EEAG Policy Brief

2020
July

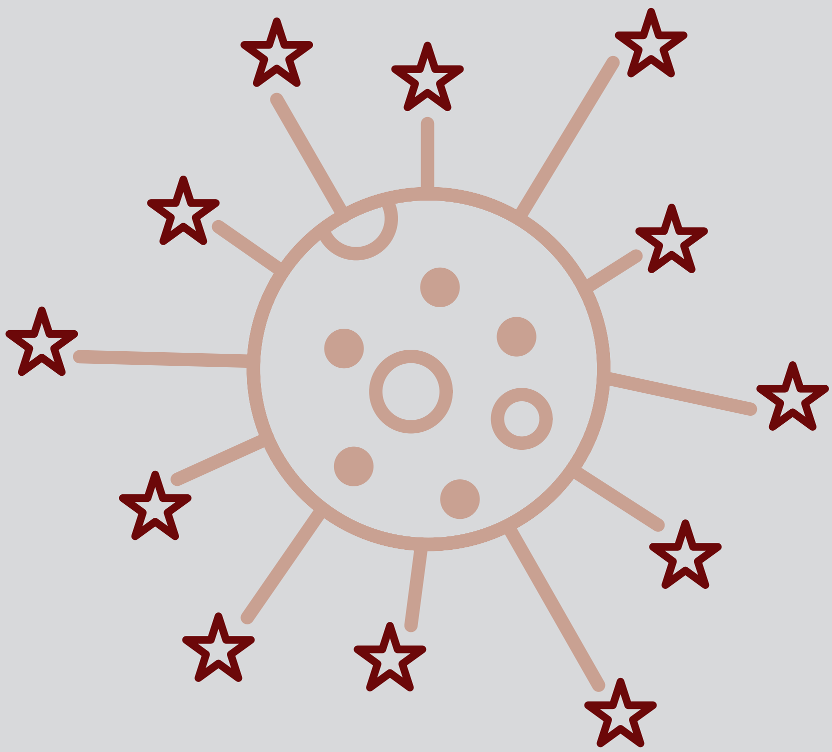
Europe's Pandemic Politics

Economic Developments around the World

Fiscal and Monetary Consequences of Covid-19

Risk, Insurance and Solidarity

Markets, Policies and Structural Change



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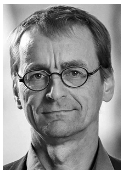

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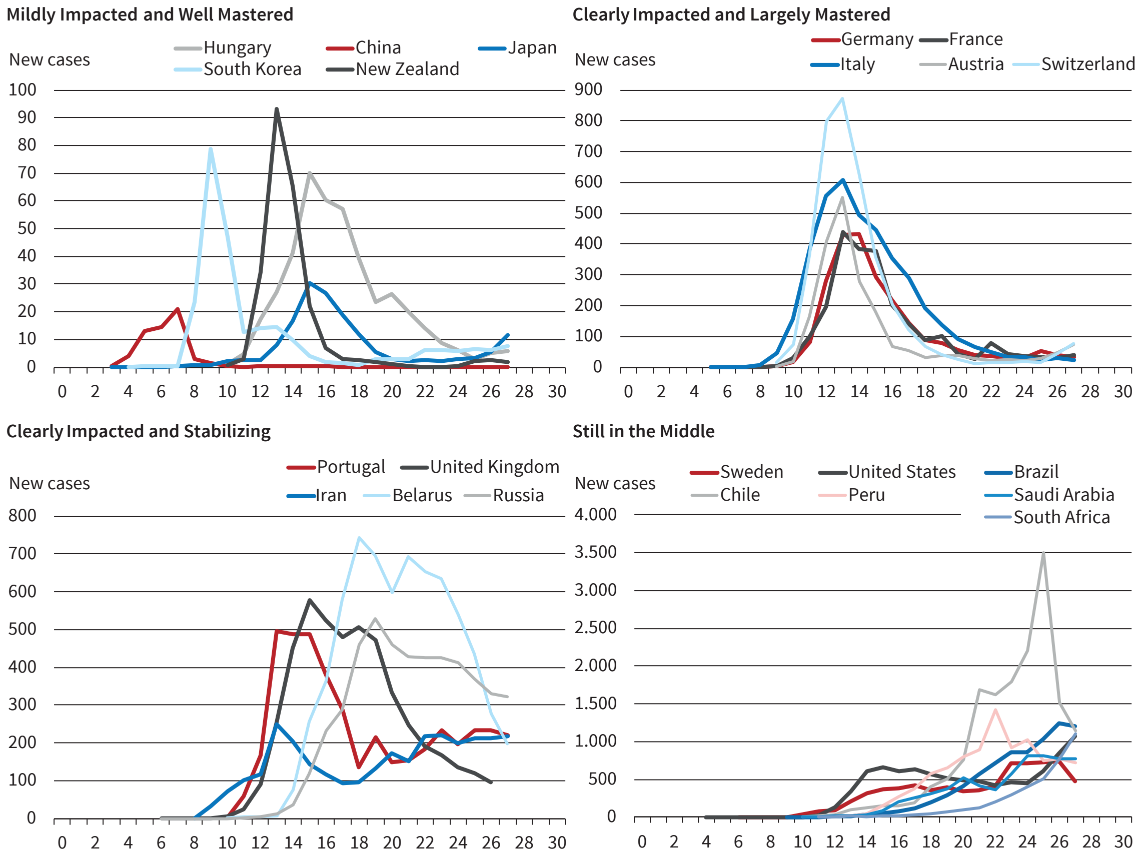
1. Economic Developments around the World: Corona Crisis Leads to Worst Recession in 90 Years

The Covid-19 pandemic and the measures taken to contain it led to massive disruption of social and economic life. What at the beginning of the year looked like a local outbreak in Hubei Province, China, with little impact on the rest of the world, quickly turned into a global pandemic that has so far caused more than 600,000 confirmed deaths and resulted in unprecedented protective measures. There are significant differences among countries, both in terms of the pandemic course and the political and fiscal measures that have been implemented. The number of new infections per million inhabitants shows that the pandemic appears to have been successfully contained in many Asian countries and in e.g., New Zealand (see Figure 1.1). There are still differences in relative new infections between countries such as Portugal or the United Kingdom on the one hand and Germany or Austria on the other. But what many European countries – with the exception of Sweden – have in common is that the pandemic seems to be abating, although discussions and fears of a second wave have arisen. In other countries, such as the United States, Brazil or Peru, the pandemic is still very present. Broadly speaking, the pandemic started in Asia, moved to Europe and subsequently to North America and finally South America and Africa.

Curfews, travel restrictions and border closures were imposed worldwide, non-essential businesses were closed, and social distancing policies were introduced. There have also been, and still are, major differences in these protective measures: Italy and France, for example, have introduced much stricter lockdowns than Germany. The United Kingdom only introduced relatively mild containment measures after a delay, when the first restrictions were already relaxed in China and although Sweden did step up its measures, they remain low by international comparison (see Figure 1.2).

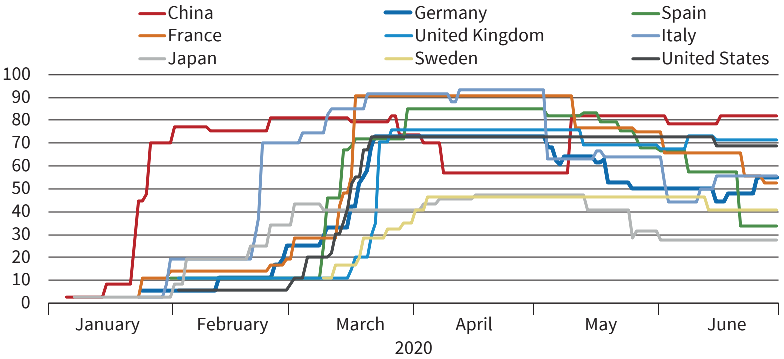
Figure 1.1

Covid-19 Pandemic in Selected Countries: New Cases per Week per Million Inhabitants



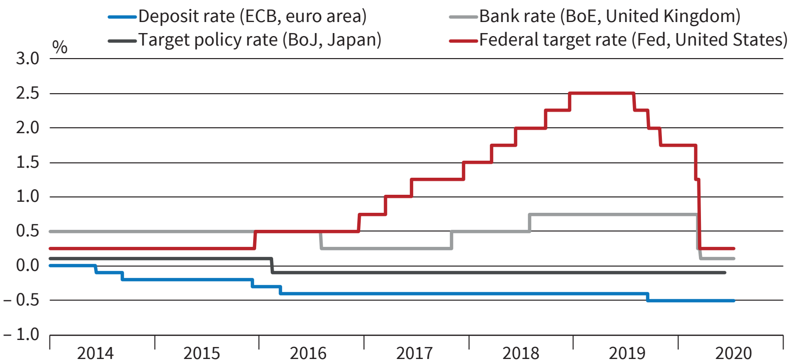
Source: WHO (2020).

Figure 1.2
Containment Measures in Selected Countries
Oxford Covid-19 Stringency Index



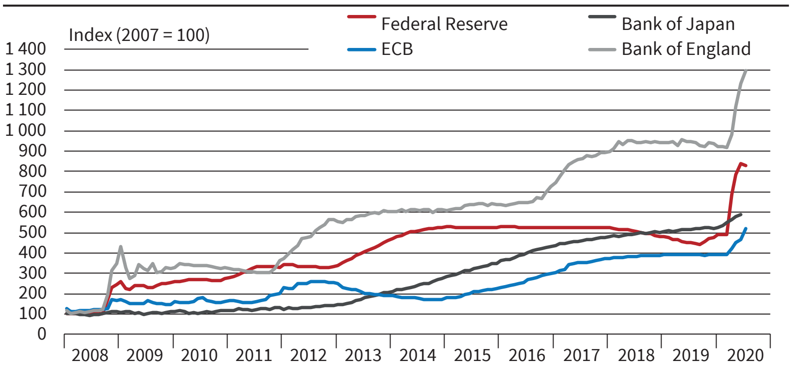
Source: Oxford Policy Tracker (2020). © CESifo

Figure 1.3
Central Bank Interest Rates



Source: European Central Bank; Federal Reserve Bank of St. Louis; Bank of England; Bank of Japan; last accessed on 11 July 2020. © CESifo

Figure 1.4
Balance Sheet Sizes of Major Central Banks



Source: Federal Reserve; Bank of Japan; European Central Bank; Bank of England; last accessed on 11 July 2020; EEAG calculations. © CESifo

In a reaction to the crisis, central banks around the world increased the degree of expansion of monetary policy by lowering interest rates wherever possible (Figure 1.3). The steady rate hikes implemented by the Federal Reserve since late 2015 were quickly reversed. The limited room for maneuver that the Bank of England had in this respect was also quickly used. For the ECB and the Bank of Japan, the effective lower bound had already been reached – no further interest rate cuts appeared feasible.

In view of the effective lower bound, extensions and new versions of asset purchasing programs have been put in place to provide additional liquidity to financial markets (see Figure 1.4). Of the four major central banks in the western world, the two most active ones in this respect are the Federal Reserve and the Bank of England. This new wave of liquidity is a reason why financial markets quickly recovered from the initial shock and appear to have decoupled from the real economy.

Although the containment measures were only adopted in March in most European countries, together with changes in social behavior, such as social distancing, they immediately led to significant declines in value added. Despite signs of recovery in the months of January and February, after weak economic developments in 2019, the effects of social distancing and the containment measures were so severe that macroeconomic data reflecting the full first quarter, i.e., including March, turned dark red. Final domestic demand, and private consumption in particular, collapsed (Figure 1.5). These few weeks were able to generate European growth rates for the full quarter that were more negative than those of the worst quarter during the Great Financial Crisis. GDP in the Euro area fell markedly by 3.6 percent that quarter. The greatest negative contribution came from private consumption. Households reduced their activities in response to the rising number of Covid-19 infections and on instruction or advice from the government to stay at home and respect the social-distancing rules.

Also, numerous shops were closed, and many services were not available. Further, firms hold back their investments due to liquidity issues and uncertainty about future developments. In addition, external demand was weak and caused exports to plunge. Italy, France and Spain were hit hardest by the Covid-19 pandemic and introduced strong lockdown measures. As a consequence, economic activity dropped by 5.3 percent (Italy), 5.3 percent (France) and 5.2 percent (Spain). Germany was affected less severely with GDP contracting by 2.2 percent.

National accounts data were also negative for the first quarter of 2020 in the United States. The slight delay with which the United States was hit by the pandemic meant that the percentage decline in GDP did not quite reach the level reached at the height of the Great Financial Crisis.

Also, because Asia and in particular China was hit early in this crisis, global GDP fell strongly in the first quarter of 2020 (see Figure 1.6). Although China was already putting a strain on the aggregate figures, the early March release of the Global Barometers still indicated a recovering world economy. This radically changed in the subsequent two months in which both the coincident and leading versions of this composite indicator based upon economic tendency surveys from all over the world dropped massively and reached levels lower than those seen in the Great Financial Crisis.

Recent international trade and industrial production data confirm the extraordinary extent of the crisis. According to these, from the end of last year until April this year, world trade and industrial production plummeted by almost 8 percent and more than 6.5 percent, respectively (Figure 1.7). Although during the first months of the year this decline was largely attributable to the emerging markets, the advanced economies have been hit particularly hard, especially in April. For the advanced economies, the declines over the four-month period amounted to close to 10 percent and around 8.5 percent, respectively, and in April alone the annualized month-over-month growth rate was almost 60 percent for both industrial production and trade.

Not only in Europe, but in many parts of the world, the majority of the measures took effect mainly from mid-March to mid-May this year. The early July values of the Global Barometers, reflecting surveys carried out in June, showed clear signs of recovery as large parts of the world started to leave the lockdown mode. Despite the easing of measures, the situation at the end of the second quarter was still far from what it was before the outbreak of the pandemic at the beginning of the year. With the exception of China, a massive global economic slump is expected for the second quarter.

Until May, unemployment or the number of people in employment who are dependent on support measures rose significantly. In the United States, the unemployment rate peaked at 14.7 percent in April and stood at 11.1 percent in June, compared with 3.6 percent in January. In Germany and France, the rates in May are significantly lower at 3.9 percent and 8.1 percent respectively, but a large number of employees are currently on short-time work. The Ifo Institute estimates that around 7.3 million employees in Germany were on short-time working in May. This corresponds to 16 percent of all employees. In France, a projected 10 million employees were on short-time working schemes (35 percent of all employees).

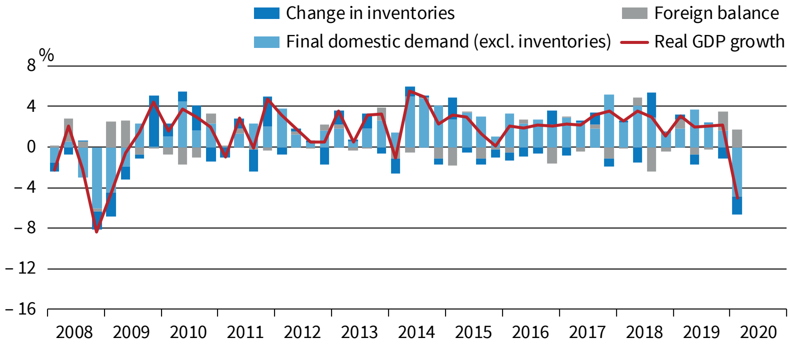
Often the change in the unemployment rate does not fully reflect what is happening to the number of persons employed. In some countries, many have left the labor market or are in the process of doing so, leaving not only employment but also the labor force and therefore are not counted as being unemployed. In Italy and Portugal, this effect is so strong that the unemployment rate has actually fallen in recent months (Figure 1.8). In the United States, the number of people employed fell by about 13 percent between January and May of this year. The rise in unemployment took up about two thirds of this – the remaining third reflects a reduction in the labor force.

Not only are countries affected differently and not necessarily simultaneously, differences across

Figure 1.5

Contributions to GDP Growth[a] in the United States

Seasonally adjusted data

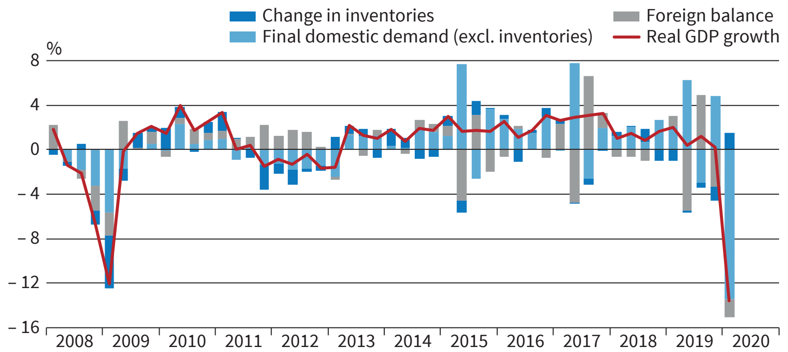


[a] Annualized quarterly growth.

Source: US Bureau of Economic Analysis; last accessed on 13 June 2020; EEAG calculations. © CESifo

Contributions to GDP Growth in the Euro Area

In constant prices, seasonally adjusted and work-day adjusted

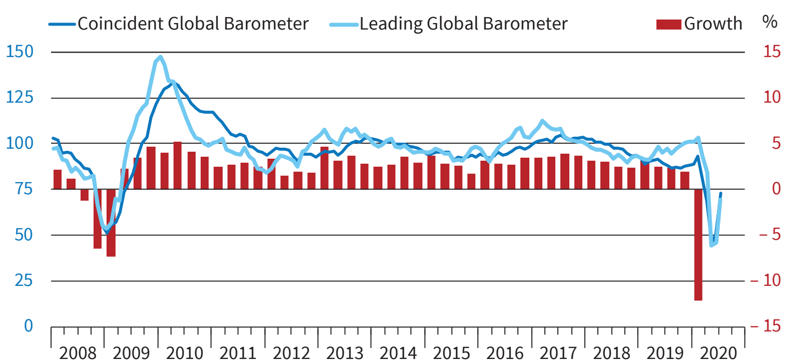


Source: Eurostat; last accessed on 13 June 2020; EEAG calculations. © CESifo

sectors are also extensive. In previous recessions, often only specific parts of the economy, such as construction or industry, were directly and severely affected, with subsequent, albeit mitigated, consequences for other parts of the economy. In the current crisis, protection measures affected almost all sectors directly and simultaneously. Whereas the service sector often played a stabilizing role in previous downturns, this time has been different. In particular, hotels and restaurants, passenger transport, the entertainment industry and retail trade, where human interaction is unavoidable, were hard hit as early as

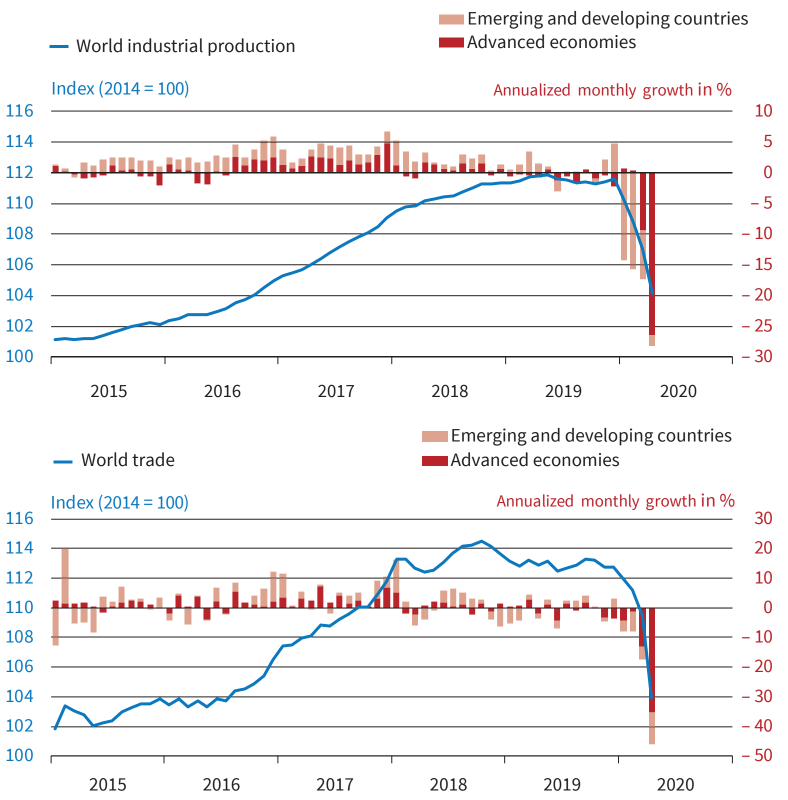
Figure 1.6

World Economic Growth and the Global Economic Barometers



Source: EEAG calculations (2020). © CESifo

Figure 1.7
Regional Contributions to Industrial Production and World Trade



Source: CPB Netherlands Bureau for Economic Policy Analysis; last accessed on 2 July 2020;
EEAG calculations.
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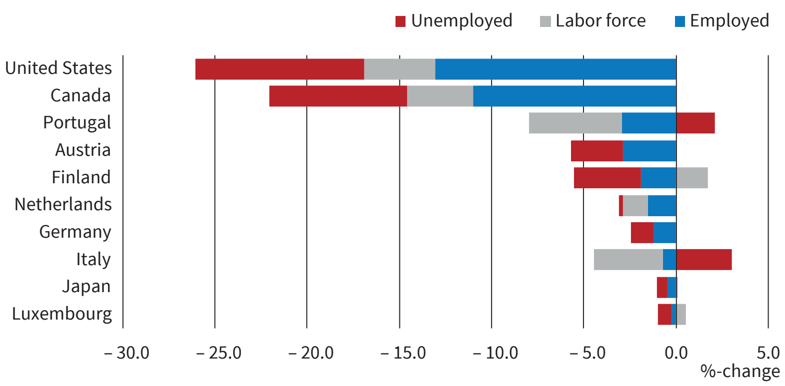
the first quarter of the year (Figure 1.9). Retail sales in the Euro area have fallen by a cumulative 20 percent since February. The losses are particularly large for non-food items such as clothing and furniture. The exceptions are mail order and food retailing, which were able to increase sales during the crisis. The effects also vary from one country to another, depending on the type of containment and support measures taken. The recession in Germany will probably be less severe than in France, which had decided on much stricter measures and provided less financial support. This is also reflected in retail sales. Cumulative retail sales in Germany fell by "a mere" 9.1 percent, while in France they have fallen by 32.6 percent since February. Overall, the Euro area is likely to see a sharp recession in the first half of 2020. GDP already contracted by an annualized 13.6 percent in the first quarter. During the second quarter, the decline of GDP is forecast to be historic (– 40 percent).

Although the construction sector experienced a significant decline in value added in the first quarter, it was previously booming in most European countries. Despite the sharp decline in the confidence indicator for the construction sector in the Euro area as published by the European Commission, it is in a more or less normal situation from a historical perspective. The situation is quite different for companies in the services sector. Here the confidence indicator is about four standard deviations below the normal value and has never experienced such a sharp decline over the course of one month (Figure 1.10). What confidence indicators for the different sectors have in common is that they all plunged in April and recovered somewhat in May and/or June as lockdown measures were partly eased. The overall European Commission's economic sentiment indicator fell from 94 points in March further to 65 points in April, rebounded somewhat in May and increased strongly in June up to almost 76 points.

In addition to the containment measures and in order to preserve economic structures during this period, many governments adopted support measures for workers and rescue packages and credit guarantees for affected companies. Moving out of the lockdown, they have been discussing and implementing stimulus packages to support the recovery. Overall, the impression is that the "new normal" is going to be a world in which clear structural changes are needed with associated economic and social problems. All of this will lead to a substantial increase in government deficits and therefore debt-to-GDP ratios. The global easing of containment measures since mid-May and the support programs that have been agreed are already leading to a strong catch-up process. Assuming that the remaining containment measures are effective and that a second wave of infection can be prevented by implementing appropriate "track-and-trace" procedures, the global recovery is likely to continue, albeit at a steadily slower pace in the coming quarters (Figure 1.11). Even when taking structural shifts out of the picture, economic activity is unlikely to return to pre-crisis levels in most sectors. Hygiene measures and protective concepts are likely to remain part of the new reality until a vaccine and/or an appropriate medicine is developed. This means that in particular companies in the hospitality, transport and leisure industries will have limited capacity to operate. Factories and offices, however, will also have to make adjustments that will lead to lower capacity utilization and productivity. We expect world GDP to reach only

Figure 1.8
Decomposing the Decline in Employment between January and May 2020



Source: EEAG calculations.
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96 percent of its pre-crisis level by the end of this year.

Also, for the Euro area, the GDP level at the end of last year will be well out of reach by the end of this year. On the demand-side, private consumption is expected to fall further in the second quarter and to rebound in the second half of the year. After plunging, gross fixed capital formation is forecast to recover somewhat during the second half of the year, but weak foreign demand, uncertainty about future prospects and the fragile financial situation of the firms will dampen the rebound in investment.

There is likely to be an increase in insolvencies over the course of the year, and unemployment should also settle at a higher level. Here, too, there will be marked differences between countries. China and Japan were affected by the crisis much earlier and less severely than Europe or the American continent. These two countries are therefore more likely to return to pre-crisis levels than Italy and the United States, for example. Added to this are the differences in fiscal support. Whereas the direct fiscal stimulus in Germany is estimated by the think tank Bruegel to amount to more than 15 percent of GDP, it is only 3.6 percent and 0.9 percent in France and Italy, which have much less fiscal leeway. Here the reconstruction program proposed by the European Commission with a volume of EUR 750 billion will provide some compensation. Although the United States has implemented extensive fiscal measures, it is questionable to what extent the labor market can be stabilized and the loss of household income compensated. The high debt levels of private and public households are likely to make a rapid return to normalcy even more difficult.

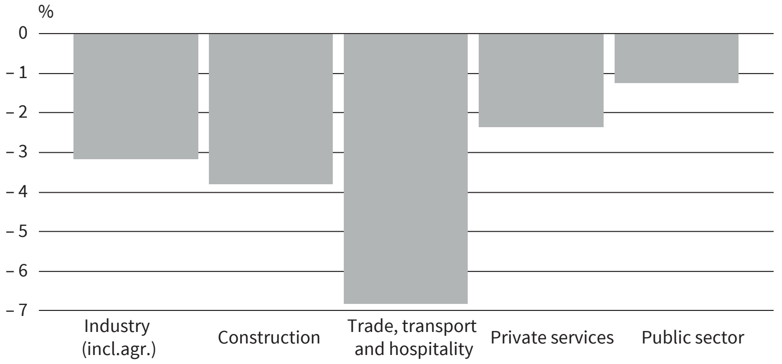
The global economy will only return to its pre-crisis level by the end of next year. The collapse in corporate profits in the wake of the lockdown and lower demand expectations should noticeably dampen investment momentum. In addition, insolvencies and restructuring will initially have a slowing effect. Increased loan defaults and debt service arrears are also likely to weigh on bank balance sheets, thus restricting the scope for lending in some countries. In addition, private households will lose purchasing power as a result of the pandemic-related rise in unemployment and the slowdown in employment growth in many countries, which in turn will have a negative impact on consumption. Even in countries in which the loss of purchasing power has been contained by rapid economic policy interventions (short-time work, economic stimulus programs), the more fragile economic environment compared with the time before corona is likely to strengthen cautionary savings motives and thus dampen consumption dynamics. The new awareness of the fragility of global value chains and the dependence on few production sites also plays a role. This should lead to a gradual repatriation of certain industries and a diversification of value chains. On the one hand, this development implies lower global trade, which is particularly painful for open economies in Europe or Japan, and on the other hand it results in higher costs for consumers. All in all, these factors lead to a world with lower growth.

Because of the current capacity underutilization, core inflation is expected to fall as well. Although the oil price has recovered slightly from its very low levels at the end of April, it is still much below the

Figure 1.9

Reductions in Sector-Specific Value Added in the Euro Area

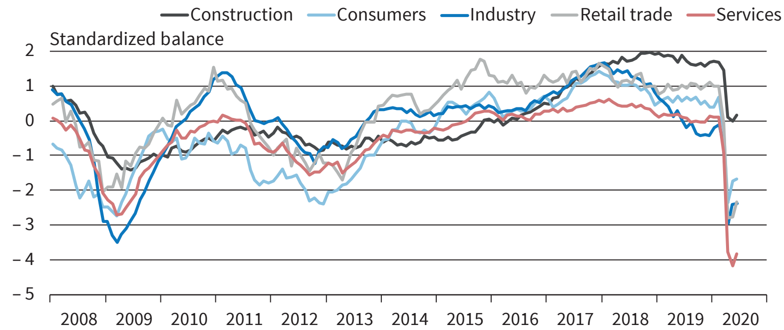
Q1 2020



Source: Eurostat. © CESifo

Figure 1.10

Confidence Indicators[a] for Different Sectors in the Euro Area

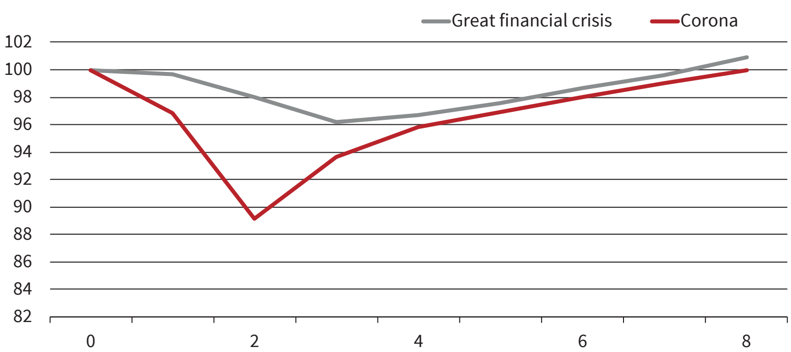


[a] Selected (seasonally adjusted) balances on business and consumer tendency survey questions. Balances are the differences between the percentages of positive and negative replies. These are subsequently normalized to have an average of 0 and variance of 1 for the period from 1985 onward.
Source: European Commission; last accessed on 13 June 2020; EEAG calculations. © CESifo

Figure 1.11

Comparing World GDP Developments

From year of crisis (t = 0) to 8 years after the crisis



Source: IMF and KOF (2020). © CESifo

price of one year ago. Therefore, the energy price component is currently also pulling headline inflation down. Although there might be price increases for some goods and services due to supply issues related to the containment measures, these are likely to have comparatively small effects on headline inflation. Whereas inflation is likely to remain slightly positive during the first half of the year, in the second half it will decelerate further and turn negative. The forecast assumes a stable oil price and USD/EUR exchange rate.

1.1. MAJOR DOWNSIDE RISKS

Any forecast statements are nowadays subject to even larger risks than usual. In the above it is assumed that there will be no substantial rebound in the number of infections around the world. However, we are still learning about consumer reactions to containment measures and it is still unclear how quickly consumption behavior will normalize. Furthermore, the severity and length of the pandemic are unknown. A second wave of infection with partial, renewed lockdowns is conceivable, which would lead to a further economic slump. On the positive side, many countries will be better prepared for future waves as multiple measures have been or are currently being introduced to decrease vulnerability, such as availability of health protection equipment, testing capacities and measures to increase hygiene. It is also conceivable that the development of a vaccine could be delayed, which would mean that capacities in the affected sectors would remain limited for longer through “social distancing.” In addition, the liquidity situation of many companies is deteriorating rapidly. An unexpectedly high number of insolvencies might disturb the economic recovery and cause greater problems than expected for the banking sector. Currently, in many countries new regulations for postponing insolvencies were introduced, which means that these will become evident later than usual, probably not before autumn. Also, numerous private households might run into solvency issues due to lower income and a worsening labor market. Such a sharp increase in insolvencies and non-performing loans could raise doubts about the solvency of individual banks. As in the past, this in turn could lead to skepticism about the solvency of individual states with already high debt burdens in the Euro area. Various emerging markets are also affected by this risk. The imminent development of a vaccine represents an upside risk.

2. Fiscal and Monetary Consequences of Covid-19

The consequence of Covid-19 has been a simultaneous shock to demand and output, as governments imposed lockdowns in order to contain the spread of the pandemic and avoid the possibility of hospitals and medical facilities becoming overburdened. Governments responded to the shocks with a broad range of stimulus measures, as well as targeted spending on health equipment and research, at a time when the reduction in economic activity drastically cut tax revenue. At the same time, monetary authorities all over the world, including the European Central Bank (ECB), responded with a wide range of extraordinary accommodative measures. A European peculiarity has been the extent of the support given through loans and guarantees to businesses hit by the lockdowns. In both fiscal and monetary action, the old rule books were thrown out. There has been an intellectual shift, and (fiscal) austerity is now a dirty word. There is little dispute that the overall policy response was necessary in order to prevent much wider collateral damage from the virus and the epidemiologically necessary shut-down operations.

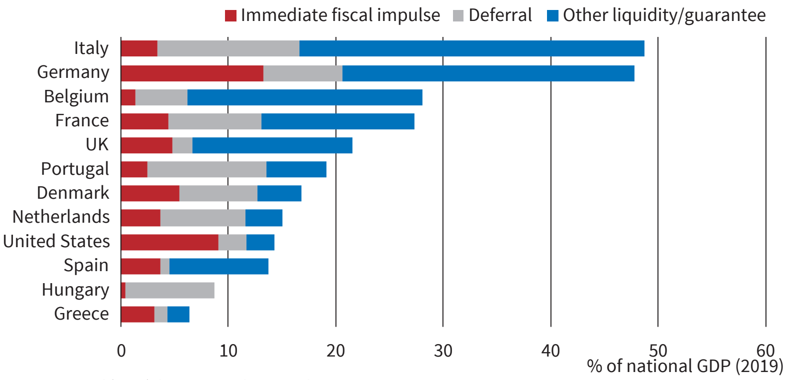
The result of the policy response has been the sharpest ever increase in fiscal deficits outside wartime, and, in fact, many key policy makers made explicit comparisons to wartime decisions. Xi Jinping, on February 6, 2020 talked of a "people's war;" Boris Johnson, on March 17, 2019 stated, "We must act like any wartime government and do whatever it takes to support our economy;" and Donald Trump, on March 19, 2020 stated that in "… our big war, …we continue our relentless effort to defeat the Chinese virus." European Union policy makers were only a little more restrained in making the wartime analogy: Emmanuel Macron, speaking outside a military hospital explained that, "When we engage in a war, we engage completely, we mobilize united. I see in our country factors of division, doubt, all those who want to fracture the country when we must have only one obsession: to be united to fight the virus. I am calling for this unity and commitment." When Emmanuel Macron declared "war" on the virus, he spoke with a framed Anglo-French war bond from the First World War behind him. Angela Merkel was characteristically more sober. In a rare television address, she said: "The situation is serious. Take it seriously. Since German unification, no, since the Second World War, there has been no challenge to our nation that has demanded such a degree of common and united action." Wars are inherently uncertain in their outcome, and the economic consequences are all at the moment seen only through what Clausewitz thought of as the "fog of war." In particular, this observation is relevant for the oft-repeated call for a clear "exit strategy." Of course that would be highly desirable, but it is sometimes hard to tell when a war has been won or lost (the fiscal and economic costs remain); and obviously even harder to say when a war will be won or lost. In this case, it is even unclear what ending the war means. Macron rightly told the *Financial Times*, "I don't know if we are at the beginning or the middle of this crisis – no one knows."

2.1. FISCAL CONSEQUENCES

In the large Eurozone countries, Germany initially voted a supplementary budget of EUR 156 billion (4.5 percent of 2019 GDP); in June, an additional package of EUR 130 billion (or 3.8 percent of 2019 GDP) followed. In the first package, through the economic stabilization fund (WSF) and the public development bank "Kreditanstalt für Wiederaufbau" (KfW), the government is expanding the volume and access to public guarantees for firms of different sizes and credit insurers, some eligible for up to 100 percent guarantees, increasing the total volume by at least EUR 757 billion (23 percent of GDP). In Italy, the fiscal package began with the "Cura Italia" program of March 17, a EUR 25 billion (1.4 percent of GDP) emergency package. On May 15, the government agreed on a further EUR 55 billion (3.2 percent of GDP) "Relaunch" package of fiscal measures. On April 6, the Liquidity Decree allowed for additional state guarantees of up to EUR 400 billion (25 percent of GDP). In France, the government announced an increase in the fiscal envelope devoted to EUR 110 billion (nearly 5 percent of GDP), including liquidity measures. In addition, there is a package of bank loan guarantees and credit reinsurance schemes of EUR 315 billion (close to 14 percent of GDP). The United Kingdom has adopted a similar path of large-scale guarantees, and public sector borrowing in April 2020 alone was equivalent to that of the whole previous year. State guarantees for loans to firms and other liquidity support are currently estimated to amount to almost 24 percent of GDP. Guarantees are an especially large part of the fiscal response in Germany (27 percent of GDP), and Italy (32 percent). The contrast to the United States (less than 3 percent) is especially striking (Bruegel 2020).

The plans for a European-level response, including the EUR 500 billion Franco-German proposal for a European Recovery Fund borrowing for the European Union for measures in support of the worst affected

Figure 2.1
Fiscal Response to the Pandemic in European Countries



Source: Bruegel (2020), last accessed on 14 July 2020. © CESifo

areas to be taken up to 2027, and the EUR 750 billion European Commission scheme (EUR 500 billion in grants, the rest as loans) are treated in Chapter 3 of this report. The Commission proposal is that additional own resources from four suggested sources would be used to repay the borrowing after 2027 and by 2058 at the latest: an emissions trading scheme, a carbon-border-adjustment mechanism, a corporation tax applied to companies that draw benefits from the EU single market, and a digital tax on companies with a global annual turnover of above EUR 750 million (European Commission 2020a).

There are some major uncertainties going forward. The first one concerns the timing and speed of recovery as well as what the post-recovery world will look like. Even if a successful and affordable combination of vaccination and antiviral treatment is discovered relatively soon, once new habits are formed it may be difficult, undesirable, or even impossible to return to the old ways. Social-distancing measures have become a powerful catalyst for speedy digitalization and automation of the economy. Supermarket checkout clerks and other exposed workers might simply be replaced by technology. Digitalization helps increase productivity while simultaneously reducing both health risks and many types of costs. It opens new business opportunities but also causes restructuring across many sectors of the economy. Importantly, in such an IT-innovation driven economy a few winners typically take all, leaving other players losing ground or disappearing altogether from the market (see EEAG 2020, Chapter 2).

Some of the crisis-era shifts are likely to become permanent: For instance, there will be a substantial shift to remote-office working and internet conferencing. Many sectors and occupations will be made obsolete. The commercial real estate sector may be seriously impacted as a result of the collapse in demand for offices, with little new construction. That development will have major fiscal consequences, as taxes from real estate development are an important source of local as well as central government finance. Offices are also a substantial generator of employment in accompanying services: cleaning, hospitality (cafés, bars, restaurants), other personal services. Medical services (apart from those related directly to the pandemic) also saw a collapse in demand, and a shift to new models (telemedicine). In general, services were (unusually) more severely affected by the downturn than manufacturing. The movie industry is also likely to be reshaped with movie theaters losing ground and viewing relegated, mostly, to a few online platforms. While many of these processes were already underway pre-covid, the pandemic has sped them up. Not only cruise ships, tourism, restaurants and hospitality, fashion and clothing, trade fair and conference business, but also commercial real estate, universities, even clothing and textiles are all likely to take a longer-term hit. The shifts will be fundamental – but we cannot be sure how precisely each sector will respond.

All in all, it is quite possible that longer-term alterations in the global and European economies may materialize. What are the immediate fiscal consequences? A large proportion of the loans given to businesses subject to structural or long-term decline will likely never be repaid, leaving a substantial fiscal burden. High levels of unemployment are also likely to remain in sectors where the drop in demand is a consequence of structural shifts. In those cases, there will be pressure for more permanent support mechanisms once the very widespread (and successful) short-term support (*Kurzarbeit*) expires. *Kurzarbeit* was brilliantly successful in the Global Financial Crisis, especially in German export-oriented factories which quickly benefited from the large infrastructure investments of emerging markets, and during the corona crisis it has been widely applied across Europe, with 45 million workers covered in France, Germany, Italy, Spain, and the United Kingdom. Of that total, 9 million workers are in jobs that are thought to be vulnerable in the longer run. So, what happens when there is no quick economic revival? In that case, the Kurzarbeit or subsidized furloughing program becomes a bridge to nowhere, with no substantial long-term benefits but rather costs that add to the fiscal burden.

It is worth pointing out the political or political economy dimensions of this problem: if the money is perceived to have been spent effectively, as with the *Kurzarbeit* schemes after 2008, there are substantial benefits in terms of voter support and political legitimacy, and the model would become more widely imitated. But if the money is thought to have been wasted on white elephant or vanity projects, the consequence is political opprobrium and delegitimization. War spending may sometimes look good in retrospect, but even in the case of victory it may look like an endless saga of lost chances, failure and policy mistakes instead.

There is at present a substantial lack of clarity about the exit from the emergency. Since no one can gauge when the crisis will end, the overall extent of the fiscal legacy is incalculable. In that sense, the analogy often made with major wars is accurate: People at the beginning of a major conflict frequently have unrealistically optimistic assessments of the duration of hostilities, and the fiscal costs are thus not correctly anticipated.

2.2. MONETARY CONSEQUENCES

The second uncertainty concerns the monetary consequences of the new environment. Central banks everywhere moved to highly accommodative stances. As with the fiscal response, there is little controversy about the response to the immediate emergency. The ECB expanded asset purchases until the end of 2020 under the existing program (APP), and agreed to temporary additional auctions of the full-allotment, fixed-rate temporary liquidity facility at the deposit facility rate and more favorable terms on existing targeted longer-term refinancing operations (TLTRO-III) between June 2020 and June 2021. Recently, the ECB introduced a new liquidity facility (Pandemic Emergency Longer-Term Refinancing Operations, PELTRO), at an interest rate that is 25 basis points below the average MRO rate prevailing over the life of the operation; and an additional EUR 750 billion asset purchase program of private and public sector securities (Pandemic Emergency Purchase Program, PEPP) until the end of 2020. It also announced a broad package of collateral easing measures for Eurosystem credit operations in early April. The June 2020 announcement of widening of the PEPP purchases took the volume of asset purchases to EUR 1.35 trillion (by comparison, the volume of public sector bonds acquired under the PSPP since 2014 amounted to EUR 2.1 trillion).

While most stock market indices in the industrial world were rising in the past months and others were stabilized at a lower level than before the onset of the corona crisis, bond yields on the debt of major governments have been held down by the large and highly concentrated central bank purchasing programs, with the Fed in 2020 buying in a few weeks the same amount of bonds as in the major QE2 and QE3 programs. The ECB will probably buy more government bonds than are issued by governments. The calculation of likely developments in 2020 suggests government debt issuance of some EUR 1280 billion, compared with the pre-corona projection of around EUR 875 billion. This is a net new supply of EUR 590 billion, i.e., after subtracting bond redemptions. The central bank will buy around EUR 870 billion in public sector assets, i.e., almost EUR 300 billion more than the net issuance of new debt (ING 2020).

In addition, there are purchases of private sector debt. US companies are helped through the Secondary Market Corporate Credit Facility (SMCCF). It is owned by the US Treasury and allowed to purchase ETFs,

Figure 2.2
Growth Rate of Monetary Aggregate M3 since January 2010

Source: ECB, Statistical Data Warehouse, last accessed on 14 July 2020. © CESifo

including high-yield ETFs. The Federal Reserve lends money to the SMCCF so that it can buy ETFs. Currently, BlackRock is acting as an outside investment manager for the SMCCF, i.e., it helps select ETFs that will be purchased by SMCCF. At the same time, BlackRock is the globally dominant creator and seller of ETFs. If BlackRock purchases their own ETFs on behalf of SMCCF, it gives it a discount by waiving some fees (Tchir 2020). Through this vehicle it becomes possible for the Fed to, directly or indirectly, own defaulted corporate bonds among other things. This, in turn, props up company coffers and helps support asset prices, at least for a time. From April 2020, the ECB accepted as eligible for use as collateral in Eurozone credit operations "fallen angels," i.e., investment-grade bonds that have been downgraded to a rating of at least BB. There had been major outflows in March 2020, especially driven by large investment funds (Lane 2020), and the operation was immediately successful in that it preserved the integrity of the Eurozone. Viewed in a longer-term perspective, however, such mechanisms pose a serious moral hazard potential because of the difficulty of calling a halt to operations. The question of formulating an exit strategy is thus acute.

Monetary aggregates are rising in the Euro Area and in the United Kingdom and the United States. 2020 will see the highest annual percentage increase in the broadly defined quantity of money in the United States in peacetime, with the peak figure above 20 percent and possibly even exceeding 25 percent (Congdon 2020). Measuring the effects in terms of inflationary/deflationary impact is extremely hard at the outset. Velocity has fallen, as in previous economic downturns (the effect is comparable to that of the United States in 2001 and 2008-9).

Savings have increased during the shutdown. The European Commission spring forecast suggested that Eurozone household savings would rise from 12.8 percent of disposable income in 2019 to a record high of 19 percent this year and fall only to 14.5 percent in 2021 (European Commission 2020b). The result is a build-up of potential demand.

The collapse of demand has unsurprisingly led to major price reductions for a range of consumer goods, including textiles and automobiles. Oil and petroleum prices fell by record amounts (with negative prices for forward contracts because of the shortage of storage facilities) before a partial recovery. There may now be a long period of sluggish demand and growth, and a generally deflationary environment. Assessments of a long-term low inflation future are sometimes predicated on a prolonged weakness of energy prices (European Commission 2020b) but this is already partially being reversed.

On the other hand, the collapse of supply chains and a politically driven reversal of globalization is likely to make many goods scarce and more expensive, including food products, as well as pharmaceutical and medical products. Food prices show a substantial measure of inflation worldwide. There is likely to be a rapid increase in "felt inflation," in that trips to the supermarket are already becoming much more expensive. If the structure of demand permanently changes because of the crisis, the calculation of consumer price indices will need rethinking, as consumers no longer buy the same sorts of goods. The increases in food prices, moreover, affect poorer consumers, often additionally impacted by the disappearance of low paid service sector employment, more severely. While inflation projections for the short term show a deflationary impact of the corona crisis (the IMF in June estimated consumer prices in industrial countries to rise by only 0.3 percent in 2020 and 1.1 percent in 2020, IMF 2020), there is a possibility of an inflation whiplash, in which deflation is followed by sharper rise in inflation.

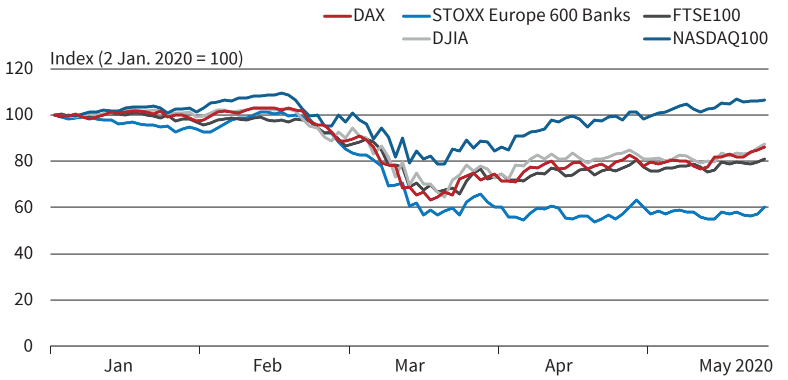
Asset prices already look as if they are being driven by a monetary overhang, and increased savings rates, as the initial post-corona losses have been reversed. The asset price inflation is also driven by new investment technologies, with a rapid increase in the popularity of platform-based trading systems that substantially eliminate commissions, such as Robinhood and Revolut. Major gains in asset prices historically drive up spending, as investors want to benefit from their paper gains, but the consumer price response usually follows only after a lag. Influential commentators such as Martin Wolf are now speaking about a possibility of a recurrence of 1970s run-away inflation, and a likely combination of inflation and stagnation (stagflation). For at least a few months, or even a very few years, however, the tug of war between inflation and deflation may be unresolved, and policy uncertainty will prevail.

The development of securities markets indicates a decoupling between the real economy and financial markets. Some stocks have outperformed – particularly in the tech sector (in the US NASDAQ), which unsurprisingly benefits from the reasonable belief that the pandemic-inspired turn to IT will be a permanent phenomenon (see Figure 2.3). It is hard to tell whether the move into securities reflects some investors' concept of an inflation hedge, or simply a response to the accumulation of money balances.

If and when the inflationary scenario materializes, central banks – including the ECB – will be faced with a profound dilemma. Unlike the Federal Reserve, which since 1977 has had what is usually termed a dual mandate, to "promote effectively the goals of maximum employment, stable prices, and moderate long term interest rates," the ECB statutes (Article 2) give a clear priority to price stability primary objective, adding "Without prejudice to the objective of price stability, it shall support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union as laid down in Article 3 of the Treaty on European Union." Article 3 of TEU provides that the EU "shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment. It shall promote scientific and technological advance[ment]. It shall combat social exclusion and discrimination, and shall promote social justice and protection, equality between women and men, solidarity between generations and protection of the rights of the child." Can the ECB simply ignore demands to take action to stabilize output for the sake of price stability, especially when the definition of price stability becomes increasingly contested? The Federal Reserve is beginning to think about taking labor market inequalities (including especially the labor market consequences of racial injustice) into account in its monetary policy decisions (Politi 2020).

The most pressing ECB concern will be over interest rates. Any significant rise in interest rates alters the calculations of debt sustainability in member countries with high debt levels. The solution to the European debt crisis after 2015 came above all as a consequence of new debt sustainability calculations that depended on a long-term low rate of interest

Figure 2.3
Selected Stock Price Indices in the United States and Europe



Source: Bloomberg, London Stock Exchange, Blackrock. © CESifo on the now mostly official debt of the EFSF and ESM program countries. There are multiple equilibria: a good equilibrium when interest rates are low and debt service is manageable; and on the other side a bad equilibrium with high interest and high defaults both in the public and private sector (and a correlation between the two in that insecurity about public finance imposes worse terms on private borrowers, who will face a future tax hit). States as well as businesses have become dependent on – in fact, addicted to − a low-interest-rate regime. Just as the Federal Reserve legislation speaks of moderate long-term interest rates, there will be a substantial pressure to hold interest rates at a level that continues to allow for a sustainable debt burden. That was a pattern seen in the aftermath of the twentieth-century world wars, in particular in the United Kingdom and the United States after the Second World War, when debt management became a key part of the central bank's task (in a way that it is not in the setting of a modern central bank) (Allen 2018). The wartime analogy suggests that thinking about debt management will come back – that policy reflection may become fiscal dominance (Gordon and Leeper 2006). In addition to the fiscal dominance, thinking about the effects of monetary policy on the financial sector will also come back, so that financial dominance will come alongside fiscal dominance (Brunnermeier 2016; for a historical example in 1920s Germany see James 1998).

Any substantial increase in interest rates would lead to a rapid move away from the fixed yield instruments, and government financing will become much more expensive. That outcome would see a return to the Euro debt crisis of the early 2010s. However, circumstances would likely be much worse than at that time. It is now Italy, the third largest European economy that faces a severe economic and fiscal crisis. Furthermore, if the fights observed in recent months are any indication, Eurozone governments may have a hard time agreeing on a coherent set of measures that would have sufficient bite in handling the crisis. The Covid-19 pandemic initially looks as if it may have served populists and nationalists among European and global leaders and politicians well, making it easier for them to sell my-nation-first types of pseudo-solutions to the scared and confused public. Moreover, the overall levels of debt are higher than before and the expected drop in economic activity across Europe much stronger. In addition, the ECB is under pressure from the German Constitutional Court regarding its current and potential quantitative easing programs. Under such circumstances, the European banking system, under pressure ever since the Global Financial Crisis, may encounter renewed strain as much of its assets are held in European government bonds. As an indication of potential serious trouble, one can see that European banking stocks are now worth only around 60 percent of their January 2020 value (see Figure 2.3).

If the high inflation scenario is realistic, it would change policy incentives, and create in particular a great attractiveness to quickly fund as much debt as possible, including very long-term maturities, or even as suggested by Giovazzi and Tabellini (2020) and by George Soros, non-maturing permanent debt, modeled on the very successful British “consols” (British government consolidated stock) launched in the eighteenth century (which were themselves based on a Dutch model originating in the middle of the seventeenth century, when the instrument was used to finance dike construction). There is a particular advantage to shifting to a longer maturity structure: When long term debt is present, the government can trade current inflation for future inflation by debt operations; this tradeoff is not present if the government rolls over short-term debt. Optimal debt policies should minimize the variance of inflation (Cochrane 1998). Before the corona crisis, US Treasury officials were discussing the possibility of introducing very long term (50- or 100-year) bonds; a non-maturing instrument is only a logical extrapolation of that idea. Such instruments can, however, only be issued by very secure borrowers; if there is any doubt as to the credibility, they would not be likely to find much of a market. The ECB, without an adequate long-term fiscal arrangement, would simply look like a version of the post-World War I German Reichsbank. Small European countries, or emerging markets, will not be able to access this type of instrument. The proposal thus depends on a very radical move to some form of debt mutualization in Europe, a move for which there is perhaps no political appetite. The European Commission project for EUR 750 billion borrowing relies on an idea of only moving quite gradually to the market and launching a tax that would not deliver a funding stream until 2027.

At present, however, there exist multiple plausible scenarios. Some see a possibility of a return to the 1970s, in which central banks worried about inflation are engaged in a struggle with governments concerned with keeping debt financing costs down, a struggle they would probably lose as governments insist on their higher political legitimacy (fiscal dominance). Based on this scenario, when the gap before the onset of inflation is short-lived, the issuing of long-term debt looks like an opportunity to surprise investors with unanticipated inflation, an exercise which redistributes wealth from governments (where debt is a liability) to investors (where debt is an asset). Under such a scenario, however, unpleasant consequences follow. The holders of government debt may be banks and insurance companies, whose balance sheets would be threatened by an eventual surge in yields and fall in prices if central banks would attempt to normalize interest rates in Volcker-style disinflation. In that case, the exit from the low-interest-rate regime might involve a financial crisis, possibly requiring new government bailouts.

Alternately, in a different scenario, the low-inflation, low-growth setting might be durable. But that scenario is fraught with dangers as well. The worry about a resurgence of inflation or a clash between central banks and governments would then be unrealistic (or unrealized). The debt-to-GDP ratio rises because of low nominal GDP growth, and the prospect of an eventual debt crisis increases. The low returns on secure government assets drives investors to undertake more risky investments in search of higher yield, thus raising a different risk of financial crisis. A new asset bubble emerges as in the Greenspan years. The low-yield environment penalizes pension funds and pensioners find that their expected income is unrealizable. They may push to have the shortfall compensated by the government. In this scenario, too, higher demands for payments from the government (transfer payments) are an outcome.

The substantial provision of guarantees as a response to the corona crisis holds another potential danger. Guarantees in some European countries might be called on, leading to a fiscal cost, while in other countries the purpose of the guarantee in simply providing a safety net that avoids a bad equilibrium succeeds and there is no fiscal cost. The question then arises regarding how the cost is allocated between these countries. This is a scenario that looks back to the Euro debt crisis in the eventuality that northern Europe experiences a rapid rebound (a V-shaped recovery) while southern Europe is plunged into a renewed structural crisis (an L-shape trajectory).

A risk to government debt is thus a risk of reviving the "doom loop" that gripped Europe in the Eurozone debt crisis. The doom loop had two components, one fiscal and another macroeconomic. The first was that banks held large amounts of government debt as assets, so that a collapse in debt prices eroded their solvency and ultimately required recapitalization by the government (adding to the fiscal strain). Second, other assets of the banks suffered as the economy shrank; but the likelihood of a higher fiscal burden in the future to deal with the cost of bank recapitalization also weighed on economic growth. Fiscal and monetary measures are needed to avoid a new shock of the kind that became evident in the notorious press conference when ECB President Christine Lagarde explained (correctly, from a legal perspective) that the central bank was "not here to close spreads" between the borrowing costs of member states. She rapidly needed to walk that statement back. The central bank is thus locked into an effective interest rate guarantee – for the moment. A fundamental, and highly political, question will arise the moment that policy is tested by substantial price movements, if those are identified as long-term trends rather than a response to a short-term supply shock.

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3. Risk, Insurance and Solidarity – National and EU Perspectives

The economic consequences of the corona pandemic have prompted economic policy initiatives, including measures directly associated with lockdown restrictions and more traditional macroeconomic policies to reduce the risk of a prolonged economic crisis. A key element in this economic policy response is how to spread and diversify the consequences of the crisis both within and among countries.

Countries have taken steps to diversify the risks by extending existing and developing new tax financed arrangements.[1] While many details can be discussed, these initiatives build on the solidarity within the realms of the national state. Insurance across countries is equally important, but much more challenging, and this chapter discusses in some detail what the European Union and Eurozone institutions can and should do in relation to the corona crisis. The Eurozone has been successful so far in preventing the loss of investor confidence that characterized the Euro crisis. However, the Eurozone still faces the challenges that some of its member countries will emerge from the crisis with extremely high levels of public debt and deep economic problems.

The European Union (2020a) has recently launched an initiative dubbed "Europe's Moment: Repair and Prepare for the Next Generation." This is an effort by the European Union to take a more pro-active stance. The European Union was widely perceived to be a part of the problem and not the solution during the financial crisis, and this initiative is attempting to take a more pro-active stance not only in dealing with the immediate consequences of the corona crisis but also in linking it to a forward-looking perspective focusing on green and digital transitions. The proposal highlights solidarity, cohesion and convergence as key elements for Europe's recovery and future.

The EU challenge is its limited financial capability and flexibility. As a response to the crisis, the European Union has developed a "European Recovery Plan" with a planned budget of EUR 1.85 trillion. This includes the Multiannual Financial Frame-work (MFF), that is the EU budget for the period 2021–2027, and, as a new element, the establishment of the EUR 750 billion Economic Recovery Fund (ERF) based on borrowing. The size, financing, and mission of the fund are currently being debated. The member states have reached an agreement which implies that EUR 390 billion will be dedicated to spending programs supporting the economic recovery in Europe while EUR 360 bn will be handed out as loans to member states.

[1] A listing can be found in OECD (2020).

The European Parliament has not yet approved this solution. This is accompanied by considerations on how the European Union can get "own resources" via e.g., a digital tax or environmental levies. The effects of this initiative, in particular the ERF, will ultimately depend on how the allocation of funds is designed and whether the European Union will succeed in incentivizing policies of the member states, which enhance economy growth.

3.1. LOCKDOWN AND INSURANCE

As a consequence of the pandemic, lockdown restrictions have been imposed. The restrictions were motivated by the externalities arising from the spread of the virus due to too many and close contact between people. The lockdown may thus be interpreted as an unanticipated "market-closure" shock, an event which is largely non-insurable.

In response to lockdowns, governments have launched emergency packages ranging from direct support to firms for loss of revenue, coverage of fixed costs, work-sharing arrangements, and liquidity and loan arrangements. These schemes are generally collectively financed via the public budget.

The measures can be interpreted as retrospective or ex post insurance of an unanticipated aggregate shock. Since firms and workers had no influence on the occurrence of this shock (no ex ante moral hazard), there is no direct incentive problem in providing the support. The same may be argued with respect to workers prevented from working, where the usual coverage offered by the social safety net may be considered insufficient for this particular type of shock (also here no ex ante moral hazard problem). Providing such insurance also serves to maintain the production capacity by avoiding excessive disruptions in job matches and bankruptcies, impairing the possibilities for a quick rebound of economic activity following the lockdowns. Retrospective insurance is not unusual and is seen in relation to natural disasters, terrorist attacks, etc. What is unusual in the current situation is the aggregate and global nature of the shock.

Current policy measures are national initiatives using or extending existing schemes like work-sharing arrangements, unemployment insurance, including launching new and very unusual measures such as support for fixed costs. The schemes are ultimately financed via the public budget, and therefore rely on the solidarity and collective responsibility embedded in already-existing institutions and policies.

Even though the pandemic affects all countries, the specific country effects differ, not only in the health dimension, but also in the economic dimension depending on economic structure, etc. The shock and its effects were not anticipated, and while national schemes may be powerful in providing insurance of aggregate shocks via the public budget and thus across time and generations, this is not exploiting the full scope for risk diversification. National initiatives may moreover have a "home bias" – see discussion in Chapter 4 – and to an insufficient degree take interdependencies between countries into account. Disruption of supply chains and loss of production capacity have effects for trading partners and are thus additional arguments for cross-country burden sharing. This leads to considerations regarding the need and scope for initiatives at the EU level.

3.2. THE EUROPEAN RESPONSE TO THE CRISIS

What is the role of the European Union and the Eurozone in the corona crisis as far as insurance across countries is concerned? In Europe, countercyclical fiscal policy is a task of the national governments. The EU budget is small (roughly 1 percent of EU GDP) and not designed for risk-sharing purposes. In particular in the Eurozone, the absence of institutions for fiscal risk sharing has been discussed for some time.

There are in particular two areas where European institutions have a potentially important role to play. First, a crisis as large as the corona crisis has a strong impact on financial markets. There is a risk that the sudden increase in risk aversion of investors creates liquidity problems for the more highly indebted countries in the Eurozone. Second, especially since the effects of the corona crisis are asymmetric, with some countries hit harder than others, the EU countries could set up an insurance mechanism to cushion the blow and share the risk. In principle, an insurance contract should be written before the damage happens, but even ex post there is reason for risk diversification, especially since there is still some uncertainty as to whether the virus is under control and which countries will be affected most severely.

In addition to narrow economic considerations, the view is widespread that for political reasons the European Union should come up with a sign of solidarity in this crisis. This suggests that an insurance mechanism should be created even if it is clear which countries will benefit most. Another aspect of solidarity is that there is a common interest of all European countries in stabilizing the economies of member states which are most affected by the crisis.

The difficulty is that the European Union, contrary to national states, cannot use existing schemes to provide insurance or support and rely on tax (debt) financing. If it wants to act in this area, new schemes and their mode of financing have to be developed. This introduces obvious delays in the response, but also raises difficult issues since any insurance arrangement also involves redistribution.

3.3. PREVENTING A CRISIS OF CONFIDENCE IN INTERNATIONAL CAPITAL MARKETS

In order to contain the risk of a crisis of confidence in international capital markets, the governments of the Euro area adopted a package of measures totaling EUR 540 billion on April 9. It contains three elements: First, all member states will have access to a precautionary credit line from the European Stability Mechanism (ESM) of up to two percent of their gross domestic product, a total of EUR 240 billion. They can draw on this if they have difficulties refinancing themselves on the capital markets. Second, the European Investment Bank (EIB) will receive additional funds of EUR 25 billion. This puts it in a position, supplemented by additional borrowing of EUR 175 billion, to finance investments of up to EUR 200 billion throughout Europe. Third, under the SURE program, the European Commission is offering all EU member states credit assistance to finance labor market measures, especially short-time working allowances. The volume of the SURE program is EUR 100 billion. The refinancing of these loans is made possible by guarantees from the member states.

To reduce the risk of a crisis of investor confidence, the ESM credit line is particularly important. The ESM is unpopular, in particular in southern European countries, because it was associated with tough restructuring programs during the euro crisis. But this time the conditions are supposed to be mild: The states should only commit themselves to use the funds they receive from the ESM to fight the pandemic and its economic consequences.

During the Eurozone debt crisis, the ECB also introduced the Outright Monetary Transactions (OMT) program. The OMT program enables the ECB to buy government bonds from a country that has submitted to the conditions of an ESM program, if necessary, in unlimited amounts. This program is controversial because the ECB's mandate is actually limited to monetary policy and playing the role of a lender of last resort is fiscal rather than monetary policy.[2] Irrespective of this legal debate, the combination of the ESM and the ECB is an effective lender of last resort. The fact that there has not been a crisis of confidence on the international capital markets during the corona crisis so far seems to confirm this.

At the same time, even a well-equipped lender of last resort can only help to a very limited extent if a country is over-indebted in the long term. The ESM may only grant loans to countries that are not over-indebted. It is not the function of the ESM, let alone of the ECB, to take the debt from over-indebted countries and transfer it to other member states. But

[2] The European Court of Justice has ruled that the OMT program is not a violation of the mandate of the ECB.

acting as a lender of last resort inevitably involves the risk that this would happen. The reason is twofold: First, it is difficult to draw a line between solvent and insolvent countries; everything depends on assumptions about future interest rates, economic growth and the ability and the willingness to produce primary surpluses. Second, there is a bias in political decision making toward denying that countries are insolvent even if they are. The case of Greece during the Eurozone crisis is an example.

3.4. INSURANCE AND SOLIDARITY OR TRANSFERS FOR PAST SINS? THE EUROPEAN ECONOMIC RECOVERY FUND (ERF)

The second element is the recently launched initiative to "repair and prepare for the next generation" for all EU countries. The program is an umbrella covering a long list of programs and initiatives – including some earlier proposals – but the key element is the introduction of a debt-financed European Economic Recovery Fund (ERF). So far, no final decisions have been made regarding the new fund, but the member states have agreed on key elements, and now negotiations with the European Parliament are underway.

The EU budget does not actually provide for debt. Now there is to be an exception. It is planned that the EU member states will provide guarantees that will enable the European Union to issue bonds to finance the ERF. The burden sharing in providing the guarantees is to correspond to the countries' share of gross national income (GNI). This is the usual financing key for the bulk of the EU budget. Initially, EUR 1500 billion (10.8 percent of EU GDP) were under discussion for the volume of the fund. Then, France and Germany presented a joint plan that envisages a volume of EUR 500 billion, or around 3.6 percent of the EU's GDP. This is slightly more than three times the previous annual EU budget. The European Commission published a proposal which provided for EUR 750 billion, to be spent over several years. There is an ongoing debate about how much of these funds will be handed out as loans to member states or as transfers. The EU member states have agreed that EUR 390 billion will be transfers and the rest will be loans. It is likely that the European Parliament will accept this aspect of the deal because it was the result of difficult negotiations.

How is the ERF project to be assessed from an economic perspective? One view is that the fund is simply an instrument for solidarity, suggesting that it should redistribute money from some member states to others, where the recipients decide how to best use it. Another view is that the fund should generate "European added value." What does this mean? First, the fund should generate a benefit for Europe as a whole, rather than just for the net recipients. Second, it is not enough for the fund to produce a benefit that exceeds the costs. It is also not enough for spending to focus on European policy priorities such as the European Green Deal. The difference between benefits and costs must be greater than for equivalent activities at the national level (Fuest and Pisani-Ferry 2019).

3.4.1. ERF as an Insurance Mechanism

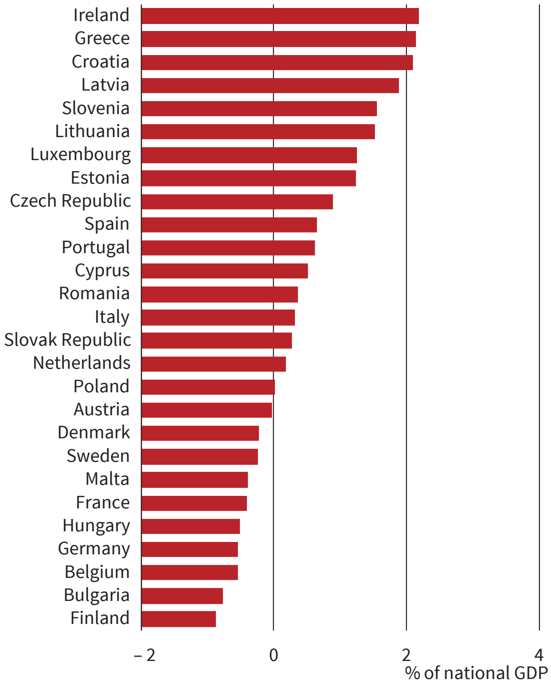
Added value could be created if the fund takes on an insurance function and helps the member states that suffer the greatest economic losses as a result of the corona crisis. Thinking of this from an ex ante perspective, the question is what such an insurance arrangement to cope with a health shock affecting all European countries would look like.[3] Ex ante there would be a common interest in setting up such an arrangement; there will be uncertainty both with respect to whether such an event will occur, and, if it occurs, what its implications would be. The implications include not only the health consequences but also the economic effects across countries, sectors and specific firms. The emergency packages implemented in various countries retrospectively replicate part of such an insurance contract, but leave risk diversification incomplete, in particular, across countries.

While the occurrence of the corona shock can easily be established, the consequences – and thus the insurable event – are less precisely defined. Today, countries such as Italy, France or Spain are expected to suffer major losses because the lockdown lasted longer there and the slump in growth in the first quarter of 2020 was deeper than in Germany, for example. However, it should be borne in mind that countries like Germany or the Netherlands are more involved in international trade than others. Since the international exchange of goods has been massively disrupted by the corona crisis, it cannot be ruled out that the economic costs of the crisis will ultimately be higher in these countries. The economic consequences also depend on the lockdown strategy and emergency packages introduced, and thus are to some extent policy-dependent.

Several facts, including the definition of the insurable event, contributions and compensations complicate retrospective insurance. To illustrate, consider the following simple model calculation. Assume that the volume of the fund is EUR 750 billion, as currently planned. The member states contribute to servicing the debt proportionally to their gross national income. Let the compensations from the fund depend on the decline in the gross domestic product of the EU states due to the corona crisis. Assume further the unantic-

[3] Cross-country insurance of e.g., health shocks may appear as a theoretical curiosity. However, such arrangements do exist. The World Bank organizes the "Pandemic Emergency Financing Facility" providing insurance to low-income countries against rapidly growing, cross-border disease outbreaks. In this specific arrangement, the insured are low-income countries, and donor countries (including Australia, Germany and Japan) pay the insurance premiums. See World Bank (2020).

Figure 3.1
Net Balances in the Economic Recovery Fund (ERF)
Scenario: European Commission Proposal



Source: EEAG calculations. © CESifo

ipated economic consequences of the corona crisis to be measured by the difference between the gross domestic product for 2020 as predicted by the IMF in its World Economic Outlook in October 2019 and the one that was predicted in April 2020. Clearly, the actual development in 2020 will differ from the forecast in April of that year, and more sophisticated metrics could be developed. But to understand the effects of the fund, this example of a concrete design of an insurance mechanism is helpful. Figure 3.1 shows the net balances of the individual EU states vis-à-vis the fund implied by this scheme.[4]

Net contributors will be Belgium, France, Germany and Sweden, as well as Bulgaria and Hungary. Net recipients would be Spain and Italy, the Netherlands, and Ireland. These financial flows reflect the fact that the Netherlands and Ireland are suffering a greater loss of economic output due to the crisis than the EU average. This underscores the difficulty of separating insurance and redistribution, which in turn makes it difficult to implement such arrangements. It is hardly conceivable that relatively poor member states such as Bulgaria and Hungary would pay transfers to wealthier member states. Italy would be a net recipient, but on balance the inflow of funds would only amount to 0.33 percent of gross domestic product. Such a sum would not bring about any noticeable change for the country`s economic development. It could be argued here that the fund is credit-financed and initially brings the country high inflows of funds, while repayments begin later. However, the country could also take out the loans itself. In view of these results, it can be assumed that the fund, if conceived as pure insurance against the costs of the corona crisis, will hardly be acceptable.

Many details on the specific design of the scheme can be discussed, but the example illustrates some fundamental issues, making it difficult to implement such retrospective cross-country insurance arrangements. It is also clear from the current discussion that the ERF cannot be interpreted as an insurance arrangement along the lines discussed here.

3.4.2. ERF Spending Rules to Promote Economic Reforms and Investments

If there is an added value created by the ERF, it is related to the expenditure side. How the money will be used is so far unclear. One controversial issue in the negotiations was whether the fund's resources should be spent as other money in the EU budget or whether it should go to member states in the form of loans. There are different views about this. Germany and France published a joint proposal for the ERF that talks about standard budgetary spending:

> *"500 billion economic recovery fund will provide EU-budgetary expenditure for the most affected sectors and regions at the basis of EU budgetary programmes and in line with European priorities. It will increase resilience, convergence and competitiveness of European economies, boost investment, in particular in digital and environmental change, and strengthen research and innovation."*[5]

Some EU member states are opposed to this. On May 23, 2020, a few days after the publication of the Franco-German proposal, Austria, Denmark, the Netherlands and Sweden, who call themselves the "frugal four," presented their own concept for the ERF. They want to use the money exclusively for loans.

The European Commission proposal foresees a volume of EUR 750 billion to be allocated as follows: EUR 500 billion are spending programs, EUR 250 billion are to be granted as loans. Now a compromise has been found, with a reduction of the spending programs to EUR 390 billion.

But more important than the volume and the composition in terms of grants and loans is how the money will be used. One way in which the ERF could create added value would be a contribution to stabilizing the economy in the current downturn. It is likely that it will take at least a year, maybe more, before any money starts to flow from the fund. It will therefore play no direct role in stabilizing the economy during the acute phase of the corona crisis. However,

[4] The net balance of country i is calculated as follows: (loss of country i in GDP due to crisis/sum of GDP losses for all countries – GNI share of country i in 2019)*Volume of the fund.

[5] See Franco-German Initiative for Europe's Economic Recovery after the Corona Crisis (2020).

the fund can add value in terms of macro-economic stabilization through its impact on expectations. Interest rates on Italian and Spanish government bonds have fallen following the agreement between Germany and France on the fund. This can be interpreted as an increase in confidence in the economic future of these countries. Of course, this may also be a simple reaction to expected redistribution in their favor.

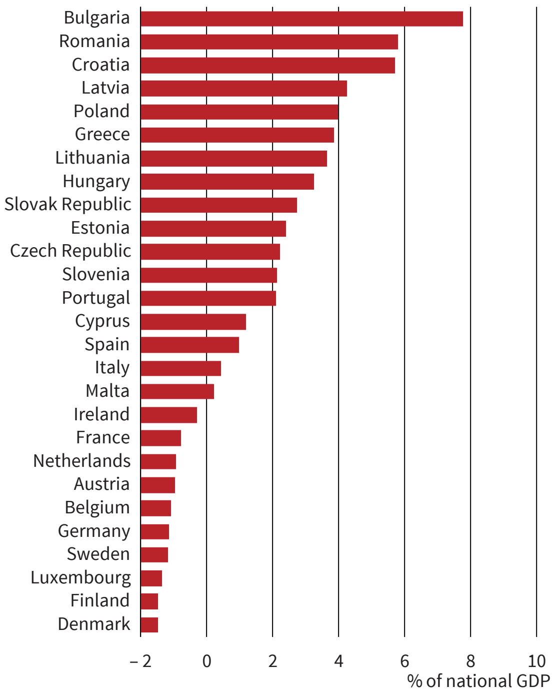
Another way of adding value with this fund would be to use it for investments that are productive, but which are not, or not sufficiently, undertaken by member states. This approach is more promising. Examples of such investments are cross-border transport, energy and communication networks such as railways, motorways, data networks or power lines. Investments in cyber security, European research and innovation programs, large technology projects such as the Galileo satellite navigation system are other examples of expenditures that have the potential to generate real European added value. Such projects would also have a positive impact on the European economy, but they would not be specifically targeted at the countries, regions or sectors that have been particularly hard hit by the corona crisis.

However, the issue of redistribution and solidarity comes to the fore again. The European Commission (2020) presented a preliminary analysis of the financial flows implied by the fund. It was still based on the Commission's original proposal, which is now outdated, but it is still of interest because it includes simulations of the distribution of the funds across countries, see Figure 3.2. The emerging patterns are well known from other redistribution policies in Europe: Germany, France, the Netherlands, Ireland, Finland, Luxembourg, Sweden and Denmark are net contributors, while all other countries are net recipients. Spain and Italy are the largest net recipients in absolute terms, receiving net inflows of EUR 82.2 and 56.7 billion respectively under the Commission scenario. For Spain this is 6.6 percent of the gross domestic product or EUR 1,760 per inhabitant, for Italy 3.2 percent or EUR 939 per inhabitant.

Germany, the largest net contributor measured in Euros, is responsible for a net outflow of EUR 133.3 billion, or 3.9 percent of gross domestic product or EUR 1,600 per inhabitant. France pays EUR 52.3 billion, or 2.2 percent of its gross domestic product or around EUR 800 per inhabitant. This pattern would imply that the ERF is primarily an extension of existing cohesion and structural policies in the European Union, rather than a specific response to the impact of the corona crisis.

If the transfer component of the ERF is reduced to EUR 390 billion, the financial flows and net balances of the member states will also be proportionally smaller but still significant. The 'frugal four' countries have also negotiated concessions in the form of higher rebates for them. In addition, it has been decided that the decline in GDP of member states until 2021 will

Figure 3.2
Net Balances in the Economic Recovery Fund (ERF)
Scenario: Pure Insurance Scenario



Source: EEAG calculations. © CESifo

play a more important role for the allocation of the funds than envisaged in the original Commission proposal, which implies that the insurance element will be strengthened. Moreover, it is striking that the funds dedicated to health policies and medical research are surprisingly small. The member states also decided that the debt incurred to finance the fund will be repaid fully until 2058.

3.4.3. The Need and Scope for the ERF

The ERF aims at addressing some of the problems created by the corona crisis at the EU level. Critics are concerned about various aspects of the ERF. First, they dislike the idea of introducing debt financing at the European level. They fear that this would set the course toward further increasing overall public debt in Europe and that it would not really be a one-off financing. Second, they reject the idea that there should be more redistribution across countries because they think that this will increase the dependency of the recipients on external help and create political tensions.

These concerns need to be taken seriously. That the fund will currently increase public debt in the European Union is intended. But it is not intended to permanently increase public debt in Europe and endanger the sustainability of public finances or force the ECB to finance public debt by printing money. The Franco-German proposal emphasized that the fund will be anchored in the European Union's own resources decision and bound by a "binding debt repayment plan." The current plans for the fund imply that the debt will be repaid until 2058. This is a long time, given that the next crisis, where fiscal space may again be needed, will probably take place within the next decade. Nevertheless the ERF does include a commitment to the one-off nature of borrowing – deficits are is not supposed to become a permanent feature of the EU bugdet. Of course, political pressure to use this instrument again can be expected in the next crisis at the latest. But no member state can be forced to participate.

A key issue is how it can be prevented that the fund's resources merely cement the dependence of the net recipient countries. Even if the money from the fund is used exclusively for investment, it is possible that the recipients will reduce their own investment efforts and channel the funds into consumption. It is difficult to prevent this through external supervision. Nevertheless, every effort should be made to ensure that the funds actually contribute to an increase in productivity and economic resilience.

Policies that aim at supporting the member states, regions or sectors most affected by the corona crisis face a fundamental dilemma: On the one hand, making sure that the money is used wisely suggests that funds should be linked to strict conditionality in terms of structural reforms or fiscal consolidation. On the other hand, conditionality builds on the problematic assumption that European institutions or other countries should impose their views about appropriate economic policies and reforms on the recipients. Conditionality can also be seen as reflecting a lack of trust or as undermining national democratic decision-making.

There is no easy way out of this dilemma. The European Commission pursues the idea that member states could present their own plans in the form of reform proposals from the European Semester and thus apply for funds. This would increase ownership of reform programs and help to alleviate incentive problems without, of course, completely eliminating them. However, it remains an open question how precisely such conditionalities can be implemented and monitored. Concepts for implementing this approach have been developed and discussed for some time (Dolls et al. 2019).

In order for this approach to work, it is important to ensure that individual member states do not receive ex ante commitments of allocations from the fund. It must also be guaranteed that at least part of the funds will not flow until reforms have not only been implemented but are also effective. One way of creating incentives to use the funds effectively would be to hand out ERF funds related to national reform programs as loans and transform them into transfers if and only if previously agreed objectives for economic growth or other variables are reached. Of course, creating these incentives comes at the cost of reducing the insurance effect of the funds. In addition, tight control of how the funds are used may be seen by the recipient countries as reflecting a lack of trust or respect for national sovereignty. The agreement among the member states regarding the fund do foresee that the member states submit national recovery plans, but it is unlikely that this will lead to strong conditionality or other strings attached to the funds they receive.

The corona crisis is putting the Eurozone and the European Union to the test. The economic downturn and the massive increase in national debt are creating high risks and tensions, especially for the Eurozone. There is much to be said for responding to the challenges of the crisis with steps of solidarity. Especially in view of resistance from some of the net contributor member states against an extension of transfers across countries, it seems important to consider that there are two sides to solidarity: Financial support is expected from the countries that are economically better off or less affected by the crisis. The countries receiving support are in turn expected to use the money productively to reduce the likelihood that they will need external help in the future.

In this respect, the agreement on the fund for economic recovery is not yet a breakthrough in overcoming the crisis. It is an important first step. The more difficult task now is to assure that the member states will use the money effectively. In addition, the European Union needs further reforms to increase its ability to provide European public goods, where common policies at the EU level add value, so that debates about net balances of individual member states lose relevance.

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4. Markets, Policies, and Structural Change during and after the Covid Crisis

After the emergency responses and as the health shock appears to be under reasonable control, policy makers should turn to an evaluation of the measures that have been put in place. Some of the crisis responses, although crucial in the emergency, hamper the reallocation of economic activity across sectors and countries. Such reallocation is now even more important because the shock is structural and likely to persist. The emergency measures have been characterized by their national(istic) character. The subsidies put in place can address distortions, such as those due to imperfect capital markets that result in liquidity constraints, but they can also distort for distributional reasons or because uncoordinated reactions are inefficient. The response to a sudden dramatic crisis left little time to consider how they may hinder dynamic adjustment when some permanent reallocation is needed. It is now time to do so.

During the lockdown, consumption concentrated on food, electronically delivered services, and home-produced leisure. Part of this reallocation will be reversed as economies recover, but some of it may well continue in the medium term. These changes will stem from households shunning certain types of expenditures because of health concerns, production costs increasing due to the need for employee and customer protection, and new business practices. The tourism sector, for example, will be seriously affected and airline companies and much of the service sector will be subject to a particularly sharp decline in medium-term demand from households and also from businesses that have established new work practices. Various forces are hence at play that make it hard to predict the direction of change.

Moreover, although policies to maintain household incomes imply that aggregate consumption is recovering fast, business investment remains weak. This weakness is a combination of liquidity constraints and uncertainty about the future, and while the former may be solved relatively quickly given that investor confidence has fared relatively well, the latter is likely to remain for a considerable time since firms face increased uncertainty about both consumer demand and access to suppliers.

An efficient response to the pandemic hence requires massive intertemporal and sectoral reallocation. Reallocations occur all the time; they are necessary for economic efficiency and operate through the signals sent by relative prices. The pandemic triggered immediate price changes: the dramatic decline of oil and fuel prices account for most of the drastic decline of aggregate inflation, but relative price changes are unusually sharp across all sectors. In the United States, for example, travel has become much cheaper, as both demand and supply declined with the former falling more, whereas food has become much more expensive as supply fell (especially meat products, since the virus breeds well in humid and cool slaughterhouses) but demand remained constant, or even increased as a result of hoarding.[1]

In Europe, price responses are similar if somewhat weaker.[2] This may be due to less flexible and competitive markets: European grocery shops announced a commitment not to raise prices to avoid damaging their reputation with customers and governments, and perhaps also to implement a degree of tacit collusion. Instead of higher prices that allow the rich to buy, queuing rationed supply across all society. Massive restrictions on travel similarly implied much smaller changes in airfares,[3] whereas other policy interventions, meant to support wages and rescue troubled firms, also stifled price reactions.

The short-term benefits of these emergency measures now have to be assessed relative to the distortions that they create. Emergency packages supporting particular firms and jobs risk impairing the dynamic adjustment processes essential to the market mechanism and prolong the downturn to the medium run. To prevent this, policy should orient itself toward a speedy exit from the less market-conforming elements of the emergency packages. The political economy of achieving this is complicated, as usual, because while the benefits of competitive markets are diffused in society, backtracking the newly

[1] The detailed CPI items at https://www.ustravel.org/research/travel-price-index report an 11 percent decline of travel prices in the 12 months to May 2020, with hotel rooms contributing almost – 18 percent and airfares – 28.8 percent along with motor fuel's – 33.5 percent contribution. The same data in the more aggregate form at https://www.bls.gov/charts/consumer-price-index/consumer-price-index-by-category-line-chart.htm indicate that "Food at home" contributed 4.8 percentage point increase to CPI inflation for the 12 months to May 2020, offset not only by travel prices but also a by a – 7.9 percent contribution from "Apparel" prices in a negligible 0.1 percent "All items" CPI change.

[2] Eurozone HICP growth in the 12 months to May 2020 was exactly the same as the US CPI at 0.1 percent, with contributions of 3.5 percent each by "Food and non-alcoholic beverages" and "Alcoholic beverages, tobacco" and – 4.5 percent by "Transport". See European Central Bank (2020).

[3] "Passenger transport by air" contributed a positive 3.8 percent to the HICP in the Eurozone (Domestic flights – 0.2, International flights 4.7). These and all other contributions to inflation are likely to be based on historical expenditure shares, which are particularly incorrect for air travel at a time when flights were very few.

introduced interventionist policies is likely to encounter strong support from special-interest groups.

4.1. THE DRAWBACKS OF EMERGENCY POLICY REACTIONS

An aggregate shock's welfare effects should be distributed evenly, but this is not what happened during the emergency, when the disappearance of most services markets hurt the poor the most.[4] Government policies have tried to even out the asymmetric consequences of the shock within each country where the prospect of future reciprocity can make redistribution politically acceptable, with additional public expenditure today being repaid by national taxpayers in the future. Moreover, governments that interact in markets also have legitimate distributional concerns: they favor their own citizens over other countries'. This tendency, which exists regardless of the health shock, has been exacerbated by exceptional circumstances. The result has been that in response to the lockdowns imposed across the Union, national emergency legislations have been put in place in an uncoordinated manner across the European Union.

In the emergency, national governments supported workers locked out of production facilities with a large variety of schemes that paid them a percentage of their pre-crisis wage. The European Union quickly introduced a Temporary Framework suspending most state aid rules, allowing member countries to also support businesses with a variety of subsidized financing, grants, fixed-cost rebates, and tax deferral or tax holiday measures. Providing much needed income and financial support, these policy actions did prevent an even larger collapse of expenditure and increase in unemployment. But they reduced incentives for labor market reallocation across sectors and locations and allowing firms to continue unprofitable operations (as in the case of fixed-cost rebates to businesses experiencing large declines in sales) hampered adjustment also in the goods market.

4.2. FETTERED REALLOCATION

The virus shock has had vastly different implications across sectors and individuals, as noted above. These structural changes have had and will likely have long-lived labor demand implications.[5] While costless mobility would let an aggregate shock affect all factor owners equally, mobility is in practice costly, and financial markets do not readily fund individual mobility costs in a way that would share them across society. As factors are specific to sectors, if not firms, their owners suffer income losses when the shock has different implications for different specializations. This is particularly relevant for human capital, and all countries have put in place policies to at least partly restore workers' income losses.[6]

Countries have boosted the types of policies that they traditionally deploy. In most of Europe, subsidies aimed at preserving not only the income but also the jobs of workers, as is the case with *Chômage Partiel* in France, *Cassa Integrazione* (and prohibition of all dismissals until September) in Italy, *Kurzarbeit* in Germany, and job furloughs in the United Kingdom. In the United States, a very generous Federal UI supplement does not preserve jobs, but PPP forgivable paycheck protection loans to small businesses do, and employment preservation is also a feature of US airline rescues in the United States and other countries.

These policies (and similar subsidies to self-employed individuals) were useful for maintaining welfare and, potentially, expenditure during the lockdown, but clearly hamper the labor reallocation that was already useful during the crisis, whereby airline personnel might have been tasked to contact tracing and hotel staff to grocery shop disinfection, and will be needed during the recovery phase. Subsidized temporarily layoffs can usefully patch a temporary demand shortfalls and preserve the preexisting production structure (*Kurzarbeit* was good for Germany in the Great Recession because machinery export restarted quickly to countries outside of the European Union, also thanks to a weak euro), but are inefficient when reallocation is needed across industries and across countries as the preexisting production structure will be obsolete (construction work in Spain was not furloughed, and should not have been). Similarly, overly generous unemployment compensation can prevent re-employment.

Reallocating capital is a second concern. Investment takes time and is strongly affected by uncertainty. The resulting weak expenditure on capital goods stifles hiring of complementary workers by sectors and firms facing rising demand, while support schemes focused on the preservation of existing employment lock both labor and capital in the sectors and firms most negatively affected by the crisis. Business subsidies should remedy the consequences of a temporary shock, such as the lockdown due to the pandemic, but not those of either long-standing difficulties in a sector, to which there should be no extraordinary response, or of the medium-term reallocation needs in the aftermath of the pandemic, to which economies should adjust.

[4] The detailed US evidence at https://www.tracktherecovery.org/ indicates that much of the aggregate consumption decline was accounted for by high-income households, who could cut discretionary spending without suffering a large welfare loss, and removed earning opportunities for low-wage service workers, who would have had to cut essential consumption in the absence of generous supplementary unemployment insurance. A similar pattern is observed for France (Conseil d'Analyse Economique – Chaire Finance Digitale).

[5] See Barrero, Bloom and Davis (2020) for sketchy survey evidence indicating that up to 40 percent of firm-level net job destruction is likely to be permanent in the relatively flexible US labor market.

[6] See OECD (2020).

4.3. FETTERED COMPETITION

Undistorted market competition has traditionally been the key European instrument for achieving growth, a crucial if conspicuously elusive goal of the European Union. The benefits of efficient market interactions should be even more apparent after the lockdown experience, when lack of opportunities to buy and sell considerably reduced economic welfare. Among EU policies that remove barriers and ensure a well-regulated even playing field, banning industrial policy and state aid prevents inefficient producers backed by their governments from displacing lower-cost producers, which would increase production costs in an integrated goods market. Like doping in sports, such aid is better forbidden because if every country tries to give a competitive advantage to its producers, none will succeed, and much revenue will be wasted.

The Temporary Framework suspension of EU state aid rules since the start of the pandemic has both eased the requirements to accord the possibility to give aid and dramatically shortened response time for approval of such requests by member countries.[7] This contradicts the long-standing pillar of European integration, aimed at increasing welfare by enhancing competition through a level playing field, and has triggered a scramble for expenditure.[8] The unprecedented volume of subsidies has often been biased toward domestic production. For example, aid to the French automobile industry is tied to a commitment to repatriate car plants, and Italy is introducing a voucher for its taxpayers to be spent on holidays in Italy. In many countries, less formal programs encourage stores and households to prefer domestically produced food. These are more extreme instances of preexisting anti-single-market biases, exemplified by tariff-equivalent constraints on service provision and resistance to the Bolkestein directive, and the European Commission finds itself limited in its power to keep them under control.

These policies have several drawbacks. The first is economic inefficiency.[9] Supporting domestic producers, like export subsidies, is an inefficient if myopically attractive beggar-thy-neighbor policy option. A clear example is found in the experience of the 1930s, when such policies were implemented, among others, by the United Kingdom and the United States and contributed to the collapse in trade.[10] Second, this form of intervention can be ineffective as well as inefficient. In a globalized world, identifying a "national firm" is not easy. Subsidies to firms that have delocalized part of their production may lead to foreign rather than domestic jobs being saved, and corporate subsidies are controversial when the name and history of a firm is national but its multinational corporate tax base is offshore.[11] To avoid such drawbacks, most schemes impose conditions on receiving firms, notably no dividends, no stock repurchases, and no worker dismissals over a certain period of time.[12] But introducing distortions in order to redistribute is inefficient in itself, since the restrictions are yet another source of rigidities hindering reallocation.

Lastly, there are distributional concerns across countries. State aid can simply grope for market share in "strategic" industries that may or may not remain strategic after the crisis (such as airlines and automobiles) and tilt the playing field in favor of firms located in countries that can better afford the subsidies. The sectors in which countries specialize is also a major source of distributional conflict when policy apportions the consequences of the pandemic shock. For example, when vacations have to be canceled, Northern European tourists can be sheltered from losing all or part of their advance payments, but requiring refunds can bankrupt Mediterranean tourist service producers, unless their governments rescue them (and their customers).[13] This situation has similarities with what happened during the 2011 sovereign debt crisis, when policy options created a conflict between taxpayers in indebted southern countries and creditor banks in northern ones.

4.4. THE NEED TO REALLOCATE OUT OF THE EMERGENCY

As economies start easing out of the emergency, two major challenges appear: reallocating labor to the "new normal" and dealing with the political economy consequences of government aid.

4.4.1. Moving Toward a New Normal

Reallocation requires investment and, like consumption, is hampered by binding liquidity constraints. Fiscal instruments can usefully smooth consumption and finance reallocation when markets do not, allowing demand and supply to meet at a higher level. The

[7] See European Commission (2020) for recent and previous developments.

[8] Commissioner Vestager reported that by May 4 measures amounting to EUR 1.9 trillion had been approved, roughly half submitted by Germany, see Euraktiv (2020). The figure reported by The Economist on May 30 was just a little higher.

[9] Of course, state aid is not always inefficient: subsidies can remedy well identified market failures. However they are inefficient if they protect or build market shares and prevent competition, and are always fiscally expensive and prone to lobbying.

[10] See Irwin (2011).

[11] Poland actually tried to restrict subsidies to corporations owned by Polish stockholders, which proved to be unfeasible.

[12] The suspension of EU state aid rules has created a grey zone that is also resulting in conflicts. For example, Ryanair is suing the Commission because national carriers are getting support that is being denied to low-cost airlines (Politico 2020) while the Commission is pointing out that the EUR 3 billion Italy is budgeting to nationalize of Alitalia violates State Aid limits, because the temporary framework forbids recapitalization of firms that already needed it at end of 2019.

[13] During the lockdown 12 EU countries allowed vouchers in lieu of refunds for cancelled travel. The European Commission objected, and in July 2020 is opening infringement proceedings against the two (Greece and Italy) that did not repeal that legislation.

implications of fiscal policy for the sectoral allocation and distribution of consumption and income, however, depend on which consumers and producers receive fiscal subsidies matters for microeconomic allocation and income distribution.

Fiscal policy can give purchasing power to individuals and let them spend it freely across sectors and countries: this eases reallocation, yet expenditure on imports of foreign goods or services may be seen as implying a leakage from domestic taxpayers to foreign producers. Alternatively, policy can try to preserve specific individuals' production and income: product-specific subsidies increase producer surplus and, when subsidies are funded by broad tax bases or debt, shift welfare from consumers to producers. Similarly, wage support and consumption subsidies are alternative ways to try to boost demand. Yet, ensuring household income does not drop (too much) does not imply that that income will be spent. The European lockdowns have resulted in a much larger drop in consumption than in incomes, and although part of it was due to the impossibility of consuming, it is unclear to what extent consumption will return. This type of mechanism works at the micro-level as well as at the macro-economic one. In a demand-side recession, what should be boosted is expenditure, rather than income per se. Recent examples of countries running large trade and government surpluses show how expenditure may not become someone else's income. To ease out of the emergency measures, it is thus necessary to find the right balance of income support, producer subsidies, and consumer subsidies.

A second challenge is to ease economies out of the support to wage-earners and companies that tend to freeze the existing supply structure and prevent reallocation across sectors or countries. To do so, it is essential to understand which reallocation is needed and over which horizon, something we cannot yet answer. While it is not known how long the health-shock aftermath will last, it is clearly going to last much longer than wage-for-no-work subsidies can reasonably last.

4.4.2. Getting the Politics Right

A further concern relates to the willingness of politicians to implement the necessary policy changes, since their actions are likely to be influenced by short-term electoral aspirations and the ease with which nationalistic instincts have risen during the crisis. For example, anti-competitive subsidies and regulations are politically more appealing when the resulting market distortions appear to damage foreign corporations (such as Amazon) and help small national producers. Politicians may try to ride on the wave of popularity that such intervention awakes, making them unwilling to remove popular but inefficient handouts.

An additional initiative that was put in place in April is the creation of a temporary Support to mitigate Unemployment Risks in an Emergency (SURE). This new scheme, to be implemented in September, provides financial assistance of up to EUR 100 billion in the form of low-interest loans to member countries experiencing a sudden increase in public expenditure due to schemes aimed at preserving employment. This is a useful signal of the Commission's willingness to help, rather than constrain, the member countries' labor policies. The short-time wage subsidies envisioned by the scheme, however, need not fit all sectors in the face of permanent structural change. Like many of those enacted at the national level and those envisioned in the European Recovery Fund framework, they may hamper reallocation and adjustment in the medium term. Protecting existing jobs and dirigisme (even if it is oriented toward worthy Green Economy objectives) run the risk of stifling market-driven structural adjustment within and across country borders.

4.5. EUROPEAN EXIT POLICIES AFTER THE EMERGENCY

Emergency legislation at the country level and relaxation of public debt and state rules in the European Union has made national governments more powerful. The crisis did require powerful governments, but in the recovery phase excessively intrusive and poorly coordinated policies are in danger of hampering the market's role in reallocating resources in the face of structural developments. The longer it takes to realize that such policies need to be reversed, the harder it will be to do so from the political-economy point of view. An exit strategy should be designed quickly and implemented clearly, focusing on the following aspects.

4.5.1. Restoring Incentives for Labor Reallocation

In countries where UI has played a primary role in preserving worker incomes and consumption, the aim should be to replace expiring entitlements with in-work benefits, such as those envisioned for re-employed UI recipients in the United States. In countries where job protection has been the focus of labor market policy, it would be advisable not to rely too much on in-firm retraining and reallocation of labor when structural shifts are needed. To this end, governments could introduce tax credits for workers moving out of declining sectors and firms, with a top-up for those who pay too little tax to benefit from tax credits. To encourage reallocation towards jobs that might yet disappear, it would also be useful to envision extended unemployment benefit entitlements for workers who switch sectors.

4.5.2. Supporting Aggregate Expenditure with Market-Friendly Policies

Since monetary policy is exhausted, small appetite for consumption and investment in the private sector may call for fiscal policy. As the stagflation experience of the 1970s shows, there are potential issues in continuing to do so when the crisis moves from the emergency phase to the need to address longer-lasting structural issues. In that situation, country-specific and EU instruments deployed to stimulate consumption and investment should not suppress the market-based reallocation that is necessary on the recovery path.

Country-level policies may boost consumption without constraining the sectoral pattern of consumer expenditure by alleviating liquidity constraints or by inducing the unconstrained wealthy households that accounted for most of the consumption decline during the acute phase of the crisis to anticipate consumption, but these measures may not be effective. Income subsidies or temporary mortgage and rent suspension only stimulate consumption if they are targeted at liquidity-constrained households. VAT reductions do not stimulate consumption if they fail to result in lower purchase prices, because sellers face weak competition and need to pay for additional administrative costs, or if they are not expected to be repealed as promised at a future time when economic activity will still be weak.[14] While across-the-board temporary VAT reductions are less distortive and more market-friendly than other stimulus policies (such as a VAT reduction on restaurant meals only, as implemented in the United Kingdom along with subsidies on certain weekdays), their appeal depends on country-specific features, notably on the extent to which it is advisable for a country to reduce consumption rather than labor income taxation.[15]

Given accumulated savings and pent-up demand, consumption may in fact pick up quickly even without any VAT holiday. However, it can then wane, or encounter bottlenecks and increase prices, and the effects may depend on how firms' investments recover. On the way to exit, it would be advisable to finance investment, rather than working capital, as was the case during the crisis, when it would have been pointless to try and stimulate investments that require careful planning and cannot be performed effectively under extreme uncertainty. Promoting investment should focus on dealing with uncertainty about future demand, not with preserving the current productive structure. State guarantees of loans across all investments can prevent a collapse in investment driven by firms' and banks' pessimistic expectations.[16] These guarantees should be partial, to provide banks with incentives for risk assessment and monitoring, and should be offered across the board, so as to let the market allocate capacity to firms and sectors in a way that prevents supply bottlenecks.

[14] Indeed, the VAT holiday would not have a strong effect on current consumption should it be perceived to be permanent, and the possibility that the VAT rate might or might not increase destabilizes expectations.

[15] Germany implemented a 3 percentage point reduction of the standard VAT rate (and 2 percentage points of the reduced rate) for the last 6 months of 2020; however its labor tax wedge is the second-highest in the European Union (after Belgium) and it would benefit from being reduced according to the European Commission, see https://ec.europa.eu/info/sites/info/files/economy-finance/ip130_en_chapter_i.pdf .

4.6. RELEASING THE BENEFITS OF THE SINGLE MARKET

The European Commission should monitor country-specific policies to avoid national biases and come up with reallocation-friendly policies that should not distort the relative appeal of employment profitability of investment across sectors and countries. The latter aspect is problematic in the EU's situation of integrated markets and subsidiary fiscal policies.

To ensure a level playing field and foster efficiency, for example, the investment loan guarantees discussed above might in theory be offered to firms operating in a country regardless of their "nationality," or perhaps to firms with a legal or fiscal seat in the country irrespective of where they invest. This is not generally done. For instance, the Italian government's guarantee of a EUR 6.5 billion euro loan by an Italian bank to FCA (a Dutch corporation that pays taxes in the United Kingdom) entails a commitment to invest in Italy, rather than wherever it is most efficient to invest. Many of the above policies raise similar questions about how precisely to apply them.

While speedy approvals of state aid were welcome during the early stages of the crisis, a rapid review of the Commission's rules on state aid and greater concertation are now needed. Approval of state aid measures should be based on sector- rather than country-specific considerations, aiming to ease reallocation while preserving a level playing field and keeping beggar-thy-neighbor national policies in check. Coordinated responses at the EU level would both put pressure on (and make it less costly for) national politicians to reverse the emergency measures. Sector-level special interests remain important, however, and centralization of policy decisions (such as the Commission's proposed EUR 750 billion aid package) need not make them immune to lobbying pressure, which may in fact be more effective in Brussels, where a greater distance from the electorate makes policy makers less accountable.

Because national borders do not coincide with markets, all members of the single market partake of the benefits of each country's policy. This makes it important to consider the possible advantages of supranational fiscal instruments that feature trans-

[16] See ETH Zürich (2020) for further discussion. Note that any temporary VAT declines create expectations of future consumption declines, thus they may depress rather than stimulate investment.

fers across countries. If efficiently bargained in the EU institutional framework, they can help preserve the common market, a European public good, and are vastly preferable to uncoordinated country-level policies that inefficiently distort production and expenditure toward their own industries, and in doing so reduce the overall size of Europe's economic welfare.

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