 369 |
| Shanghai | 12 | 364 |
| Shenzhen | 13 | 362 |
| Singapore | 14= | 361 |
| Edinburgh | 14= | 361 |
| Geneva | 16= | 360 |
| Sydney | 16= | 360 |
| Los Angeles | 16= | 360 |
| Frankfurt | 19 | 359 |
| Beijing | 20= | 357 |
| Jersey | 20= | 357 |
| Tokyo | 22 | 356 |
| Guangzhou | 23 | 354 |
| Munich | 24= | 353 |

| Centre | GGFI 1 | |
|--------------|--------|--------|
| | Rank | Rating |
| Dublin | 24= | 353 |
| Rome | 24= | 353 |
| Vienna | 24= | 353 |
| Milan | 28 | 352 |
| Hong Kong | 29 | 348 |
| Boston | 30= | 347 |
| New York | 30= | 347 |
| Johannesburg | 32 | 343 |
| Cape Town | 33 | 342 |
| Toronto | 34= | 341 |
| Seoul | 34= | 341 |
| New Delhi | 36= | 340 |
| Isle of Man | 36= | 340 |
| Madrid | 36= | 340 |
| Guernsey | 39 | 339 |
| Chicago | 40 | 338 |
| Dubai | 41 | 332 |
| Mumbai | 42 | 329 |
| Kuala Lumpur | 43= | 328 |
| Mexico City | 43= | 328 |
| Bangkok | 45 | 327 |
| Abu Dhabi | 46 | 326 |
| Moscow | 47 | 322 |

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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 tradeoffs. One of Z/Yen's specialisms is the development and publication of research combining factor analysis and perception surveys.

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www.en.mava-foundation.org

MAVA is a Swiss-based philanthropic foundation with a focus on biodiversity conservation. Running three region-based programmes in Switzerland, the Mediterranean and West Africa, and a fourth programme focused on Sustainable Economy, MAVA works through partnerships with international, national and local NGOs, research institutions and universities, and occasionally with government bodies or individuals.



www.finance-watch.org

Finance Watch is a European, not-for-profit association of civil society members, dedicated to making finance work for the good of society. Finance Watch works for a financial system that allocates capital to productive use through fair and open markets, in a transparent and sustainable manner without exploiting or endangering society at large.

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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.globalfinancialcentres.net

Financial Centre Futures is a programme within the Long Finance initiative that initiates discussion on the changing landscape of global finance, seeking to explore how finance might work in the future. 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.