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The Expected Benefits of the European Recovery Plans Introduced in the Wake of the COVID-19 Pandemic

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- Following the COVID-19 pandemic and the emergency measures implemented to mitigate the loss of income for households and safeguard businesses, European Union (EU) Member States agreed on the NextGenerationEU (NGEU) package which is an unprecedented joint response to support the recovery, making over €800bn available to Member States.

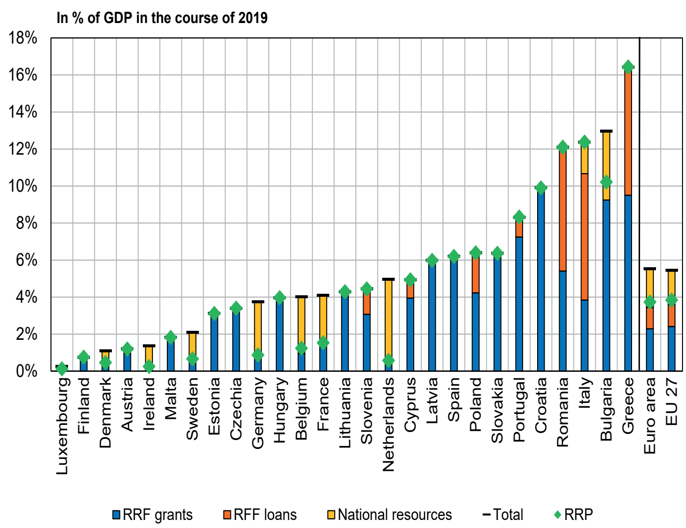
- The European recovery plan is financed by common debt for the first time in EU history and by national resources (see chart). The Recovery and Resilience Facility (RRF), NGEU's centerpiece, funds the Recovery and Resilience Plans (RRPs) comprising reforms and investments determined by the Member States.

- European recovery plans are expected to foster the convergence in living standards within the EU since a significant share of RRF funds are allocated to countries with low levels of GDP per capita.

- Recovery plan reforms and investment will underpin innovation and productive potential, thereby enhancing potential growth, and bring down structural unemployment, especially in those countries that had larger structural weaknesses prior to the pandemic. The European recovery plan will help take up the challenge of the green and digital transitions to which national recovery plans have to devote a minimum amount of green and digital investments.

- The plans of some countries with current account deficits focus on supply-side measures. However, narrowing external imbalances within the EU and the euro area would have been more effective with better coordinated implementation of the European recovery plan: countries with large current account surpluses could have concentrated their plans more on demand-side measures. In this respect, bolstering the macroeconomic imbalances procedure (MIP) could contribute to improved coordination of economic policies in the EU.

Recovery plans approved in the EU



Source: DG Trésor estimates and calculations.

1. NGEU: a new common recovery, resilience and convergence instrument

1.1 An unprecedented joint response to support the recovery

Concurrent with the implementation of emergency measures to safeguard businesses, jobs and protect households during the pandemic,[1] EU Member States agreed in July 2020 on the NextGenerationEU (NGEU) package. It represents a joint response of more than €800bn in current prices[2] (as a comparison, the EU budget for the period 2021-2027 is €1,074.3bn). The Recovery and Resilience Facility (RRF), NGEU's centrepiece, is intended to support the recovery while addressing the structural weaknesses of European economies. This package is for the first time financed by common debt, which will be repaid by future additional EU own resources, such as revenues from the extension of the ETS market to the road transport and buildings sectors or related to the introduction of the Carbon Border Adjustment Mechanism (CBAM).[3]

The RRF is an instrument that offers grants and loans to support reforms and investments decided on and carried out by the Member States for a total of almost €725bn (i.e. 5.2% of the EU's GDP in 2019).[4] The Council approved 27 Recovery and Resilience Plans (RRPs) for over €500bn (i.e. 70% of the RRF's total credits),[5] over a quarter of which had been disbursed at the end of February 2023.[6] European recovery funds are supplemented by national funds in a number of countries, including France. All in all, the recovery plans (including measures financed by the EU and those financed by the Member States directly) account for a total of 5.5% of the EU's 2019 GDP[7] spread over six years. The total French recovery effort represents 4.1% of GDP and concentrates on the period 2020-2022.[8]

Besides sustaining the recovery, the RRF allows the EU to address long-term issues such as the dual green and digital transitions, as approval of the RRPs was contingent on a minimum amount of green and digital investments.[9] Almost half of total expenditures under the 27 RRPs will help to reach the EU's 2030 greenhouse gas reduction target and to achieving carbon neutrality in 2050, and more than a quarter will contribute to the digital transition.

1.2 A mechanism bringing major macroeconomic and financial benefits for the EU

The European recovery plans strengthen the resilience of European economies and improve the financial stability of the euro area. RRF funds help relax fiscal and financing constraints in some countries with little fiscal space, and contribute to investments and structural reforms geared towards improved medium-term fiscal sustainability. Incidentally, the announcement of NGEU was associated with a fall in sovereign bond yield spreads in the euro area.

Implementation of NGEU has provided support for the post-COVID economic recovery in the Member States. Allocation of the funds is partly based on the immediate economic fallout from the pandemic, in particular the associated loss of GDP (see Box 1). Among the euro area's leading economies, the recovery was particularly buoyant in France and Italy. France was the first major euro area economy to have its economic activity revert back to its pre-pandemic levels. According to an ex ante impact analysis performed by the French Treasury,[10] the full French recovery plan (e.g. *France Relance*), a substantial

(1) See H. Fatton and C. Ponton (2021), "Emergency Measures in Europe During the COVID-19 Crisis", *Trésor-Economics*, No. 289.
(2) NGEU accounts for exactly €806.9bn, i.e., 5.8% of 2019 GDP (in current prices).
(3) Due to uncertainty regarding the feasibility of the implementation and nature of future European own resources, it is currently hard to identify the structure, amount and potential impact on the countries' activity. This means that the analyses set out in this paper only concentrate on the expenditure arm of NGEU.
(4) For this entire paper, the cut-off date for data is 24 February 2023.
(5) €503bn, €338bn of which is in grants and €165bn in loans. The difference compared to the RRF's total envelope (€723.8bn) is due to the fact that very few Member States so far have applied for RRF loans as most countries, including France, are borrowing on the markets at rates which are more favourable than those of the Commission.
(6) As of 24 February 2023, €144.1bn had been disbursed under the RRF. Eighteen Member States have made at least one payment request to date (Spain, France, Italy, Greece, Portugal, Croatia, Slovakia, Romania, Latvia, Cyprus, Bulgaria, Slovenia, Czechia, Lithuania, Malta, Denmark, Austria and Luxembourg) with six having submitted two requests (Spain, Italy, Croatia, Greece, Portugal and Slovakia). In addition, Spain and Italy filed a third request on 11 November and 30 December respectively. See Recovery and Resilience Scoreboard (europa.eu).
(7) In the euro area, the recovery plans also account for 5.5% of 2019 GDP in current prices.
(8) At the end of August 2022, the recovery plan commitment rate stood at 89% (with the target being 100% by end-2022) and the disbursement rate at 62% according to the second report from the Assessment Committee for the France Relance recovery plan (in French only) published in December 2022.
(9) Respectively 37% and 20%. €216bn (i.e., almost 43% of total expenditure) of the 27 RRPs is earmarked for the green transition and €136bn (i.e. 27.1%) is contributing to the digital transition.
(10) Economic, Social and Financial Report for 2021 (Box 9).

proportion of which is funded by the RRF, contributed 1.1% of GDP to the recovery in 2021 (excluding possible spillover effects and measures not directly assessed) and an equivalent amount in 2022 compared to a scenario with no recovery plan. According to this study, public investment should drive activity in the short term whilst tax cuts and measures in favour of innovation should bear fruit in the longer term. Several hundreds of thousands of jobs should be created due, in part, to the RRF funds allocated to France.

A number of studies have assessed the contribution of the European recovery plan to countries' economic activity. According to the European Central Bank (ECB),[11] RRF investments could boost real euro area GDP by around 0.5% as early as 2022-2023.[12] The European Commission estimates[13] that the EU's real GDP could be up to 1.5% higher in 2024[14] thanks to the implementation of the investments planned for in the RRPs and the spillover effects between countries due to the synchronisation of the recovery plans. RRF investments are expected to have positive effects over the longer term. Spillover effects are especially significant thanks to the high economic and trade integration between European countries; for some very small open economies, such as Ireland and Luxembourg, these effects could even account for the majority of the impact of NGEU on GDP. In France, according to the Commission, the total impact[15] will be between 0.4% and 1% by 2024, a third of which will derive from spillover effects.

In addition to the RRF's impact on activity through investments, the structural reforms set out in the recovery plans should support GDP in a lasting manner by boosting potential growth. The RRPs need to address the issues and structural reforms pinpointed by the Commission as part of the European Semester and the country-specific recommendations (in particular those for 2019 and 2020), which provide guidance on structural reforms, fiscal policies and the reduction of macroeconomic imbalances. These reforms should improve the potential growth of European economies: the ECB projects that these reforms should increase euro area GDP by 1% in the long term (with the estimated impact of investments to be added, see above). The effect should also be positive in France and especially significant in Italy.

Box 1: Allocation of RRF funds between Member States

The maximum amount of the RRF is €723.8bn (in current prices). This total is broken down into €338bn in grants and €385.8bn in loans. Allocation of the funds factors in the wealth of each country, following a convergence logic, and the effect of the pandemic on national economies.

70% of the total of the €338bn available in grants is divided between Member States on the basis of an allocation key similar to that for the Cohesion Fund, taking into account:

- the Member State's GDP per capita in current prices compared to that of the EU
- the country's share of EU population
- the country's average unemployment rate over the past 5 years

For the remaining 30%, the observed loss in real GDP in 2020 and the observed cumulative loss in real GDP over the period 2020-2021 are considered.

Member States can also request a loan worth up to 6.8% of their 2019 Gross National Income as part of the submission of their RRP. Member States, including those which have already submitted their RRP, have until August 2023 to request support under the loan component.

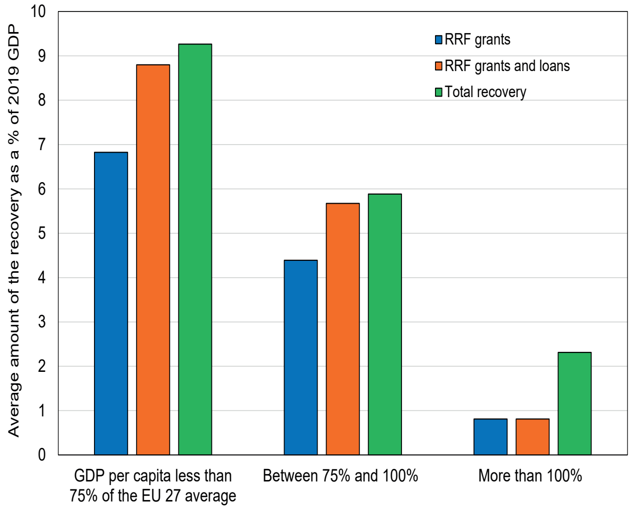
(11) K. Bankowski et al. (2022), "The economic impact of Next Generation EU: a euro area perspective", *ECB Occasional Paper*, No. 291.
(12) While these studies do quantify the positive macroeconomic impact of NGEU, they may minimise this effect as they do not factor in the total amount of the recovery which is different in certain countries, particularly in France, from the amount of the European recovery alone.
(13) P. Pfeiffer, J. Varga and J. in 't Veld (2021), "Quantifying Spillovers of NGEU investment", *European Economy Discussion Papers*, No. 144.
(14) Than what it would have been in the absence of a recovery plan; according to rapid fund disbursement assumptions; these figures do not take account of the structural reforms planned in the Member States' commitments under the RRPs.
(15) For a disbursement (corresponding to the proportion of the France Relance recovery plan financed by the RRF and other NGEU grants such as REACT-EU and the Just Transition Fund) of almost 2% of GDP in four years (equal to 0.5 points of GDP per year) or six years (equal to 0.33 points of GDP per year) according to the selected simulation scenarios. See P. Pfeiffer, J. Varga and J. in 't Veld (2021), "Quantifying Spillovers of NGEU investment", *European Economy Discussion Papers*, No. 144.

1.3 A mechanism to help convergence in living standards within the EU

The RRF should support the convergence of standards of living within the EU since the allocation key puts an emphasis on cohesion criteria (see Box 1 and Chart 1). Although RRF loans are not allocated on the basis of these criteria, they have been requested *de facto* by several of the EU's less advanced economies: the seven countries[16] having requested RRF loans have GDP per capita lower than that of the EU 27 average.

Countries with lower GDP per capita have had less recourse to national resources to supplement their plans than the EU's richest countries, given the substantial amount of European funds received. Out of the eleven countries which are using national resources in addition to European ones, only two (Bulgaria and Italy) have GDP per capita lower than that of the EU 27. National resources used by countries receiving small RRF grants (whose GDP per capita is greater than that of the EU 27) have tripled the amount of their recovery plans, the scale of which is still much less than in less developed countries (see Chart 1).

Chart 1: Recovery plans and GDP per capita in 2019



Source: Eurostat (2019 current GDP; 2019 GDP per capita in constant purchasing power parity, PPP); DG Trésor estimates and calculations based on the 27 recovery plans (RRPs and national resources).

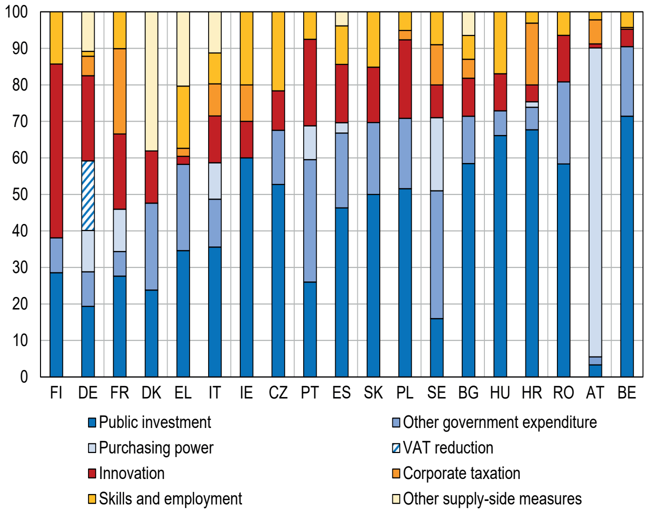
How to read this chart: On average, RRF grants account for 6.8% of GDP in countries in which GDP per capita is less than 75% of the EU level, 4.4% in countries between 75% and 100% of the EU level, and only 0.8% for countries in which living standards are higher than those of the EU.

2. The EU's productive potential will be enhanced by recovery plans that address the relative structural weaknesses of the various countries

To support their recovery, European countries are resorting to both supply- and demand-side measures (see Chart 2 and Box 2 for the categories of measures). Of the 19 national recovery plans[17] out of the 27 RRPs for which data is available, more than a third, on average, are geared towards supply. That said, there are major variations in the composition of measures between countries. Five groups of countries can be identified: the first comprises countries having principally focused their recovery on supply (Finland, France, Denmark), whilst, to varying degrees, the four other groups have mainly concentrated their recovery on the demand side (Greece, Italy, Germany and Ireland around 60% on demand; Czechia, Portugal, Spain, Slovakia, Poland, Sweden, Bulgaria, Hungary and Croatia around 70%; Romania 80%; Belgium and Austria 90%). The breakdown of the various supply and demand measures within these groups of countries is also variable. As an example, although both Belgium and Austria have based 90 % of their recovery plans on demand-side measures, Austria's plan focuses on measures to support purchasing power whereas Belgium puts the onus on public investment. Overall, with the possible exception of Austria, all the plans examined are partly focused on supply-side measures and therefore differ from purely Keynesian recovery plans.

(16) Greece, Italy, Poland, Portugal, Romania, Slovenia and Cyprus.
(17) Belgium, Bulgaria, Czechia, Denmark, Germany, Ireland, Greece, Spain, France, Croatia, Italy, Hungary, Austria, Poland, Portugal, Romania, Slovakia, Finland and Sweden.

Chart 2: Breakdown of the recovery by categories of measures



Source: DG Trésor estimates and calculations.

Note: Bars in cool colours represent demand-side measures whilst those in warm colours represent supply-side measures. In the chart, categories of supply- and demand-side measures are presented in percentages of the total measures that could be categorised. This means that the remaining non-classifiable measures are not taken into account. The reduction of VAT in Germany, which is classified as a measure fostering demand, is presented in stripes.

The recovery plans should support productivity growth. In countries in which the average pre-COVID growth in productivity was relatively lower, supply-side measures account, on average, for a larger proportion of GDP (see Chart 3). Due to the size of the RRF funds allocated to these countries as a percentage of their GDP, Italy, Greece and Bulgaria are earmarking substantial fiscal resources to boosting the growth in productivity.[18] This is all the more important for Italy which has gradually fallen behind in hourly productivity compared to the remainder of the EU since the 2010s. In France (and in Croatia, Bulgaria and Italy), the recovery plan provides for a sweeping reduction in corporate taxation (around 0.8% of its GDP), which will provide long-term support for the economy's competitiveness, attractiveness, and will improve productivity by cutting taxes on production which can cause major economic distortions and, therefore, put a drag on activity.

The European recovery plans also contain structural reforms[19] which will help improve the growth in productivity but whose impact is not examined in this paper.

Box 2: Classification of recovery measures between supply and demand

Recovery plan measures are grouped into six categories depending on the macroeconomic channels through which they are transmitted. This methodology is based on that used to gauge the macroeconomic impact of France's recovery plan in the Economic, Social and Financial Report for 2021[a]. Expenditures aimed at mitigating the effect of the COVID-19 pandemic on households and businesses, and at ensuring a robust recovery for a swift return to the pre-pandemic level of activity, are classified as "demand" expenditures. Expenditures that are expected to improve potential growth in the short- to medium-term, by increasing stocks of physical capital, human capital and productivity, are classified as "supply" expenditures.

The "demand" component contains three categories of measures:

- Public investment[b] with, for example in France, investments in energy retrofitting for buildings, green infrastructure and mobility.
- Households' purchasing power with, for example in France, support for demand for clean vehicles and the increase in the back-to-school allowance.
- Other government expenditures with, for example in France, the digitisation of public services (education, justice, culture) and businesses.

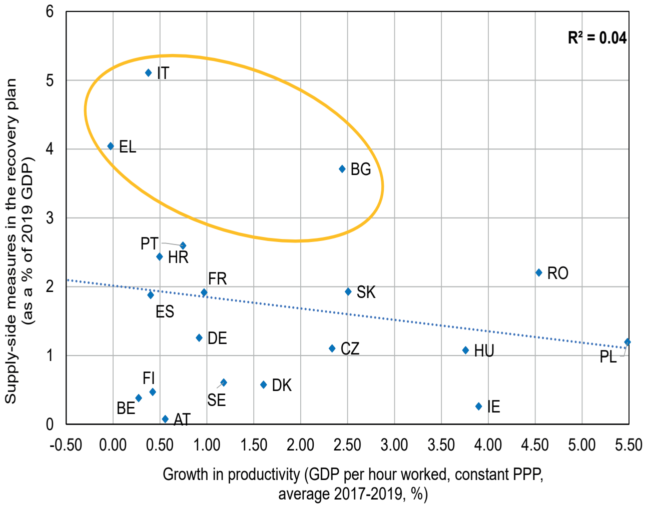
The "supply" component also contains three categories of measures:

- Corporate taxation with, for example in France, the reduction in taxes on production.
- Innovation with, for example in France, the Fourth Invest for the Future Programme (PIA 4).
- Skills and employment with, for example in France, the "1 Young Person, 1 Solution" scheme.

a. Economic, Social and Financial Report for 2021 (Box 9).
b. In this paper, public investment is defined as a demand-side measure even if it can have a long-term positive impact on supply. As an example, public investment in the railways can have such medium- to long-term effects on supply.

(18) For instance, Italy is investing €13.4bn in the digital transition of manufacturing processes and the intangible assets of businesses with the "Transition 4.0" programme thanks to RRF funds. Greece is set to invest €790m in upgrading and enhancing its ongoing vocational training system.
(19) Such as reforms of the pension system, the labour market, unemployment insurance, governance, the goods and services market, etc.

Chart 3: Growth in pre-COVID productivity and amount of supply-side measures in the recovery



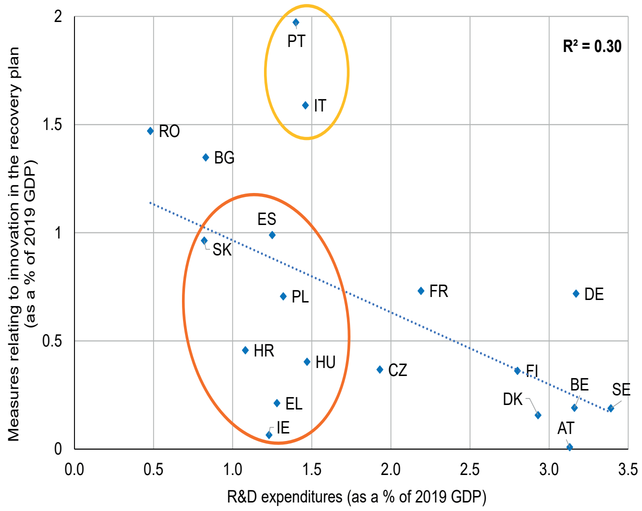
Source: OECD, DG Trésor estimates and calculations.

The recovery plans will underpin innovation. The countries which spent relatively less on R&D in 2019 have introduced relatively more measures in favour of innovation as a percentage of their GDP (see Chart 4). Italy and Portugal are devoting a greater amount in percentage of their GDP to innovation measures than other countries such as Ireland, Greece, Hungary, Croatia, Poland, Spain and Slovakia where 2019 R&D expenditures were broadly comparable or inferior. France and Germany are also making relatively substantial efforts on innovation.

The recovery plans will help reduce high structural unemployment rates in some southern European countries. There is a positive relation between the 2019 structural unemployment rate and the amount of the measures devoted to bolstering skills and employment in the recovery plans as a percentage of GDP (see Chart 5). A number of southern countries with high structural unemployment rates were hugely affected by the COVID-19 pandemic and, as a result, benefited from the allocation key for RRF funds. Greece, Italy and Slovakia, which all experience high structural unemployment rates, earmark substantial resources to improving skills and supporting employment. In addition, and as stated above, the effects of structural reforms are not taken into account in this paper while it is very likely that they would make a telling contribution to reducing structural unemployment rates, in particular in Spain whose plan provides for a major overhaul of the labour market.

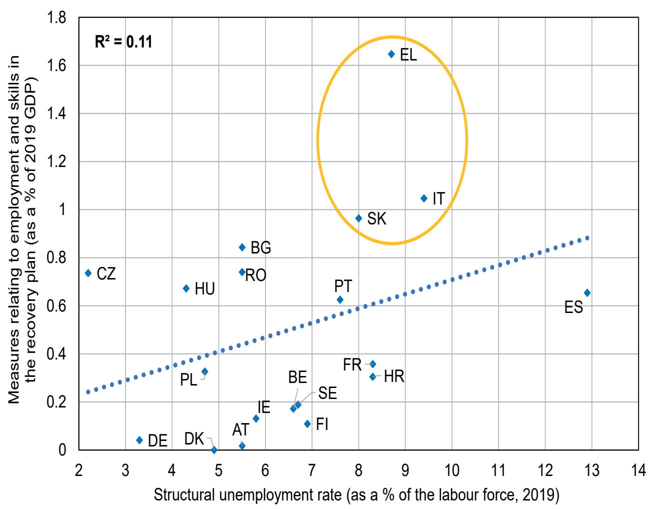
Effective implementation of supply-side measures, and the recovery plans more generally, will make a marked contribution in the current macroeconomic context of a strong rise in inflation[20] and faster-than-expected monetary policy tightening by the ECB in order to avoid a decoupling of expectations. Against this backdrop, measures intended to enhance the productive potential of European economies in the medium-term, should facilitate the adjustment of supply to demand whilst improving the sustainability of public finances.

Chart 4: R&D expenditures and amount of innovation measures in the recovery



Source: Eurostat, DG Trésor estimates and calculations.

Chart 5: Structural unemployment rate and amount of the measures relating to employment and skills



Source: AMECO; DG Trésor estimates and calculations.

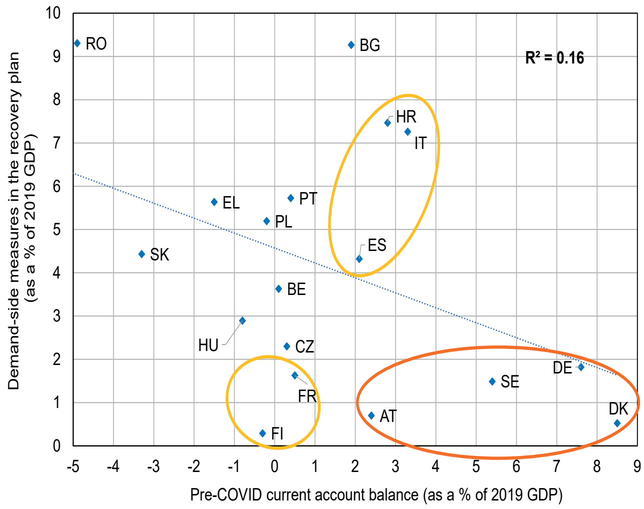
(20) +8.6% year-over-year in January in the euro area according to Eurostat.

3. The recovery plans should have been better coordinated so as to have further reduced external imbalances

The recovery plans could partly help bring down current account deficits although the reduction of external imbalances within the EU and the euro area was not one of the goals of the European recovery plan. Some countries which had a substantial pre-COVID current account deficit, in particular Greece, set out significant supply-side measures in their recovery plans which also contain structural reforms to boost their competitiveness and productivity. For the specific case of Greece, this will therefore contribute to correcting its current account deficit.

As regards the internal rebalancing of the euro area, more measures to lastingly stimulate domestic demand (public investments, purchasing power support) would have been pertinent in countries with large current account surpluses. This was not the case, on average, as there is a negative relationship between pre-COVID current account balances and demand-side measures in the recovery plans as a percentage of GDP (see Chart 6). In the 19 plans analysed in this paper, the percentage of GDP allocated to demand-side measures in countries which had the largest current account surpluses in 2019, such as Germany, Denmark and Sweden, is amongst the lowest.[21] This is due both to the low relative proportion of demand-side measures and to the average size of these countries' total recovery plans being relatively smaller (their GDP per capita is higher than the EU average, see Chart 1). This is in spite of the fact that these countries have greater national room for manoeuvre. Italy, Spain and Croatia, which have smaller current account surpluses, benefit from the size of their recovery plans, thus mobilising important amounts of demand-side measures in percentage of their GDP. France and Finland, which have a current account balance close to equilibrium, have taken relatively few demand-side measures as a percentage of their GDP and have essentially focused their recovery plans on the supply-side (more than 50% of their total recovery efforts).

Chart 6: Pre-COVID current account balance and amount of demand-side measures in the recovery



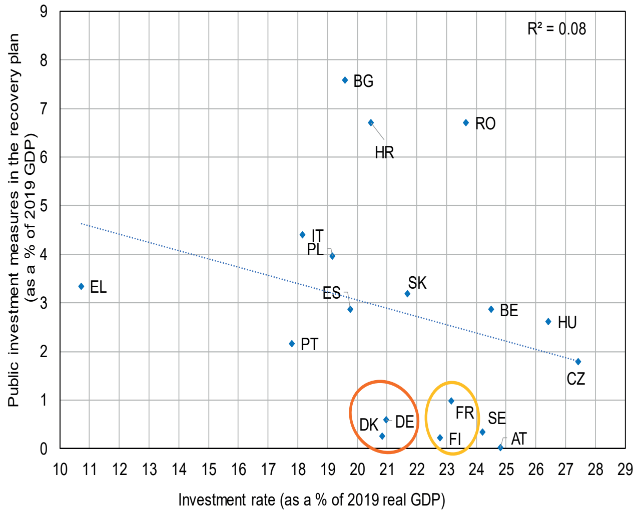
Source: Eurostat, DG Trésor calculations.

Note: Ireland is not taken into account as its current account balance is highly volatile.

A current account imbalance also reflects an imbalance between what a country produces and what it spends, which is the difference between savings and investment from a national accounts perspective. Countries which had a current account surplus in 2019 do not seem to have had recourse to more public investment measures (see Chart 7). For instance, in Germany and Denmark, whose current account surpluses are partly due to their low investment rates, the plans contain lower public investment measures than France's plan whose public investment effort is moderate enough to avoid an adverse impact on its current account balance.

(21) The Netherlands have planned for a significant increase in government expenditure which was decided on as part of the coalition agreement in December 2021 for a total of €80bn (i.e. 9.3% of 2021 current GDP staggered over several years) which is earmarked, in particular, for the green transition. In addition, various structural measures, such as a 10% minimum wage hike and an earned income tax cut, should become effective in 2023. These recovery measures could lead to a reduction in the substantial Dutch current account surplus (+6.9% of GDP in 2019).

Chart 7: Investment rate and amount of public investment in the recovery



Source: Eurostat, DG Trésor calculations.

Note: Ireland is not taken into account as its current account balance is highly volatile.

Better coordination in the design and implementation of European recovery plans could have facilitated the narrowing of external imbalances within the EU and the euro area. The ongoing economic governance review could represent an opportunity to reinforce coordination of economic and fiscal policies in the euro area. For example, a contribution in this respect could come from adding a truly European – and not just national – dimension to the Macroeconomic Imbalance Procedure (MIP), which is the main macroeconomic surveillance tool in the EU, as is the Stability and Growth Pact (SGP) for fiscal surveillance.

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