European Recovery Packages and their Climate Investment Shares

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Policy Brief

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Executive summary

The European Commission's proposal for a European economic recovery program is unprecedented. In contrast to the last crisis, the EU plans to borrow money from the capital market worth €750 billion in order to cope with the current crisis. At the same time, the scale of planned investments by far exceeds those adopted in the aftermath of the 2008-2009 financial and economic crisis. This would also result in a higher overall investment in projects related to climate protection. Within the Next Generation EU recovery program, a total of €187.5 billion is foreseen to be invested into green projects. In contrast, the last crisis response package in 2008 included only €22 billion for green investments. Although the current crisis will most likely have more significant impact on the European economy than the 2008-2009 financial crisis – the Commission estimates that the economy will contract by 8.3% if no further lockdowns are necessary – and thus requires a larger fiscal response, the vast difference in total climate related investments is substantial. However, in relative terms the green share of the Commission's proposal is significantly smaller than that of the recovery package after the 2008-09 financial crisis. While the Commission plans to invest 25% of its overall stimulus package into green projects, almost 60% of the financial crisis response measures went into climate friendly objectives such as trans-European energy interconnections or energy-efficient renovation of buildings.

Similar to the last crisis, emissions dropped rapidly in this year's economic contraction and are expected to increase again in 2021 in line with economic growth. However, a 25% climate investment focus can help to bring emissions to a lower trajectory going forward. As previous stimulus packages have shown, a relatively large green share can play an important role to encourage greater mitigation in the aftermath of the crisis. In this sense, the planned investments within the recovery program are a good start.

The investment support in the recovery plan comes on top of funds already foreseen in the proposed Multiannual Financial Framework (MFF) and add additional financial power to already proposed climate programs such as sustainable infrastructure. The Next Generation EU recovery program also is intended to support new programs with an investment focus on clean hydrogen, batteries and CCS. Yet, the main function of recovery programs is to re-activate the economy in a short timeframe and help those regions and sectors most affected by the crisis. Therefore, funds must flow towards shovel-ready projects, which can be implemented in a short timeframe. It is therefore unrealistic to expect that they are always and fully aligned with other objectives – including with climate goals. However, care needs to be taken that the use of funds at least does not compromise climate objectives. The proposed "do no harm" principle of the recovery fund acknowledges that.

While stimulus packages dominate the current discussion, from a climate perspective the long-term commitment is key for driving down emissions. Therefore, the MFF must be the core financial instrument for climate mitigation efforts on the European level. With its revised MFF from 2021 to 2027 the Commission reinforces the plan to strengthen the European climate target of -50% to -55% in 2030 compared to 1990 levels. In order to achieve this target the Commission plans to invest 25% of its new budget into climate projects. Combined, both the MFF and the recovery program could lead to climate investments worth €462.5 billion between 2021 and 2027. Should additional public and private investments be triggered through both programs, then a total of €775 billion of climate investments could be generated between 2021 and 2027.

Nevertheless, this investment volume would not be sufficient for overall climate investment needs. According to calculations by the Commission, the investment gap for private and public investments for the current climate target (-40% of GHG emissions in 2030) amounts to €2,380

billion in the EU as a whole over the period 2021 to 2027. The climate investments foreseen under the MFF and the recovery plan would only account for about 20% of this amount, meaning that an investment gap of €1,918 billion remains. The various National Energy and Climate Plans (NECPs) already cover parts of it. However, the degree of Member States contributing to the remaining investment gap is highly uncertain. Furthermore, all NECPs are geared towards the current EU headline climate target of reducing GHG emissions 40% below 1990 levels by 2030. Adopting the proposed, more ambitious target of a 50-55% reduction by 2030 will result in higher investment needs.

Furthermore, certain Member States can find it difficult to mobilize funding for investments into a climate-neutral future. The expenses of national stimulus packages may lead to efforts to balance budgets in the future. In the worst case, this may lead to disinvestments as infrastructure is liquidated. This may result in long-term climate investments being delayed or even abandoned. Therefore, a stronger EU focus for climate investments could be adequate supporting especially those countries that are in a difficult budgetary situation. In addition, many climate projects are European projects. A better interconnection of national power grids, railway networks as well as hydrogen networks are necessities if the climate targets should be achieved and support the argument for a coordinated response on the EU level. Thus, the Commission should increase the climate investment share both within the MFF and the Next Generation EU recovery program.

Table of Contents

1 Introduction 5

2 Response to the Financial Crisis 2008 6

3 Corona Stimulus Program ..... Error! Bookmark not defined.

4 The Stimulus Package in a Broader Context of Climate Investments 16

5 Conclusion 18

1 Introduction

The COVID-19 pandemic caused a partial shutdown of the global economy in order to slow the spread of the virus. Shops, restaurants and large parts of industry ceased to operate. Already at this point, it is quite clear that the pandemic will cause one of the biggest economic crises in recent history. The commission estimates, that the European economy will contract by 8.3% in 2020 if no further lockdowns are necessary.[1] Should additional lockdowns be needed, the GDP could even fall by 16%. As a first step, governments worldwide reacted with large financial aid programs to absorb at least some parts of the immediate economic and financial losses. For instance, within a few weeks after the start of the country-wide lockdowns the German government implemented a first assistance package worth €156 billion including inter alia cheap loans for firms, direct grants for freelancers and financial support for workers.

However, initial liquidity programs will not be sufficient to re-activate the economy. Many jobs are still at risk. Therefore, as a second step governments plan to implement further fiscal stimulus measures to boost national economies. They will entail short-term measures which increase consumption and demand. But recovery programs will also include investment measures that have an impact on the economy in the medium and long-term. Therefore, these measures can have important implications for the development of nations' economies. Will government spending support old and fossil-fuel based industries and sectors, or will these programs foster the transformation towards a more resilient and green economy? Will the stimulus programs contribute to an economic recovery but at the same time lead to a resurgence of GHG emissions?

In the European Union, Member States were first to launch their immediate assistance programs. Nevertheless, it became apparent that national measures will not be sufficient to account for the massive economic downfall caused by the crisis. The capability for a swift and extensive fiscal reaction differs between Member States. While Germany's fiscal response – as of now – amounts to 13.3% of GDP, Italy and Spain implemented additional government spending worth 0.9% of GDP and 2.3% of GDP, respectively.[2] Although both the Italian and Spanish government supported the economy with additional measures in the form of deferrals and other liquidity provisions and guarantees, which are in part larger than the immediate spending, their fiscal responses might not be adequate to cope with the countries' economic crisis caused by the pandemic.

Therefore, the European Commission proposed a comprehensive recovery program, which aims to support those countries hardest hit by the pandemic. At the same time, the Commission revised its proposal for the Multiannual Financial Framework (MFF) for the years 2021 to 2027 to better align with the recovery program and the current pandemic situation. Both the MFF and the recovery plan include proposals for investment programs which will shape the future European economy. 25% of these investments are reserved for climate related objectives. But are these measures aligned with the climate objective and contribute adequately to address investment needs?

[1] https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1269
[2] https://www.bruegel.org/publications/datasets/covid-national-dataset/

2 Response to the Financial Crisis

This short study gives a broad overview of the Commission's proposal for the new MFF and the recovery program. For a better evaluation of the current plan this study first looks into the past illustrating fiscal stimulus programs after the financial crisis including their share of green investment and their effectiveness in terms of emissions decrease.

European Economic Recovery Plan

In the aftermath of the 2008-09 financial crisis, the European Commission expected that economic growth would fall to 0.2% for the year 2009.[3] As a response to the poor economic outlook, the Commission implemented a coordinated European fiscal stimulus plan, which included contributions by Member States amounting to €170 billion (1.2% of GDP) and EU as well as European Investment Bank (EIB) contributions of around €30 billion (0.3% of GDP).

In terms of European expenditures, the EIB was set to contribute €30 billion in form of loans, equity, guarantees and risk-sharing for the years 2009 and 2010.[4] Anti-crisis measures by the EIB targeted primarily SMEs. Other main priority areas were convergence lending and climate mitigation investments. For instance, an additional €5 billion were invested for trans-European energy interconnections and broadband infrastructure projects. These expenditures came from the EU budget since not all of the budget was spent during the financial crisis. Another €500 million was set aside for investment projects for trans-European transport. In addition, the EIB increased its financing for climate change, energy security and infrastructure investments by up to €6 billion per year. Parts of these €6 billion were reserved for a 'European green cars initiative', which involved R&D for technologies and smart energy infrastructures. Funding came from the Community, the EIB, industry as well as Member States' contributions and amounted to a financial envelope of €5 billion. In addition, the European Bank for Reconstruction and Development (EBRD) provided extra funding for energy efficiency, climate change mitigation as well municipalities and other infrastructure services, which was expected to mobilize private investments with the overall amount of €5 billion.[5]

Originally planned for four years (2008-2011), the EIB's objective of €30 billion for SMEs was already achieved in 2010.[6] Although the objective was to increase climate-related lending to an overall amount of €20.4 billion per year in 2009 and 2010[7], the EIB was able to invest only €17 billion in 2009.[8] In 2010, the EIB reached its climate investment goal with an overall amount of €20.5 billion.[9]

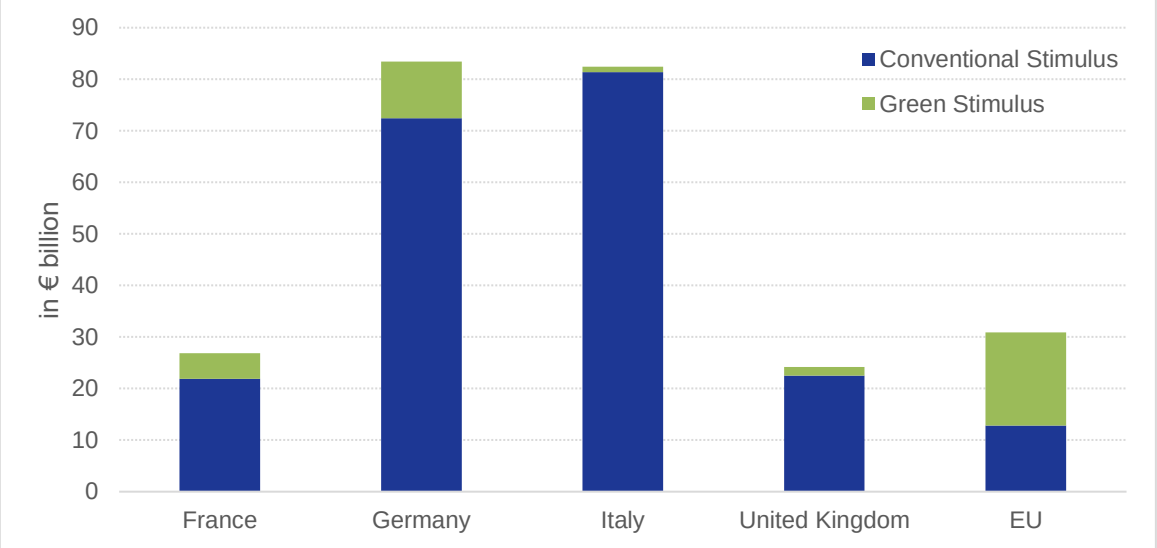
National Recovery Packages after financial crisis 2008/2009

Many countries reacted to the financial crisis with their own resources with most of them contributing far larger amounts of investments than the European Union. Already back in 2009, concerns were raised whether financial aid measures would boost green investments – and countries responded quite differently. Stimulus packages not only varied in size but also in their

[3] https://ec.europa.eu/economy_finance/publications/pages/publication13290_en.pdf. However, as it turned out all European countries except for Poland hat a real GDP decrease.
[4] https://ec.europa.eu/economy_finance/publications/pages/publication13504_en.pdf
[5] https://www.globaldashboard.org/wp-content/uploads/2009/HSBC_Green_New_Deal.pdf
[6] https://www.eib.org/attachments/documents/sme-activities.pdf
[7] https://www.eib.org/attachments/general/events/press_conference_2009_package_en.pdf
[8] https://www.eib.org/attachments/general/reports/ar2009en.pdf
[9] https://www.eib.org/attachments/general/reports/fr2010en.pdf

"green share", i.e. the extent to which they explicitly promoted investments into climate protection and sustainability. While EU's direct contributions had a very large green share (almost 60%), investments by Member States were primarily focusing on conventional measures (only 10% of all contributions were invested into green projects).

Figure 1: Stimulus Packages in Different Countries

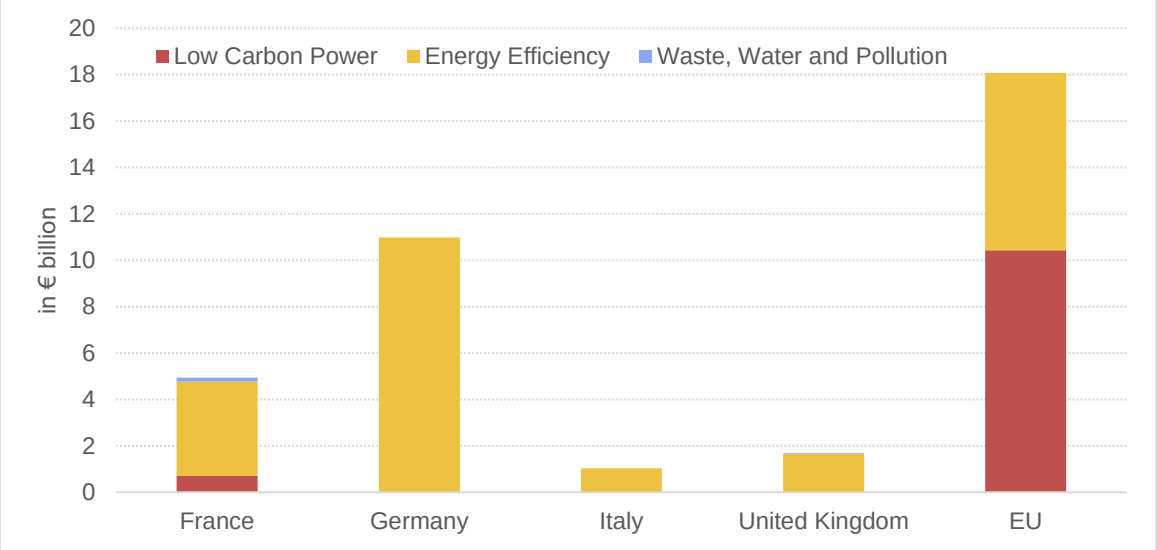


Source: https://www.globaldashboard.org/wp-content/uploads/2009/HSBC_Green_New_Deal.pdf

Among European countries displayed in the graph, both Germany and Italy implemented the biggest stimulus programs with an overall volume of more than €80 billion each. While Germany's green share in the country's recovery program was around 13%, only little more than 1% of Italy's program was earmarked for green projects. France and the UK, on the contrary, set up recovery programs worth €26.8 billion (18.4% for green measures) and €24.2 billion (6.9%), respectively. Overall, EU and national measures combined amounted to more than €500 billion of which €43 billion (8.6%) were invested in climate related projects.

Within the category of "green investments", the lion's share of green investments went into energy efficiency measures such as the energy efficient renovation of buildings. These investments are particularly attractive for recovery programs since they can be implemented relatively quickly and at scale, and thus have an immediate positive impact on the economy. Other green investments supported low-carbon power objectives such as renewable energies and energy infrastructure, which played a prominent role in the EU's direct measures.

Figure 2: Green components of stimulus packages

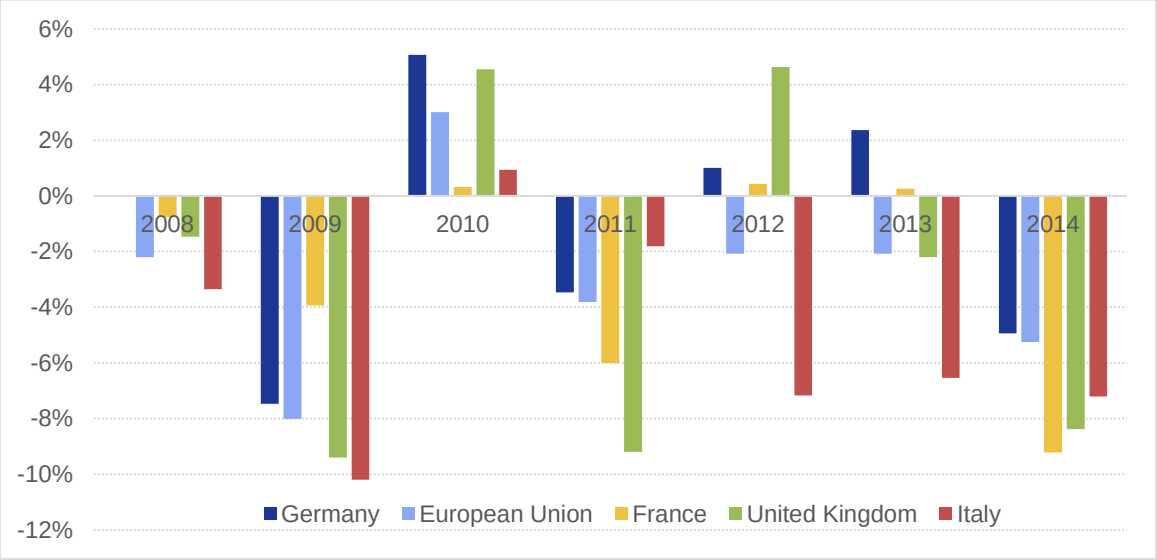


Source: https://www.globaldashboard.org/wp-content/uploads/2009/HSBC_Green_New_Deal.pdf

Effects of the Recovery Packages

Due to economic contraction countries' CO_2 emissions fell accordingly in all countries. Figure 3 displays the annual change in CO_2 emissions for selected countries. After an emission decrease in 2009, all countries' emissions rebounded in 2010 just to fall again in the following year. Emissions in the European Union kept decreasing after 2010. The fall in emissions in the aftermath of the financial crisis can in part be attributed to the green share of the recovery program.[10] Nevertheless, not all recovery programs were able to bring about a continued emission reduction, as Germany's development shows, where emissions increased in 2012 and 2013. Italy's emissions, on the other hand, decreased despite not having a substantial green share in its fiscal stimulus program. The country's emissions decline might be primarily caused by poor economic development due the Euro crisis.

Figure 3: Annual Changes in CO_2 Emissions



Source: https://data.worldbank.org/indicator/EN.ATM.CO2E.KT?end=2014&start=2007

[10] https://ec.europa.eu/environment/enveco/growth_jobs_social/pdf/studies/green_recovery_plans.pdf

3 Response to the Corona Crisis

The Commission expects the EU economy to contract by 8.3% in 2020.[11] In order to avoid a collapse of the economy and an increase in unemployment, the Commission proposed a massive fiscal stimulus program. Under the name Next Generation EU, the recovery program is supposed to comprise an overall amount of €750 billion consisting of grants, funds and guarantees. The additional €750 billion are supposed to be collected on the capital market by the Commission and should be used until 2024. Debt repayment should not start before 2028 and end no later than 2058. At the same time, the Commission proposed a revised Multiannual Financial Framework (MFF) for the years 2021 to 2027, which is adopted in relation to the current crisis and is planned to have a budget worth €1100 billion.[12] Compared to the first MFF draft in 2018, the Commission proposes to increase the budget-related funding volume of the Just Transition Fund and the maximum annual amount available for the EU Solidarity Fund, for instance.[13] Overall, the Commission expects that both the recovery program and the MFF unleash additional public and private investments worth €3,100 billion.[14]

Due to inter alia the Brexit, the Commission proposed in its first draft in 2018 an increase in its own resources ceilings from 1.2% to 1.29% of the sum of all Member States' Gross National Income in order to finance the MFF 2021-2027.[15] Now, with the unforeseen external shock of the Corona Pandemic and the following economic contraction, the Commission proposes an additional increase of its own resources ceilings by 0.11 percentage points in order to cover all of its financial obligations. Further, it is proposed that the Commission should be able to borrow money from the capital market to the effect of an additional and temporary increase of its resources ceiling by another 0.06 percentage points.[16] Besides Member States' contributions and revenues from the Emission Trading Scheme with an expected amount of €10 billion per year, a new Carbon Border Adjustment Mechanism (€5-14 billion p.a.) and possibly a new digital tax (up to €1.3 billion p.a.) as well as a tax on non-recycled plastics (€7 billion p.a.) could add to the Commission's own resources.[17] These extra revenues combined would imply a share of 1.26% to 1.75% of the overall proposed expenditures from the MFF and the recovery program.

The commission published all planned expenditures for the forthcoming MFF and the Next Generation EU program (see Table 1). Some funds like the InvestEU program or the Just Transition Fund will obtain significantly larger financial volumes due to new financial resources. The biggest parts of the overall EU budget relate to cohesion policies as well as natural resources and the environment with an overall amount of more than €350 billion each. With the latter heading around €333 billion are reserved for the Common Agricultural Policy.[18] Within the first heading (single market, innovation and digital), research and innovation receives the biggest

[11] https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1269
[12] On June 10, the President of the European Council proposed a slightly smaller MFF with an overall budget of € 1,074 billion. https://www.consilium.europa.eu/en/meetings/european-council/2020/07/17-18/
[13] https://eulawlive.com/the-commissions-long-term-budget-proposal-and-the-eu-recovery-plan-dissecting-the-jigsaw-puzzle/
[14] https://ec.europa.eu/info/sites/info/files/about_the_european_commission/eu_budget/1_en_act_part1_v9.pdf
[15] https://ec.europa.eu/transparency/regdoc/rep/1/2018/EN/COM-2018-325-F1-EN-MAIN-PART-1.PDF
[16] https://ec.europa.eu/info/sites/info/files/about_the_european_commission/eu_budget/com_2020_445_en_act_v8.pdf
[17] https://ec.europa.eu/info/sites/info/files/about_the_european_commission/eu_budget/factsheet_3_v22.pdf , https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52018PC0325&from=EN
[18] https://eur-lex.europa.eu/resource.html?uri=cellar:4524c01c-a0e6-11ea-9d2d-01aa75ed71a1.0003.02/DOC_1&format=PDF

share of expenditures with the Horizon Europe program in its centre. Overall, both programs combined comprise an investment volume of €1,850 billion.

Table 1: MFF and Next Generation EU expenditures

in € billion	MFF 2021-2027	NextGenerationEU	Total
1. Single Market, Innovation and Digital	**140.7**	**69,8**	**210.5**
Research and Innovation	87.7	13,5	101.2
of which Horizon Europe	*80.9*	*13,5*	
European Strategic Investment	30.8	56,3	87.1
of which InvestEU Fund	*1.3*	*30,3*	
Single Market	5.8		5.8
Space	13.4		13.4
Margin	2.9		2.9
2. Cohesion and Values	**374.5**	**610**	**984.5**
Regional Development and Cohesion	237.7	50	287.7
of which REACT EU		*50*	
Recovery and Resilience	18.2	560	578.2
Investing in People, Social Cohesion and Values	116.4		116.4
Margin	2.1		2.1
3. Natural Resource and Environment	**357.0**	**45**	**402.0**
Agriculture and Maritime Policy	340.2	15	355.2
of which EAFRD		*15*	
Environment and Climate Action	15.3	30	45.3
of which Just Transition Fund	*10*	*30*	
Margin	1.5		1.5
4. Migration and Border Management	**31.1**		**31.1**
Migration	12.1		12.1
Border Management	17.7		17.7
Margin	1.4		1.4
5. Resilience, Security and Defence	**19.4**	**9,7**	**29.1**
Security	4.6		4.6
Defence	9.5		9.5
Resilience and Crisis Response	4.3	9,7	14.0
Margin	1.0		1.0
6. Neighbourhood and the World	**177.3**	**15,5**	**192.8**
External Action	89.2	15,5	104.7
Pre-accession assistance	12.9		12.9
Margin	0.7		0.7
Total	**1,100**	**750**	**1,850**

Source: https://eur-lex.europa.eu/resource.html?uri=cellar:4524c01c-a0e6-11ea-9d2d-01aa75ed71a1.0003.02/DOC_1&format=PDF

With its revised MFF, the Commission retains its proposal for a stricter EU emission target of at least -50% and towards -55% compared to 1990 levels. To achieve this target, the Commission plans to invest 25% of the MFF expenditures into climate-related projects. In the last budget, only 20% were reserved for climate-friendly investments. This would mean that in the forthcoming budget a total of €275 billion would be spent for climate projects, which translates into little less than €40 billion per year.

Next Generation EU

To reactivate the European economy, the Commission proposed a new fiscal stimulus program. The so-called Next Generation EU plan will accompany the MFF and has an overall size of €750 billion (5.4% of EU-27 GDP levels in 2019) – compared to the last recovery program a substantially bigger amount of financial support measures. The recovery program consists of three pillars. Pillar 1 should support Member States to recover, pillar 2 should help to restart the economy and stimulate private investments, whereas pillar 3 concentrates on lessons learned from the crisis with higher investments in health programs etc. Overall, all investments under the recovery program should follow the "do no harm" principle[19], i.e. fossil fuels and nuclear power should not be supported. Similar to the MFF proposal, the recovery plan reserves 25% of its investment volume for climate related projects, as EU officials promised.[20] Although significantly exceeding the total investments volume, in relative terms the Next Generation EU program includes a smaller share of green investments than the last recovery program after the financial crisis, where around 60% were invested in climate projects.

As already laid out, the Commission plans to collect the money from the capital market. This is in contrast to the last crisis response, where the Commission itself did not borrow from the capital market but allocated unused money from the budget and instructed the EIB to spend additional resources. From these raised loans, €500 billion will be given out as grants, of which €66.8 are provisioned for guarantees. The remaining €250 billion will be distributed as loans.[21] According to the Commission, the €750 billion should be repaid between 2028 and 2058.

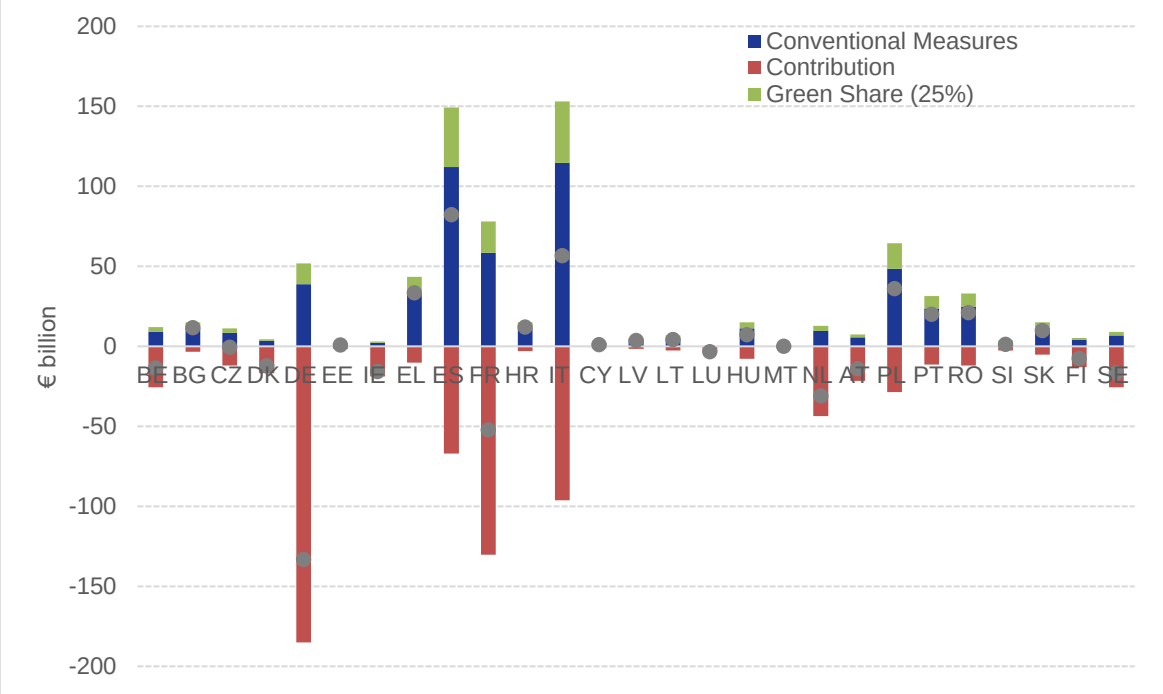
Allocation of expenditures

In order to facilitate the recovery expenditures, the Commission calculated an allocation key with respect to Member States' population size, the inverse of last year's GDP per capita and the average unemployment rate over the past five years compared to the EU average.[22] To avoid excessive concentration of the program's resources, the inverse of the GDP per capita and the deviation of each country's unemployment rate from the EU average are capped.[23] Applying each country's allocation key to the overall amount (including all grants, loans and guarantees) of the recovery fund and assuming that 25% of the funding goes into climate projects, will result in the following allocations per Member State as depicted in Figure 4. In addition, the Commission also estimated each Member State's contribution to the program.[24] It

[19] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0456&from=EN
[20] https://www.euractiv.com/section/energy/news/green-building-advocates-underwhelmed-by-eu-recovery-plan/
[21] https://ec.europa.eu/info/sites/info/files/3pillars_factsheet.pdf
[22] However, on June 10 the president of the European Council proposed to allocate 70% of the Next Generation EU Funding according to the Commission's allocation key. The remaining 30% should be committed in 2023 taking into account the drop in GDP in 2020 and 2021.
[23] https://ec.europa.eu/transparency/regdoc/rep/1/2020/EN/COM-2020-408-F3-EN-ANNEX-1-PART-1.PDF
[24] https://ec.europa.eu/info/sites/info/files/economy-finance/assessment_of_economic_and_investment_needs.pdf

should be noted, however, that this figure holds only for illustrative purposes. Actual contributions and allocations per country may change. Especially the estimation of net contributions is highly uncertain.[25]

Figure 4: Commission Estimates for Contributions and Allocations per Member States



Source: https://ec.europa.eu/info/sites/info/files/economy-finance/assessment_of_economic_and_investment_needs.pdf

The lion's share of the funding expenditure will focus on Italy and Spain – two countries most severely hit by the pandemic. While Italy can expect to receive €153 billion in form of grants and loans (including €38 billion for climate projects), Spain stands to receive €149 billion (€ 37 billion for climate projects). At the same time, both countries are estimated to contribute €96 billion and €67 billion, respectively. Hence, both countries have a positive net outcome within the program. On the other hand, France, for instance, will receive €78 billion (€ 20 billion for climate projects) but is estimated to contribute €130 billion to the program. Germany is by far the biggest contributor to the recovery program. The country is estimated to contribute €185 billion, while receiving €52 billion (net outcome €-133 billion). € 13 billion are supposed to be reserved for climate-related measures. Greece, Poland, Portugal and Romania are other Member States, which receive a relatively large shares of the Next Generation EU program.

For a better overview, Table 2 shows the expected climate related investments within the EU recovery package per country. In total, almost €190 billion could be invested in climate related projects. Besides Italy, Spain and France, the biggest amounts of climate investments would be expected for Poland (around €16 billion), Germany (almost €13 billion) and Greece (almost €11 billion).

[25] For further details: https://www.bruegel.org/2020/06/the-eus-recovery-fund-proposals-crisis-relief-with-massive-redistribution/?utm_content=buffer59ae1&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer+(bruegel

Table 2: Possible Climate Finance from Next Generation EU

In € billion							
BE	3	**EL**	10.88	**LT**	1.7	**PT**	7.88
BG	3.75	**ES**	37.33	**LU**	0	**RO**	8.25
CZ	2.83	**FR**	19.50	**HU**	3.75	**SI**	0.95
DK	1.13	**HR**	3.75	**MT**	0.2	**SK**	3.75
DE	12.95	**IT**	38.25	**NL**	3.2	**FI**	1.33
EE	0.58	**CY**	0.58	**AT**	1.88	**SE**	2.25
IE	0.75	**LV**	1.33	**PL**	16.13	**Total**	188

Own calculation.

Recovery and Resilience Facility

The core of the Next Generation EU program is the Recovery and Resilience Facility (RRF) with an overall budget of €560 billion consisting of grants and loans. It is the Commission's main tool to help Member States to implement investments and reforms that are essential for a fast economic recovery. To receive these funds, each Member State should design its own recovery plan, which should be based on investment and reform priorities identified as part of the European Semester. These plans should also be in line with National Climate and Energy Plans as well as Just Transition Plans and Partnership Agreements and Operational Programmes under EU funds.[26] The proposal for the regulation of the RRF further states, that it should support the overall EU target of 25% of expenditures being allocated for climate objectives.[27] The distribution of the facility's grants follows the allocation key based on the pre-defined formula as it was described earlier.

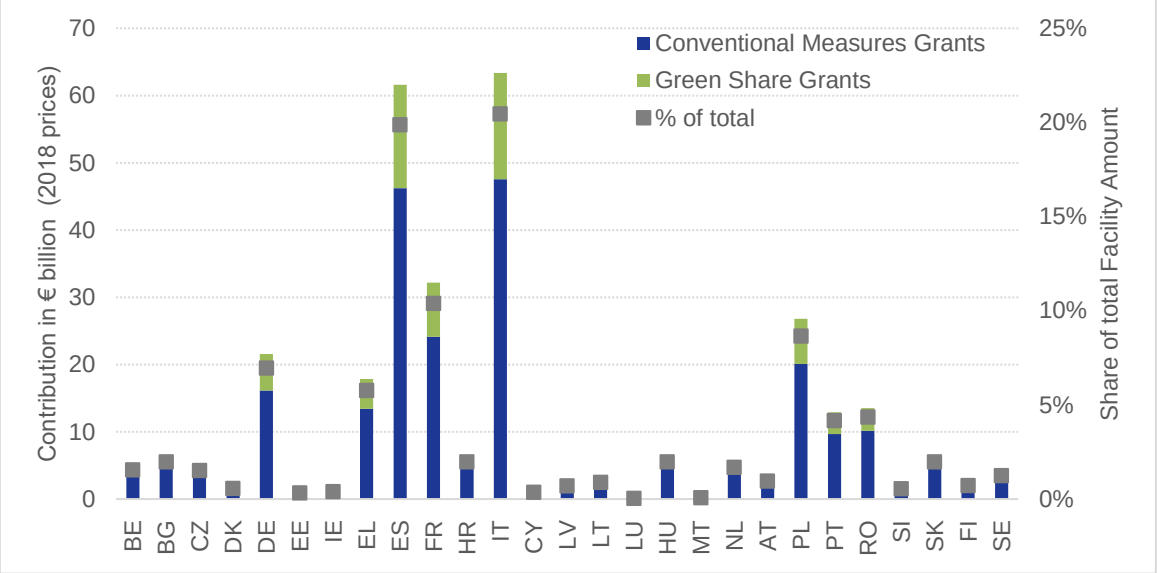
Overall, the facility is set to distribute €310 billion of grants and additional €250 billion in loans. Member States may request a loan for implementing their reforms and public investments. The maximum volume of these loans per Member State should not exceed 4.7% of the country's Gross National Income.

The Commission only lists the distributional effect of the overall amount of grants. Figure 5 gives an overview of the grants' distribution across Member States. Following the Commission's climate investment objective of 25%, which the facility should contribute to, Figure 5 also displays the possible amount of climate investments within the RRF.

Countries suffering the worst pandemic situation will receive the majority of grants. Italy, for instance, is supposed to get financial support worth around €63.3 billion (around 20.5% of the facility's overall size), of which almost €16 billion could be reserved for climate investments. Italy is followed by Spain (19.9% of facility's overall contributions), which would receive €61.6 billion in grants (€15.4 billion for climate investments).

[26] https://ec.europa.eu/info/sites/info/files/communication-europe-moment-repair-prepare-next-generation.pdf
[27] https://ec.europa.eu/info/sites/info/files/com_2020_408_en_act_part1_v9.pdf

Figure 5: Max Grants under the Recovery and Resilience Facility per Member State



Source: https://ec.europa.eu/info/sites/info/files/1_en_annexe_proposition_part1_v15.pdf

Next to Italy, Spain, France and Germany, other main recipients are Poland, Greece, Romania and Portugal. Poland, for instance, could receive €26.8 billion in grants (€6.7 for climate investments) and possibly another €21.6 billion in loans, of which €5.4 billion could be invested in climate projects.

Just Transition Fund

The Just Transition Fund was proposed already in January 2020 with the objective to support regions in their socio-economic transformation which rely heavily on fossil fuels and carbon-intensive industries. To support particular climate investments, the Commission proposed to scale up the size of the Just Transition Fund to an overall amount of €40 billion. While the first MFF draft included an overall amount of €7.5 billion, the fund is now scaled up to €40 billion, of which €30 billion will come from the recovery program and €2.5 billion from the revised MFF. Table 3 gives an overview of the Fund's adopted resources allocation.

Table 3: Just Transition Fund Allocation per Member State

In € million							
BE	380	**EL**	1,726	**LT**	568	**PT**	465
BG	2,693	**ES**	1,806	**LU**	19	**RO**	4,449
CZ	3,413	**FR**	2,142	**HU**	543	**SI**	538
DK	185	**HR**	387	**MT**	48	**SK**	954
DE	5,152	**IT**	2,141	**NL**	1,296	**FI**	968
EE	736	**CY**	210	**AT**	282	**SE**	324
IE	176	**LV**	398	**PL**	8,000	**Total**	40,000

Source: https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_931

Poland receives the greatest share of the fund with an overall amount of €8 billion followed by Germany (€5.2 billion) and Romania (€4.5 billion). The Fund aims to trigger an overall investment volume of €150 billion.[28] From a climate perspective, the Just Transition Fund can play a prominent role for European cohesion policies and for the support of former fossil fuel regions in their transition towards a more sustainable economic base.

InvestEU

Furthermore, the Commission proposes to rescale the InvestEU funding program. Originally, the program consisted of four policy areas: sustainable infrastructure, research, innovation and digitalisation as well as SMEs and social investment and skills. With the revised draft, the Commission proposes to set up a new policy window – the Strategic Investment Facility. Key technologies such as clean hydrogen, batteries and CCS should be financed within this facility. The Strategic Investment Facility alone should be equipped with an EU budget guarantee of €15 billion obtained by the economic recovery program.

In addition, the sustainable infrastructure window's finance scope should be doubled compared to the first draft and should now have an EU budget guarantee of €10 billion.[29] Unlike the overall EU target that 25% of the total financial volume should be allocated for climate objectives, the sustainable infrastructure window is set to invest 60% of its expenditures into climate and environment related measures. The InvestEU program as a whole should invest 30% of its expenditures into climate projects.[30]

Overall, the InvestEU funding program should have an EU budget envelope of around €75 billion. With a provisional rate of 45%, €33.8 billion are actually needed in the EU budget. Based on these guarantees, the Commission plans to mobilise more than €1,000 billion of additional investment across the Union. The InvestEU funding program might therefore be the most important part for climate related investments. With its focus on inter alia infrastructure objectives and industrial measures such as clean hydrogen, the funding program has the capability of playing a prominent role in the sustainable transition and therefore in further decreasing emissions.

Other Funding Programs

Other important parts of the Next Generation EU plan is a new initiative called REACT-EU, which is supposed to provide additional funding for EU cohesion policies. The size of the new initiate amounts to €50 to €55 billion and should be distributed according to a new allocation key, which respects the impact of the current crisis. REACT-EU is planned to support workers and SMEs, health systems and the green and digital transition and should be available across all sectors.

In addition, the European Agricultural Fund for Rural Development is planned to be equipped with an additional amount of €15 billion from the Next Generation EU program. Further, the Horizon Europe program should receive additional €13.5 billion from the recovery program.

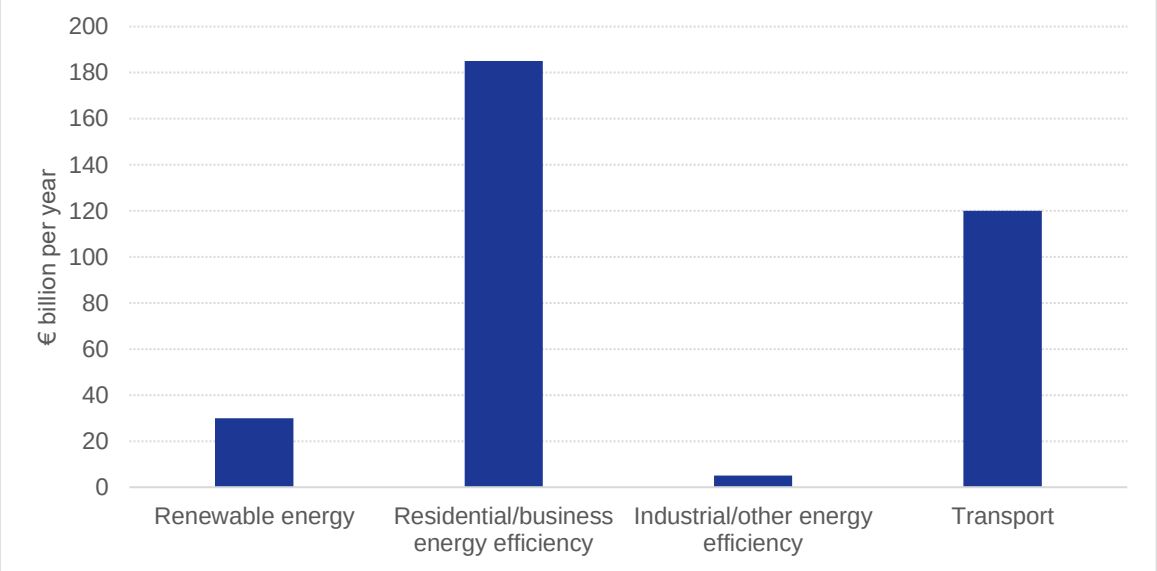
[28] https://www.euractiv.com/section/energy/news/eu-boosts-just-transition-fund-pledging-e40-billion-to-exit-fossil-fuels/
[29] https://ec.europa.eu/info/sites/info/files/economy-finance/investeu-factsheet.pdf
[30] https://ec.europa.eu/info/sites/info/files/com_2020_403_1_en_act_part1_v10.pdf

4 The Proposed Climate Investments in a Broader Context

Overall, the new economic recovery package in combination with the MFF and the Next Generation EU program could lead to €462.5 billion of investments into climate related projects (€275 billion under the MFF and additional €187.5 billion from the recovery program), if 25% of the overall investment volume is actually transferred into climate measures. On average, this would give rise to climate investments of €66 billion annually from 2021 to 2027. Should both programs leverage additional public and private investments resulting in total investments worth €3,100 billion, this could lead an overall climate investment volume of €775 billion.

Nevertheless, this amount of climate investments is not sufficient. As the Commission calculates, for the EU as a whole the overall green transformation investment gap for both public and private investments is €220 billion per year in climate mitigation and energy related measures (e.g. residential and business energy efficiency measures as well as investments into power plants and grids). Another €120 billion needs to be invested in the transport sector (e.g. urban transport or TEN-T network).[31]

Figure 6: Sectoral Investment Gap



Source: https://ec.europa.eu/info/sites/info/files/economy-finance/assessment_of_economic_and_investment_needs.pdf

The figures above would result in an investment gap of €2,380 billion for the entire period of the forthcoming MFF. However, these figures were estimated on the basis of the current EU target of reducing GHG emissions by 40%, and achieving at least +32% in renewables and +32.5% in energy efficiency in 2030. With the Commission's new proposed climate target of reducing GHG emissions by 50-55% below 1990 levels by the end of this decade, investment needs to be higher still. The Commission has not yet published estimates for additional investment needs

[31] https://ec.europa.eu/info/sites/info/files/economy-finance/assessment_of_economic_and_investment_needs.pdf

in line with the new climate target, but other estimates show that the investment gap could rise to over €3,000 billion.[32]

According to the Commission, the investments envisaged by the Member States, as laid out in their National Energy and Climate Plans (NECPs), already cover parts of the climate investment gap.[33] However, not all of the Member States submitted information on planed investment volumes leaving a large grey zone on how to finance the transition. In fact, only France, Italy and Spain estimated their overall investment needs. For instance, Italy's NECP concludes that additional investments worth €186 billion between 2017 and 2030 are needed.[34]

In addition, the Commission assesses that NECPs, on the whole, are insufficient to reach even the current climate targets. National plans were set to only reach a share of renewable energy between 30.4% and 31.9% in 2030. The same holds for energy efficiency measures: implementing the NECPs would result in a primary energy consumption decrease between 26.3% and 30.2%, whereas final energy consumption would decrease between 26.5% and 30.7%.[35] As a result, the Commission urged various countries to update their NECPs. An assessment of the updated versions has not yet been conducted. Should Member States agree on the new target proposed by the Commission, national plans need to be further sharpened. At the same time, for better evaluation all Member States should include investment figures.

If both the MFF and the recovery fund will channel 25% of their overall investment sum into climate and energy projects, an investment gap of €1,918 billion remains. Should public and public investments be leveraged, this would leave an investment gap of €1,605 billion. These remaining investment needs must then be met by Member States and private investors. This should not be much of a concern, since it is quite clear that not all of the investment gap can be filled by the EU budget or the recovery fund. According to the Commission, various NECPs already cover parts of the remaining investment gap. However, the degree of which Member States contribute to these investment needs is highly uncertain. Especially with a more stringent climate target, additional investments are necessary which will most certainly exceed the current investment gap.

Furthermore, certain Member States can find it difficult to mobilize funding for investments into a climate-neutral future. The expenses of national stimulus packages may lead to efforts to balance budgets in the future. In the worst case, this may lead to disinvestments as infrastructure is liquidated. This may result in long-term climate investments being delayed or even abandoned. Therefore, a stronger EU focus for climate investments could be adequate supporting especially those countries that are in a difficult budgetary situation. In addition, many climate projects are European projects. A better interconnection of national power grids, railway networks as well as hydrogen networks are necessities if the climate targets should be achieved and support the argument for a coordinated response on the EU level. Thus, the Commission should increase the climate investment share both within the MFF and the Next Generation EU recovery program.

[32] https://www.euractiv.com/section/energy-environment/news/eu-recovery-fund-leaves-e1-6-trillion-investment-gap-towards-climate-targets-experts-say/?utm_term=Autofeed&utm_medium=social&utm_source=Twitter#Echobox=1592818224
[33] https://ec.europa.eu/info/sites/info/files/economy-finance/assessment_of_economic_and_investment_needs.pdf
[34] https://ec.europa.eu/energy/sites/ener/files/documents/it_final_necp_main_en.pdf
[35] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019DC0285&from=EN

5 Conclusion

Fiscal stimulus cannot be the core vehicle to fund the investments into climate neutralitiy that are needed in the coming decade. Above all, the main target of stimulus spending is to kick-start the economy within a short timeframe. At the same time, the current crisis calls for a rapid assistance targeted at those regions and sectors that are most affected by the pandemic. That means that funds must flow towards shovel-ready projects in sectors and regions that are capable of absorbing the funds. It is important to acknowledge that these requirements cannot always be aligned with other objectives – including their contribution to climate goals. Yet, to the extent feasible, all opportunities for alignment must be seized, and in particular care needs to be taken that the funding does not work against climate objectives. The “do no harm” principle of the Next Generation EU program acknowledges this idea.

While stimulus packages dominate the current discussion, it should be clear that from a climate perspective, long-term commitment is key for driving down emissions. Increasing the climate investment share within the MFF can be an important step towards a sufficient investment pathway over the next years. In addition, it needs to be ensured that climate investments must be green and that other funds are not relabeled as such.

In comparison to 2008-09, we now have a much clearer picture of what is needed. The transition to a climate-neutral economy has reached a stage where major investments will be needed over the coming decade to transform the physical base of our economy – from retrofitting the building stock with thermal insulation, charging points and other infrastructure for e-mobility, redesigning urban space, long-distance high-speed rail transport, improving the connections between national electricity grids, to rolling out the infrastructure for green hydrogen in industry and transport. Much of this has a European dimension, hence good case for the EU to get involved, to assist with funding and ensure that solutions are compatible. Many of these investments need to be made in the coming years, and so must be aligned with the stimulus funding.

We also know what we can no longer afford – thus strict conditionality needs to apply to prevent any funds flowing into fossil infrastructure, which will end up as stranded assets before long.

The EU Sustainable Finance Taxonomy, which was developed for private investors, could come in highly useful to assist which kinds of investments are deemed compatible with a climate neutral development trajectory and with the EU’s international obligations under Paris and the Sustainable Development Goals. Effort should be made to see which elements of the taxonomy’s methodological approach can be applied to public, or publically supported investments.

Lastly, as several Member States can fit it difficult to mobilise funding for future climate investments the EU can take on an important role in providing sufficient climate funding. As could be experienced in the last crisis, a too early focus on balancing the budget can lead to economic stagnation and delay important climate investments. Common EU funds can play a role in bridging this gap.

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