Financing the Green Deal: how are the EU and Member States contributing?

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"Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted." Albert Einstein

Since the launching of the European Green deal, there have been many announcements of public support commitments and budget decisions. However, there is today to our knowledge no precise publication of all the public funds which have been budgeted at the EU and by the Member States, nor of all the public funds which have been disbursed in the 3 first years of the Green Deal programme. This article aims at listing the different sources of public financing of the Green Deal and to give the figures of commitments and disbursements which are available to our knowledge.

Is it important to acknowledge that investments needs are very high. Over the past decade, the EU has invested an average of ϵ 764 billion per year (equivalent to 4.8% of EU GDP in 2022) for environment including climate¹. More investment is needed, however, to bring GHG emissions in line with the 55% reduction target and to reach the other environmental objectives. The European Commission estimates the annual green investment gap for the 2030 target to be reached – that is to say, the investment needs in addition to historical spending – at ϵ 477 billion (3% of EU GDP in 2022), bringing the total annual investment needed to ϵ 1,241 billion (7.8% of EU GDP in 2022).²

This means that the green transition is an investment challenge. Private funding of these investments should play the major role, but public funding remains indispensable to achieve Green Deal's objectives, because it provides the initial support needed to de-risk private investments, support research and innovation, and ensure a just transition for the regions and communities most affected. This challenge is further compounded by the global competition for clean technologies' supply chains and manufacturing, notably with the USA and China. The USA's Inflation Reduction Act forecast to spend \$400 Bn for the climate only between 2022 and 2031.

After the European elections, and at the start of a new 5-year mandate for the Commission, where there will be political and budget choices to be made concerning the Green Deal, it is important to understand what funds have been disbursed to date to finance the Green Deal and to assess whether Europe can turn its ambition into reality.

1. Direct EU public funding

1.1 The EU Budget

1.1.1 Forecasts: €503 billion over 7 years (2021-2027)

The actual long-term EU budget runs for seven years from 2021 to 2027 and invest substantially in climate and environment related objectives. **30%** of its total contributes to climate action across multiple programs (*e.g.* European Agricultural Fund for Rural Development, European Agricultural Guarantee Fund, European Regional Development Fund, Cohesion Fund, Horizon Europe and Life funds). Of the above-mentioned programs, some are entirely dedicated to climate action (LIFE: €5.4 billion), while others, with larger total

 $^{1.\} https://www.ecb.europa.eu/press/fie/box/html/ecb.fiebox202406_01.en.html#:~:text=Over\%20the\%20past\%20decade\%2C\%20the, of\%20EU\%20GDP\%20in\%202020.$

^{2.} See Annex 1 of the European Commission document Investment needs assessment and funding availabilities to strengthen EU's Net-Zero technology manufacturing capacity. The investments required to cater for the RePowerEU plan, the Net Zero Industry Act and the environmental targets would add further to this figure, increasing it to an annual total of €620 billion, as set out in the European Commission's 2023 Strategic Foresight Report. Moreover, with the physical impact of climate change increasing, further funding pressures will emerge related to disaster relief, in particular if adaptation investment does not keep pace.

amounts, devote a significant proportion of their funds to it. Thus, the EU budget is supposed to provide **€503 billion** to the European Green Deal Investment Plan.

Member States also contribute financially to Green Deal initiatives and programs through co-financed funds. The Commission expects that mobilizing €503 billion of the EU budget will trigger additional national co-financing of around **€114 billion** on climate and environment projects in the next 10 years. The 2021-2027 budget alone plans to deploy more than 128 billion in funds financed in part by the States (€35 billion³) to meet climate targets.

1.1.2 Disbursements up to 2023

A closer look at the EU's annual budgets shows that the funds allocated to the "environment and climate" heading are not currently up to the expected level of an average of **€72 billion per year**. The amount of the European expenditures between 2021 and 2023 is **€168 billion**⁴ (*i.e.* an average of **€**56 billion a year). Over the next 3 years, therefore, the share of resources directed towards the environment needs to increase significantly.

Moreover, of the total €377 billion pledged by the EU to the Member States for co-financed policies, 19 billion have been paid up to 2023.⁵ To date, there are no data to identify which part of this money goes directly to green investments.

1.2 The Just Transition Mechanism

1.2.1 Forecasts: €55 billion over 7 years (2021-2027)

The Just Transition Mechanism (JTM) is a key tool to ensure that the transition towards a climateneutral economy happens in a fair way, leaving no one behind. It provides targeted support to help mobilise around €55 billion over the period 2021-2027 in the most affected regions, to alleviate the socio-economic impact of the transition. It is built on three pillars.

First, **a new Just Transition Fund** of €19.7 billion in current prices, is expected to mobilise around €7.3 billion of national co-financing, amounting to

a total of €27 billion. Then, the Invest EU "Just Transition" scheme will provide a budgetary guarantee under the InvestEU. It is expected to mobilise €10-15 billion in mostly private sector investments. Finally, A new Public Sector Loan Facility will combine €1.5 billion of grants financed from the EU budget with €10 billion of loans from the European Investment Bank, to mobilise €18.5 billion of public investment.

1.2.2 Disbursements up to 2023

By the end of 2023, the Commission had adopted all JTF programmes submitted by the Member States. In total, 96 regions, involving all of the Member States, are receiving support from the fund through 70 plans. So far, the Commission has disbursed **€5.9 billion**⁶ in pre-financing under the Just Transition Fund (JTF) to European regions⁷. This was enabled by the entry into force of the Strategic Technologies for Europe Platform (STEP) initiative on 1 March, which aims to boost investments in critical technologies in Europe, leveraging and steering resources across various EU funding programmes.

1.3 Next Generation EU

1.3.1 Forecasts: €248 billion (37% of the RRF) billion in grants and loans by 2026 (115 billion in grants and 133 billion in loans)

Funds from the European budget are complemented by loans and grants from the instrument Next Generation EU presented by the European Commission on May 2020. This unique economic recovery plan is predicted to operate from 2021 to 2026. If NGEU was first and foremost a response to the emergency of the Covid-19 crisis and to the resulting economic downturn that European Union Member States were facing, the Commission imagined it as part of something wider. As talks of the impending climate crisis became more and more urgent in the past years, this plan was envisioned as part of the transition towards cleaner and environmentally respectful economies - the green transition. In this, NGEU inscribes itself in the general framework of the European Green Deal with its objectives.

^{3.} https://cohesiondata.ec.europa.eu/cohesion_overview/21-27

^{4.} Sums of executed expenditure mentioned in official budgets available on the UE budget website: https://eur-lex.europa.eu/budget/data/LBL/2023/en/GenExp.pdf and https://eurlex.europa.eu/budget/data/LBL/2022/en/GenExp.pdf. The amounts paid under the nature and environment expense item are as follows: €56.3 billion in 2021, €57.4 billion in 2022 and €55.8 billion in 2023

^{5.} Of the total 377 billion paid by the EU to the Member States for co-financed policies, 19 billion have been paid up to 2023. To date, there are no data to identify which part of this money goes directly to green investments.

^{6.} The Just Transition Fund has been affected by the delays in the adoption of the MFF and the programme-specific legislation. All JTF programmes were adopted by end of 2022, except for the one for Bulgaria, which was adopted in 2023. The implementation phase started directly after the adoption of the programmes, with all disbursements projected over 2023-2026.

^{7.} https://ec.europa.eu/regional_policy/whats-new/newsroom/03-08-2024-commission-speeds-up-support-to-regions-most-affected-by-the-transition-to-climate neutrality_en#:~:text=to%20climate%20neutrality-,Commission%20speeds%20up%20support%20to%20regions%20most,the%20transition%20to%20climate%20 neutrality&text=The%20Commission%20has%20disbursed%20%E2%82%AC,(JTF)%20to%20European%20regions.

The majority of Next Generation EU funds (\notin 723.8 billion in current prices) will be spent under the Recovery and Resilience Facility (RRF) program. The rest of NGEU consists in 6 others instruments for a total of \notin 77.5 billion in grants. Those instruments are React EU (\notin 47,5 billion), Just transition Fund (10 billion), Rural Development Fund (7,5 billion), Horizon Europe (5 billion), Invest EU (5,6 billion) and Resc EU (1,9 billion).

The RRF consists of large-scale financial support for public investment and areas such as green and digital projects. EU countries must devote at least **37% of the €648 billion** in funding they receive under the Recovery and Resilience Facility to investments and reforms that support climate objectives.

1.3.2 Disbursement until now

Current forecasts predict that countries will far exceed their obligation to spend 37% on environmental reforms and projects, with figures approaching 42%⁸, representing a total of €272 billion. But, between 2021 and June 2024, €50 billion from the RRF have been disbursed (€28.6 billion in grants⁹ and €21.2 billion in loans¹⁰), an amount well below the commitment to use 30% of NGEU to finance the Green Deal (so far €170 billion grants and €94 billion grants disbursed). Further grants and loans¹¹ will soon be made available to countries that have undertaken reforms.

1.4 The Emissions Trading Scheme (ETS): €25 billion over the next 10 years (2020-2030)

Recalling the 2016 reflections of the 'Monti Report' on EU own resources, the Commission proposed – and it has been voted¹² – to devote 20% of the revenues from the auctioning of EU Emissions Trading System (ETS) to the EU budget, for an estimated value of €25 billion over the next 10 years. The rest of the revenues is transferred to EU Member States, which report that 76% of the total revenue between 2013 and 2022 was spent on climate, renewable energy and energy efficiency related purposes.¹³ As a reminder, between 2021 and 2023, the EU ETS has generated over \leq 116 billion in revenues¹⁴. Revenues have risen sharply in recent years with the increase in the price of carbon. To meet GHG emission reduction targets, the number of available quotas will decrease, having a direct effect on the carbon price. The prediction of \leq 25 billion over 10 years is therefore entirely feasible. However, it should be stressed that the amounts of the ETS funds will depend entirely on carbon prices, which remain highly volatile. To our knowledge there is no existing figures published about the precise repartition of the revenues of the ETS over the last few years.

2. Other EU public supports

2.1 Invest EU

2.1.1 Forecasts: €110 billion over 10 years (2021-2031)

Launched in 2021, and building on the mechanism behind the Juncker's Plan, Invest EU uses public funds and guarantees (EU budget guarantee of **€26,2 billion**) to reduce the costs and risks for private investors willing to invest in net-zero technologies. The financial support under Invest EU is available under thematic windows: Small and Medium Sized Companies [€6.9 billion]; Research, Innovation and Digitisation [€6.5 billion]; **Sustainable Infrastructure [€9.9 billion]**; and Social Investment and Skills [€2.8 billion]. Invest EU relies on a multitude of actors with a central role for the European Investment Bank (EIB) Group to achieve its objectives.

It is supposed to mobilize **€372 billion** over the next 7-year Multi-annual Financial Framework (MFF), 30% of which devoted to climate projects. As a result, the Commission expects to unleash **€110 billions**¹⁵ of public and private funds over the next 10 years thanks to this multiplier effect.

15. https://commission.europa.eu/strategy-and-policy/eu-budget/performance-and-reporting/programme-performance-statements/investeu-performance_ en#performance-assessment

^{8.} https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/index.html

^{9.} Grants are non-repayable financial contributions. The total amount of grants given to each Member State is determined by an allocation key and the total estimated cost of the respective recovery and resilience plan.

^{10.} https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/disbursements.html?lang=en

^{11.} The total amount of loans given to each Member State is determined by the assessment of its loan request and cannot exceed 6.8% of its 2019 GNI. Member States can request loans up to 2023 but are not obliged to do so.

^{12.} https://ec.europa.eu/commission/presscorner/detail/en/ip_21_7025

^{13.} https://www.eea.europa.eu/en/analysis/indicators/use-of-auctioning-revenues-generated. Since the 2023 reform came into effect, Member States have to spend EU ETS revenues on climate-related activities pursuant to Article 10 (3) of the EU ETS Directive (with the exception of money used to pay indirect carbon costs to some energy-intensive producers).

^{14.} https://www.statista.com/statistics/1326984/european-union-ets-revenue/

2.1.2 Disbursements up to 2023

As of end-2023, 90% of the ≤ 26.2 billion EU Guarantee has already been signed with Implementing Partners through Guarantee Agreements (with the EIB and the EIF representing a 75% share of the EU budget guarantee, *i.e.* ≤ 19.6 billion was signed in March 2022). Moreover, in less than 2 years, almost ≤ 37 billion were invested thanks to Invest EU to support the green transition. Those investments are mainly directed to energy and mobility.¹⁶

2.2 The European Investment Bank: €250 billion by 2027

The European Investment Bank is an integral part of the European Green Deal, with the role of funding agency and advisor, with programs structured around the key area of focus of the Green Deal and with a Climate Action Plan implying the EIB will be making 50% of their lending to climate changerelated activities by 2025.

EIB is helping Europe moving from ambition to reality under Invest EU, EU Budget and the Just Transition Fund. In total, the EIB's contribution to the Green Deal Investment Plan is expected to amount to €250 billion in terms of green investments under EU mandates.

The Bank itself is on track to meet all these targets – notably, **green financing reached 58% of all investment in 2022**, three years ahead of target.¹⁷ The EIB Group is also on track to support €1 trillion of green investment in the decade to 2030. The Green Bond Purchasing Programme, under which the EIB purchases green use-of-proceeds bonds issued in EU capital markets, is another important new offer that can help crowd in additional private sector financing. Other examples of new products include the new EIB Green Loan product, and the enhancement of the Group's intermediated lending and guarantee offer through the Green Gateway advisory portal and increased use of "green windows".

3. State aids

State aid is one of the ways in which EU Member States contribute to the funding and implementation of Green Deal policies. According to the EU treaties, State aids are under the control of the Commission. On January 27, 2022, the Commission adopted its new guidelines on State aid for climate, environmental protection and energy¹⁸, which has been influenced by the enactment of the IRA.

Between 2012 and 2022, according to the Commision, more than **€630 billion**¹⁹ in State aid were granted in EU countries for the environment including climate. Apart from crisis aid, aid for environmental protection remains the main political priority for Member States. It is by far the policy objective for which Member States have spent the most in 2022 (€41.51 billion²⁰). Despite the decreased expenditure in 2022, environmental aid is more than five times larger than the cumulative expenditure under the second most used objective: regional development (€82.9 billion from 2017 to 2022, of which €13.91 billion in 2022). In Total, €145 billion were spend between 2020 and 2022.

With the new European rules, it is possible to argue that State aid will play an important role in financing the green deal over the coming years.

Conclusion

The existing publications on the public support of the Green deal Deal have two shortcomings, to our knowledge. First of all, some figures are missing, notably the amount of green disbursements amount of regarding the ETs revenues. Then, we cannot add up all the amounts of EU and national public support in this note, because we must avoid double counting, for instance State aids which are refinanced by the NGEU.

But we can still have a reasonable assessment of the public funding of the Green Deal up to now:

- The disbursement of EU budget support has to be accelerated to be in line with the pluriannual commitments. This is notably the case for the EU budget: €56 Bn on average per year between 2021 and 2023 (to be compared to an average of €72 Bn between 2021 and 2027). It is also the case for the green part of the NGEU. This underscores the need to speed up implementation of planned projects.
- If we add all the amounts of EU and national budget support, we obtain a total of €225 Bn coming from the EU budget between 2021 and 2023 (without the disbursements of the ETS

^{16.} https://investeu.europa.eu/investeu-programme/investeu-fund/investeu-indicators_en#implementation-per-policy-window

^{17.} https://www.eif.org/news_centre/publications/mid_term_review_of_the_eib_group_climate_bank_roadmap_en.pdf

^{18.} https://eur-lex.europa.eu/EN/legal-content/summary/2022-guidelines-on-state-aid-for-climate-environmental-protection-and-energy.html

^{19.} https://competition-policy.ec.europa.eu/document/download/0b2037c5-c43f-4917-b654-f48f74444015_en

^{20.} https://ec.europa.eu/commission/presscorner/detail/en/ip_24_1890

which we could not find) and €145 Bn between 2020 and 2023 of State aids. We cannot add these two public supports, because part of the State aids areis refinanced by NGEU, but we can reasonably estimate that the annual amount of public support coming from EU and the member States is superior to €100 Bn (0,6% of GDP) per year. This is in line with the ambition of the Commission when the Green Deal was launched in 2020, but not with the increase of the commitments since, notably after the decision on NGEU.

- 3. The disbursements of other EU public supports, coming from the EIB and EU Invest are on track to meet their forecasts, and even higher.
- 4. All in all (including ETS funds etc), the public effort in the EU is today significantly higher than the one linked to IRA in the USA of \$400 Bn between 2022 and 2031, being recalled that the USA are only focusing on climate, not on other green objectives.

The public support of the Green Deal will continue to be a priority for the new mandate of the European Commission, which has also to prepare the forthcoming EU pluriannual budget discussions of 2028-2034, also in the context of the end of NGEU in 2026.

In this perspective, a serious effort is necessary to have clearer and more precise figures on the actions undertaken by Member States and the European Union, in order to be able to take well informed political choices and ensure greater transparency and efficiency in the management of public funds.