

ESG Credit Special

Market Overview, Trends, Regulation and Outlook

Analysts:

Ralf Burchert, CEFA

ralf.burchert@erstegroup.com

Heiko Langer

heiko.langer@erstegroup.com

Bernadett Povazsai-Römhild, CEFA

bernadett.povazsai-roemhild@erstegroup.com

Carmen Riefler-Kowarsch

carmen.riefler-kowarsch@erstegroup.com

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Major Markets & Credit Research

Gudrun Egger, CEFA (Head)

Sub-Sovereigns & Agencies
Ralf Burchert, CEFA

Financials & Covered Bonds
Heiko Langer
Carmen Riefler-Kowarsch

Corporate Bonds
Peter Kaufmann, CFA
Bernadett Povazsai-Römhild, CEFA
Elena Stelov, CIIA

Note: Past performance is not necessarily indicative of future results.

Transformation at a Faster Pace

In the process of imposing stricter climate targets, the EU is stepping up its regulatory pace with a series of coordinated packages of measures. The financial sector and supervisory authorities have a decisive role to play. Investors will be offered greater transparency with significantly expanded ESG-related reporting obligations on the part of companies and financial service providers.

The strategy recently presented by the European Commission on financing the transition to a sustainable economy proposes, inter alia, expanding the range of product offerings by green, social and sustainable financing and investment instruments for SMEs and consumers, as well as standardizing sustainability factors in financial reports and credit ratings, bank risk control systems and insurance regulation.

The ESG EUR primary market remains in boom mode, reaching new record highs with issuance volumes of EUR 232bn in 2020 and EUR 264bn already in 2021 YTD. The volume of outstanding EUR-denominated ESG bonds has grown to EUR 806bn, with a significant increase in the diversity of thematic formats since 2020. Green bonds remain the most commonly used format, but their share of total EUR issuance has gradually declined over the years, from more than 90% in 2015 to less than 50% in 2021 YTD. By contrast, the share of social bonds increased, primarily driven by pandemic-related supranational issuance. The share of ESG issuance in corporate bonds more than doubled to 22% in 2021 YTD.

On the demand side, inflows of ESG fund products in Europe now outweigh those of conventional funds. In the past ten years, assets under management in sustainable funds in Europe have increased more than tenfold, from EUR 112bn at the end of 2010 to around EUR 1,550bn as of June 2021. In 2020, assets grew by around 52%, and in the first half-year 2021 by another 30%. Demand from private investors exhibits particularly strong momentum. A significant "greenium" in the form of lower risk premiums is evident.

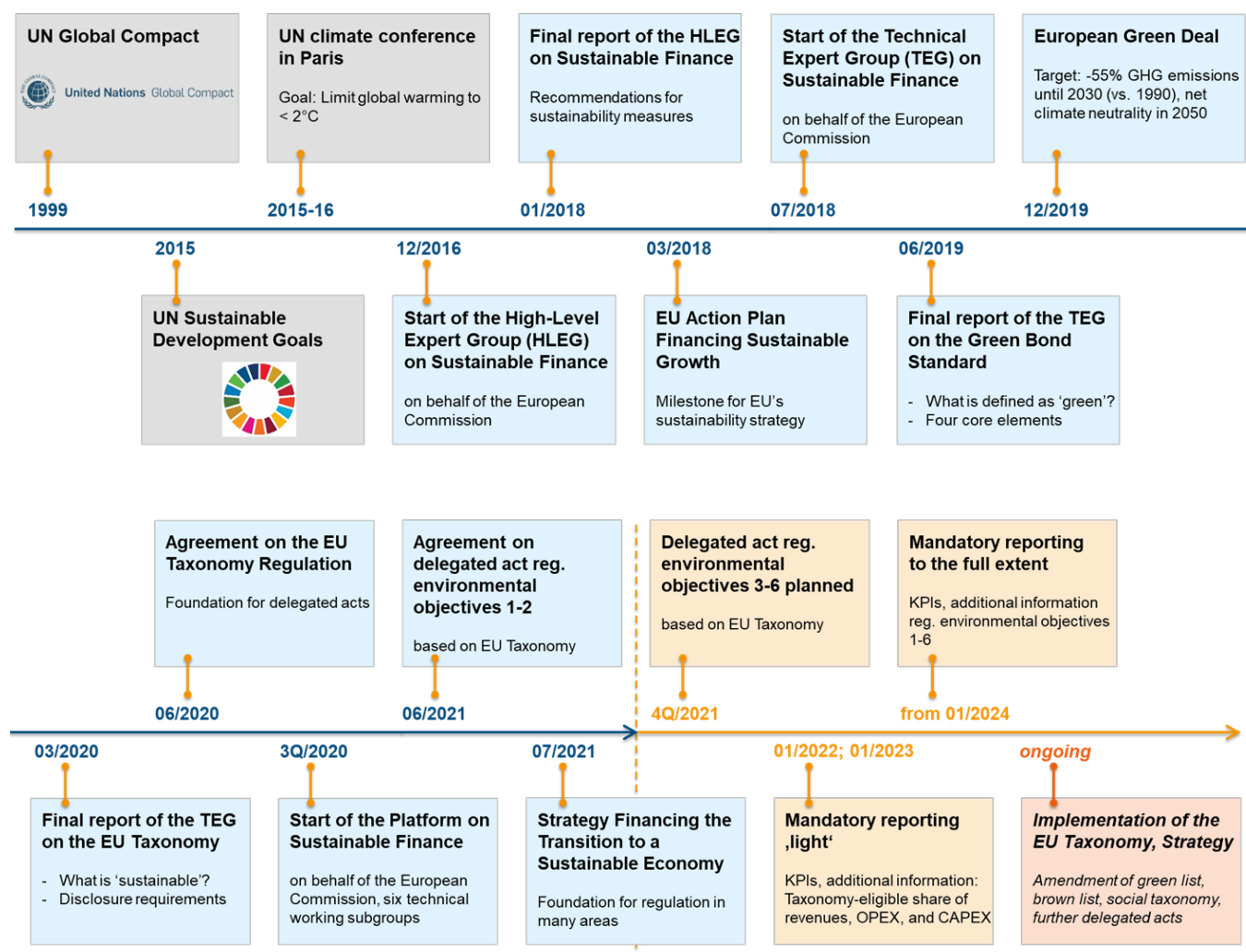
Assessing ESG profiles of issuers and particularly their physical and transitory climate risks remains a challenge. Ratings from ESG agencies and the scores from ESG models currently provide highly non-homogeneous, sometimes contradictory results. In this case the EU is also considering measures to regulate this market. Moreover, at the same time, greater measurement of climate risks is changing the risk profile of investments. In its July 2021 report on financial stability, the ECB shows climate risks in the banking sector after analyzing environmental risks for 1.5 million companies. Only about 1% of assets are considered taxonomy compliant, and only 11% are considered green.

Regulation as a driver for more sustainability

The ubiquity of the topic sustainability

One cannot avoid getting the impression that the topic of sustainability is increasingly gaining presence. Almost daily, we are confronted with new developments - be it in the form of official and regulatory information, studies and reports by independent bodies, news from and about issuers, expressions of interest from investors or demands from civil society. In order to structure and meaningfully implement all these flows, the driving force of regulation is needed. This has increased significantly in Europe in recent years and there is no end in sight. We present the most important milestones below based on the ESG timeline.

Why is sustainability such an omnipresent topic these days? - The ESG Timeline



Source: Erste Group Research

**Sustainability initially shaped
at the supranational level by
the UN**

The first green movements were already active in the early 1970s. The term eco-social market economy was coined in the 1980s - predominantly in the developed world and initially at the national level. With increasing globalization the need for supranational cooperation increased as well. As a result the United Nations launched the UN Global Compact at the turn of the millennium, with the aim of making globalization more ecological and social. Multinational companies can voluntarily commit to the ten principles¹ of this pact and thus to the 17 goals for sustainable development², also known as Agenda 2030. The network is also open to other institutions, organizations, governments and economic actors. In 2015, the agreement of the UN Climate Conference in Paris was adopted. This includes the goal of reducing emissions and, in the long term, limiting the increase in average global temperature to well below 2°C compared to pre-industrial levels.

**EU Action Plan of March 2018
the basis for European
regulation**

On the European level, concrete steps were then taken in 2016 to achieve greater sustainability. A group of experts drew up rough proposals for appropriate measures on behalf of the European Commission. Based on this, the EU Action Plan for Financing Sustainable Growth of March 2018 was created - a milestone in the EU's sustainability efforts and until today the basis for a plethora of further initiatives, measures and regulations. The central objective of the Action Plan is the redirection of capital flows toward sustainable investments. Two major elements in this context are the EU Taxonomy and the Green Bond Standard³:

- The EU Taxonomy represents a classification system with uniform terminology for environmentally sustainable activities. It aims to support the transition to a low-carbon, resilient and resource-efficient economy by making it easier for investors to invest in companies, projects and technologies with favorable climate and environmental impacts.
- The Green Bond Standard (GBS) creates a high-quality seal of approval for green bonds that will be available to all private and government issuers, based in or outside the EU. Issuers must meet strict sustainability requirements to demonstrate that they are financing green projects aligned with the EU taxonomy. This is meant to protect investors from so-called greenwashing.

**Sustainability is addressed in
many areas**

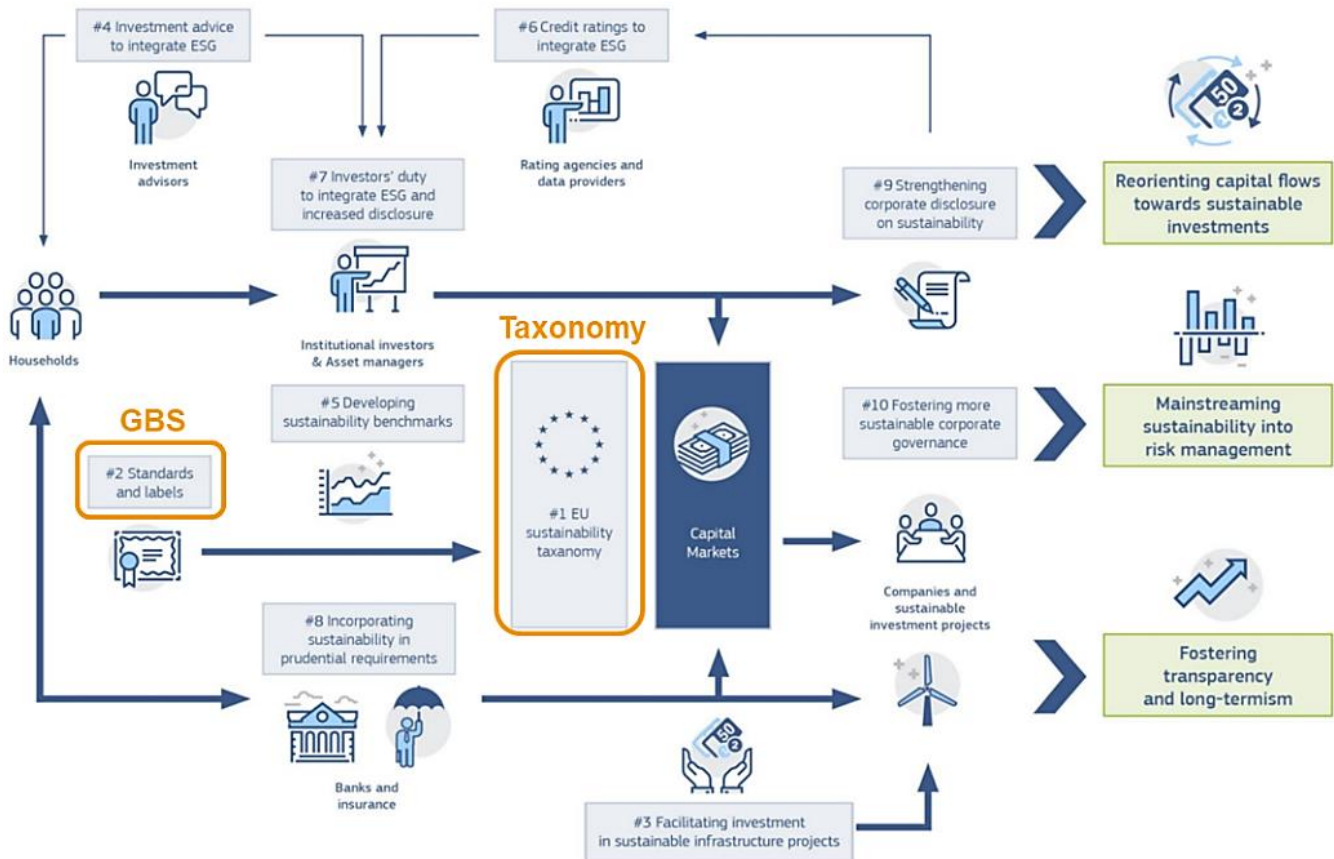
These two elements, as well as numerous other subject areas, are continually developed and elaborated by an - initially temporary and now permanent - group of experts on behalf of the European Commission. For instance, the EU taxonomy is to be expanded to include further ecologically sustainable economic activities ("green list") and activities that significantly impair ecological sustainability ("brown list"). In addition, a social taxonomy is to be developed analogous to the ecological taxonomy.

¹ Original source: [The Ten Principles of the United Nations Global Compact](#).

² Original source: [The 17 Sustainable Development Goals \(Agenda 2030\)](#).

³ We most recently reported on this in [Credit Markets Weekly of July 22nd, 2021](#).

Action Plan for Financing Sustainable Growth, March 2018



Source: European Commission

In addition, the recently presented strategy for financing the transition to a sustainable economy⁴ affects a wide range of other areas⁵, such as:

- The expansion of the product range to include green, social and sustainable financing and investment instruments for small and medium-sized enterprises and consumers, including advisory services and financial education;
- The consideration and standardization of sustainability factors in financial reports (corporate social responsibility reporting as an expanded successor to the current Non-Financial Reporting Directive, probably from 2024), credit ratings, the risk control systems of banks and the regulation of insurance companies;
- The improvement of the availability, transparency and comparability of ESG ratings;
- Strengthening cooperation between supervisory authorities against greenwashing, including more knowledge and experience sharing;

⁴ Original sources: [Strategy for Financing the Transition to a Sustainable Economy](#) and [Annex to the Strategy](#).

⁵ We reported on this in the [Credit Markets Weekly of July 22nd, 2021](#).

- Developing international initiatives and standards and supporting EU partner countries (including lower-income ones) in establishing and expanding sustainable finance.

The strategy is to be implemented step by step, but nevertheless rapidly. Measures derived from the action plan and the strategy are partly voluntary, such as the Green Bond Standard, and partly mandatory. The latter currently applies in particular to the taxonomy-related disclosure obligations with regard to the six environmental targets⁶; these will have to be implemented gradually in line with the delegated acts.

Taxonomy-relevant disclosure obligations introduced gradually from 2022 onward

From 2022, non-financial companies have to disclose the proportion of their turnover aligned with the taxonomy, capital expenditure (CapEx) and operational expenditure (OpEx), as well as defined qualitative information (such as calculation and/or determination method) for the first time in the non-financial statement for the reporting year 2021. Financial companies have to disclose the taxonomy-compliant share of the assets they finance or invest in. In the case of credit institutions e.g. the green asset ratio, i.e., the green share of financing provided, is a crucial metric; in the case of asset managers and insurance companies, it is the share of investments that are sustainable in accordance with the taxonomy as a proportion of the overall portfolio. They have to report defined qualitative supporting information as well. Key figures and supplementary information are intended to document the transition process to taxonomy compliance of economic activities over time.

Due to the tight time-frame, the original scope of the reporting obligations from 2022 was initially reduced and will be gradually expanded down the road: from 2023, further key metrics including qualitative information will be added. From 2024, all key metrics defined in the delegated acts as well as accompanying qualitative information on all six environmental targets must be fully disclosed.

Green Deal as the framework

The overarching framework for all these activities is the European Green Deal presented at the end of 2019. This envisages the reduction of greenhouse gas emissions by 55% by 2030 relative to 1990 as well as climate neutrality until 2050. To achieve these objectives, the "Fit for 55" package with the following measures was recently presented⁷.

- Emissions trading for new sectors (transport and buildings) and stricter requirements in the existing emissions trading system
- New CO₂ limits, ban on internal combustion engines, introduction of low-emission modes of transport;
- Use of alternative fuels as aviation and marine fuels
- Taxation of energy products aligned with EU energy and climate policy;
- Introduction of a carbon border adjustment mechanism
- Acceleration of CO₂ removal by natural sinks

⁶ Six EU environmental goals: 1. mitigating climate change; 2. adapting to climate change; 3. sustainable use and protection of water and marine resources; 4. moving to a circular economy; 5. preventing and reducing pollution; 6. protecting and restoring biodiversity and ecosystems.

⁷ We reported on this in the [Credit Markets Weekly of July 29th, 2021](#).

- Expansion of renewable energy generation
- Reduction of energy consumption.

Post-pandemic recovery with a focus on sustainability

The European Commission intends to use the economic recovery effort after the COVID-19 pandemic to support achieving its sustainability objectives. More than one-third of the (inflation-adjusted) EUR 800bn NextGenerationEU program is to flow into projects with a focus on sustainability.

Europe sets a fast pace

A mere three and a half years have passed since the EU Action Plan was published. But in this short time, so many activities have been set at the European level on the subject of sustainability in so many different areas that it appears to be omnipresent to us. The status of these activities ranges from "first proposal" to "concrete measures". It can be assumed that the extent of regulation will only continue to grow.

Implementation of the measures could be challenging

The implementation of a number of measures is likely to be quite challenging for the parties concerned. Staying with the example of taxonomy-compliant disclosure requirements, companies will have to take on additional organizational and administrative work: find qualified personnel, set up new processes and structures, introduce suitable IT systems. As regulation progresses, sectors with higher GHG emissions could be faced with a greater extent of valuation impairments, and be forced to question and rethink strategies, business models and site selection from scratch.

A recent survey of more than 200 large companies in Austria showed that sustainability is a very high or high priority for more than 80% of the companies surveyed, but only 42% have an appropriate strategy for implementation and another 32% have merely begun working on one.

With this pace of regulation in terms of sustainability, Europe is at any rate a trailblazer - and probably also a role model for other major economic powers: the USA is aiming to halve its greenhouse gas emissions by 2030 relative to 2005. China recently announced its intention to become climate-neutral by 2060. However, these targets so far lack concrete implementation measures.

Global market overview

Green bonds dominate ESG market

Recently strong growth momentum in ESG bonds

The global volume of outstanding ESG-related bonds amounts to more than EUR 1.5trn. This represents an increase of 54% since the beginning of the year, with momentum having only recently increased to such an extent.

Four types of ESG bonds

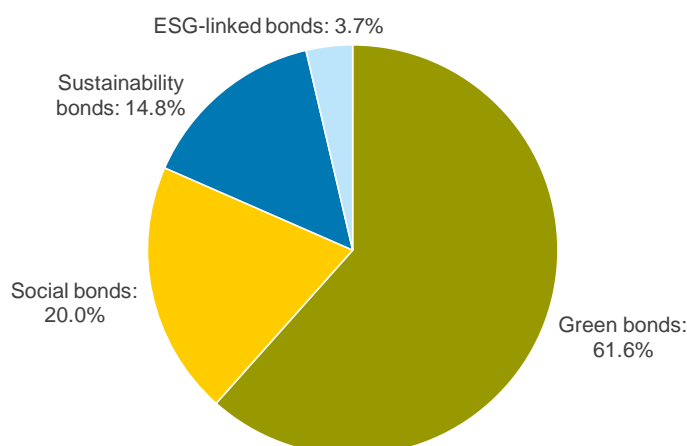
ESG bonds are coming in four forms: Issuance proceeds of green, social and sustainable bonds are earmarked for specific purposes. They must be used to finance appropriate projects, such as the construction of a wind farm, the construction of affordable housing or the implementation of education programs. The issuance proceeds of ESG-linked bonds, on the other hand, can be used for any purpose. The special feature in this case is that the interest rate is linked to the sustainability rating of the issuer, by various ESG agencies or based on selected KPIs. If the rating improves, the coupon payment decreases - and vice versa. ESG-linked bonds permit a (more) holistic consideration of the issuer's sustainability efforts, while the first three formats are focused exclusively on financed projects.

Green bonds are most popular

Green bonds account for the majority of the volume of ESG bonds outstanding globally, more than 60%. This is the format with the longest history and with the most diverse applications. Since today's concept of sustainability can be seen as an extension of the original environmental idea including social as well as governance aspects, sustainable finance is not surprisingly focused on the environment. The share of social bonds has only increased with the pandemic, standing at 20% of outstanding volume, followed by sustainable bonds at 15% and ESG-linked bonds at 4%.

>60% of the ESG market is accounted for by green bonds

Global outstanding ESG bond volume in EUR, by format



As of 6. September 2021

Source: Market data providers, Erste Group Research (internal calculations)

EUR and USD are the most important currencies for ESG bonds

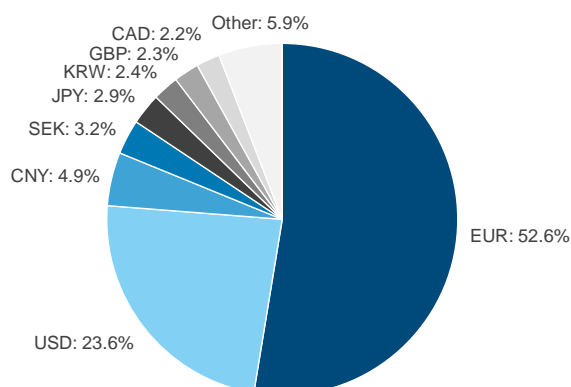
EUR-denominated securities account for more than half of the ESG bond volume outstanding worldwide. Around a quarter is denominated in USD. In Asia, CNY dominates, ahead of JPY and KRW, but accounts for only 5% of global volume. In Europe, apart from EUR, SEK and GBP are most often used as issuance currencies for sustainable bonds. We expect that the current US administration's increased efforts in sustainable finance could boost the USD share in the medium term. Overall, we expect greater currency diversity given the growing momentum in the ESG issuance market. However, the dominance of the euro is likely to remain intact.

Majority of ESG bonds with IG rating

In terms of rating categories, three quarters of the global ESG bond volume outstanding have an investment grade rating. The high-yield segment accounts for just under 6%, with the remainder unrated. In this context, we also expect growing diversity of issuers in the future, in terms of countries of origin or sectors, and hence a greater share of the non-investment grade segment.

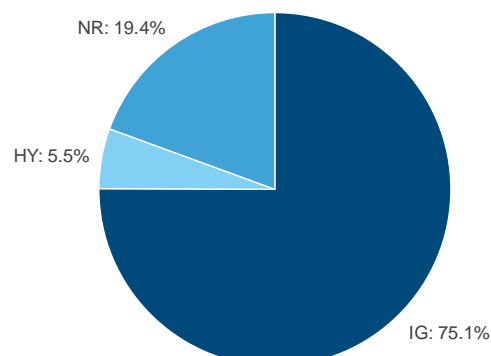
Euro is dominant currency for ESG bonds

Global ESG bond volume outstanding, by currency



Most ESG bonds in investment grade category

Global ESG bond volume outstanding, by rating category



As of 6. September 2021

Source: Market data providers, Erste Group Research (internal calculations)

Strongly growing ESG primary market

30% more bonds issued in eight months than in all of 2020

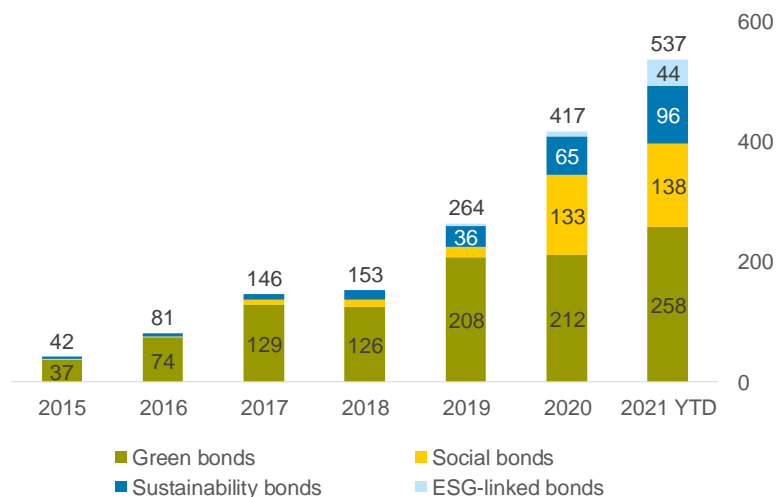
The primary market for ESG bonds has experienced considerable growth in recent years, with global issuance volumes increasing tenfold in 2015-20 and reaching EUR 417bn in 2020. This year, EUR 537bn of ESG bonds have already been issued, representing an increase of almost 30% in eight months compared to the total amount for 2020. We expect that this uptrend will continue in coming years.

Green bonds dominate, but their share is declining

Green bonds remain the most commonly used format, but their share of total issuance has gradually declined over the years, from more than 90% in 2015 to less than 50% in 2021 YTD. Noteworthy is the only recently observable strong growth in social bond placements which was primarily driven by supranational issuers.

Share of social bonds growing fastest

ESG bond volume issued worldwide, in EUR billion



As of 6. September 2021

Source: Market data providers, Erste Group Research (internal calculations)

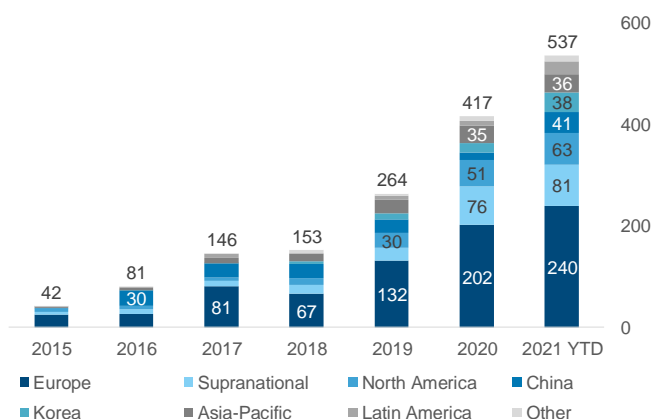
Europe remains most active, Korea catching up strongly in Asia

From a regional perspective, European issuers remain the most active in the ESG segment, but their share has declined from just under 60% in 2015 to 45% in 2021 YTD - a trend similar to that in green bonds. The strong growth of supranational and North American ESG issuance since 2020 is striking. In Asia, China continues to dominate, but Korea has recently gained ground, issuing marginally fewer ESG bonds than China and more than the rest of the Asia-Pacific region in 2021 YTD.

Comparing asset classes, Sovereigns & SSAs have accounted for the largest share of global ESG issuance since 2017, averaging 45%. This has declined in 2020 and 2021 YTD in favor of corporate bonds (including real estate and insurance in this case).

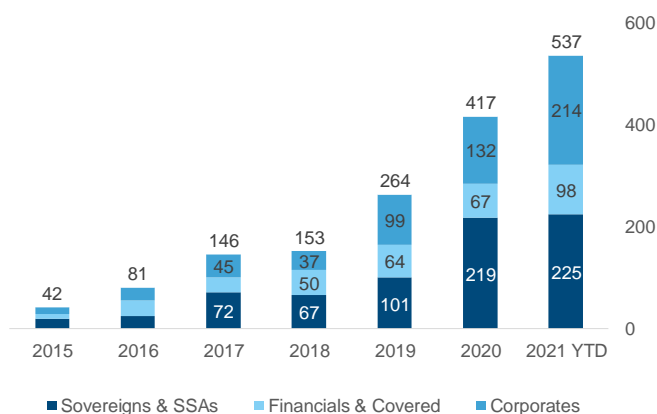
European issuers most active ESG issuers

Globally issued ESG bond volume by regions, in EUR billion



Corporates segment growing fastest this year

Globally issued ESG bond volume by asset classes, in EUR billion



As of 6. September 2021

Source: Market data providers, Erste Group Research (internal calculations)

Supranational segment catches up strongly due to pandemic

Sovereigns & SSAs dominate the EUR-ESG bond market

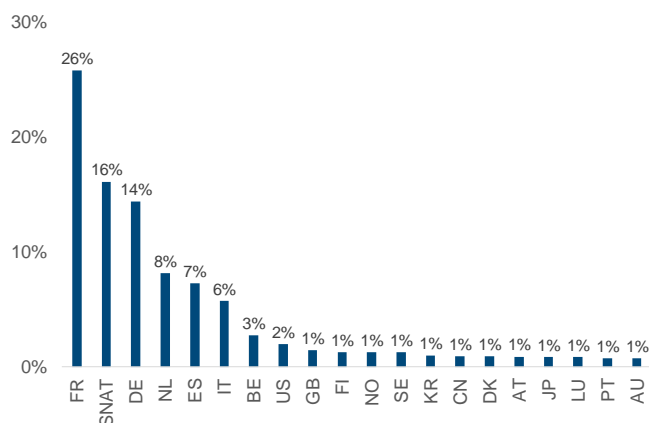
Looking at the purely EUR-denominated portion of the global ESG market, the outstanding volume slightly exceeds EUR 800bn. 16% of this is attributable to the supranational segment; at the beginning of the year, this figure was around half of this. This is not least due to the bonds issued jointly by the EU to support economic recovery in the wake of the pandemic. At the individual country level, France has placed the largest share with more than a quarter, followed by Germany (14%), the Netherlands (8%), Spain (7%), Italy (6%) and Belgium (3%). The largest outstanding volume of EUR-denominated ESG bonds outside Europe has been placed by US (2%) and UK issuers (1%).

Differentiated by asset classes, 56% of the outstanding EUR-ESG bond volume has been placed by sovereigns & SSAs. As mentioned above, this issuer group caught up significantly in the course of 2021. At the beginning of the year, this share was still below 50%. The financials & covered bonds asset class accounts for 17% and corporate bonds for 27% of the EUR ESG bond market.

In the following sections, EUR-denominated ESG bonds are analyzed with respect to these three asset classes.

FR holds by far highest EUR ESG volume

Outstanding EUR ESG bond volume by issuing country, in %

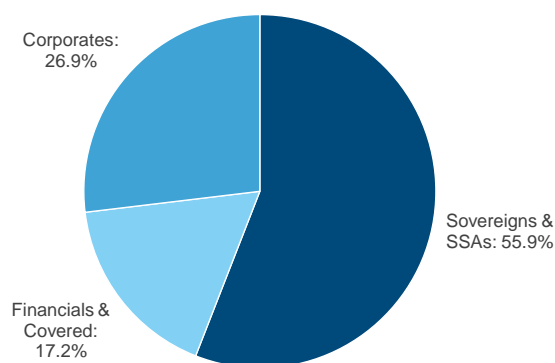


As of September 6, 2021

Source: Market data provider, Erste Group Research (own calculations)

EUR ESG market dominated by Sovereigns & SSAs

Outstanding EUR ESG bond volume by asset class, in %



Sovereigns, Sub-Sovereigns & Agencies

SSA primary market: social bonds fueling the market

Social bonds issued in the wake of the pandemic have taken the SSA primary market in the ESG segment to a new realm since 2020. High over-subscription of issues is rather the rule than the exception. After EUR 151bn in 2020, EUR 141bn of ESG bonds have been placed in the SSA segment this year up to September 6th, 2021. While issuance volumes of social bonds were still in the low to mid-single-digits in previous years, inter alia the aid programs of supranational issuers or agencies have generated around EUR 87bn in placements in 2020 and around EUR 79bn year-to-date. Therefore they accounted for 58% of issuance volume in 2020 and 56% thus far in 2021.

List of sovereign green bond issuers is growing ever longer

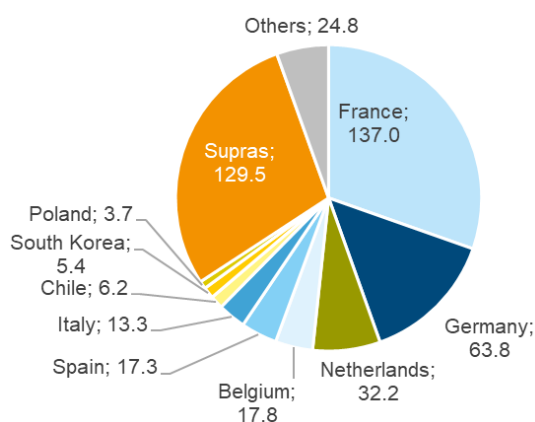
By contrast, issuance volume of green bonds (around EUR 41bn) and sustainable bonds (around EUR 21bn) has lost momentum this year, despite the fact that the list of sovereign issuers of green bonds is continually expanding. After Germany's (Aaa/AAA/AAA) first green bond placement in November 2020, other major issuers such as Italy (Baa3/BBB/BBB-) and Spain (Baa1/A/A-) and, from the CEE region, Slovenia (A3/AA-/A) have joined the list this year. Serbia (Ba2/BB+/BB+) just completed a 7-year inaugural green offer and Austria (Aa1/AA+/AA+) has also begun with preparations for a green bond program.

French CADES and EU in the market with large ESG issuance volumes

France (Aa2/AA/AA) nevertheless remains the most important issuing country in the SSA segment, accounting for around 31% of issuance volume and 30% of the total outstanding volume of EUR 451bn. In recent months French social security financing company CADES (Aa2/AA) was at the forefront in this context, issuing a total of EUR 13bn in social bonds since the beginning of the year. Among supranational issuers, the European Union (EU, Aaa/AA/AAA) has already raised around EUR 27bn in 2021 with social bond placements under the SURE program.

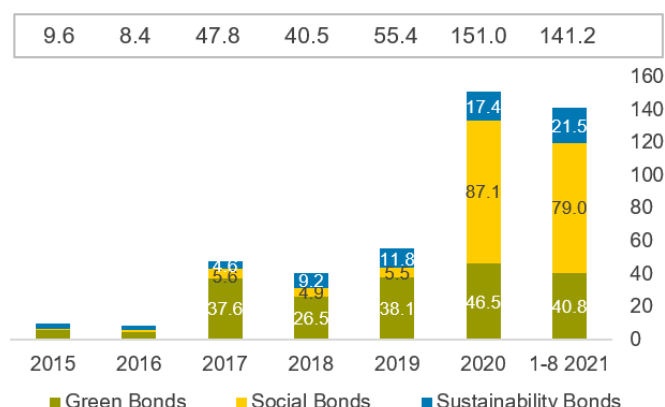
Outstanding SSA ESG EUR volume

By country or supranational, in EUR billion



SSA-ESG bond issues

By ESG sub-segments, in EUR billion



As of September 6th, 2021

Source: Market data providers Erste Group Research (proprietary calculations)

CEE: Slovenia placed first sustainability bond, Serbia inaugural green bond

In the Central and Eastern European region, Slovenia (A3/AA-/A) has now joined Poland (A2/A-/A-) and Hungary (Baa3/BBB/BBB) with an ESG bond issuance program, in this case for sustainability bonds. In June, it issued its first sustainability bond, raising EUR 1bn with a term to maturity of 10 years. Investor demand exceeded EUR 10bn. And most recently, Serbia (Ba2/BB+/BB+) placed its inaugural green bond over 7 years. Poland continues to lead the way in terms of outstanding volume, with EUR 3.7bn in sovereign ESG bonds. With the world's first sovereign green bond issue at the end of 2016, Poland is one of the trailblazers in the segment. However, the most recent placement was already conducted in 2019, thus just four maturities continue to be outstanding in total.

Outstanding green and sustainability bonds of SSA-issuers of the CEE region

Issuer	ISIN	Date of issue	Maturity	Volume (EUR bn)	Coupon (%)
Poland (A2/A-/A-)	XS1536786939	20.12.2016	20.12.2021	750	0.50
	XS1766612672	07.02.2018	07.08.2026	1,000	1.13
	XS1960361720	07.03.2019	08.03.2049	500	2.00
	XS1958534528	07.03.2019	07.03.2029	1,500	1.00
Lithuania (A3/A+/A)	LT0000610305	03.05.2018	03.05.2028	68	0.01
Hungary (Baa3/BBB/BBB)	XS2181689659	05.06.2020	05.06.2035	1,500	1.75
Slovenia (A3/AA-/A)	SI0002104196	01.07.2021	01.07.2031	1,000	0.13
Serbia (Ba2/BB+/BB+)	XS2388561677	23.09.2021	23.09.2028	1,000	1.00
OeKB (Aa1/AA+)	XS2062986422	08.10.2019	08.10.2026	500	0.00
	XS2325618077	30.03.2021	30.03.2026	1,000	1.34
SID Bank (AA-)	XS1921553803	12.12.2018	12.12.2023	75	0.01
Russian Rail (RZD, Baa2/BBB-)	XS1843437036	23.05.2019	23.05.2027	500	2.20

Source: Issuers, market data providers, Erste Group Research

OeKB places second sustainability bond

Among Austrian SSA issuers, Oesterreichische Kontrollbank (OeKB, Aa1/AA+) is the top address for guaranteed sustainability bonds. In October 2019, the development bank issued its first sustainability bond for EUR 500mn maturing in 2026. In 2021, the bank conducted a second placement of a NOK 1bn bond maturing in 2026.

Outlook: Austria plans to issue green bonds from 1H 2022, EU with around EUR 50bn in green bond issuance per year

With the announcement of a green bond program and green bond issues from 1H 2022 by the Republic of Austria, a significant expansion of sustainable SSA supply can be expected. At the European level, the EU plans to issue a total of EUR 800bn in bonds between mid-2021 and 2026 under its recovery program (NextGenerationEU). Around EUR 250bn of this is to come in the form of green bonds. This would correspond to an issuance volume of approximately EUR 50bn in green bonds per year. This in turn would more than double issuance volumes in the green bond segment compared to recent years.

Financials & Covered Bonds

Banking segment: growth spurt in ESG issuance

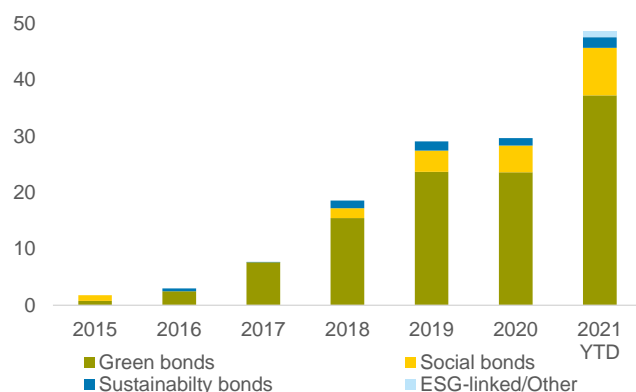
The banking segment experienced a real growth spurt in issuance volume in the ESG segment in 2021. In the reporting period, the total issuance volume amounted to EUR 48bn, which represents an increase of 64% compared to the total value of the previous year. The main driver of issuance growth was the green bond segment; however, social bonds also saw strong growth with relative growth of 75% on 2020. This growth was driven in particular by banks from France and Spain, whose combined share of social bond issuance volume was around 50%.

Broadening of the issuer base

While in previous years primary market activity was strongly dominated by banks from France, Germany and Spain, this dominance has weakened this year. This is due to a noticeable broadening of the issuer base. The number of banks active in the primary ESG market this year has increased by around 50% compared to last year. Italian and Dutch banks in particular have noticeably increased their issuing activities. However, banks from Norway and Austria also increased their presence in the primary market. Issuance growth in the four countries was mainly attributable to green bonds.

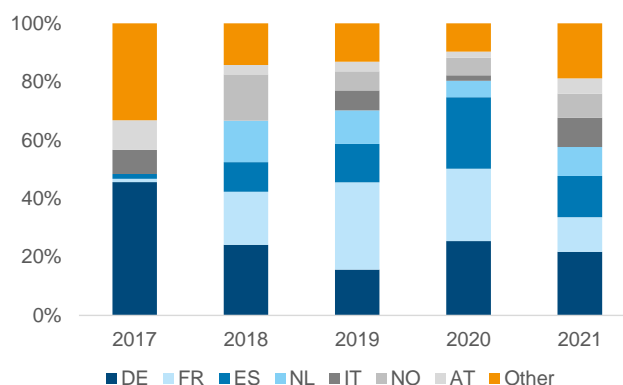
Green bonds show strong growth in issue volume

Globally issued ESG bond volume, in EUR bn



Growing regional diversification in primary markets

European ESG issuance, share in %



As of September 6, 2021

Source: Market data provider, Erste Group Research (own calculations)

Non-European banks account for roughly 10% of EUR ESG issuance

Non-European banks play a minor role in issuance activity in the Euro ESG segment, which is also due to the currency effect. Chinese and Australian banks had the largest share of non-European banks in the primary market since the beginning of the year, at around 3% each, while European banks accounted for just under 90% of the issue volume.

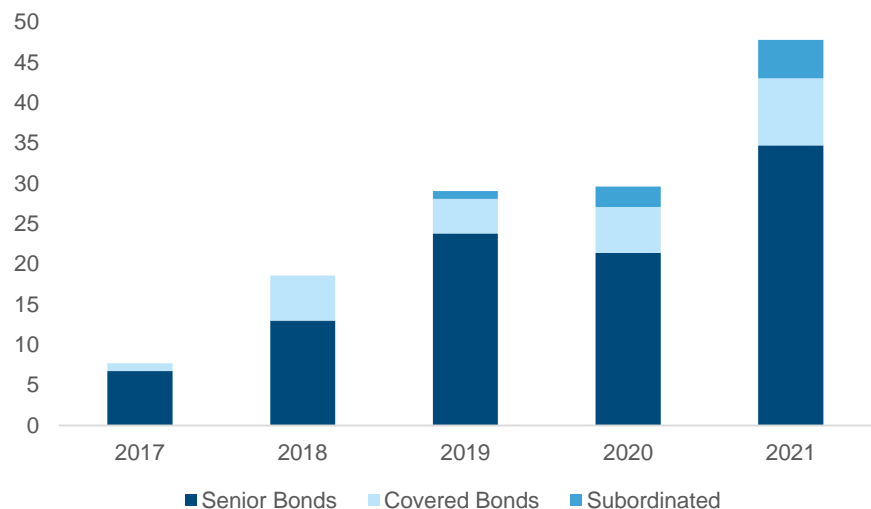
Senior bonds continue to dominate the ESG segment

Senior bonds continue to account for the lion's share of ESG issuance volume. In the reporting period, the share was 73%, almost unchanged from the previous year. The share of covered bonds in the issuance volume decreased slightly to 17% from 19% in the previous year, while

subordinated issues accounted for around 10% of the total volume. As long as demand for ESG bonds exceeds supply, it may make sense for issuers to issue ESG bonds mainly in unsecured format. Due to the higher investor demand for ESG bonds, the potential for savings in refinancing costs in the senior or even subordinated segment is higher than for covered bonds, which already offer quite low refinancing costs due to the better ratings.

Senior bonds remain growth driver in the ESG segment

Global ESG bond issuance volume by rank, in EUR bn



As of September 6, 2021

Source: Market data provider, Erste Group Bank (own calculations)

ESG bonds have become a fixed component of the funding mix

ESG bonds are no longer a niche product in the banking segment. On the contrary, ESG bonds have become a fixed component of the funding mix at many banks. For smaller banks, however, which only refinance themselves to a limited extent on the capital market, it is likely to remain difficult to justify the additional costs of setting up and maintaining an ESG program.

Disclosure requirements may create potentials for growth

However, increasing regulatory pressure, especially with regard to disclosure requirements concerning the ESG profile of loan portfolios, should in future create a database on the basis of which ESG bonds can also be issued by smaller banks with reasonable additional effort.

ESG market to gain further breadth and depth

We therefore expect the ESG bond segment among banks to continue to grow noticeably in market breadth but also in market depth. This means that the number of banks issuing ESG bonds will continue to rise. In addition, we assume that regulatory developments and an associated improvement in the data basis for loan portfolios can open up further issuing potential among existing ESG issuers.

ESG Bonds in Austria

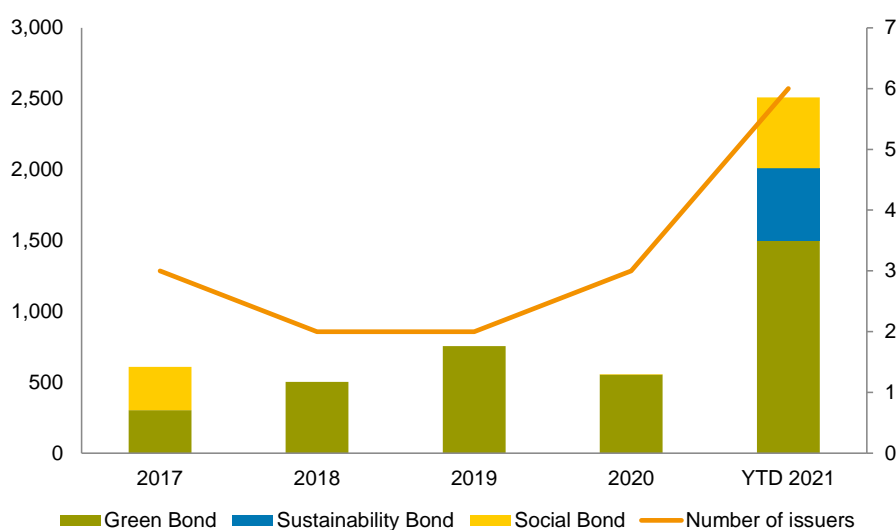
Austria: boom of ESG issuance

Austrian issuers have been active in the ESG market since 2017, with this year bringing a boom in ESG bonds. So far in 2021, the volume of the previous year has been exceeded by a factor of 4.5 with around EUR 2.5bn.

We expect both further issuances and new issuers in the ESG segment in 2021 and the following years. Austria will have a 4.6% share of the overall market in 2021. Green bonds are, analogously to the other countries, the dominant issuing segment. In contrast to the general trend, covered bonds have a relatively high share of the total ESG volume issued in Austria, at 36%. Senior bonds are represented with 53% and subordinated bonds with 10%.

Strong growth in ESG financials & covered bonds in Austria

Issued ESG bond volume, in EUR mn (left scale); number of issuers (right scale)



As of September 6, 2021

Source: Market data provider, Erste Group Bank (own calculations)

High proportion of first-time issuers in the ESG segment

In addition to established issuers such as Raiffeisenbank International AG, which issued a EUR 500mn subordinated green bond, most issuers had their ESG debut. Hypo Tirol Bank AG issued a 10-year EUR 500mn social covered bond in March, with the proceeds to be invested in non-profit housing, housing subsidies and housing refurbishment with social and family policy objectives, and affordable housing. In May, Erste Group Bank AG followed with an Austrian debut: a sustainable senior preferred bond with a volume of EUR 500mn and a 7-year maturity. The included loans or the issue proceeds can be used for green financing as well as for social loans.

Emission proceeds mainly benefit green and social housing

Oberbank AG (10 years, EUR 250mn) and BAWAG PSK (8 years, EUR 500mn) each came up with a green covered bond. While Oberbank's issue proceeds will be used exclusively to refinance housing loans taken out in Austria, BAWAG's issue proceeds will be used to finance a number of environmentally friendly projects, such as energy-efficient buildings, renewable energies or environmentally friendly transportation. The most recent green mortgage Pfandbrief came from Oberösterreichische Landesbank (HYPO ÖÖ), which is using its issue proceeds from the EUR 250mn 7-year debut to finance or refinance energy-efficient residential buildings.

ESG Bonds in the CEE Region

2021 first EUR-denominated green bonds in CEE

In the CEE region, we could also observe the first EUR-denominated ESG bonds on the market in 2021. So far, issues from Slovakia, the Czech Republic and Poland with a not inconsiderable total volume of EUR 1.75bn have been heard. All of the issued bonds belong to the green segment and are senior bank bonds.

Investor demand supports further issuance activities

Slovakia's Tatra Banka started the process in April with a EUR 300mn 7-year bond. Raiffeisenbank AS from the Czech Republic followed in June with EUR 350mn and Slovenska Sporitelna AS from Slovakia with EUR 100mn. Both green bonds also had a maturity of 7 years. In mid-September, and therefore not yet included in the database, Ceska sporitelna AS from the Czech Republic and mBank SA from Poland followed, each with a EUR 500mn bond in the 7-year and 8-year maturity segments, respectively. In the CEE region, too, we expect activity in the ESG bond segment to continue to rise, supported by brisk investor demand, and expect to see further debuts as well.

Corporate Bonds

Corporate bonds with ESG features exceed 20%

Corporate bonds with sustainability features have strongly gained in popularity, particularly in recent years. In 2020, more than EUR 50bn (+22.1% y/y) of EUR-denominated corporate bonds were already issued in various ESG formats (incl. real estate and insurance sector). This year, issuance activity already stands at well over EUR 70bn after eight months; this corresponds to more than one fifth of the entire euro-denominated primary market in the corporate segment.

Green and ESG-linked bonds should win the day

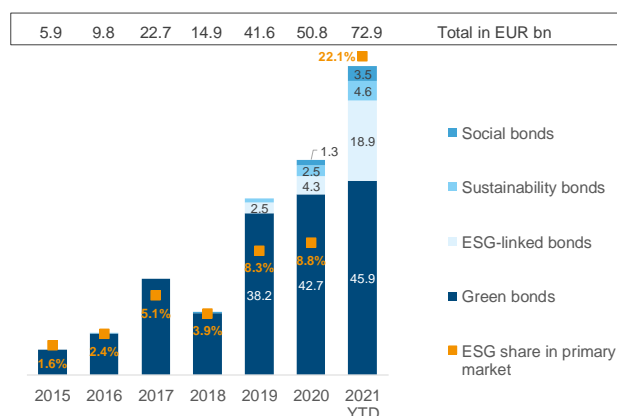
The development of individual ESG formats is remarkable: Until 2018, green bonds clearly dominated. At more than 60%, they still account for the largest share of ESG-related corporate bonds, but the other formats are increasingly gaining in importance. In the long term, we expect green bonds and bonds linked to sustainability criteria to prevail in the corporate segment: Green bonds, because they are very versatile and are more suitable for the private sector than e.g. social bonds; ESG-linked bonds, because - in our assessment - investors will in future pay more attention to the overall behavior of issuers with regard to sustainability and are less likely to want to merely co-finance individual projects.

Dominance of utilities sector wanes

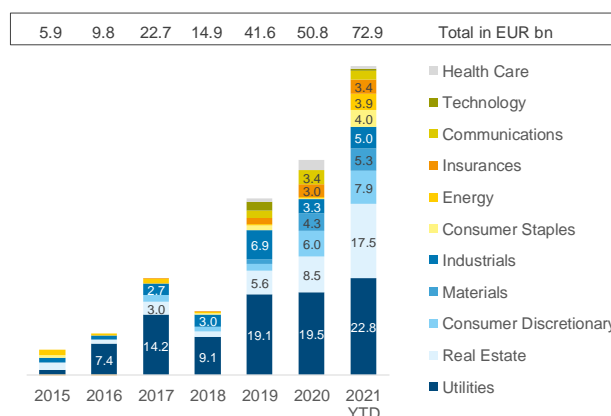
Looking at sectors, growing diversity is also noticeable over the past three years. Traditionally, utilities have dominated the ESG segment. However, their share has declined from 75% in 2016 to a little less than 40% in 2020. This year, it stands at just around 30%. Most recently, the general - and thus also the ESG-related - issuance volume of real estate companies has increased strongly.

We expect a continuing upward trend in ESG-related issuance in the corporate segment. This can also be seen in the high-yield and Schuldscheindarlehen (promissory note) segments. At the same time, ESG aspects are becoming more important to investors as well: ESG corporate bonds issued this year were on average oversubscribed 2.2 times, conventional bonds "only" 1.8 times.

Green and ESG-linked bonds dominate EUR ESG corporate bond volume outstanding by format, in EUR billion



Share of utilities in ESG issuance declines EUR ESG corporate bond volume outstanding by sector, in EUR billion



As of September 6, 2021

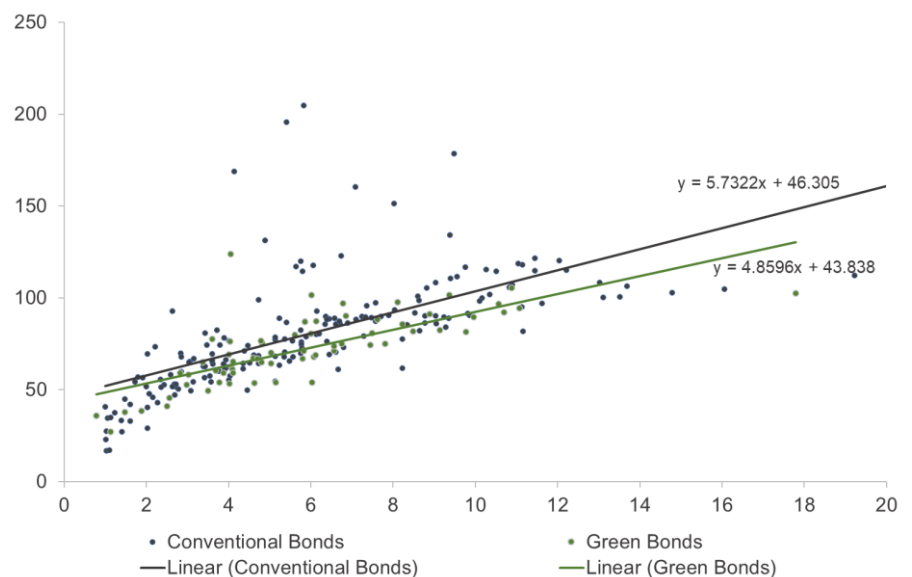
Source: Market data provider, Erste Group Research (own calculations)

Green bonds with lower risk premiums

Issuers of sustainability-related corporate bonds benefit from more favorable financing costs. Examining the outstanding BBB-rated bonds of utilities (largest intersection), it is noticeable that green bonds on average have lower benchmark spreads (72.2 BP) than conventional bonds (81.1 BP), resulting in a so-called "greenium" of 8.9 BP. This "greenium" increases with longer remaining maturities and currently amounts to around 11 basis points (bp) in the 10-year range. This is probably due to higher investor demand and not so much to the credit quality or collateral behind the bonds, as these should be similar within the same rating category.

Greenium does exist

Spreads of green and conventional BBB utilities bonds in basispoints (y-axis) against residual term to maturity (x-axis)



As of September 6, 2021

Source: Market data provider, Erste Group Bank (own calculations)

Largest issuers from the utilities sector

The top 3 issuers of euro-denominated ESG corporate bonds are all representatives of the utility sector: Engie (Baa1/BBB+/A-), TenneT (A3/A-) and Iberdrola (Baa1/BBB+/BBB+). In the CEE region, the real estate group CPI Property (Baa2/BBB) ranks first, followed by utilities Verbund (A3/A) and AB Ignitis (BBB+/BBB+).

Worth mentioning is the first and so far only bond that had several ESG features at once. Verbund conducted a green bond placement in spring 2021, linked to sustainability and aligned with the EU taxonomy. The 20-year, EUR 500min bond with a coupon of 0.9% was well received by investors and generated an order book of EUR 2bn.

ESG investment fund industry as a major driver of demand

ESG AuM of funds reach EUR 1,550bn in Europe

**Growth in 2020: +52%,
1H 2021: +30%**

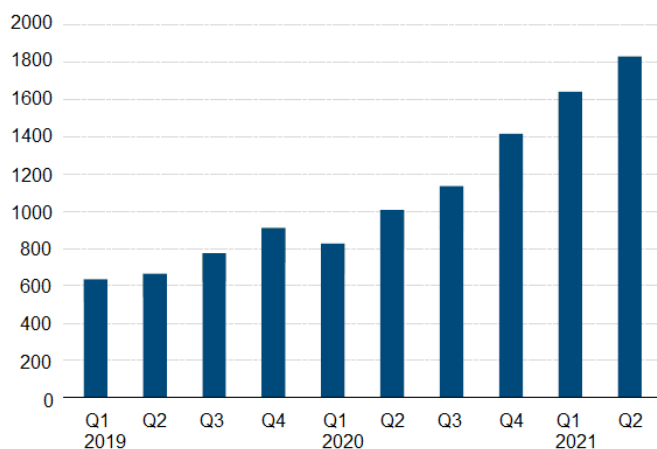
Europe: 3,730 ESG funds as at end of June 2021

On the demand side, the share of both institutional and private investors preferring ESG fund products is increasing. Over the past decade, assets under management (AuM) in sustainability-oriented funds in Europe have increased more than tenfold, from EUR 112bn at the end of 2010 to approximately EUR 1,550bn as of June 2021⁸.

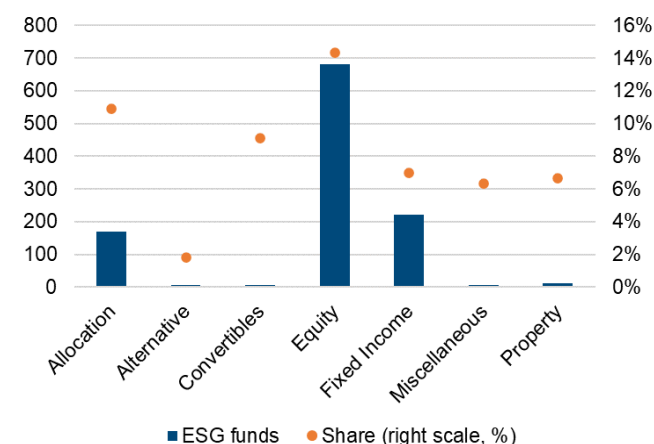
In 2020 alone, assets under management grew by around 52%, followed by another increase by around 30% in the first half of 2021. The inflows of around EUR 233bn in 2020 as a whole were already almost reached in 1H 2021 with inflows totaling EUR 232bn. By comparison, the increase in AuM for the entire European investment fund universe was only around 6% in the previous year and amounted to around 9% in 1H 2021. Newly launched and repurposed funds are an important market driver in this context, accounting for more than a third of total growth. However, even if they are not taken into account, AuM of existing sustainable funds increased by 32% in 2020.

Regionally Europe is clearly the market leader, with 3,730 investment funds and a share of 82% of sustainable fund investments worldwide. Europe also still accounts for almost two thirds of newly launched funds. However, a slight slowdown in momentum has been evident since the beginning of 2021 - both with respect to new launches and inflows. In 1H 2021, 222 new ESG funds were established in Europe. In addition, there were statistical revisions: the EU Sustainable Fund Disclosure Regulation (SFDR), which has been in force since March 2021, makes more precise classifications possible, which has led to favorable revisions in the statistics. In 2Q 2021 alone, a total of 286 additional ESG funds were counted in Europe.

ESG Assets under Management Europe, in USD bn



ESG funds: assets and shares of fund types and asset classes as at YE 2020, in EUR bn



Source: Market data providers, Erste Group Research (proprietary calculation)

⁸ Source: Morningstar, EFAMA, internal calculations.

Share of ESG AuM amounts to approx. 13%

As a result, the share of sustainable AUM of total AUM has increased as well. However, it is important to keep in mind the measurement of extent of ESG integration on the one hand and the universe⁹ on the other. Investors can choose from a variety of possible sustainable investment strategies, ranging: from a few exclusion criteria to comprehensive ESG integration to active engagement. From this, different market sizes for the sustainable fund industry can be derived as well. At the level of "comprehensive ESG integration," the most widespread practice, the industry association EFAMA¹⁰ already gathered data suggesting approximately EUR 2,000bn in AuM at the end of 2019, which corresponds to around 11% of total European fund assets (excluding mandates, for which the share was quantified at 6%). Data service provider Morningstar using a similar delimitation quantifies the share at 13.4% as of the end of June 2021. Measured in terms of the number of funds, the figure is around 9%.

Rising trend: fund flows indicate higher ESG shares with equities and credits

Among asset classes, equity funds have the largest share of sustainably managed assets at more than 14%. Among fixed-income funds, the share is not even half as high at around 7%. Reasons for this may include the high importance of the primary market, which is typical for bonds, less ESG transparency or data availability, especially from sovereign issuers, and limitations with respect to comparability. Measured by fund launches and inflows, the share of fixed income ESG funds has remained quite stable at slightly above 20% since 2019. Thus, bonds have benefited to the same extent from the ESG boom in the fund industry. Around half of the existing ESG fixed income funds in Europe were established or repurposed in the past three years. In 1H 2021, ESG inflows reached 48% of the total market. Equities continued to be the main focus, with around 59% invested in equities and 21% in bond-only funds. By asset class, this means that around 55% of equities and 37% of bonds were selected with ESG criteria in mind.

Austria and Germany: disproportionate growth, private demand particularly dynamic

In German-speaking countries the volume of sustainable investments by investment funds and mandates is also growing well above average compared to the market as a whole¹¹. In Austria, the volume of sustainable investments grew by 30% to EUR 38bn in 2020, eight times as fast as the overall market. In Germany the increase was 35% to EUR 248bn. In these two markets investment funds are the main growth drivers as well - in Austria with +44% to around EUR 21bn and in Germany with +69% to EUR 107bn. Among investor types, private investors boosted their ESG fund holdings by 78% in Austria and by 117% in Germany.

ESG share of AuM: Austria around 20%, Germany around 6%

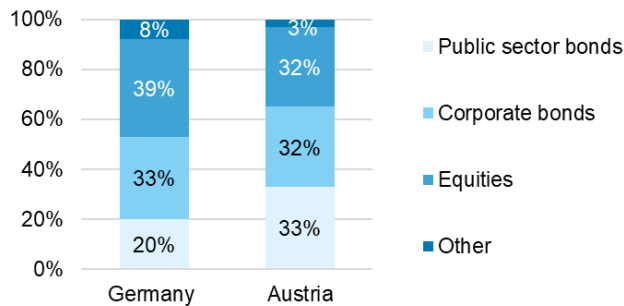
In terms of the total volume of funds and mandates, the share of ESG assets in Austria is 19.8% compared to 6.4% in Germany as of the end of 2020. However, this is based on the most wide-ranging ESG delimitation, which can e.g. be based on merely paying heed to exclusion criteria. At the level of "comprehensive ESG integration", the market share would be around 5.2% in Germany and 7.2% in Austria.

⁹ Inclusion of asset classes (e.g. money market, funds-of-funds, etc.)

¹⁰ European Fund and Asset Management Association: Sustainable Investment in the European Asset Management Industry: [Defining and Sizing ESG Strategies, Market Insights](#), Nov. 2020

¹¹ Source: Forum Nachhaltige Geldanlagen (FNG/Forum Sustainable Investments)

ESG fund assets: increased share of corporate bonds in Austria and Germany



Source: FNG, Erste Group Research

Austrian and German ESG AuM: high share of bonds

In an international comparison of asset classes invested in, a large proportion of bonds and a relatively small proportion of pure equity funds are noticeable in the German-speaking region, both in the overall market and in the ESG segment. On the other hand, the share of corporate bonds is particularly large at 33% in German sustainability funds and 32% in Austrian ESG funds. Across Europe, the share of equity-only funds is around 31%, while that of bond-only funds is around 24%¹². In the case of sustainable assets in Europe, the pure equity share is overall significantly larger than in conventional investments: the share of pure equity funds is around 62%, that of pure bond funds only 20%¹³.

Long-term oriented institutional investors dominate demand for ESG investments

From the perspective of institutional investors, who manage around 82% of ESG investments in Germany, ecclesiastical institutions, charitable organizations and the public sector dominate, together accounting for around 50% of this. Insurance companies, foundations, public pension funds, and cooperative and company pension funds largely share the remaining 50%. In Austria, the share of institutional investors is around 66% and that of private investors 34%, which is significantly higher than in Germany (18%). In Austria, 8 pension funds with in total around 51% and insurance companies with around 28% are the most important types of institutional ESG investors.

¹² Open-ended regulated funds, as of the end of 2020, source: EFAMA

¹³ Source: Morningstar

Our Dual Approach to ESG Analysis

Sustainability increasingly important for investors

Companies integrating sustainability are characterized by the fact that they pursue not only economic but also ESG objectives and anchor them in their strategies. This holistic approach is becoming increasingly important for investors. Numerous studies¹⁴ have shown that the majority of sustainably operating companies also achieve better financial results.

Quantitative and descriptive ESG analysis

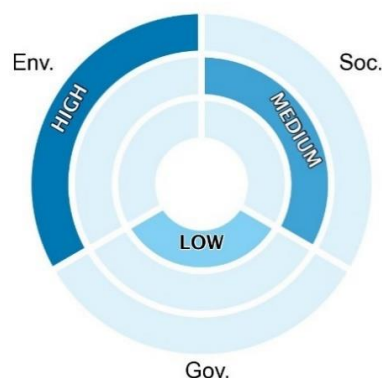
For this reason, we integrate ESG aspects into our company analyses in addition to purely numerical data. In doing so, we pursue a dual approach comprising a quantitative and a descriptive analysis which are complementing each other. This enables investors to subject their investments to superior risk-reward assessments.

ESG benchmarking of 1000 companies in 20 sectors in 41 ESG criteria worldwide

In the quantitative analysis step, 41 ESG criteria per company are examined, weighted and benchmarked against the Erste Global 1000 Index (consisting of around 1000 companies in 20 sectors and 40 countries). The ESG profile of a company determined in this way shows whether it is in a better, worse or average position in the categories E, S and G in relative comparison to the respective global sector.

ESG profile of a company

Example Verbund



Source: Erste Group Research

Descriptive Analysis: Broad ESG profile on the basis of 30 ESG subject areas

In the descriptive analysis step, around 30 subject areas are prioritized and examined according to a sector-specific relevance matrix, and verbally formulated. Our focus here is much broader than in the purely quantitative approach: past (progress) and future (goals, strategies), opportunities (strengths) and threats (weaknesses), as well as sector-wide challenges (regulation, trends) are taken into account.

The results of the ESG analysis are incorporated into our publications and can be found on [Erste Research Website](#).

¹⁴ E.g.: Friede, Busch, Bassen: ESG and financial performance: Aggregated evidence from more than 2000 empirical studies, in Journal of Sustainable Finance & Investment, 2015. or: <https://www.fundresearch.de/ESG/ficon-nachhaltigkeit-gut-gefuehrte-unternehmen-sind-erfolgreicher.php> (in German only), 2020.

Challenges and outlook

Issuer risk: ESG increases complexity of investment decisions

The assessment of the issuer's creditworthiness is also the top priority in the selection of sustainable bonds in terms of return and risk. However, the influence of ESG factors on value chains as well as business models and thus creditworthiness will be significantly increased prospectively by the comprehensive regulatory interventions. As a result, investors face greater complexity in making investment decisions.

Investors trust ESG ratings and scores

ESG ratings or complex valuation models are therefore often relied upon when analyzing ESG factors. Above-average ratings of issuers are seen as an indication of above-average value appreciation in the case of equities, and a lower risk of default in the case of bonds.

Good ESG rating does not automatically imply low risk

However, the ratings of ESG agencies and the scores of ESG models currently deliver highly inhomogeneous, sometimes contradictory results - to the extent that correct data are available at all. The enormous information compression from a multitude of indicators from the three ESG areas of environment, social and governance, different weightings, the comparison often only within the industry and a retrospective rather than forward-looking analysis are just some of the reasons for this. In this regard, the EU Commission is also planning to intervene in a regulatory way and improve the availability and transparency of ESG ratings. In particular, good ESG ratings or scores should in any case be considered in depth and not automatically equated with a lower investment risk.

ESG priorities: climate protection, decarbonization

Regulatory requirements give rise to certain priorities that can have a significant impact on creditworthiness. These include, above all, climate protection and the decarbonization of value chains. In terms of dual materiality, this encompasses the emitter from both the role of polluter and the role of affected party. Climate protection, physical and transitory risks are made measurable by means of models and thus calculable for economic entities and the market.

ECB examines climate risks for banks and investments

In their July 2021 report on climate change-related financial stability risks, the ECB and ESRB¹⁵ highlight risks in the banking sector following an analysis of environmental risks for 1.5 million firms. They conclude the following:

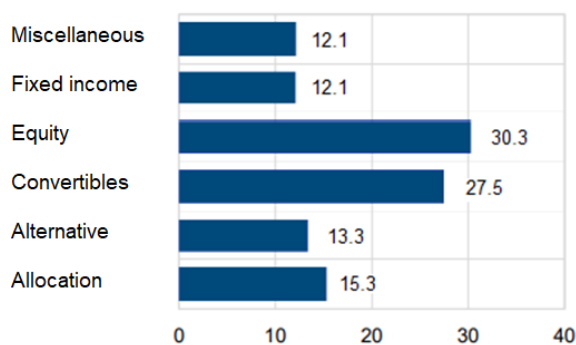
- Floods are the biggest economic risk in the EU over the next two decades.
- Fires, heat and water stress show a concentration in certain regions, possibly combined with further stress from higher sea levels from the second half of the century. These effects could affect up to 30% of corporate lending in the banking sector. Systemic amplifiers from the impairment of collateral, including insurance, could have an even more severe impact.
- Bank exposure to companies with high greenhouse gas emissions amounts to around 14% of total assets in the euro area. This is mainly concentrated in the industry, electricity, transport and construction sectors.
- In the case of investment funds, the ECB sees an even greater need for adjustment: 55% of all investments include corporate activities with high GHG emissions. Only about 1% of assets are

¹⁵ European Systemic Risk Board, ESRB: [Climate-related risk and financial stability](#).

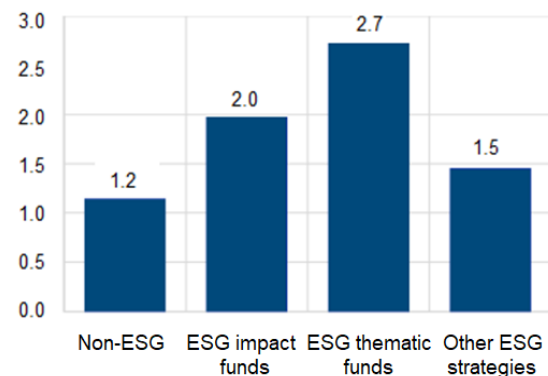
considered taxonomy compliant, while about 11% are considered green. This could also affect portfolios of insurance companies. The impact could be particularly pronounced in the event of an abrupt market repricing of climate risks (or carbon prices) against a backdrop of strong growth in ESG-oriented investing.

- The depreciation volume of investment funds in the EU is estimated at 1.2% of equity and corporate bonds over the next 15 years in unfavorable scenarios. The energy sector has the overwhelming weight here. At the fund level, high-issue portfolios could suffer losses of up to 14%.

Fund assets: Share of exposure to climate policy-relevant sectors by fund type
in %



Estimated fund type alignment with EU Taxonomy
in %



Source: ECB/ESRB, Erste Group Research

Forward-looking analysis is essential

Every investment should therefore be checked for a corresponding decarbonization strategy. The package of measures proposed by the EU Commission in July 2021, such as the extension of CO₂ pricing to fuels and the building sector, the gradual inclusion of greenhouse gas emissions in Scope 3 in disclosure obligations and the open global political issue of CO₂ border adjustment will further increase the pressure, e.g. via price increases. Meanwhile, the EU Green Bond Standard, the EU taxonomy and internationally recognized principles such as those of the ICMA offer good protection against greenwashing.

Inflows: ESG is already mainstream

From a market perspective, a continued expansion of ESG credit offerings can be expected, both in the corporate and sovereign sectors. The ESG theme spectrum should continue to gain diversity. On the demand side, inflows into ESG investment funds now exceed those of conventional funds, from which a continued increase in the share of ESG assets can be expected. Better transparency will also enable better management of ESG funds through ESG integration and increased implementation of exclusion criteria (e.g., coal).

Contacts

Group Research

Head of Group Research
Friedrich Mostböck, CEFA +43 (0)5 0100 11902

CEE Macro/Fixed Income Research
Head: Juraj Kotian (Macro/FI) +43 (0)5 0100 17357
Katarzyna Rzentarzewska (Fixed income) +43 (0)5 0100 17356
Małgorzata Krzywicka (Fixed income, Poland) +43 (0)5 0100 17338
Katarina Muchova +43 (0)5 0100 17336

Croatia/Serbia
Alen Kovac (Head) +385 72 37 1383
Mate Jelić +385 72 37 1443
Ivana Rogic +385 72 37 2419

Czech Republic
David Navrátil (Head) +420 956 765 439
Jiri Polansky +420 956 765 192
Michal Skorepa +420 956 765 172

Hungary
Orsolya Nyeste +361 268 4428

Romania
Ciprian Dascalu (Head) +40 3735 10108
Eugen Sinca +40 3735 10435
Dorina Ilasco +40 3735 10436
Iulian George Misu +40 758484043

Slovakia
Maria Valachyova (Head) +421 2 4862 4185
Matej Hornak +421 902 213 591

Major Markets & Credit Research
Head: Gudrun Egger, CEFA +43 (0)5 0100 11909
Ralf Burchert, CEFA (Sub-Sovereigns & Agencies) +43 (0)5 0100 16314
Hans Engel (Global Equities) +43 (0)5 0100 19835
Margarita Grushanina (Austria, Quant Analyst) +43 (0)5 0100 11957
Peter Kaufmann, CFA (Corporate Bonds) +43 (0)5 0100 11183
Heiko Langer (Financials & Covered Bonds) +43 (0)5 0100 85509
Stephan Lingnau (Global Equities) +43 (0)5 0100 16574
Carmen Riefler-Kowarsch (Financials & Covered Bonds) +43 (0)5 0100 19632
Rainer Singer (Euro, US) +43 (0)5 0100 17331
Bernadett Povazsai-Römhild, CEFA (Corporate Bonds) +43 (0)5 0100 17203
Elena Stadelov, CIIA (Corporate Bonds) +43 (0)5 0100 19641
Gerald Walek, CFA (Euro, CHF) +43 (0)5 0100 16360

CEE Equity Research
Head: Henning Eßkuchen +43 (0)5 0100 19634
Daniel Lion, CIIA (Technology, Ind. Goods&Services) +43 (0)5 0100 17420
Michael Marschallinger, CFA +43 (0)5 0100 17906
Nora Nagy (Telecom) +43 (0)5 0100 17416
Christoph Schultes, MBA, CIIA (Real Estate) +43 (0)5 0100 11523
Thomas Unger, CFA (Banks, Insurance) +43 (0)5 0100 17344
Vladimira Urbankova, MBA (Pharma) +43 (0)5 0100 17343
Martina Valenta, MBA +43 (0)5 0100 11913

Croatia/Serbia
Mladen Dodig (Head) +381 11 22 09178
Anto Augustinovic +385 72 37 2833
Magdalena Basic +385 72 37 1407
Davor Spoljar, CFA +385 72 37 2825

Czech Republic
Petr Bartek (Head) +420 956 765 227
Jan Safranek +420 956 765 218

Hungary
József Miró (Head) +361 235 5131
András Nagy +361 235 5132
Tamás Pletser, CFA +361 235 5135

Poland
Cezary Bernatek (Head) +48 22 257 5751
Konrad Grygo +48 22 257 5753
Krzysztof Kawa +48 22 257 57 52

Romania
Caius Rapanu +40 3735 10441

Group Markets

Head of Group Markets
Oswald Huber +43 (0)5 0100 84901

Group Markets Retail and Agency Business
Head: Christian Reiss +43 (0)5 0100 84012

Markets Retail Sales AT
Head: Markus Kaller +43 (0)5 0100 84239

Group Markets Execution
Head: Kurt Gerhold +43 (0)5 0100 84232

Retail & Sparkassen Sales
Head: Uwe Kolar +43 (0)5 0100 83214

Corporate Treasury Product Distribution AT
Head: Christian Skopek +43 (0)5 0100 84146

Fixed Income Institutional Sales

Group Securities Markets
Head: Thomas Einramhof +43 (0)50100 84432

Institutional Distribution Core
Head: Jürgen Niemeier +49 (0)30 8105800 5503

Institutional Distribution DACH+
Head: Marc Friebertshäuser +49 (0)711 810400 5540
Bernd Bollhof +49 (0)30 8105800 5525
Andreas Goll +49 (0)711 810400 5561
Mathias Gindele +49 (0)711 810400 5562
Ulrich Inhofner +43 (0)5 0100 85544
Sven Kienzle +49 (0)711 810400 5541
Rene Klasen +49 (0)30 8105800 5521
Christopher Lampe-Traupe +49 (0)30 8105800 5523
Karin Rattay +43 (0)5 0100 84118
Michael Schmotz +43 (0)5 0100 85542
Klaus Vosseler +49 (0)711 810400 5560
Slovakia
Šarlota Šipulová +421 2 4862 5619
Monika Směliková +421 2 4862 5629

Institutional Distribution CEE & Insti AM CZ
Head: Antun Burić +385 (0)7237 2439
Jaromir Malak +43 (0)5 0100 84254

Czech Republic
Head: Ondrej Čech +420 2 2499 5577
Milan Bartoš +420 2 2499 5562

Institutional Asset Management Czech Republic

Head: Petr Holeček +420 956 765 453
Petra Maděrová +420 956 765 178
Martin Peřina +420 956 765 106
David Petráček +420 956 765 809
Blanca Weinerová +420 956 765 317
Petr Valenta +420 956 765 140
Croatia
Head: Antun Burić +385 (0)7237 2439
Zvonimir Tukač +385 (0)7237 1787
Natalija Žujic +385 (0)7237 1638
Hungary
Head: Peter Csizmadia +36 1 237 8211
Gábor Bálint +36 1 237 8205
Ádám Szőnyi +36 1 237 8213

Romania and Bulgaria
Head: Ruxandra Lungu +40 373516562

Group Institutional Equity Sales
Head: Brigitte Zeitlberger-Schmid +43 (0)50100 83123
Werner Fürst +43 (0)50100 83121
Josef Kerekes +43 (0)50100 83125
Cormac Lyden +43 (0)50100 83120

Czech Republic
Head: Michal Řízek +420 224 995 537
Jiří Fereš +420 224 995 554
Martin Havlan +420 224 995 551
Pavel Krabička +420 224 995 411
Poland
Head: Jacek Jakub Langer +48 22 257 5711
Tomasz Galanciak +48 22 257 5715
Wojciech Wysocki +48 22 257 5714
Przemysław Nowosad +48 22 257 5712
Grzegorz Stepień +48 22 257 5713

Croatia
Damir Eror +385 (0)72 37 2836

Hungary
Nandori Levente +36 1 23 55 141
Krisztian Kandik +36 1 23 55 162
Balasz Zankay +36 1 23 55 156

Romania
Liviu Avram +40 3735 16569

Group Fixed Income Securities Markets
Head: Goran Hoblaj +43 (0)50100 84403

FISM Flow
Head: Aleksandar Doric +43 (0)5 0100 87487
Margit Hraschek +43 (0)5 0100 84117
Christian Kienesberger +43 (0)5 0100 84323
Ciprian Mitu +43 (0)5 0100 85612
Bernd Thaler +43 (0)5 0100 84119
Zsuzsanna Toth +36-1-237 8209
Poland:
Pawel Kielek +48 22 538 6223

Michal Jarmakowicz +43 50100 85611

Group Fixed Income Securities Trading
Head: Goran Hoblaj +43 (0)50100 84403

Group Equity Trading & Structuring
Head: Ronald Nemec +43 (0)50100 83011

Business Support
Bettina Mahoric +43 (0)50100 86441

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