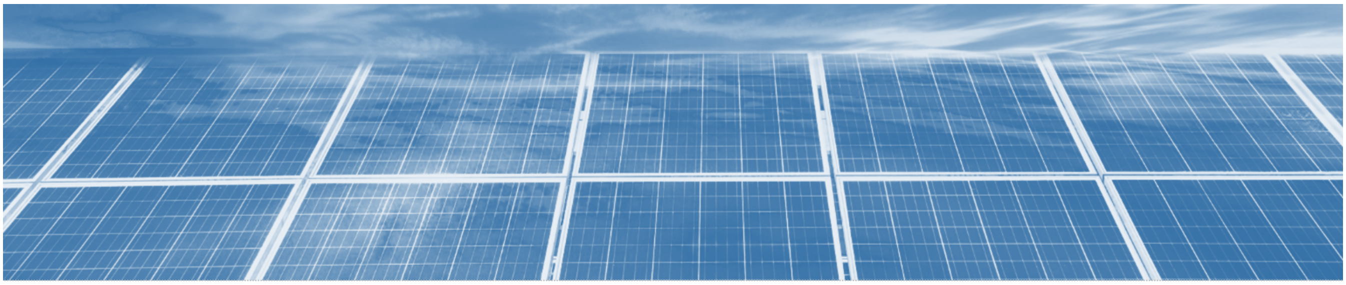
NEW FINANCIAL
Rethinking capital markets



A REALITY CHECK ON GREEN FINANCE

ANALYSIS OF THE SIZE, GROWTH AND PENETRATION OF GREEN FINANCE IN EUROPE

April 2024

By Christopher Breen

In partnership with:

LUXEMBOURG FOR FINANCE
THE FINANCIAL CENTRE DEVELOPMENT AGENCY

> *This report shows that while green finance in Europe has grown rapidly over the past five years to more than €375bn in green capital raising last year alone, there are signs that the growth and penetration of green finance are slowing down. In the face of critical issues ranging from climate change to energy insecurity, it is essential that Europe redoubles its efforts to achieve net zero and build a clean energy economy.*

A reality check on green finance in Europe

Europe has established itself as a world leader in financing the transition to net zero. By building a transparent and dynamic green finance market, it has mobilised green financing totalling more than €1tn over the last three years and is approaching the annual amounts of investment needed to achieve its 2030 targets. Europe has also made an effective case for why net zero is not just good for the climate, but good for security as well - stressing what happens when countries are dependent on fossil fuels, particularly when those fuels come from third countries like Russia.

This report is the second edition of our reality check on green finance in Europe. It shows that while Europe has mobilised significant amounts of green finance, growth in the green finance market is running out of steam. The value of green capital raising has flatlined over the past few years - and fallen in real terms - while the penetration of green finance as a proportion of all capital markets activity has slipped back. While there is no single reason for this slowdown, we highlight several some significant challenges to green finance that threaten Europe's net zero goals.

The report also highlights one of the most troubling trends in green finance: the backlash to 'green' and the net zero transition in general. Policymakers in Europe and beyond are starting to pull back on green pledges in response to a difficult economic and political environment. If Europe wants to maintain its place as the world leader in sustainability and green finance, it will need to not just tackle the challenges facing its green finance market: it will also need to provide a more convincing argument to the wider public on why green policy and green finance is needed.

The first part of the report analyses how the green finance market in Europe has evolved over the last five years and provides a unique country-by-country ranking of the value, penetration, and depth of green capital raising (across labelled green bonds, capital markets markets activity by 'green' companies or with 'green' use of proceeds, and green venture capital investment). The second part analyses how 'green' green finance is. And the third part outlines the challenges facing Europe's green finance market and provides some context on the recent political backlash and recommendations on how to address it.

We hope this research provides relevant insights and we are always interested in your thoughts and questions. I would like to thank Luxembourg for Finance for sponsoring this report, William Wright and Maximilian Bierbaum for their guidance and feedback, Dealogic, Preqin, and S&P for providing access to their data, and our members for supporting our work on sustainable finance and capital markets. Any errors are entirely my own.

Christopher Breen
Senior research analyst, New Financial
christopher@newfinancial.org

NEW FINANCIAL
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New Financial is a think tank that believes Europe needs bigger and better capital markets to help drive growth and prosperity.

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We are a social enterprise funded by institutional membership from different sectors of the capital markets industry.

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www.newfinancial.org
william.wright@newfinancial.org
+44 (0) 20 3743 8269

Here is a short summary of the report:

1. **Explosive growth:** this report highlights the significant rise in both the value and penetration of green finance in Europe over the past five years. Green capital raising has more than doubled since 2019 to €378bn and the penetration of green finance has more than doubled to 11% of all capital markets activity. For reference, activity in Europe was nearly double the €200bn in green capital raising in the US last year.

2. **Worrying signs:** there are signs that the growth in green finance in Europe is running out of steam. The value of green capital markets activity has flatlined over the past few years and fallen slightly in real terms, and the penetration of green finance also dropped last year. This suggests that Europe has already scored the 'easy wins' and that the political backlash against 'green' and 'ESG' is taking its toll.

3. **Business as usual:** for the transition to net zero to be realised, Europe will need to shift financing en masse from fossil fuels to renewables. The report shows that 'bad' companies - or those whose day-to-day activities delay the transition - still receive five times as much financing as 'good' or 'green' companies.

4. **Questions about 'green':** the biggest driver of green finance in Europe is the labelled green bond market, making up around two-thirds of the total value of green finance. Our unique analysis also includes non-labelled capital raising by 'green' companies or with 'green' use of proceeds, and green venture capital. However, our analysis shows that not all green financing is as green as it looks.

5. **Growing green companies:** a big positive note is that the value of green venture capital investment surged over the last few years and reached 18% of all European venture capital in 2023. Supporting innovative green companies and enabling them to scale up will be critical if Europe wants to achieve net zero.

6. **A range in depth:** while Europe is a world leader in green finance, there is a wide range in the size, depth and penetration of green capital raising activity. Germany is by far the largest market for green capital markets (with a 17% share) ahead of France and the UK. However, the penetration of green finance in these markets is lower than the European average, and Nordic and Benelux countries have the largest green finance markets relative to GDP.

7. **Challenges on the horizon:** European policymakers and financial institutions have helped create a transparent and vibrant green finance market. There remain issues around data availability, definitions of 'green' and 'not green', and around the overall narrative of transition financing. Addressing these will be key if Europe wants to continue being a world leader in sustainability.

8. **Regulatory overload:** regulation has played an important role in shaping Europe's green finance market, but there is a risk of it becoming too much and too burdensome. There are already efforts to simplify this regulatory regime - a step that could help reverse the slowdown in green finance issuance.

9. **Addressing the 'backlash':** the emerging anti 'green' backlash has put policymakers on the back foot. This backlash has been seen from the watering down of the regulations and net zero targets to farmers protesting on the streets of European capitals. We show that there are multiple elements of this backlash - some inevitable, some that can be addressed - and outline its importance, particularly with the upcoming European Parliamentary elections.

10. **No time for complacency:** the slowdown in issuance and the burgeoning backlash show that Europe has no time for complacency. Leaders from all parts of society have emphasised the importance of the transition to net zero - particularly in the context of Russia's invasion of Ukraine and its impact on Europe's energy supply - and it will be up to them to shape the right regulation to accelerate the growth of green finance.

The growth of green finance in Europe - and where we are today

This section provides key takeaways on green finance in Europe and its state of play today.

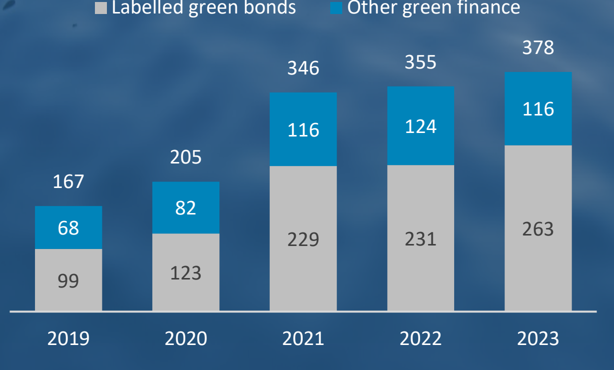
>>> 1. SIGNIFICANT SUMS

€1.5tn The value of green finance in Europe from corporates, governments, and financials from 2019 to 2023

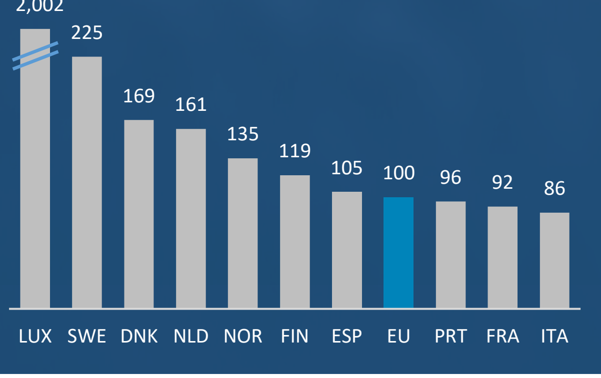
Since 2019, European capital markets have raised nearly €1.5 trillion in green finance, with an average annual value of €290bn (and an average of €360bn over the last three years alone).

Despite experiencing a significant surge in issuance from 2020 to 2021, European green finance has somewhat plateaued in terms of value and has decreased in terms of penetration going into 2023. For Europe to meet its goal of a net zero transition by 2050, it will need to reinvigorate the green finance market to the levels it was at only a few years ago.

i) The value of green finance in Europe from 2019 to 2023, broken down by green bonds and other green finance (€bn)



ii) The top countries in Europe by depth of their green finance market (relative to EU = 100)



>>> 2. ALMOST THERE

€100bn Additional amount of funding needed to reach the EU's required net zero funding

To meet its 2050 net zero goal, the EU alone will need to raise at least €400bn annually by 2030 (and more after that). EU issuers raised €309bn in 2023, suggesting the EU needs to increase annual volumes of green finance by around a third.

>>> 3. NOT THAT GREEN

11% The penetration of green finance in European capital markets

Despite being a world leader in green finance, Europe's capital markets are still not that green. In 2023, that 'green'-ness stalled and even decreased, showing that green finance still has room to grow in the overall market.

>>> 4. TOO MUCH BAD

5:1 The ratio of 'bad' company financing to 'good'

'Bad' companies - or those that delay, rather than accelerate - the transition to net zero are still outraising 'good' or 'green' companies in the European capital markets.

>>> 5. GREEN BONDS AND THE REST

€944bn The value of labelled green bond issuance over the last five years

Labelled green bonds are by far the largest source of green finance in Europe. Making up around two-thirds of total green finance, the green bond market has a sizeable impact on Europe's transition to net zero.

6. NOT SO FAST

+70% The growth in green finance from 2020 to 2021

2021 was a critical year for green finance. In just one year, the European green finance market nearly doubled from more than €200bn to €350bn - growth that was primarily driven by an expansion in labelled green bond issuance along with unlabelled bonds and loans with green use of proceeds.

+6% The growth in green finance from 2022 to 2023

Despite the massive growth that occurred in 2021, the proceeding years saw very limited growth. This slowdown was most pronounced in corporate finance, and occurred in the context of higher interest rates, high inflation, and an anti 'green' backlash.

7. LARGEST GREEN FINANCE MARKET

€61bn The size of Germany's green finance market on average over the last three years

Germany has the largest green finance market by value (with France in second, at €42bn on average over the last three years). Although Germany and France have sizeable green finance markets, they are relatively shallow when comparing green finance to the value of overall capital markets activity and to the size of their economies.

8. FALLING BEHIND

10% Green finance in the UK as a proportion of all capital markets activity

The UK is used to having the largest and deepest capital markets in Europe, but in green finance it is lagging behind. It is the third largest market by value with an average of €45bn a year (green capital raising in Germany is a third larger), and below the EU average in terms of both the 'green-ness' of its capital markets and depth of green finance relative to GDP.

9. QUESTIONS ABOUT 'GREEN'-NESS

40% The percent of green bond frameworks that are 'dark green'

Although labelled green bonds usually claim to be accelerating the transition to net zero, there are some questions about just how 'green' their use of proceeds are. Using data from S&P Shades of Green, it is possible to see the nuance in green bond frameworks: more than half of green financing is not as green as it should be.

10. CLEAN TECH SURGE

18% The penetration of green venture capital in the overall venture capital market

Over the past few years, there has been a surge in the value and penetration of venture capital deals for 'clean technology' firms. In fact, the venture capital market was the only market that saw an up-tick in penetration in 2023. This is an important development, for if the transition to net zero is to succeed, Europe will need a base of high-growth and clean companies.

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Accelerating the transition

The need to address factors such as climate change, biodiversity loss, and a host of other environmental challenges has propelled green finance to the top of economic discourse globally.

We stand at the precipice of seismic ecological shifts and despite the work that has already been accomplished over the last five years we are only at the beginning of the journey towards net zero. More can certainly be done to embed further the principles of green finance into the world's financial system. While I am optimistic that we will reach our final goal, there has been a clear stagnation in the growth of green finance over the last year which requires us to redouble our efforts.

Delving into the developments observed in green finance, this report makes one thing abundantly clear, we are not moving fast enough. At this critical juncture we need to reach, at minimum, €500 billion across Europe in terms of green financing and capital raising per year to achieve our net zero goals. Yet despite the significant surge in issuance seen in green bonds between 2020 to 2021, as the report highlights, we have not only failed to meet this goal but we are in fact going backwards. Moreover, despite the strong growth in the financing of "good" companies, those that contribute towards reducing carbon emissions, we continue to finance "bad" companies, those that actively contribute towards higher carbon emissions, at a rate of 5:1.

The importance of entrenching green finance has never been more apparent, and despite economic headwinds we cannot falter in our objectives now. It is heartening to see that there is growing recognition among investors, businesses, and policymakers that our financial system will play a notable role in addressing these complex challenges. Incorporating environmental considerations within investment decisions has already allowed investors not only to safeguard their portfolios, but also build future resilience. As we finance a greener world, investments into green energy, clean tech, and sustainable infrastructure are propelling innovation, economies, and job markets globally. By aligning financial incentives with environmental objectives, financial services can continue to spur economic development while contributing to reducing carbon emissions and resource depletion.

Allow me to thank the team at New Financial for their work on this report and I trust you will find it illuminating.

Nicolas Mackel
Chief Executive Officer
Luxembourg for Finance

Putting together green finance

Measuring the value, penetration, and depth of green finance in Europe is not easy given that there is no clear definition of what 'green' finance is. One way of thinking of green finance is as labelled issuance (ie. labelled green bonds): in this version, both a fossil fuel company and a renewable energy company can issue financing to support their low-carbon operations. Another way of thinking about green financing is in terms of the EU green taxonomy, where 'financing green' is only for companies that advance the transition to net zero.

We take a broader view and measured the value of green capital raising across four groups: i) labelled green bonds from corporates, financials, and governmental organisations; ii) capital raising by 'good' companies (e.g., wind farms, solar panel manufacturers, hydroelectric dam builders); iii) capital raising with that had a 'good' use of proceeds and iv) the value of 'green' venture capital financing, to capture the increasingly growing market of early to late-stage financing that is going toward high-growth and innovative 'clean technology' companies. In this report, we do not measure investment fund values or flows as it is strictly focused on capital raising.

On this basis green finance in Europe (that is the EU plus the UK, Norway, Iceland, and Switzerland) from 2019 to 2023 was valued at almost €1.5tn, of which the majority was labelled green bonds. Of the €378bn raised in 2023, €309bn was raised in the EU - a significant sum, but well short of the €400bn that needs to be raised per year by 2030 and far off from the €500bn (and more) that is needed in the decades approaching 2050.

Fig. 1 What is the composition of green finance in Europe?

A breakdown of green finance in Europe, in terms of value of issuance (in €bn) from 2019 to 2023.

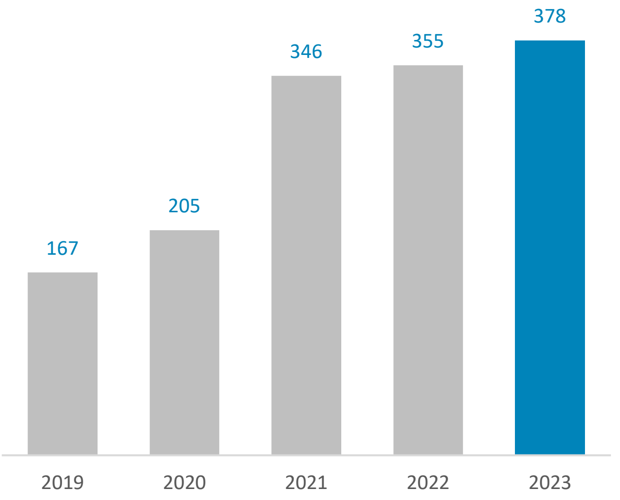
Labelled green bonds €944 bn — 65% *Value 2019 to 2023* — *% of green finance 2019 to 2023*	Bonds that are officially labelled as 'green bonds' are by far the largest single component of green finance in Europe. With a total value of €944bn in the five years from 2019 to 2023, 'green bonds' account for nearly two-thirds of activity. They can be issued by corporates, financial institutions, or government bodies.
'Good' use of proceeds €244 bn — 17%	Syndicated and leveraged loans - along with bonds - that have a 'good' use of proceeds (but not a 'green' label) are the second largest component of green finance. 'Sustainability linked loan products' are an important part of the loan market, but we do not consider SLLPs a 'green' loan and have only included those with 'good' use of proceeds. Companies have raised €244bn in 'good' loans and bonds over the last five years which accounts for 17% of activity.
'Good' company capital raising €237 bn — 16%	The third largest source of green finance is all capital raising in bond, equity, and loan markets by 'good' companies in Europe that is not already included in our analysis of labelled green bonds and 'good' use of proceeds. We define 'good' companies as businesses whose primary activity is supporting the transition to clean energy and net zero (e.g. renewable energy firms). Since 2019, good companies raised on average €47bn per year or 16% of all green finance in Europe.
Green venture capital €25 bn — 2%	The final and smallest component of our green finance analysis is green venture capital. Green VC is investment in smaller, high-growth companies that are focused on developing clean energy or other activities to address climate change. Despite a rapid increase in the value of issuance in 2021, green VC financing has not changed its share since our last analysis, staying at 2% of all green finance in Europe.

Source: New Financial analysis of data from Dealogic and Preqin
Note: our definition of Europe includes the 27 member states of the EU, Norway, Iceland, Switzerland, and the UK.

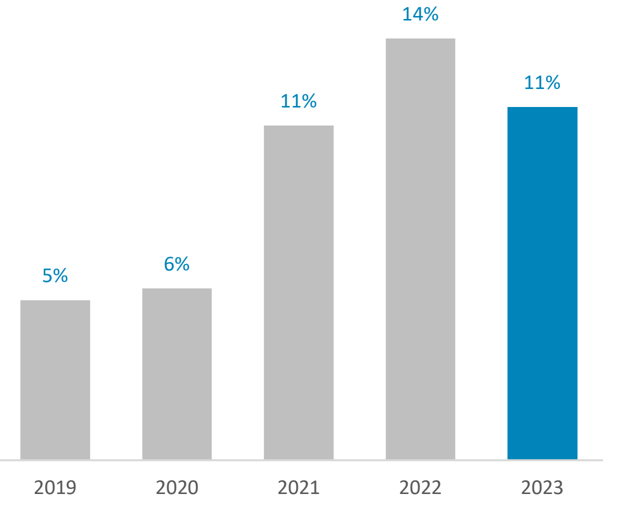
Fig.2 How has green finance changed over the last five years?

These charts show how the value and penetration of green finance has changed from 2019 to 2023.

i) The value of green finance (€bn) from 2019 to 2023



ii) The penetration of green finance as a % of all capital market activity from 2019 to 2023



Source: New Financial analysis of data from Dealogic and Preqin

A slowdown in issuance

The good news is that both the value and penetration of green finance in Europe have more than doubled over the the past five years. The not so good news is that the growth in the green finance market seems to be running out of steam: the value of activity has flatlined over the past few years (and fallen slightly in real terms), and the penetration of green finance as a proportion of all capital markets activity dropped last year. This plateauing in activity is concerning, particularly given Europe's goals of becoming a world-leader in the transition to net zero and replacing its reliance on Russian gas with affordable and more domestic sources of clean energy.

Fig.2 i) shows the explosive growth in green capital raising by corporates, financial institutions, and government bodies over the past five years, contributing to Europe's goals of achieving its net zero transition. The value of activity has more than doubled since 2019 to €378bn last year, with an average over the past three years of €360bn. Even if this had all been raised by the European Union (which it was not), it is still short of the €400bn that needs to be raised according to the European Commission and far off from the amounts needed past 2030.

A similar trend applies when it comes to the penetration of green finance (or green capital raising as a percentage of all capital markets activity). Fig.2 ii) shows that the penetration of green finance as more than doubled since 2019 to over 11% - but this is a significant decline from its penetration of 14% as recently as 2022. This slowdown could be related to a higher interest rate environment and its impact on debt issuance, or the impact of high inflation on capital intensive projects such as renewable energy. Other factors (that we explore later in the report) include the complex and unpredictable regulatory environment; a political backlash against Europe's green deal policies; that the low hanging fruit in green finance has already been picked; and the lack of clarity around the important issue of transition finance (or 'light brown' finance). The fact that the EU is conducting reviews around its sustainable finance regulation and adapting it more to the financial industry's standards is one way to address this slowdown in issuance.

The breakdown of green finance

Green finance has experienced tremendous growth since 2019 but is starting to lose some steam. This section highlights the drivers of these trends and shows just what type of green finance is being issued and what type of companies are issuing that finance. We start off by looking at the value of both overall green finance and then corporate green finance, as the latter holds the largest share among financials, corporates, and government. We then look at the penetration of green finance and see just how much ‘bad’ is still being financed.

Finally, for the first time in our series of reports around sustainable finance, we measure the value, penetration, and depth of individual green finance markets across Europe. What our country-by-country analysis shows is that green finance, while a priority for Europe, is varied across each jurisdiction. It also shows that there is room for each country to expand both its green and overall capital market development to achieve the transition to net zero.

The sources of green finance

The growth in green finance in Europe has been primarily driven by labelled green bond issuance. This issuance originates from non-financial corporates, financial institutions, and governmental organisations, and accounts for around 70% of all green capital raising (with corporates accounting for around half of all green capital raising). While labelled green bonds are the primary source of green finance, other forms - particularly capital raising by 'good' companies - have become more prominent over the years.

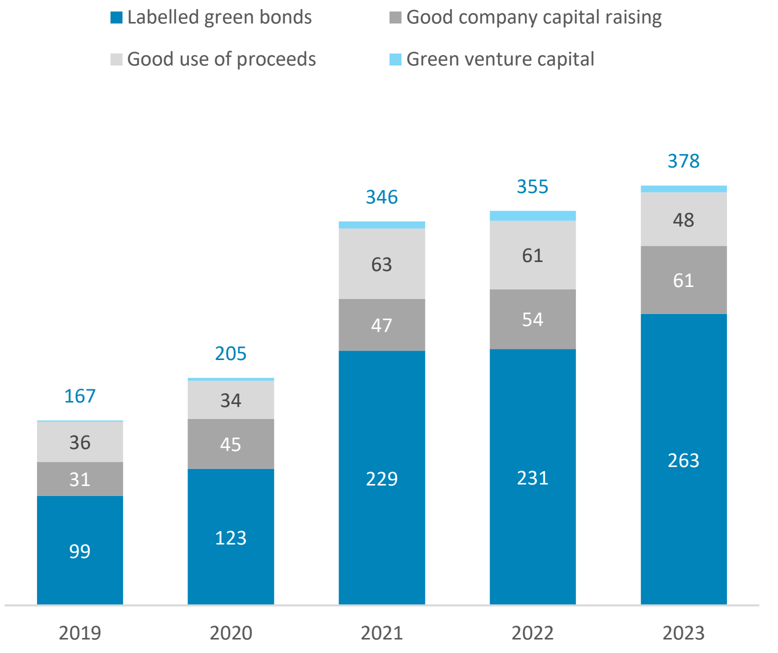
Fig.3 shows that most of the explosive growth in green finance came in 2021 and that this growth was driven by the increase in labelled green bond issuance: the value of labelled green bonds virtually doubled to €229bn, accounting for three quarters of the overall growth in activity. Since then, the market for labelled bonds has flatlined in real terms.

Capital raising by 'good' or 'green' companies has more than doubled over the past five years and - unlike the labelled green bond market - has continued to grow since 2021, suggesting that the renewable energy sector is maturing. Green venture capital also increased from €6bn in 2021 to nearly €10bn in 2022.

Fig.4 shows the distribution of green capital raising by the type of issuer. Corporates accounted for just under half (48%) of green capital raising last year, with governments and supranational organisations for just over a third (35%). It is striking to note the decline in the past few years in the share of green finance from corporates: as activity by corporates has flatlined at around €180bn a year since 2021, issuance by financial institutions and government organisations has continued to grow (although at a lower rate of growth than before).

Fig.3 What are the main drivers of green finance?

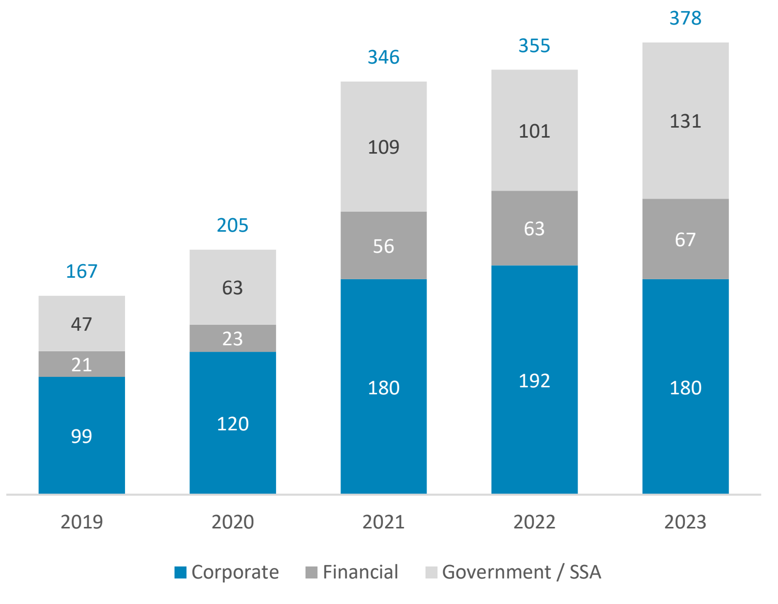
The breakdown of green finance (€bn) by type of issuance from 2019 to 2023



Source: New Financial analysis of data from Dealogic and Preqin

Fig.4 Where is green finance coming from?

The breakdown of green finance (€bn) by type of issuer from 2019 to 2023



Source: New Financial analysis of data from Dealogic and Preqin

The corporate perspective

As the main issuer of overall green finance, non-financial corporates have been been the main drivers of both the rapid growth and more recent slowdown over the past five years. In contrast to overall green finance, corporate green finance is composed of a more varied source of issuance, and while 'good' and 'neutral' companies are driving most of the issuance, 'bad' companies (for example, fossil fuel companies) are not contributing their fair share.

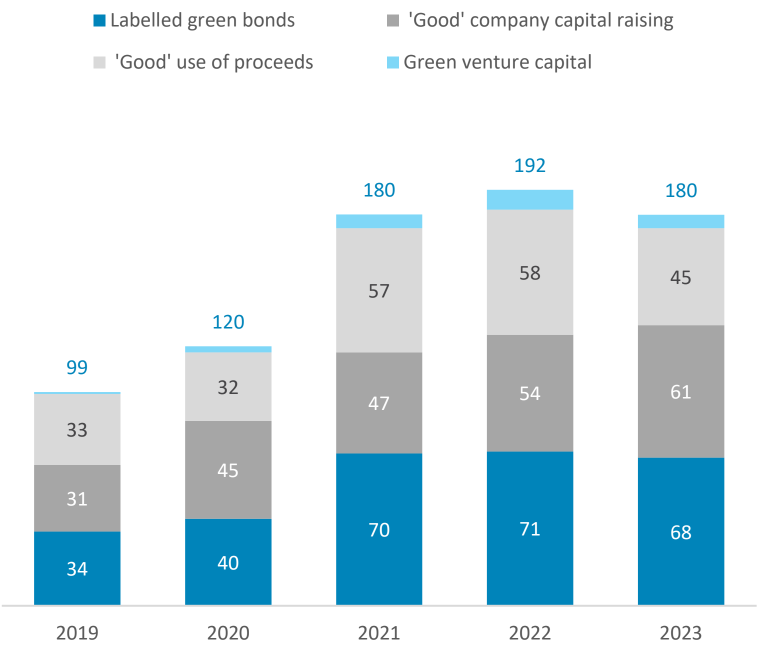
Fig.5 shows that the growth in corporate green capital raising has been driven by a mixture of labelled green bonds, 'good' company capital raising, and bonds or loans with 'good' use of proceeds. Issuance of labelled green bonds by corporates has doubled in value since 2019, and last year accounted for nearly 40% of all green corporate activity. Issuance by 'good' companies, has also doubled - but unlike labelled bonds - it has continued to grow in the past few years and on current trends could soon overtake labelled bonds.

It is important to not only look at what types of instruments are being used to raise green finance, but what types of company are raising that finance. Fig.6 shows that 'good' good companies whose activities accelerate the transition to net zero are the largest source of green finance with a share of nearly 40% of all activity. Over the past five years they have issued nearly twice as much green finance as 'bad' companies, which account for less than a quarter of overall activity.

If Europe wants to transition to net zero, it will need to help more 'bad' companies become greener through transition finance and transition bonds. As we showed in our report on transition finance, a major part of the problem with transition has to do with the lack of high-quality transition plans and a reluctance by many investors to engage.

Fig.5 What types of issuance make up corporate green finance?

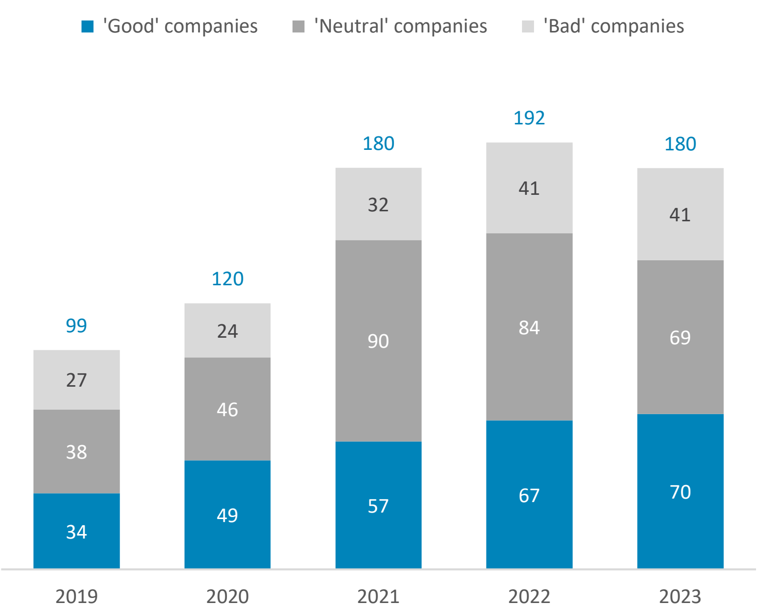
The breakdown of corporate green finance in Europe by type of issuer (€bn)



Source: New Financial analysis of data from Dealogic and Preqin

Fig.6 What types of companies are issuing green finance?

The breakdown of corporate capital raising by 'good' and 'bad' companies (in €bn)

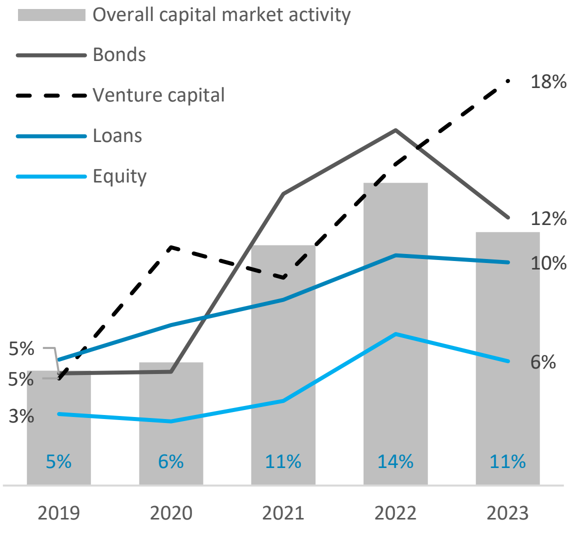


Source: New Financial analysis of data from Dealogic and Preqin

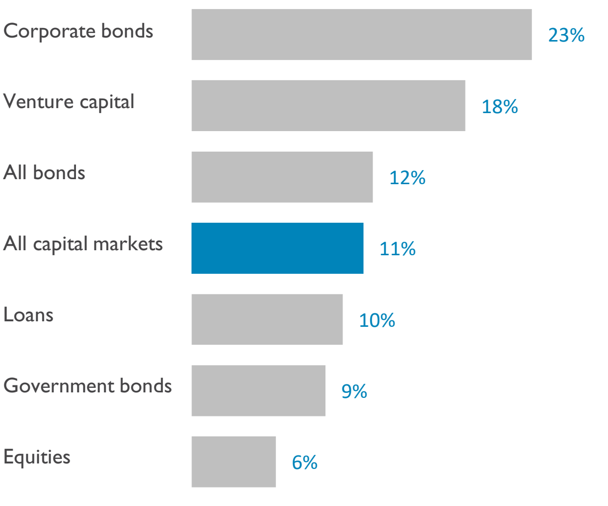
Fig.7 How has the penetration of overall green finance changed over the last five years?

This chart shows how the penetration of green finance has changed across various instruments and overall capital market activity.

i) The growth in penetration of overall green finance (broken down by sector)



ii) Penetration of overall green finance in European capital markets by sector in 2023



Source: New Financial analysis of data from Dealogic and Preqin

A slowdown in penetration

While the total value of green finance in Europe has grown, there are worrying signs that the penetration of green finance is going backwards. After a peak in 2022, when 14% of all European capital markets activity was green, Europe saw - for the first time - a decline in how 'green' its capital markets were. If Europe wants to maintain its position on as a global leader in green finance, it will need to ensure that its capital markets become greener - not less green.

The charts in Fig.7 show that the slowdown in European green finance over the last three years can be explained by a sharp drop in the bond market. The first chart shows that the bond market - after peaking at 16% in terms of 'green'-ness in 2022 - dropped down to 12% in 2023. Given that the bond market is such a fundamental part of the green finance market, any major trends in the bond market and in the issuance of labelled green bonds will be reflected in the total value and penetration.

The high growth in green venture capital is a promising trend, and as the first chart in Fig.7 shows, it was the only sector to increase its level of 'green'-ness. But venture capital's success does not reverse the slowdown in green for two reasons: green venture capital makes up a small proportion of total European green finance; and building out high-growth firms means nothing if they are not listing on the equity markets. The second chart in Fig.7 underscores the weakness in equity markets, where only 6% of activity is green.

The causes of this slowdown in penetration may be attributable to the high inflationary environment and increasing scrutiny around green. Companies will be less likely to issue green debt if interest rates remain as high as they are. Given this new economic environment, Europe should ask itself how green finance can find its way into equity markets and bring the growing clean energy company base into the overall economy.

Too bad

For all the noise around green finance, 'bad' companies (such as an oil exploration company) are still raising a lot more capital than 'good' companies (a producer of solar panels). The welcome news is that Europe has seen a steady increase in 'good' financing over the past five years, and that the balance between 'good' and 'bad' company financing is heading in the right direction.

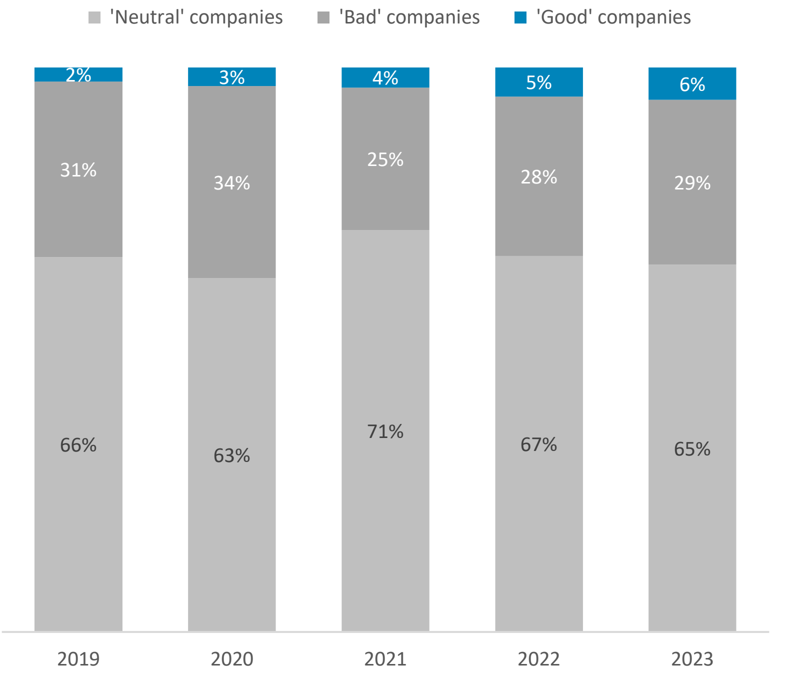
Fig.8 shows how the balance between 'good', 'bad', and 'neutral' has changed over the last five years. Neutral companies - such as healthcare or consumer good companies - raise most of the financing in Europe. Those companies are then followed by 'bad' companies, and finally by 'good' which, in 2023, raised only 6% of total financing in European capital markets.

Fig.9 shows the imbalance between 'good' and 'bad' even more starkly. In 2020, for example, the ratio between 'good' and 'bad' financing was 1 to 10. This means that for every €1 raised by a 'good' company, €10 was raised by a 'bad' company. The ratio of 'good' and 'bad' has improved over the years, dropping to 1 to 5 in 2023. Europe will need to accelerate its financing of 'good' if it wants to shift this ratio the other way around.

If Europe wants to take the transition to net zero seriously, it will need to make it easier to invest in 'good' companies. Efforts such as the EU green taxonomy (and the taxonomy to come from the UK) are important measures to outline what a 'good' company is, and how investors can put their financing toward 'green'. But policymakers will also need to consider how investors should approach 'bad': if we are not going to stop investing in them, we need to figure out how to make them 'greener'.

Fig.8 What type of companies are raising capital in Europe?

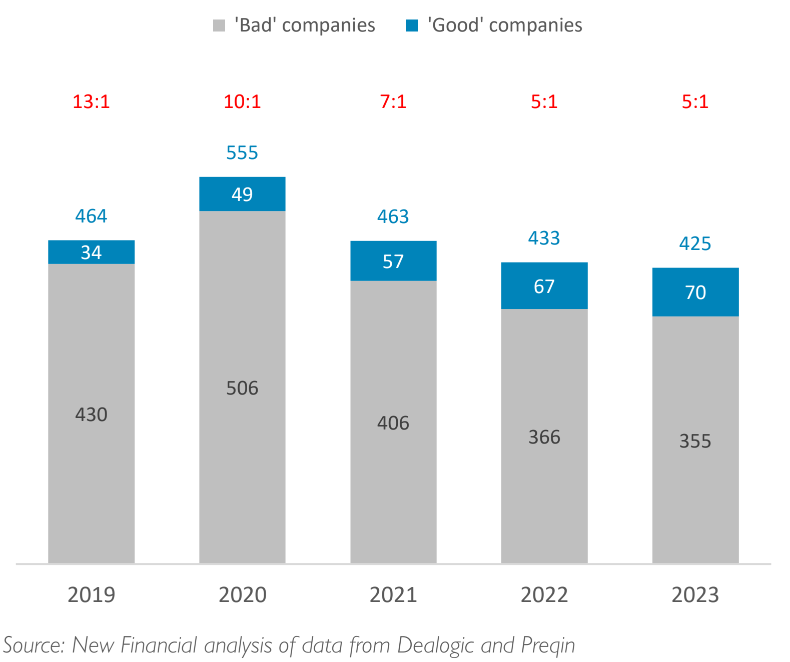
The distribution of overall corporate finance by type of issuer (2019 to 2023)



Source: New Financial analysis of data from Dealogic and Preqin

Fig.9 What is balance of 'good' and 'bad' company financing?

The breakdown of corporate capital raising by 'good' and 'bad' companies (in €bn) and ratio of financing (in red)



Source: New Financial analysis of data from Dealogic and Preqin

A more nuanced picture

For Europe to successfully achieve the transition to net zero, every country needs to play its part. Perhaps unsurprisingly, the three countries in Europe that are raising the most amount of green finance by value are also the largest European economies: Germany, France, and the UK.

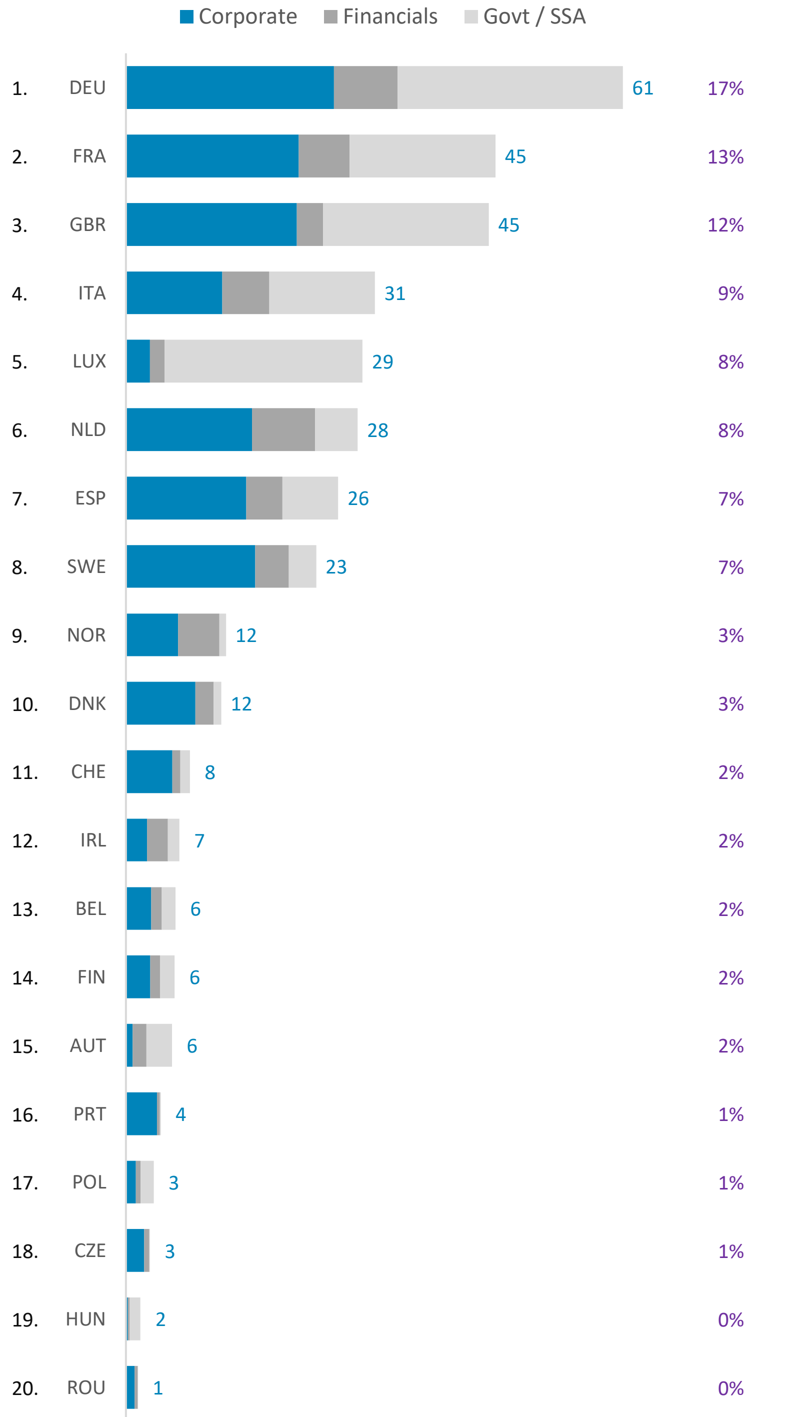
The chart in Fig.10 shows the total value of annual green capital raising by country over the past three years, with a split between corporate, financials, and governments. The largest green finance market by far is Germany, where over the last three years an average of €61bn in green finance has been raised in the capital markets. Of Germany's green finance amount, more than half is a composition of non-financial and financial corporate financing; the remaining amount comes from government, supranational, and agency labelled green bonds.

Following Germany is France, where €45bn has been raised on average over the last three years, just ahead of the UK. Luxembourg stands out primarily due to its high level of government and supranational activity. This can be mostly explained by the fact that European financial bodies such as the European Investment Bank (EIB) are based in Luxembourg. In fact, in 2023 alone more than half of all of Luxembourg's green finance was raised by the EIB.

The majority of green capital raising in the top five countries came from financial institutions and government to fund their energy transition. While volumes in the Netherlands and Sweden were driven by corporates, nearly half of activity in Germany, France, and the UK was from governments. Policymakers should ask themselves whether government and supranational budgets will be able to sustain such financing, or whether more needs to be done to invigorate corporate capital markets.

Fig.10 Which countries have the largest green finance markets?

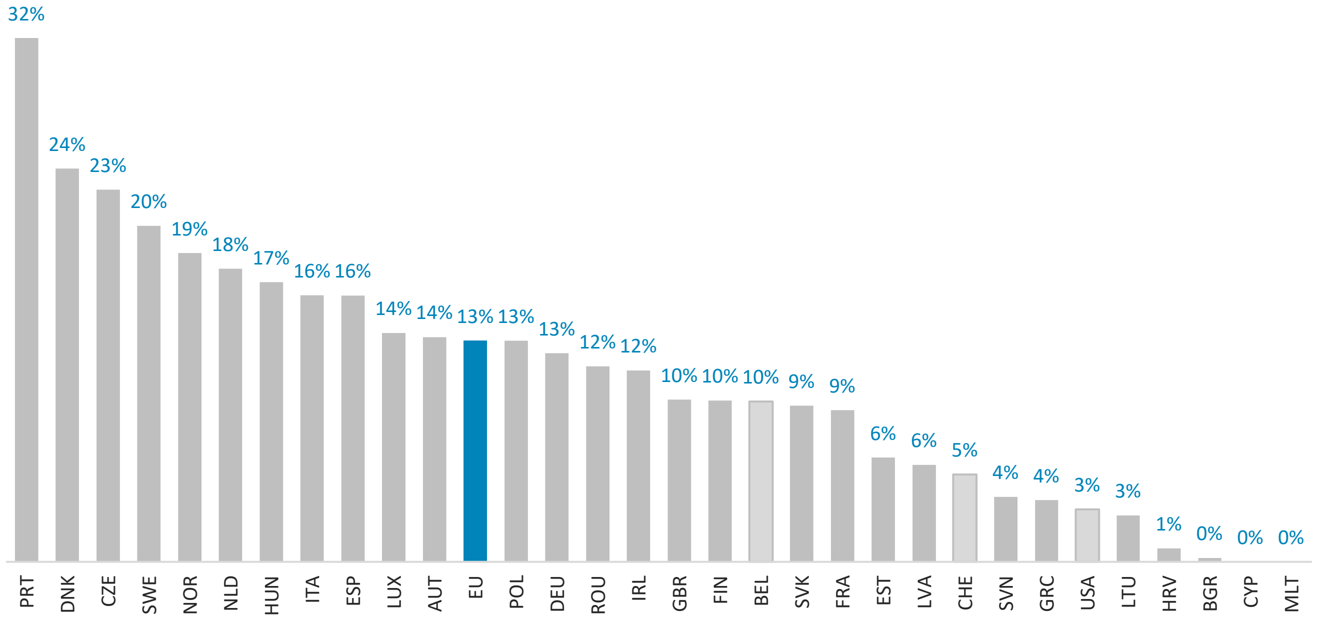
Top 20 European countries ranked by average annual value of green issuance over the past three years (in €bn), and share of total European green finance activity in purple



Source: New Financial analysis of data from Dealogic and Preqin

Fig.11 Which countries have the greenest capital markets?

This chart shows the penetration of green finance across Europe and the US as a proportion of all capital markets activity % (three years to 2023).



Source: Dealogic, Preqin, and OECD

Big does not always mean green

Germany, France, and the UK may have the largest amounts of green capital raising in Europe, but they do not have the 'greenest' capital markets. In terms of green capital raising as a proportion of all capital markets activity, the three countries are more toward the middle of the pack. And while countries like Portugal or Sweden are relatively small markets in terms of size, they are towards the top when it comes to how 'green' their capital markets are.

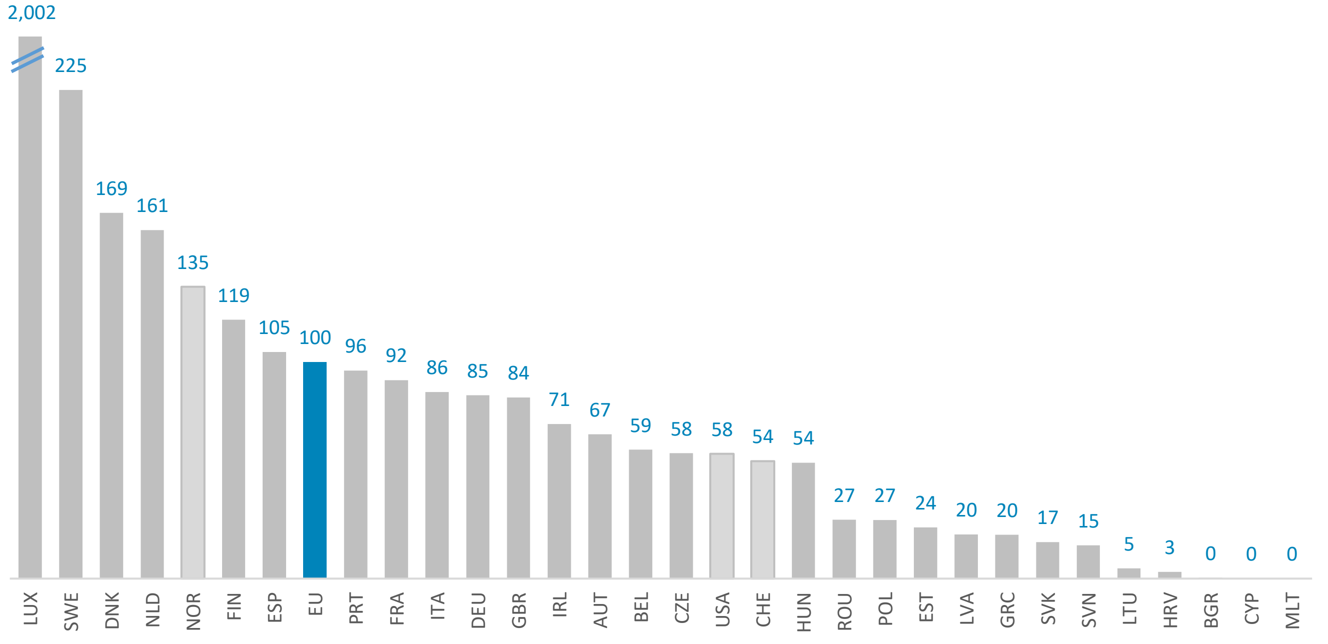
Fig.11 highlights the wide range in the penetration of green finance in among Europe's economies. The 'greenest' capital market is Portugal (at 32%), a country with a relatively small capital market. Portugal leads the way primarily due to its strong reliance on renewable energy as an energy source. The second in penetration, Denmark (at 24%), has forged the way with its northern European neighbours such as Sweden in making the energy transition a political priority. A country that stands out in terms of its penetration is the Czech Republic (at 23%), where green finance is a critical tool toward transitioning its society away from a primarily coal-based economy.

The fact that capital markets in Germany (at 13%) and France (at 9%) are less green than the EU on average and some of their peers like Italy or Spain shows how much room there is to grow for their respective green capital markets. If France were to have capital markets as 'green' as the EU average, then France could have an additional €20bn in financing a year making it the largest green finance market by size in Europe.

Another country that stands out in terms of lack of 'green'-ness is the UK (at 10%), which is three percentage points behind the EU average. Given that overall capital markets in the UK are much bigger and deeper than in France or Germany, this suggests that the UK could raise a lot more green capital a lot faster if it put the right policies in place.

Fig.12 Which countries have the deepest green finance markets?

This chart shows the depth of green finance across Europe and the US in comparison to EU average depth = 100 (three years to 2023).



Source: Dealogic, Preqin, and OECD

A wide range

Another way to understand the challenges that Europe is facing is the depth of green finance in individual countries and at the EU level. Fig.12 shows the wide range in depth (green capital raising as a percentage of GDP), and suggests that a number of large markets such as France, Germany, and the UK could (and perhaps should) be even larger.

In the three years to 2023, the deepest market by far in terms of green finance was Luxembourg. Luxembourg's green finance market was more than twenty times the size of the EU's average depth. This is not surprising, given that Luxembourg is home to exchanges such as the Luxembourg Green Exchange (which lists half of the world's green bonds), the central location for many of Europe's sustainable investment funds and blended finance initiatives, and home to institutions such as the European Investment Bank (which accounts for around half of Luxembourg's green capital raising).

The other top 'green finance markets' are primarily located in northern Europe, with countries like Sweden (225), Denmark (169), and Finland (119) taking the lead in Europe. In the transition to net zero, countries like Sweden have been instrumental in fostering green venture capital and issuing labelled green issuance. Other efforts, such as a carbon tax, have been part of Sweden and Finland's economies since the early 1990s.

Countries that rank more toward the middle of the pack include France (92), Italy (86), and Germany (85). They are critical to the European economy but have not reached green depth like that of Sweden. It will be essential for these countries to deepen their green finance markets if Europe is to achieve net zero. There is a third group of countries that, while having relatively shallow depth, have huge potential in expanding their green finance markets. There is no reason why Greece could not have the same depth of green capital markets as Portugal, or why Lithuania could not be at similar levels as the Czech Republic.

Fig.13 What is the depth of green finance capital raising across Europe?

This table is a ranking of the overall depth of green finance in the EU, UK, and Switzerland across 4 sectors of activity (as measured by the value of green finance as a % of GDP). It is divided into four groups, from most developed (top quartile) to least developed (bottom quartile).

Top quartile | Second quartile | Third quartile | Bottom quartile

	Rank	Country	Overall depth	Labelled green bonds	'Good' use of proceeds	'Good' company capital raising	Green VC
Top quartile	1	Luxembourg	Top quartile	Top quartile	Top quartile	Second quartile	Second quartile
	2	Sweden	Top quartile	Top quartile	Second quartile	Top quartile	Top quartile
	3	Denmark	Top quartile	Top quartile	Top quartile	Top quartile	Second quartile
	4	Netherlands	Top quartile	Top quartile	Top quartile	Top quartile	Top quartile
	5	Finland	Top quartile	Top quartile	Second quartile	Third quartile	Top quartile
	6	Spain	Top quartile	Second quartile	Top quartile	Top quartile	Second quartile
	7	Portugal	Top quartile	Top quartile	Second quartile	Top quartile	Third quartile
Second quartile	8	France	Second quartile	Second quartile	Top quartile	Second quartile	Second quartile
	9	Italy	Second quartile	Second quartile	Top quartile	Third quartile	Third quartile
	10	Germany	Second quartile	Top quartile	Second quartile	Third quartile	Top quartile
	11	UK	Second quartile	Second quartile	Top quartile	Second quartile	Top quartile
	12	Ireland	Second quartile	Second quartile	Third quartile	Third quartile	Second quartile
	13	Austria	Second quartile	Second quartile	Third quartile	Third quartile	Second quartile
	14	Belgium	Second quartile	Second quartile	Second quartile	Third quartile	Third quartile
Third quartile	15	Czech Republic	Third quartile	Third quartile	Third quartile	Second quartile	Third quartile
	16	Switzerland	Third quartile	Third quartile	Second quartile	Top quartile	Top quartile
	17	Hungary	Third quartile	Third quartile	Bottom quartile	Top quartile	Bottom quartile
	18	Romania	Third quartile	Third quartile	Third quartile	Second quartile	Bottom quartile
	19	Poland	Third quartile	Bottom quartile	Third quartile	Second quartile	Bottom quartile
	20	Estonia	Third quartile	Bottom quartile	Second quartile	Third quartile	Top quartile
	21	Latvia	Third quartile	Bottom quartile	Bottom quartile	Second quartile	Third quartile
	22	Greece	Third quartile	Third quartile	Third quartile	Bottom quartile	Bottom quartile
Bottom quartile	23	Slovakia	Bottom quartile	Third quartile	Bottom quartile	Bottom quartile	Second quartile
	24	Slovenia	Bottom quartile	Third quartile	Bottom quartile	Bottom quartile	Third quartile
	25	Lithuania	Bottom quartile	Bottom quartile	Third quartile	Bottom quartile	Third quartile
	26	Croatia	Bottom quartile	Bottom quartile	Bottom quartile	Bottom quartile	Bottom quartile
	27	Bulgaria	Bottom quartile	Bottom quartile	Bottom quartile	Bottom quartile	Bottom quartile
	28	Cyprus	Bottom quartile	Bottom quartile	Bottom quartile	Bottom quartile	Bottom quartile
	29	Malta	Bottom quartile	Bottom quartile	Bottom quartile	Bottom quartile	Bottom quartile

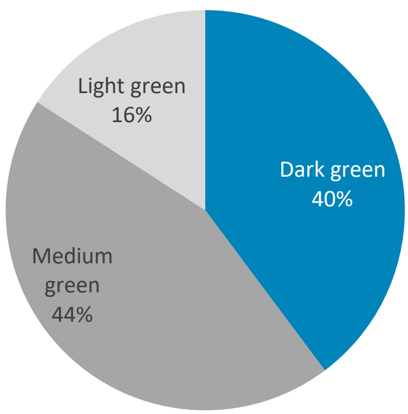
Source: Dealogic, Preqin, and OECD

How ‘green’ is green finance?

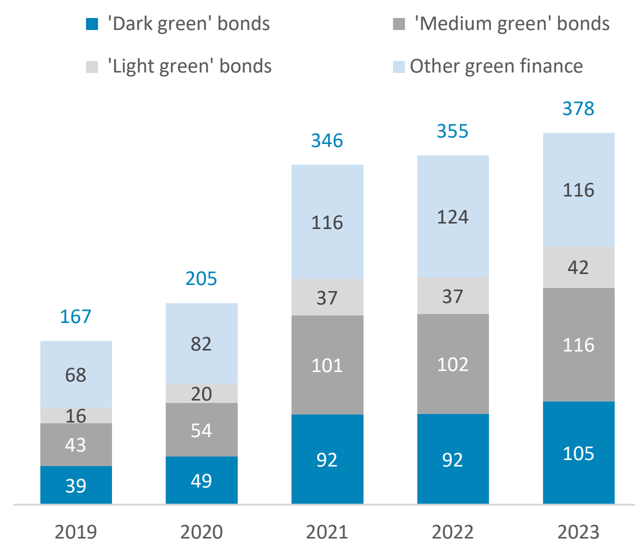
The green finance market is built on the assumption that labelled green issuance is ‘green’ and is financing projects that advance the transition to net zero. What we show in this section is that while this assumption is reasonable, it is important to take a closer look at the quality of labelled issuance - in particular, labelled green bonds and sustainability linked loan principles (SLLP) loans - to understand the actual level of green finance in Europe.

Fig.14 What proportion of labelled green bonds are actually ‘green’?

i) The distribution of the degree of ‘green’-ness for labelled green bonds according to S&P data



ii) The breakdown of the value of green finance using S&P’s ‘dark’, ‘medium’, ‘light’ green distinction (in €bn)



Source: New Financial analysis of S&P second opinion data, Dealogic, and Preqin

Not too green

It is not unreasonable to assume that when a company issues a labelled green bond, that this bond is financing something along the lines of a wind farm, solar panels, or another project explicitly supporting the transition to net zero. While labelled green bonds can only receive their green label if they finance decarbonisation, there are degrees to which that financing supports the transition and just how much that financing is going toward new projects. Using data from S&P Shades of Green, we provide some insight into the labelled green bond market and show that there are different ‘shades’ that influence how we measure total green finance.

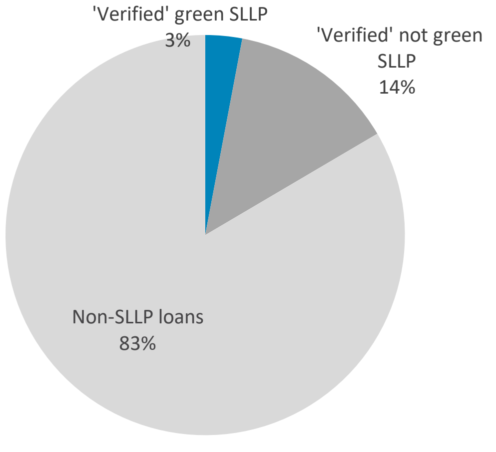
Fig.14 highlights the discrepancy between the green label and its respective shade. Using S&P’s data, we determined that out of a set of 100 European green bond frameworks, only 40 could be considered ‘dark’ green. This means that a green bond’s use of proceeds is ‘allocated to projects and solutions that correspond to the long-term vision of a low-carbon and climate resilient future.’ Using that same set, we found that the other 60 frameworks made either ‘significant steps’ toward a long-term vision or ‘reduced emissions in the near-term’.

The second chart in Fig.14 highlights just how consequential such a breakdown could be. If we assume that only 40% of green bonds are ‘dark green’ and only count these ‘dark green’ bonds as labelled green bonds, we would need to exclude more than €550bn of the €1.45tn raised over the last five years from our analysis. This would decrease the overall amount of green finance raised during this time span to less than €1tn.

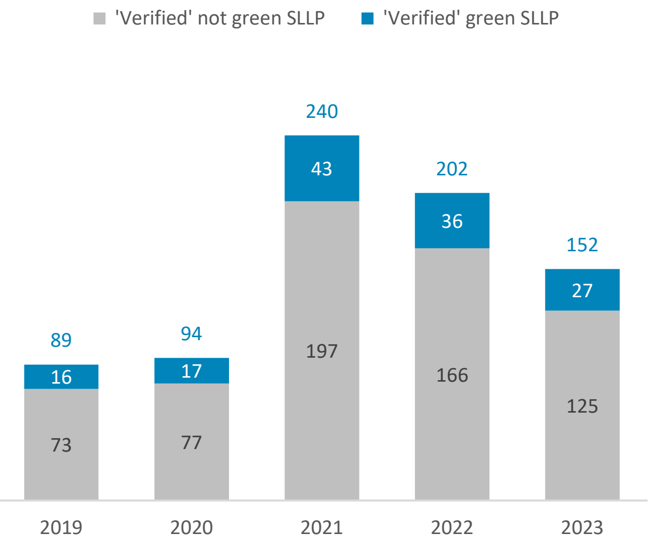
Europe’s transition primarily relies on the issuance of labelled green bonds. If more than half of those green bonds cannot be considered ‘dark green’, European policymakers and financial institutions need to be more straightforward about what these bonds are actually financing. It is encouraging to see that in the green bond standard put forward by the EU, policymakers are outlining what a ‘dark green’ bond is and how financing can meet such a standard.

Fig.15 What proportion of sustainability-linked loan principles (SLLP) loans are green?

i) The distribution of ‘verified’ green, ‘verified’ not green, and other loans (for years 2019 to 2023)



ii) The change in the value of SLLP loans over our five-year period, broken down by ‘verified’ green and ‘verified’ not green (€bn)



Source: New Financial analysis of Dealogic data

A lack of clear labels

Unlike the bond market, the loan market does not have a clear ‘green’ label. Loans that follow the ‘Sustainability Linked Loan Principles’ (SLLP loans) have over the past few years been the primary way to raise sustainable finance in the loan market, but the SLLP label is not a true ‘green’ label. The SLLP loan ties its financing terms to whether a company succeeds in achieving certain sustainable goals or not, but does not always mean that it is directly financing projects that accelerate the transition to net zero.

In Fig.15 we show that there are two types of SLLP loans: loans that we could verify as ‘green’ based on their use of proceeds and loans that we deemed ‘unverified’ as there was not enough information in our dataset about these loans. We then carried out an issuance-by-issuance analysis of a sample of these loans to determine how ‘green’ their use of proceeds are. Based on that analysis, we found that around 18% of all SLLP loans could be considered ‘green’.

While this is a low percentage, it is important to remember that SLLP loans are not labelled based on their use of proceeds. Rather, they are labelled based on whether their financing terms are tied to a sustainable goal. It is reasonable to include SLLP loans in the overall count for green finance as they are frequently tied with decarbonisation goals.

Since 2021, the SLLP loan market has decreased in value. This decline can be explained by a stricter understanding of what can be considered ‘sustainable’ or not. A lot of the SLLP market, particularly when it exploded in 2021, was likely made up of loans that had a sustainable label but were in reality vanilla loans. As policymakers and financial institutions look to inject more ‘green’ into the loan market, it would be useful for them to ask whether SLLP is the right path or whether a ‘green’ label similar to the labelled green bond would be the better option.

The future of green finance

In this final section, we outline why green finance matters to Europe. We then look at the challenges facing green finance, how regulation and policy are shaping green finance flows, and what we see so far from the current anti 'green' backlash. We end this report with a selection of questions to policymakers, regulators, and the banking and finance industry in European countries.

Green finance is finance

The main takeaway from this report so far is that Europe needs to act to not lose the momentum towards a clean energy economy. It is critical for Europe to draft regulation that is neither burdensome nor too lax, and develop a new narrative that effectively makes the case for why green finance is needed. If not, the consequences for Europe and the world could be dire:

1. **The reality of climate change:** the European green deal was put forward because the world admitted in the 2015 Paris climate accords that carbon emissions were driving rapid and unhealthy change in the global climate. Europe took the lead in addressing the carbon issue and has since showed the world that through green regulation, along with initiatives such as Next Generation Europe, economies and societies could be reshaped. That does not mean that Europe can now rest on its laurels: instead, Europe needs to accelerate and explain why the transition to net zero is needed sooner than later.

   If Europe fails at mobilising the financing needed, it will show that despite one's noblest efforts, the transition cannot be achieved. Already, there are naysayers around the world who, although perhaps are no longer denying climate change, are denying that anything can be done about it. A successful transition in Europe is crucial for the world's successful transition.

2. **Strategic autonomy:** if Europe does not accelerate the growth of green finance and, in turn, of a green economy, it will continue to be dependent on fossil fuels that do not originate from its shores. Replacing Russian gas with American natural gas does not solve the underlying issue which was that Europe lacked its own home-grown energy that would provide it with the strategic autonomy many of its member states desire. Continuing to be dependent on fossil fuels will base the European economy on a form of energy production that is focused on extraction and polluting practices - damaging Europe's air, food, and water quality.

   Europe does not need to reinvent the wheel - it simply needs to build on its strengths of constructing wind farms and solar farms, increasing the energy efficiency of homes and workplaces, and helping people shift their consumption toward more ecofriendly versions of transportation and food production.

3. **A disenchanted population:** policymakers in Europe have promised to their citizens a transition that is not only clean, but just. After the 2008 financial crisis and the preceding process of deindustrialisation that occurred across the West, many citizens became disenchanted with not just the banking and finance industry but lost trust in institutions and governments altogether. And as Europe and the rest of the world experiences a cost-of-living crisis unlike any seen in the last few decades, many are turning against green policies in looking for an easy target.

   If Europe wants to rebuild trust with its citizens and show the value of good policy based on good science and knowledge, then it needs to follow through with its commitment of building out a green, digital, and versatile economy. But it will also need to be honest about the costs that come with such a transition and clearly explain why any short-termist thinking now would have long-term consequences.

4. **Just do it:** the good news is that Europe, European governments, and European citizens are committed to the transition to net zero. While in the US there is a more severe backlash against the idea of a green transition, in Europe even the more resistant generally agree with the need for a clean energy future. This is imperative for the competitiveness of European capital markets as well: ESG and green finance are the only areas where Europe leads the world in terms of capital markets activity and expertise, and any slowdown here would have an adverse impact on the development of capital markets in Europe.

1) The challenges facing green finance

Over the last five years, green finance has played an important role in European capital markets and has provided investors with high-growth, innovative, and clean companies that can form the basis of a new net zero economy. Despite green's rapid rise in both the public and private spheres, green finance still faces some challenges that - if not addressed - have the potential to cement the slowdown in both issuance and penetration that we saw in 2023. In the section below, we outline the challenges facing green finance and what their impact has been:

>>> **Lack of definition:** through its green taxonomy and green bond standard, the EU has taken important steps in outlining what a green investment is (and what it isn't), and what does and doesn't constitute legitimate labelled green issuance. The UK is developing a similar taxonomy, while efforts to define and mandate climate transition plans should make it easier for investors to understand how a company is 'green'-ing. Despite these regulations and directives, there remain issues around the fragmentation and interoperability (or lack thereof) of different taxonomies in different markets around the world, along with fundamental questions on whether natural gas and nuclear are 'green', how 'dark green' a labelled green bond needs to be to deserve the 'green' label, and how to assess the green credentials of a company that is in transition. If Europe does not address these issues, greenwashing will continue to be a problem and the transition to net zero will be delayed.

>>> **A confusing narrative:** Europe has become a world leader in advocating for the transition to net zero, but with Russia's invasion of Ukraine, the continent also had to make a renewed case for energy security. There seems to be a gap in addressing the apparent contradiction of the two: sometimes, energy security can conflict with the transition to net zero, for example when sourcing natural gas from a friendly third country such as the US, or when renewable energy production and the electricity grid are not yet at the level where they need to be to provide energy security at all times. A better, concise, and long-term narrative is needed to help explain the relationship between net zero and energy security - and the need for new wind turbines, solar panels, hydrogen pipelines, and power lines in all corners of the European continent.

>>> **Barriers to project development:** the green finance market has emerged as a sizeable part of European capital market issuance. But green finance means nothing if the green projects being invested in are difficult to build or even complete. The EU's recent efforts to address permitting issues for building renewable projects is a welcome development, but problems remain in both the EU and UK around contract-for-difference schemes and ensuring that it is easy to bid for and construct wind farms and other projects.

>>> **Not enough 'good' from 'bad':** to transition to a net zero economy and expand clean energy capacity, 'bad' companies will need to play their part. Transition plans (and standards to assess those transition plans, such as the ones proposed by the Transition Plan Taskforce in the UK) can be an effective way to ensure that 'bad' companies move towards 'good' and to monitor them along the way. These plans will have to consider the risk of stranded assets which could act as a drag on the overall economy.

>>> **A problem with data:** one of the most serious obstacles to green finance is a lack of good, quality data. Without clear data on green finance in all areas of the capital markets it is virtually impossible to assess how much financing is going into the transition - and whether Europe is on track to meet its climate goals. Part of this has to do with 'bad' companies not releasing enough data around their transition plans and carbon emissions, another part has to do with sectors such as the loan and equity markets not having clear and distinct labelling. But this is not a challenge that the finance sector can solve on its own: financial institutions are reliant on corporate data disclosure to assess how 'green' green finance is, and the discussions around measures such as the EU's corporate sustainability due diligence directive (CSDDD) do not bode well for increased data standards and availability.

2) The role of regulation and policy

Without effective regulation and good policy, Europe will not be able to mobilise the investment needed for the energy transition. At the same time, regulation and policy can only go so far in shaping the kind of green finance regime that Europe envisions as part of its larger green and digital transition. In the section below, we outline the role of regulation and policy in shaping green finance flows - and where it is struggling to do so:

>>> **An ambitious regulatory regime…:** Europe has constructed an ambitious regulatory regime that aims to facilitate green finance flows and direct said finance toward renewable and clean energy projects. Regulations such as the EU green taxonomy aim to make it clear what investments are 'green' and 'not green', measures such as the sustainable finance disclosure regulation (SFDR), the insurance distribution directive, and MIFID II's sustainability provisions aim to increase transparency and make it easier for clients to invest in green, and the CSRD and green bond standard seek to make disclosure effective and systematic. These regulations, along with the UK's own efforts to create a taxonomy and sustainability disclosure requirements, have made Europe a transparent place to do green business.

>>> **…but overly complicated at times:** with such an ambitious regulatory regime has also come burdensome regulations that hinder, rather than encourage, green investment. This is exemplified by SFDR, where (wisely) the EU is now conducting a general and targeted review of the regulation to bring in more guidance from the financial sector. Part of the problem with SFDR - and many regulatory practices in Europe around green - is that it is not as effective at addressing greenwashing as policymakers would prefer. Making sure that sustainable finance regulations are better synced with the practices of the financial industry, while still encouraging transparency and investor choice, will be a delicate balancing act.

>>> **Ignoring the role of 'bad':** it is reasonable that regulators are focused on determining what is 'green', particularly since the definition of green is a major challenge for the industry. What is sometimes lost in this effort to create the binary is that not enough attention is put on 'bad' companies, their wider operations, and any financing that goes toward their 'bad' operations. There is no reason why in the bond market there could not be clearer disclosure (perhaps in the form of new labels) that make it clearer whether a bond is financing projects needed for the transition to net zero or 'business as usual'. Strict requirements and standards for achieving the 'green' label are good, but sometimes perfection can be the enemy of progress.

3) The anti 'green' backlash

In recent years, Europe along with the US and other similar economies have experienced a bit of a 'backlash' to ESG, sustainability, and the transition to net zero. This 'backlash' confuses and conflates a wide range of issues around green policies, regulations, the green transition, and new so-called 'woke' social norms and cultural trends. In the section below, we outline the main points of contention and how they might affect green finance in the future.

>>> **Part of a larger backlash:** green finance is a central part of ESG financing (with the E standing for environmental), and sustainability has been (reasonably) tied to issues around justice and social equality in addition to good governance. What we are seeing now in the US and in parts of Europe is a pushback against social inclusion and diversity measures along with resistance to efforts to standardise governance practices. In the US, ESG has become a dirty word in many states and legislation has been put forward to prevent pension funds from using ESG investment principles. While it is reasonable to question the details around ESG, what many opponents of ESG are trying to do is question the underlying assumptions of ESG altogether: that if a company is inclusive, green, and well-governed, then it would not just be good for the company but for society as a whole.

>>> **An inevitable reaction:** as green and ESG in general have been around for a while, it was inevitable that there would be some kind of pushback to the goals and regulatory practices put in place. It may be a good thing that people are questioning the labels being put on green bonds as there are good reasons to be suspicious of greenwashing. It also is worth reconsidering the role of regulation in shaping green finance flows and ensuring that they are not too restrictive or even counterproductive. This is best exemplified by the SLLP loan market, which has been dogged with accusations of being not very sustainable, and too easy to issue. The decline in SLLP loans, while at face a concerning development, may be a sign of refinement and maturity in the market.

>>> **A different macro-economic environment:** there has always been resistance to the goals of the European green deal and the Paris climate accords. But until 2022, most developed countries had not faced a high-interest rate, high-inflationary environment for many years. Part of what we understand as the 'backlash' and the decline in the penetration of green finance could be contributed to a more challenging and restrictive economic environment. After all, renewable energy projects require capital-intensive upfront costs that are much more difficult to access in a high-inflationary environment. And the stalling in labelled corporate green bond issuance could be attributed to higher interest rates and a greater aversion toward issuing debt. This does not mean that the green finance sector should be complacent, but it needs to find ways to adapt to a new world with new conditions and explore other ways to raise finance such as the equity markets.

>>> **Going into a year of elections:** 2024 will be a busy year for elections and politics. With that will come intense and fiery debates on the future of Europe's transition and how it impacts different parts of the economy. One simply needs to look at the farmer protests occurring from Paris to Prague, along with tensions around CSDDD, to see that some policymakers are on the backfoot and even reconsidering their green policy goals. How the anti 'green' backlash will manifest itself in EU parliamentary elections, UK parliamentary elections, or the US elections remains to be seen - but what is clear is that politicians are increasingly open to abandoning parts of their green pledges to meet the needs of more sceptical and more economically pressured voters.

Creating dynamic, green, and innovative capital markets

If Europe wants to achieve the transition to net zero, it will need to ask itself important questions about what it actually wants, how it wants to achieve those goals, and how long it should take to achieve those goals. In the section below, we outline the questions we think are worth asking to better understand where we go next:

1. **Financing green and greening finance:** is it easier just to finance renewable energy companies, or to enable all types of companies to issue 'green' finance? Does being 'green' have to do with low-carbon, environmental friendliness, more integrated energy and transportation networks, or something else? What do we do with nuclear and natural gas?

2. **Helping 'good':** how can we make it easier for investors to invest and support the construction of wind turbines and solar farms? What role can governments play in making it easier for offshore wind to bid for plots, or for electricity grid operators to make their networks fit for the future? What is the right level of subsidies for renewable energy? How can we better de-risk projects that people want to invest in?

3. **Addressing 'bad':** what makes a good transition plan? Should financing for 'bad' companies be tied to the quality of their transition plans? How can we ensure that less money is going towards 'business as usual' projects, such as oil extraction and exploration?

4. **Defining the transition:** how can we develop a better narrative on the transition to net zero? Should it focus on the economy-wide transition or just on the energy sector? Or is it a societal revolution, where people's roles in society will be fundamentally different than they are today? Is the transition successful if climate change is mitigated, or is it successful if societies are protected from the effects of climate change?

5. **Regulation:** where can regulation play the most effective role in channelling financing toward green? What regulations may need an 'SFDR' treatment with a general and target consultation looking at the industry-specific effects of that certain regulation? Why did regulatory initiatives like CSDDD face resistance, and what are the best ways to get buy-in from different stakeholders on green regulation?

6. **Bigger picture:** how does green finance interact with Europe's goals of a digital transition? Where can pensions reforms, equity market reforms, and retail investor reforms better interact with the goals of the green transition? What are the laws, incentives, and regulations needed for deeper and more liquid green finance market?

7. **On the ground issues:** what impact will the green transition and green finance have on people's economic affairs? How can individual workers, savers, investors, and pensioners be better brought into the green finance market? How can green finance play itself out at the state, regional, and local level?

8. **Carbon tax:** what measures could be taken right away to dramatically improve the situation for green finance and green in general? How effective would a high-level carbon tax be? Would Europe benefit from a green investment fund that could mobilise funding toward specifically green projects?

9. **Measuring success:** what data absolutely needs reporting, and what data could possibly be voluntary or optional? What role could European countries play in creating a cross-border data platform that tracks finance flows toward 'green' and 'not green' projects?

10. **Innovation and green:** what role can venture capital play in invigorating the green finance market? Could innovative financing tools such as blended finance or fintech solutions and AI an opportunity for countries to better, more efficiently, and cheaper invest in renewable projects?

NEWFINANCIAL
Rethinking capital markets

Lead authors

Christopher Breen, senior research analyst, New Financial

Christopher joined New Financial in February 2022 and focuses on capital markets and green finance. He studied political science and Slavic languages & literatures at the University of Chicago, has a masters in international relations from King's College London, and a masters in data analytics from Queen Mary University of London.

New Financial LLP
1 Duchess Street
London
UK, W1W 6AN
www.newfinancial.org

William Wright
Managing director
william.wright@newfinancial.org
+44 (0) 20 3743 8269

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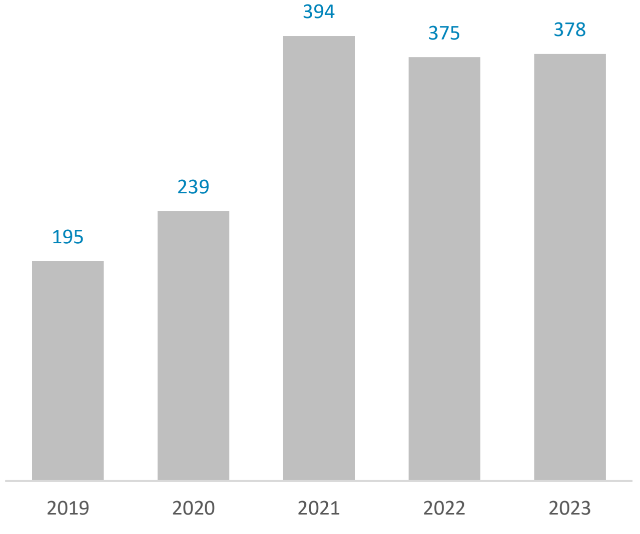
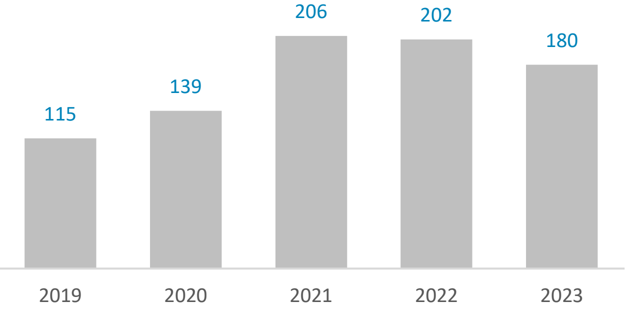
Fig.16 How has green finance changed over the last five years adjusted for inflation?

These charts show the growth in green finance based on 2023 inflation adjusted numbers.

i) The value of overall green finance, based on inflation adjusted numbers (in €bn)



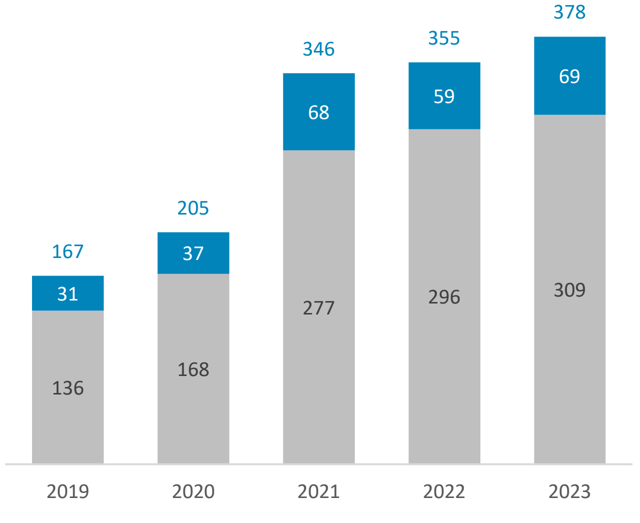
ii) The value of corporate green finance, based on inflation adjusted numbers (in €bn)



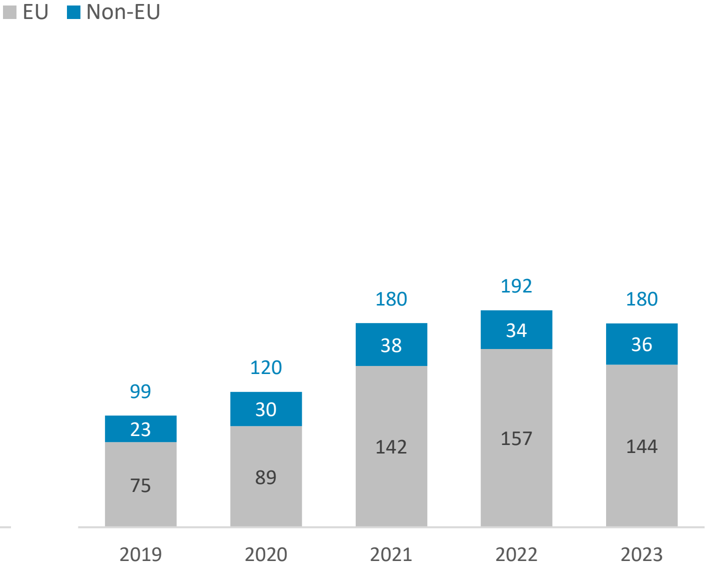
Source: New Financial analysis of S&P second opinion data, Dealogic, and Preqin

Fig.17 What is breakdown of overall and corporate European green finance by EU and non-EU?

i) The breakdown of European green finance by EU and non-EU (in terms of value, €bn)



ii) The breakdown of European corporate green finance by EU and non-EU (in terms of value, €bn)



Source: New Financial analysis of S&P second opinion data, Dealogic, and Preqin