Bundes
rechnungshof

Advisory Report

on

Financing the Recovery Fund via Green Bonds of the European Union

addressed to the parliamentary Budget Committee

This report comprises the concluding audit findings issued by the German SAI in accordance with Article 96 (4), sent. 1 Federal Budget Code. The decision on its disclosure is reserved to the German SAI.

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Prevent greenwashing: Classification of green activities needs to be put under scrutiny

The European Commission and the Member States did not classify the green activities financed by the Recovery Fund according to harmonised and binding standards. Since these activities are expected to be financed via EU green bonds in the volume of up to €250 billion, the European Union could be accused of greenwashing. This would undermine the European Union's climate change ambitions.

What is it all about?

By means of the taxonomy, the European Commission and the Member States developed a classification system including binding limits and thresholds to reliably identify green activities. However, they did not apply the taxonomy to the Recovery Fund. Instead, they established a classification system which cannot keep up with the taxonomy. Thus, they demand the private sector to commit more to climate action than they do themselves. Furthermore, they broadly interpreted the assessment criteria and thus overstated the positive impact on climate change of their activities classified as green.

What needs to be done?

The selection and assessment of green activities for the Recovery Fund needs to be put under scrutiny. To that end, the Federal Government needs to critically review its own projects and to correctly identify green activities. If required, the Government should include new measures in Germany's recovery and resilience plan which are really environmentally sustainable in order to meet the required volume of green activities. Furthermore, the Government should take action to ensure that the Commission critically assesses the green activities in all Member States.

What is the objective?

The Recovery Fund is not only expected to help Member States tackle the economic impact of the pandemic but also to contribute in particular to the green transition in the European Union. For this to succeed, the States need to use the public funds as effectively as possible, also with a view to climate change mitigation. Furthermore, – together with the Commission – they need to ensure that the total volume of green activities corresponds to the volume of EU green bonds at all times.

List of abbreviations

O

OECD *Organisation for Economic Co-operation and Development*

R

RRF *Recovery and Resilience Facility*

T

Taxonomy criteria *Technical screening criteria for determining the conditions under which a specific economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation*

0 Summary

As a response to the COVID-19 pandemic, the EU Member States established the Recovery Fund with a total volume of €750 billion at year-end 2020. The European Commission borrows the funds on the capital market – up to €250 billion of the amount via EU green bonds.

The Member States may receive non-repayable grants and loans from the Fund, primarily via the Recovery and Resilience Facility (RRF). In order to receive funds from the RRF, the Member States need to inform the European Commission in their national recovery and resilience plans about the measures they intend to fund. The Member States have to use at least 37 per cent of their respective national recovery and resilience plan's total allocation for environmentally sustainable ("green") activities. The European Commission intends to support these activities with the EU green bonds mentioned above.

Under the responsibility of the Federal Ministry of Finance and the Federal Chancellery, the Federal Government developed Germany's recovery and resilience plan. The Federal Government has implemented Germany's plan since mid-2021.

We have carried out a real time audit of the preparation and implementation of Germany's recovery and resilience plan. This report deals with the financing of the activities via green bonds of the European Union. The report takes into account the progress of implementation until May 2022 and the Federal Government's comments on the draft report.

We developed the following key findings:

0.1 When developing and implementing the RRF, the European Commission and the Member States refrained from consistently applying the taxonomy criteria. Instead, they established another, temporary classification system for the RRF that cannot keep up with the taxonomy in terms of transparency and positive impact on climate change. In mid-2020, by means of the taxonomy, the EU legislator adopted a classification system for sustainable investments. The purpose of the system is to classify investments according to harmonised and binding standards in a transparent and comprehensible manner as environmentally sustainable. This is to protect investors from investments erroneously classified as green, also known as greenwashing. The taxonomy is derived from the Union's climate targets and scaled in such a way that these targets are met.

The Federal Government stated that it was not possible to fully apply the taxonomy criteria to the RRF since the criteria were adopted a significant time after the national recovery and resilience plans had been prepared. Furthermore, the taxonomy could not be applied to the public sector without further ado. The Government continued that the European Union had developed a classification system for the RRF that ensured a reliable classification of environmentally sustainable activities even though the system could not keep up with the taxonomy.

The comments of the Federal Government are not convincing. The plans to establish a taxonomy including detailed limits and thresholds had already been known months before the RRF Regulation was adopted. This means that the European Commission and the Member States could have included these criteria in the Regulation. As a matter of fact, they failed to use the opportunity to establish a stronger market presence of the taxonomy by means of the EU green bonds and to link the RRF closely to the Union's climate targets. (No 3)

0.2 The classification system which the European Union developed for the RRF is too lenient and too vague compared with the taxonomy. The system permits to even classify such activities as green which are not environmentally sustainable according to the taxonomy. This also concerns Germany's recovery and resilience plan. Furthermore, the Federal Government and the European Commission broadly interpreted the already lenient assessment factors of the RRF Regulation and set own criteria. As a result, the positive impact on climate change of the recovery and resilience plans could be generally overstated. Overall, greenwashing cannot be excluded in financing the RRF. This might cause lasting damage to the trust of investors intending to make green investments.

The Federal Government rejects the accusation of greenwashing. The Government stated that the measures included in Germany's plan had a positive impact on climate change and contributed to meeting the Union's climate targets.

We uphold our view that the current set-up of the RRF – even in Germany – may encourage undesirable developments. It cannot be ensured that all EU green bonds are backed up with national activities classified as environmentally sustainable in a transparent and comprehensible manner according to harmonised and binding standards. (No 4)

0.3 We recommend that the classification of environmentally sustainable activities in the Recovery Fund be generally put under scrutiny. All Member States, including the Federal Government, and the European Commission should ensure that, throughout the entire term of the Fund until 2058, the European Union never issues more green bonds than the Member States earmark funds for green activities in their national recovery and resilience plans – even when they adopt a narrow interpretation of the RRF Regulation.

Thus, the Federal Government should take action to ensure that the European Commission reviews the measures to implement the Recovery Fund in the Member States. Furthermore, the Government needs to critically review its own projects and to correctly identify the share of green activities. If required, the Government should include new measures in Germany's recovery and resilience plan which are really environmentally sustainable. (No 5)

1 Basic situation

As a response to the COVID-19 pandemic, the EU Member States established the Recovery Fund with a total volume of €750 billion[1] at year-end 2020. They may receive non-repayable grants and loans from the Fund upon request. The European Commission will borrow the funds on the capital market on behalf of the European Union and issue EU bonds for this purpose. The Commission intends to borrow up to €250 billion via EU green bonds and use this amount to provide financial support for sustainable investments throughout the European Union. All EU bonds are expected to be repaid until 2058.

In October 2021 and in April 2022, the European Commission issued EU green bonds with a total volume of €20.5 billion and maturities of 15 and 20 years, respectively.[2] In 2021, green bonds with a volume of about €1 trillion were outstanding worldwide. By jointly financing the Recovery Fund via EU green bonds, the European Union could become the world's largest issuer of green bonds and significantly increase the total volume available on the market.[3]

The European Commission will disburse the grants and loans via various Union programmes to the Member States, primarily via the RRF.[4] With a total amount of €672.5 billion[5], almost 90 per cent of the funds are allocated to this instrument. By means of the RRF, the European Union intends to achieve more economic growth, strengthen economic and social resilience and create jobs. Furthermore, the RRF is to focus on contributing to the green and digital transition.

In order to receive funds from the RRF, the Member States need to inform the European Commission in their national recovery and resilience plans about the measures they intend to fund. Furthermore, each individual measure has to be backed up with milestones and targets which need to be achieved to receive funds from the Commission. Payments are made in several instalments as from 2021. Depending on the payment dates, the Commission will borrow the required funds on the capital market. At year-end 2026, all funds are expected to be paid.

The Member States need to use at least 37 per cent of their respective national recovery and resilience plan's total allocation for sustainable ("green") activities. These activities are expected to contribute to the green transition. The green activities should be financed via EU

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1 In 2018 prices.

2 In January 2022, the European Commission increased the first green bond with a volume of €12 billion by €2.5 billion. In April 2022, the European Commission issued the second green bond with a volume of €6 billion. See "Investor Presentation" of the European Commission (as of 6 April 2022).

3 Green Bond Monitor, Deutsche Bundesbank, September 2021 (in German only).

4 Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility, Official Journal of the European Union of 18 February 2021, L 57/17 (RRF Regulation).

5 €312.5 billion of this amount as grants and €360 billion as loans.

green bonds. Therefore, the volume of green activities must correspond to the volume of EU green bonds.

2 Background and objective of the report

Under the responsibility of the Federal Ministry of Finance and the Federal Chancellery, the Federal Government developed Germany's recovery and resilience plan from August 2020 to April 2021. In July 2021, the Council of the European Union approved Germany's plan after a positive assessment by the European Commission. The Federal Government and federal states have implemented the plan's measures since then.

According to current estimates of the Federal Government, Germany will receive grants in a total amount of €25.6 billion from the RRF. Out of this amount, Germany may request €16.3 billion in 2021 and 2022 and €9.3 billion in 2023. At the end of June 2022, the European Commission will recalculate the allocation of funds based on current data. Depending on the result of this recalculation, Germany will receive more or fewer grants from the RRF. The Federal Government stated that it did not intend to make use of loans from the RRF.[6] By means of own bonds, Germany may, in all likelihood, find more favourable refinancing conditions.

The Federal Government intends to spend the majority of EU funds for measures already adopted in mid-2020 for the Government's economic stimulus package. From the package, the Government included in Germany's plan in particular measures on climate change policy and energy transition, digital transformation of economy and infrastructure, administrative modernisation and strengthening of a pandemic-resilient health system. In the area of climate change policy and energy transition, the Government intends to use Germany's plan to fund in particular the infrastructure for green hydrogen, energy-efficient building refurbishment and the increased sale of electric vehicles.

The RRF and thus also the national recovery and resilience plans should not only make a significant contribution to tackle the COVID-19 pandemic but also support the green and digital transition in the European Union. The issuance of EU green bonds comes with huge responsibility from which a reputational risk arises. In particular in the case of green bonds of public issuers – such as EU bonds – investors need to be sure that no activities are funded that were declared sustainable but which actually are not (known as "greenwashing").

Against this background, we have carried out a real time audit of the implementation of the RRF in Germany. In a first step, we addressed the financing of the activities via EU green bonds. We scrutinised whether and to what extent the Federal Government, possibly together with the European Commission,

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[6] Reply of the Federal Government to a Minor Interpellation, No 8, Bundestag printed paper No 19/23976 (in German only).

- assessed the climate-related impact of the green activities financed by the RRF in a transparent and comprehensible manner and according to harmonised criteria;

- took into account the Union's climate targets in establishing the RRF and in particular Germany's plan; and

- took measures to prevent greenwashing and to effectively support the strategy of the European Union for a sustainable financial system.

By means of this report, we inform the parliamentary Budget Committee about structural shortcomings in financing Germany's plan. We provide recommendations based on our audit work for the revision and readjustment of Germany's plan scheduled to take place in 2022[7] and for the further development and improvement of the RRF at Union level. The report takes into account the developments until May 2022 and the comments provided by the Federal Government on our draft report.

3 Missed opportunity: no obligation to apply the taxonomy to the RRF

3.1 European Commission intends to set the "gold standard" for green bonds

In 2015, the EU Member States contractually committed themselves to achieving the goals of the Paris Climate Change Agreement and the goals of the 2030 Agenda for Sustainable Development of the United Nations. Since then, measures have been taken at national and European level to put the financial market's focus more on financing (in particular environmentally) sustainable economic activities and investments. The main purpose is to redirect capital flows towards green investments. Harmonised and binding classification criteria are required to enable investors to take into account the impact of their investments on the environment when making a decision to invest. Investors should, in particular, be protected from greenwashing.

Institutional investors, e.g. managers of investment and venture capital funds, insurance companies and pension funds, have to include some low-risk government bonds or bonds of other public issuers in their portfolios. This is to ensure that they are able to meet their payment obligations at any time. Thus, the European Union and its Member States started to issue green bonds to enable institutional investors to include green investments even in the low-risk part of the portfolio.

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[7] Based on the reports on the implementation of the RRF Regulation that the European Commission has to submit until July 2022, Article 16 RRF Regulation.

In mid-2021, the European Commission proposed the Green Bond Standard which makes green bonds of private and public issuers subject to uniform requirements.[8] The application of this standard is to enable private and public institutions of the European Union and third countries to raise substantial funds for climate- and environmentally-friendly investments while protecting investors from greenwashing. According to the Commission, this standard is to become a global role model for issuing green bonds and to be established as a "gold standard" on the market.[9] Harmonised classification criteria are to increase transparency for investors and make it easier for them to invest their capital in sustainable activities via green bonds.

The Green Bond Standard is based on the Taxonomy Regulation adopted by the European Union that entered into force in July 2020.[10] By means of the Taxonomy Regulation, the European Union established a harmonised classification system for green economic activities. The taxonomy determines the conditions under which investments may qualify as green. Primarily, the taxonomy is aimed at private sector providers of financial products that have to gradually implement the requirements as from 2022. However, public issuers, such as the European Commission or the Federal Government, may also apply the taxonomy to their bonds.

Pursuant to the Taxonomy Regulation, economic activities are green if they meet two conditions:

1. The economic activities contribute "substantially" to an environmental objective defined in the Taxonomy Regulation, e.g. climate change mitigation, the sustainable use and protection of water and marine resources.

2. The environmental objectives mentioned above are not "significantly" affected by the economic activities (principle of "do no significant harm").[11]

In technical screening criteria (hereinafter referred to as taxonomy criteria), the European Commission should determine the conditions under which an economic activity contributes "substantially" to an environmental objective or causes "significant" harm.[12] In order to do so, the European Commission is advised by a group of selected experts from the real economy and the financial sector and by non-governmental organisations.[13]

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[8] Proposal for a Regulation of the European Parliament and of the Council on European green bonds, COM(2021) 391 final of 6 July 2021.

[9] Website of the European Commission, https://ec.europa.eu/Commission/presscorner/detail/en/qanda_21_3406.

[10] Regulation 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, Official Journal of the European Union of 22 June 2020, L 198/13.

[11] The EU legislator intends to subsequently include the other sustainability objectives, such as social objectives, in the taxonomy by means of separate regulations.

[12] By means of delegated acts pursuant to Article 290 of the Treaty on the Functioning of the European Union, see Article 23 para 2 of the Taxonomy Regulation.

[13] Until autumn 2020 "Technical Expert Group", then "Platform on Sustainable Finance".

In autumn 2020, the European Commission involved the Member States in determining taxonomy criteria for the environmental objectives on “climate change mitigation” and “climate change adaptation”.[14] In June 2021, the European Commission adopted the taxonomy criteria mentioned above in a delegated act. The act entered into force in December 2021.[15] Since 1 January 2022, providers of green financial products have had to apply these criteria. During the course of 2022, the European Commission intends to develop further taxonomy criteria for the other environmental objectives. This concerns the environmental objectives on “the sustainable use and protection of water and marine resources”, “the transition to a circular economy”, “pollution prevention and control” and “the protection and restoration of biodiversity and ecosystems”.[16]

The taxonomy criteria are used to define limits and thresholds for a large number of economic activities, e.g. for their carbon dioxide emission or energy consumption. According to the European Commission, the values were selected in such a way as to be coherent with the Union’s climate targets. Furthermore, the taxonomy criteria are aimed at meeting the Paris climate goals. This means that, theoretically, the respective economic sector would not cause any net emissions if investments were only made to such economic activities which qualified as “green” according to the taxonomy criteria.[17]

3.2 Criteria for green investments in the RRF lack ambition

The limits and thresholds required by the Taxonomy Regulation do not apply to national recovery and resilience plans. Instead, the RRF Regulation defines two conditions under which the national measures included in the plans may qualify as environmentally sustainable:

1. The European Commission and the Member States divide the national measures into three categories to which a coefficient of 100, 40 or 0 per cent is allocated. This coefficient determines the percentage with which expenditure on a measure may qualify as environmentally sustainable.

[14] Articles 10 and 11 of the Taxonomy Regulation. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions “EU Taxonomy, Corporate Sustainability Reporting, Sustainability Preferences and Fiduciary Duties: Directing finance towards the European Green Deal”, COM(2021) 188 final.

[15] Commission Delegated Regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives, Official Journal of the European Union of 9 December 2021, L 442/1.

[16] Article 12 to Article 15 of the Taxonomy Regulation.

[17] Schütze/Stede, EU Sustainable Finance Taxonomy – what is its role on the road towards climate neutrality? DIW Discussion Paper 2020, No 1923.

2. The national measures may cause no “significant” harm to the environmental objectives of the taxonomy (principle of “do no significant harm”).

In the 1990s, the Organisation for Economic Co-operation and Development (OECD) developed the categorisation according to coefficients as mentioned above. The purpose was to evaluate the extent to which development funds contribute to the objectives of the Rio Conventions (known as “Rio markers”).[18] The countries assess the percentage with which expenditure on measures may qualify as environmentally sustainable:

- If the expected outcome of a measure contributes “substantially” to climate change mitigation in the government’s opinion of a country (“principal” objective), 100 per cent of the expenditure on this measure may be classified as green.

- If the expected outcome contributes “moderately” to climate change mitigation (“significant” objective), the coefficient for the calculation of support is 40 per cent.

- A measure is not classified as green (0 per cent) if climate change mitigation is not relevant to implementing the measure.

The Rio markers are intended to help to transparently disclose the volume of the funds provided for climate change mitigation. However, it is not possible to say whether the funds have been used effectively with a view to climate change mitigation. Contrary to the taxonomy criteria, Rio markers are not linked to a specific, positive environmental impact or designed to meet quantitative climate change mitigation targets. **This means: In the case of Rio markers, the decisive factor for a measure to be classified as green is the countries’ motives underlying their environmentally sustainable activities and not the compliance with limits and thresholds.**

3.3 Conclusions

When planning and implementing the RRF, the European Commission and the Member States refrained from consistently applying the taxonomy criteria. On the contrary, they established another, temporary classification system for the RRF that cannot keep up with the taxonomy in terms of transparency and positive impact on climate change.

Indeed, the European Commission did not adopt the taxonomy criteria for climate change mitigation until June 2021. At that time, many Member States had already submitted their national recovery and resilience plans. However, the European Commission and the Member States have already known the limits and thresholds of the taxonomy developed by the expert group since autumn 2020. It would thus have been possible to enshrine these values

[18] Next Generation EU – Green Bond Framework, Commission Staff Working Document SWD(2021) 242. The Rio marker system originates from the United Nations Conference on Environment and Development held in Rio de Janeiro in 1992.

in the RRF Regulation and to classify the green measures included in the national recovery and resilience plans accordingly.

As private sector providers of green financial products have had to apply the taxonomy criteria since January 2022, the European Commission and the Member States stand accused of being less ambitious and less transparent in the case of their "own" green bonds – compared with the green bonds of private issuers.

3.4 Comments of the Federal Government

The Federal Government admitted that environmentally sustainable activities had to meet more stringent requirements according to the taxonomy criteria than to the Rio markers. However, it was not possible to fully apply the taxonomy criteria to the RRF since the European Commission and the Member States agreed on the taxonomy criteria a significant time after the recovery and resilience plans had been prepared. Furthermore, four out of six environmental objectives of the Taxonomy Regulation still did not have technical screening criteria in place in February 2022.

Apart from that, the Federal Government stated that the Taxonomy Regulation applied to private investors and could not be applied to public expenditure programmes such as the RRF without further ado. After all, the taxonomy criteria set a target corridor for sustainable investments that, technically, could not yet be achieved in any case.

The Government continued that, by means of the Rio markers, the EU legislator had chosen indicators that had been proven in long-term applications in order to be able to reliably assess the positive impact on climate change of measures included in the recovery and resilience plans. Furthermore, when issuing EU green bonds, the European Commission applied an internationally recognised standard of the International Capital Market Association. In addition to that, the RRF was established to urgently tackle the pandemic. It was thus important to promptly allocate the funds as from mid-2021. An application of the taxonomy criteria which had not been entered into force at that time would have significantly delayed the implementation of the RRF.

3.5 Final conclusions

The comments of the Federal Government are not convincing. Since autumn 2020, all parties involved have already known the plans to establish a taxonomy including detailed limits and thresholds. This was months before the EU legislator adopted the RRF Regulation in February 2021 and the Government submitted Germany's plan to the European Commission for assessment in April 2021. Thus, the Government could and should have taken action to ensure that the green measures are assessed in all Member States according to the taxonomy criteria. This would not have delayed the allocation of funds or the implementation of measures since the Member States could have been refunded via the RRF

for expenditure incurred for national measures which have been implemented since February 2020. Germany, in particular, refunds expenditure already incurred via the RRF.

Indeed, taxonomy criteria have so far only been developed for "climate change mitigation" and "climate change adaptation" and thus for two out of the six environmental objectives.[19] However, these are the relevant areas for the RRF since the share of green measures included in the recovery and resilience plans required by the RRF refers to climate-related measures. It is thus irrelevant that the taxonomy criteria have so far not been developed for the other environmental objectives.

Furthermore, the Federal Government is not in line with other initiatives at national and European level by stating that the taxonomy criteria could not be applied to the public sector:

- The European Investment Bank assesses environmentally sustainable activities according to taxonomy criteria.[20]
- The European Commission explores how the public sector can use the taxonomy.[21]
- In Germany, the Sustainable Finance Committee appointed by the Government advocates the application of the taxonomy criteria to public investments in its recommendations to the German Federal Government on a sustainable financial system.[22]

Thus, it is not only possible to apply the taxonomy to the public sector but also appropriate since the greenhouse gas emissions of an investment or measure do not depend on whether they are financed by enterprises or by public sector investment projects. This is reflected, for example, in the combination of public and private investments in individual measures, such as the energy-efficient building refurbishment.

Compared with the taxonomy, the European Commission and the Member States agreed on a less ambitious classification system which tends to overstate the positive impact on climate change and thus the share of green measures.[23] The Federal Government's reference to the compliance with international standards when the European Commission issues green bonds is not enough since these standards merely describe good practices for issuing green bonds, such as the requirements for the management of proceeds. However,

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[19] The European Commission is currently developing the taxonomy criteria for the other four environmental objectives (the sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control, the protection and restoration of biodiversity and ecosystems).

[20] EIB Group, Climate Bank Roadmap 2021-2025, 2020.

[21] Communication from the Commission "Sustainable Europe Investment Plan, European Green Deal Investment Plan", COM(2020) 21 final of 14 January 2020, No 4.1.

[22] Shifting the Trillions: A sustainable financial system for the great transformation, 31 recommendations by the Sustainable Finance Committee to the German federal government, 25 February 2021.

[23] See also Michelowa/Michelowa, Coding Errors or Statistical Embellishment? The Political Economy of Reporting Climate Aid, World Development 39(11), 2011, 2010-2020 and Weikmans/Roberts/Bustos/Durand, Assessing the Credibility of how Climate Adaptation Aid Projects are Categorised, Development in Practice 27(4), 2017, pp. 458-471.

they do not include any classification criteria for "appropriate green measures" or guidance on assessing and selecting environmentally sustainable investments.[24] Therefore, these standards complement the taxonomy criteria but cannot replace them.

As a result, the European Commission and the Member States failed to use the opportunity to establish their "gold standard" on the market by means of the EU green bonds and to link the RRF closely to the Union's climate targets.

4 Greenwashing in financing the RRF cannot be excluded

4.1 Too positive assessment of the contribution to climate change mitigation in the RRF Regulation

Several years ago, the European Commission and the Member States developed coefficients based on the Rio markers in order to cover the measures' impact on climate change in the European Cohesion and Structural Funds.

In December 2020, the European Commission took up these assessment factors (Rio markers) and adjusted them with a view to the ongoing negotiations on the RRF Regulation. The Commission stated that it "approximated" the taxonomy criteria when allocating the measures included in the national recovery and resilience plans to the assessment factors. However, the Commission did not fully adopt the limits and thresholds of the taxonomy.

The European Commission even developed new assessment factors for measures which had not yet been covered by the Rio markers instead of relying on the taxonomy, e.g. in the case of electric mobility. In this case, the Commission decided, inter alia, that 40 per cent of the expenditure on plug-in hybrid light vehicles qualified as environmentally sustainable. According to the taxonomy, this classification can hardly be justified since the thresholds for light vehicles defined in the taxonomy are only met in practice by using emission-neutral drive technologies.[25]

[24] The Green Bond Principles 2021 – Voluntary Process Guidelines for Issuing Green Bonds, International Capital Markets Association (ICMA), June 2021.

[25] Schütze/Stede/Blauert/Erdmann, EU taxonomy increasing transparency of sustainable investments, DIW Weekly Report 51/2020, pp. 973-981.

According to the European Commission, the assessment factors in the RRF Regulation allow "a broader set of green investments" compared with the taxonomy.[26] In essence, this means that the Commission classified measures of the Member States as environmentally sustainable even if they did not comply with the limits and thresholds of the taxonomy.

In the following table, we compared the main features and differences in the classification of green measures according to the Green Bond Standard with the RRF Regulation.

Table 1

Classification according to taxonomy and to RRF Regulation

Classification according to taxonomy	Classification according to RRF Regulation
has been applied since January 2022	has been applicable since February 2021
limits and thresholds based on **science**	**motives** of governments to contribute to climate change mitigation decisive
taxonomy aimed at meeting the **Union's climate targets**	criteria **not** aimed at meeting the **Union's climate targets**
objective: global **gold standard**	objective: issuance of green bonds in the **RRF**

Source: Taxonomy Regulation and RRF Regulation.

It becomes clear that the requirements according to the RRF methodology are lower than the requirements according to the taxonomy. We use the following examples to show how the different criteria have an impact on the RRF:

Example 1:

Pursuant to the RRF Regulation, 40 per cent of the expenditure on building refurbishments may qualify as environmentally sustainable even if the resulting energy-efficiency gains are low.

According to the taxonomy criteria, this would not be permitted since only such activities contribute "substantially" to environmental objectives that reduce the primary energy

[26] See European Commission, "Questions and Answers: Next Generation EU Green Bond framework", which states that, "In this way, the EU has aligned, where feasible, the criteria for green spending under the Recovery and Resilience Facility with the EU taxonomy, while also allowing a broader set of green investments to be financed via the Recovery and Resilience Facility."

demand of a building by more than 30 per cent or comply with the energy performance requirements of buildings under Union law[27].

Example 2:

Pursuant to the RRF Regulation, 40 per cent of the expenditure on the new construction, expansion and renewal of train tracks may qualify as environmentally sustainable even if the tracks are not electrified. However, the infrastructure must not be dedicated to the transport or storage of fossil fuels.

According to the taxonomy criteria, however, such construction work would only contribute "substantially" to climate change mitigation if the tracks are electrified, planned to be electrified or if trains without any direct carbon dioxide emissions may use the tracks within 10 years.

Example 3:

Pursuant to the RRF Regulation, 40 per cent of the expenditure on the production of electricity from biomass may qualify as environmentally sustainable.

According to the taxonomy criteria, this production of electricity only contributes substantially to climate change mitigation if greenhouse gas emissions are reduced by 80 per cent or more when using biomass.

4.2 The Federal Government fails to meet EU requirements

Pursuant to the RRF Regulation, the Member States should use at least 37 per cent of their respective recovery and resilience plan's total allocation for green measures and thus contribute to the green transition. The European Commission stated that it aimed to finance up to 30 per cent of the Recovery Fund via EU green bonds.[28] Thus, the Commission maintained a "buffer" to ensure that all EU green bonds were backed up with green measures of the Member States.[29]

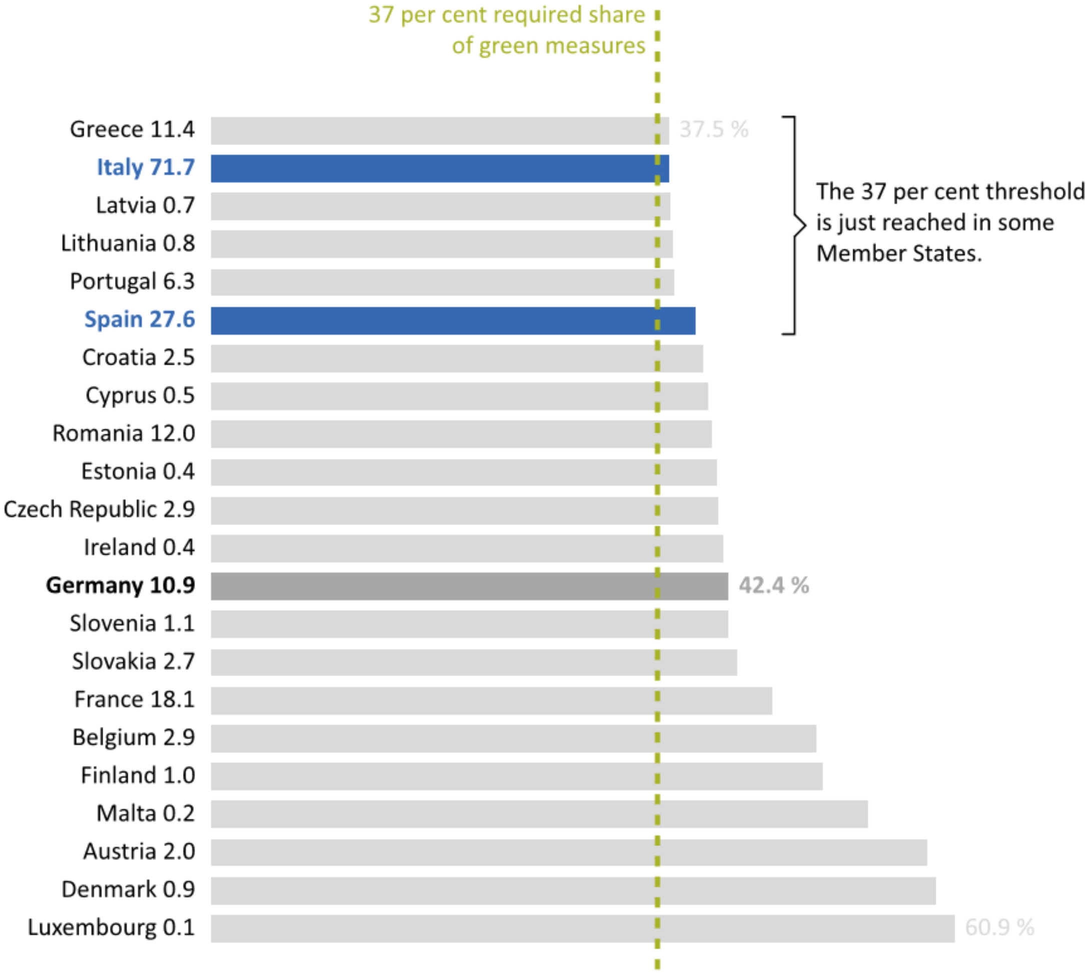
[27] Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings, Official Journal of the European Union of 18 June 2010, L 153/13.
[28] Next Generation EU – Green Bond Framework, Commission Staff Working Document SWD(2021) 242, No 1.4.1.
[29] Next Generation EU – Green Bond Framework, ibid, No 3.2 ("maintain a buffer").

The following figure summarises the amounts and shares the Member States provided for green measures included in their respective national recovery and resilience plans.

Figure 1

The amount of the buffer to the required share of green measures differs in the Member States

Even in Member States receiving relatively high allocations from the RRF, the share of green measures is below 40 per cent. Germany has a total volume of green measures of €10.9 billion, which corresponds to approximately 42 per cent, and thus ranks in the middle of the Member States.



Note: The figure includes the 22 Member States whose national implementation plans have been approved by the Council of the European Union as of May 2022. The Council has not yet approved the implementation plans of the other 5 Member States.

Graph: German SAI.

Source: Documents of the European Commission on the implementation plans of the Member States.

In order to plausibly support the European Union's climate change ambitions, the Member States have to ensure that the required share of green measures of 37 per cent is achieved also in practice.

According to current estimates, Germany will receive grants of €25.6 billion from the RRF. Out of this amount, €9.5 billion need to be used for green measures. The Federal Government stated that expenditure of €10.9 billion in Germany's plan were green. The Government would thus reach a share of green measures of 42 per cent.[30]

Should in Germany, for example, the volume of the green measures actually implemented be more than €1.4 billion lower than budgeted, the required share of green measures would not be achieved at national level. If the volume was even lower, the buffer envisaged by the European Commission could also be exhausted.

We therefore scrutinised the assessment of the measures included in Germany's plan marked as green. The assessment factors of the RRF Regulation link the positive impact on climate change of some measures to targets, such as energy efficiency or reduction of greenhouse gas emissions. These targets have to be met in order that 40 or 100 per cent of the associated expenditure may qualify as environmentally sustainable.

During our audit work, we found that the Federal Government and the European Commission agreed on using assessment factors and targets deviating from the RRF methodology and on setting own criteria for some measures in the course of the negotiations on the preparation of Germany's plan. However, the RRF Regulation does not provide for such deviations. We provide four examples below in which the allocation of green expenditure is at least questionable.

Example 4:

The Federal Government funds some projects of the Federal Funding for Energy-Efficient Buildings scheme in a volume of €2.5 billion via Germany's plan. The scheme has the goal of supporting retrofitting measures in line with the efficiency standards of Germany's national promotional bank (KfW). The Government set the climate change objective in aggregated carbon dioxide savings. In this way, the Federal Government intends to use the amount of €2.5 billion to save up to 1.3 megatons of carbon dioxide per year.

According to the assessment factors revised for the RRF, expenditure on building refurbishments may only fully qualify as environmentally sustainable if 30 per cent or more of the primary energy demand can be reduced by the measures. The Federal Government roughly estimated primary energy savings of more than 30 per cent with regard to the average building stock in Germany.

However, actual energy savings depend on the houses refurbished by means of the funding. In order to meet the requirements of the RRF Regulation, the Federal Government agreed

[30] Commission staff working document accompanying the document proposal for a Council implementing decision on the approval of the assessment of the recovery and resilience plan for Germany, see "Climate tracking and digital tagging table", SWD(2021) 163 final/2 of 22 July 2021.

with the European Commission to allocate the refurbished buildings from the federal scheme – which means also the buildings originally funded at national level – to Germany's plan that resulted in particularly high energy savings. Based on this agreement, the Federal Government expects the projects funded by Germany's plan to achieve the energy savings required by the RRF Regulation.

Based on the methodology, the Federal Government and the European Commission agreed that 100 per cent of the expenditure qualified as environmentally sustainable. Otherwise, only 40 per cent of the expenditure on the federal scheme would have qualified as environmentally sustainable. The contribution to climate change mitigation of Germany's plan would have been €1.5 billion lower than budgeted.

Example 5:

In Germany's plan, the Federal Government budgeted €1.1 billion for supporting the purchase of buses with alternative drive systems. The goal is a binding order of at least 2,800 buses until autumn 2026. Electric or biogas buses are envisaged to be eligible for funding. According to the Government, only few buses are currently running on gas. However, the actual number of biogas buses funded could not be reliably determined in advance. This depended on future demand. According to the Government, the demand for biogas buses was estimated in advance and considered to be low. The Government continued that it expected merely 1-2 per cent of the buses funded to run on biogas.

Furthermore, the Federal Government stated that even biogas buses had a positive impact on climate change since they replaced diesel buses. In addition to that, technological advances also resulted in new models being launched on the market which could save energy. Pursuant to European Commission directives, 100 per cent of the expenditure on electric buses may qualify as green. Expenditure on biogas buses, however, may not qualify as green.

Nevertheless, the Federal Government and the European Commission agreed that 100 per cent of the expenditure on this funding scheme qualified as environmentally sustainable.

Example 6:

Germany's plan earmarks €750 million for joint projects with other EU Member States in order to support the development of a highly scalable cloud infrastructure within the European Union. According to the Federal Government, energy savings in this field are to be expected. However, the Government could not reliably estimate the level of savings when preparing Germany's plan. The Government selected the eligible undertakings in spring 2022. According to the Government, some projects eligible for funding have the goal of finding data centre solutions by which 25 and 75 per cent of carbon dioxide emissions could be reduced compared with today's data centres. In the area of interconnection, individual projects are intended to save up to 90 per cent of carbon dioxide emissions. Projects in the manufacturing industry could result in possible savings of 10 and 17 per cent. Projects for rail transport solutions are expected to bring carbon dioxide savings in mobility.

Pursuant to the RRF Regulation, 40 per cent of the expenditure on information and communication infrastructures may qualify as environmentally sustainable if the measures result in "demonstrated substantial" greenhouse gas emissions savings. The Federal Government and the European Commission agreed that 50 per cent or more of the projects "included boosting energy efficiency as a key objective".[31] As a result, they agreed that 40 per cent of half of the expenditure might generally qualify as environmentally sustainable. Thus, they actually used an assessment factor of 20 per cent even though the RRF Regulation does not provide for such a coefficient. At this point in time, the Federal Government expects the eligible projects to meet the requirements and to have a positive impact on climate change.

The Federal Government and the European Commission agreed that 20 per cent of the expenditure on developing highly scalable cloud infrastructures might qualify as environmentally sustainable.[32] This resulted in a contribution to climate change mitigation and adaptation of €150 million.

Example 7:

The Federal Government budgeted €1,077.2 million for a measure in the vehicle manufacturer and supply industry investment programme. The goal is to support the digital transformation of the production systems and value chains in the automotive industry. According to the Government, the digital transformation of production may, inter alia, reduce the energy and resource consumption of enterprises.

[31] Furthermore, the eligible projects have to be in line with the "Code of Conduct for Energy Efficiency in Data Centres".
[32] Intervention field 55a.

Pursuant to the Government's funding guidelines issued for this programme, applicants have to demonstrate whether and to what extent they increase resource and energy efficiency of production by means of the measure to be supported. However, the guidelines do not specify the level of the increase in efficiency required to receive funding.

Pursuant to the RRF Regulation,[33] 40 per cent of the expenditure on digitising enterprises may qualify as environmentally sustainable if the expenditure is consistent with the criteria on energy efficiency or on reducing greenhouse gas emissions. For this purpose, "demonstrated substantial" greenhouse gas emissions savings are required. The Federal Government stated that, when preparing Germany's plan, it was not possible to estimate in advance the extent to which the measure would reduce the material and energy consumption or greenhouse gas emissions. However, the Federal Government expects 50 per cent of the projects to meet the requirements.

Thus, the Federal Government considered that 40 per cent of half of the investment volume qualified as environmentally sustainable. This corresponds to €215.4 million.[34] In doing so, the Government took a coefficient of 20 per cent for the entire measure even though the RRF Regulation does not provide for such a coefficient. The European Commission, however, considered that 40 per cent of part of the measure for which €650 million are budgeted qualified as environmentally sustainable. This resulted in a contribution to climate change mitigation and adaptation of €260 million.[35] This report takes into account the amount of €215.4 million which the Federal Government classified as green.

4.3 Conclusions

The RRF methodology for assessing green activities is too lenient and too vague compared with the taxonomy. Examples 1 to 3 show that the methodology permits to classify even such activities as environmentally sustainable which are not contributing substantially to climate change mitigation or climate change adaptation according to the taxonomy. In addition to that, the methodology – in contrast to the taxonomy – is not derived from the Union's climate targets. As a result, the methodology is not scaled in such a way that these targets are met. This implies the risk of overstating the positive impact on climate change in the national recovery and resilience plans and of not really contributing to climate change mitigation and adaptation in practice.

Furthermore, the share of green measures included in Germany's plan cannot stand up to critical scrutiny since the Federal Government and the European Commission broadly interpreted the already lenient assessment factors of the RRF Regulation and additionally set

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[33] Intervention field 10b.

[34] €1,077.2 million x 0.5 x 40 per cent equals €215.4 million.

[35] Commission staff working document accompanying the document proposal for a Council implementing decision on the approval of the assessment of the recovery and resilience plan for Germany, see "Climate tracking and digital tagging table", SWD(2021) 163 final/2 of 22 July 2021.

own criteria. However, the RRF Regulation does not provide for such agreements between European Commission and Member State.

In its entirety, the Federal Funding for Energy-Efficient Buildings scheme (example 4), for instance, would not contribute to climate change mitigation or adaptation pursuant to the RRF Regulation and thus it cannot be justified that 100 per cent qualify as environmentally sustainable. However, the European Commission and the Federal Government applied their own methodology by choosing individual measures which are particularly energy efficient from the government programme and allocating them to Germany's plan on paper. Nevertheless, this does not have an impact on the government programme's contribution to climate change mitigation and adaptation. The Federal Government merely finances measures which contribute substantially to climate change mitigation or adaptation via EU funds and measures which have a less positive impact on climate change via the federal budget. This approach raises serious doubts as to the willingness and ambition to use public funds to achieve best value for money also with a view to climate change mitigation – in particular in times of crisis.

Overall, the actual contribution to climate change mitigation of Germany's plan could be significantly lower than currently stated. Examples 4 to 7 given above suggest that the plan's contribution could be almost €2 billion lower than budgeted and thus could not meet the required share of green measures of 37 per cent.[36] Thus, the Federal Government and the European Commission should

- have stated an amount for the contribution to climate change mitigation in the case of the Federal Funding for Energy-Efficient Buildings scheme (example 4) which is €1.5 billion lower than budgeted;

- either have generally excluded biogas buses from the funding scheme in the case of the programme on the purchase of buses (example 5) or not have taken into account the funds available for this purpose when calculating the contribution to climate change mitigation; and

- not have included €365 million for funding the cloud infrastructure (example 6) and the vehicle manufacturer and supply industry investment programme (example 7).

Based on the findings on Germany's plan, we cannot exclude that the green measures included in the national recovery and resilience plans of the other Member States are similarly overstated since the European Commission and the Member States broadly interpreted the assessment criteria of the RRF Regulation and the extent to which activities qualify as environmentally sustainable. In addition to that, some Member States only hardly meet the required share of green measures (see figure 1). These States thus have a

[36] Total volume of €10.9 billion of green measures included in Germany's plan less €1.87 billion from examples 4, 6 and 7 is a revised share of green measures of 35.3 per cent (instead of 42 per cent stated in Germany's plan).

significantly lower buffer than Germany. This implies the risk that, even in the case of slight deviations, these States might fail to meet their obligations arising from the RRF to use at least 37 per cent of the allocations for green measures.

Should the planned review of the national implementation plans show that the Member States contribute less to climate change mitigation than envisaged, this could undermine the Union's climate change ambitions and damage the Union's reputation in general. Furthermore, the green measures really implemented in all Member States might not be enough to fully back up the corresponding EU green bonds.

Overall, the European Union might be accused of greenwashing. This might cause lasting damage to the trust of investors intending to make green investments.

4.4 Comments of the Federal Government

The Federal Government admitted that it agreed with the European Commission on individual assessment criteria for individual measures included in Germany's plan. Nevertheless, the measures included in the plan had a positive impact on climate change and contributed to meeting the Union's climate targets. Against this background, the Government rejects our conclusion according to which the assessment practice in the context of the RRF facilitates greenwashing.

Furthermore, the Government stated that the national recovery and resilience plans were based on bilateral negotiations between the European Commission and the respective Member State. Just the Commission could review the positive impact national measures had on climate change. The Government merely had the Commission's assessments on the national plans and could thus not properly assess the measures of other countries.

4.5 Final conclusions

Finally, we conclude that it depended on the negotiations between the European Commission and the respective Member State whether measures had been classified as green. In essence, this means that the EU green bonds are not backed up with national measures which have been classified according to harmonised and binding standards in a transparent and comprehensible manner as environmentally sustainable. The Federal Government also confirms this lacking transparency in implementing the RRF by admitting that the Government is unable to properly assess the positive impact the national plans of other Member States have on climate change.

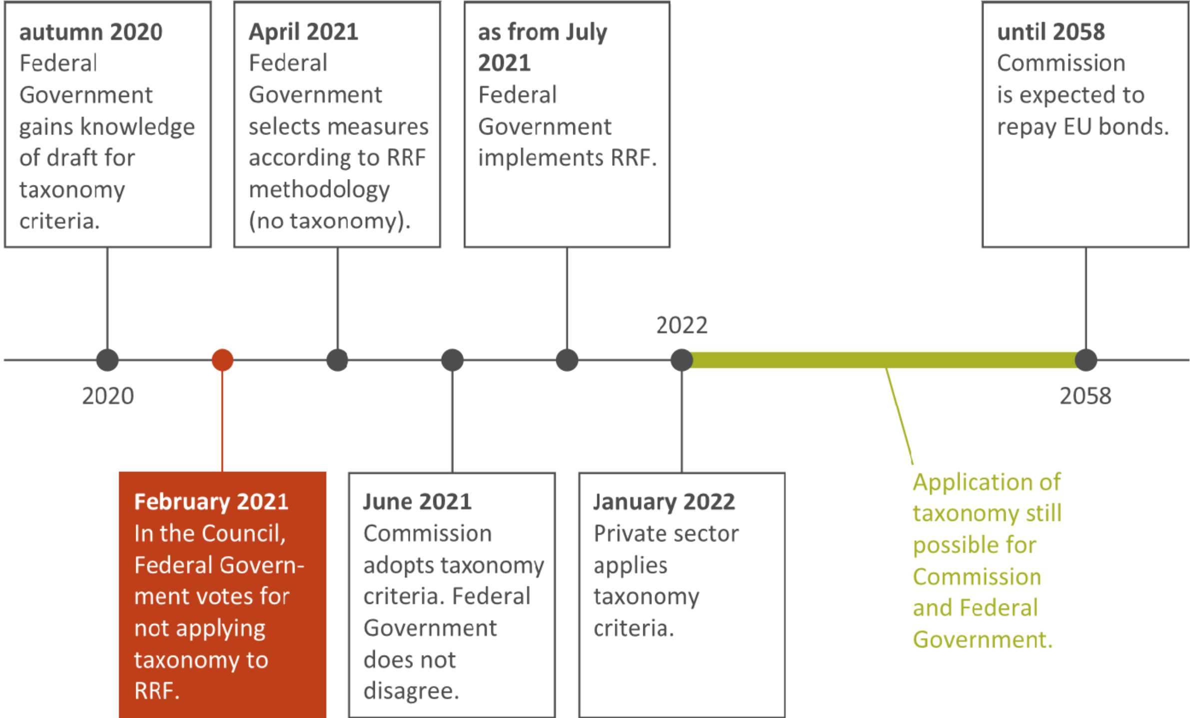
By means of the taxonomy, harmonised and bindings standards were available according to which the European Commission and the Member States could have assessed the positive impact the measures had on climate change in a transparent and comprehensible manner. As the following figure shows, this would also have been possible in terms of timing.

The figure also shows that the taxonomy for EU green bonds within the scope of the Recovery Fund can still be applied since these bonds are expected to be repaid until 2058. During this period, the various bonds need to be rolled over repeatedly – depending on the maturity. Thus, the volume of EU green bonds can be adjusted at any time and be aligned with the volume of activities which qualify as green according to the taxonomy, for example.

Figure 2

Application of taxonomy for EU green bonds still possible

The European Commission and the Member States failed to align the RRF Regulation with the taxonomy. With a view to the long-term maturity of the Recovery Fund, the taxonomy criteria could still be applied to the EU green bonds.



Graph: German SAI.

Source: European Commission.

5 Final reflections

The Recovery Fund is not only expected to help Member States tackle the economic impact of the pandemic but also to contribute in particular to the green transition in the European Union. In practice, however, the Recovery Fund fails to achieve this ambitious goal since the European Commission and the Member States established another, temporary classification system that is less transparent and has less impact on climate change mitigation – compared with the taxonomy – instead of using the harmonised and binding standards of the

taxonomy as a basis. That gives particular cause for concern since the Commission and the Member States thus demand enterprises and private investors to commit more to climate action than they are willing to do themselves. Furthermore, they broadly interpreted the assessment criteria and, as a result, overstated the positive impact the measures had on climate change.

The European Commission and the Member States have to ensure that the trust of investors intending to make sustainable investments is not damaged. Against this background, they should generally put the classification of environmentally sustainable activities in the Recovery Fund under scrutiny. Together with the European Commission, the Federal Government should ensure that

- the European Union never issues more green bonds than the Member States earmark funds for green activities in their national recovery and resilience plans – even when they adopt a narrow interpretation of the RRF Regulation;

- the impact of the activities classified as environmentally sustainable are critically reviewed in all Member States in an ongoing evaluation of project results in order to fairly reflect the contribution to climate change mitigation on this basis and to regularly adjust the volume of EU green bonds;

- further environmentally sustainable activities may be included in the revision of national recovery and resilience plans[37] already planned if the measures included so far cannot stand up to an evaluation of results or if Member States receive more funds from the RRF; and

- the volume of funds in the national recovery and resilience plans that may qualify as environmentally sustainable when applying the taxonomy criteria will be assessed in order to possibly switch to applying the Green Bond Standard for EU green bonds in the context of regular roll-overs until 2058.

[37] For the European Commission's new calculation of the grants to the Member States scheduled to take place in mid-2022, see No 2 above.