



# *Strategic Analysis*

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## WHEN WILL ITALY RECOVER?

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Italy was the first European country to be impacted by COVID-19, and the rapidly increasing death toll—as well as congestion in healthcare facilities in some areas—prompted the government to implement a strategy of containment based on shutting down nonessential economic activities, with an inevitable (asymmetric) impact on production and income.

The first cases were reported at the end of January 2020 and, by the end of the following month, the government introduced a localized shutdown of economic activities in the areas most affected, extending the measures to the whole country in the first weeks of March. The shutdown was gradually relaxed beginning in June, although some service activities—where social distancing is difficult to achieve—are still not operational at the time of this writing.

Consequently, the shutdown caused a drop in economic activity in 2020Q1, with an even larger drop coming in the second quarter, as documented in the recently published figures for real GDP, which report a drop of 5.6 percent (year-over-year) in the first quarter and an unprecedented 17.7 percent drop in the second quarter.

With the gradual reopening of most business activities in 2020Q3, the economy is expected to restart, though the extent of the recovery is difficult to assess. In Table 1, we report the latest projections for 2020 and 2021, along with our own baseline projection discussed below.

The current political debate is now focusing on what can be achieved with European funds (in the form of both grants and loans), which should become available beginning in 2021 and continue in subsequent years on an unprecedented scale compared to previous European initiatives. However, the Italian Ministry of Finance (Gualtieri 2020) recently announced that the reduction of the Italian public debt will still be a priority as soon as the epidemic is over, hinting in a way that European funds will be used for supporting the economy, but will be matched by reductions in other forms of public expenditure. Thus, the net effect on income and GDP will be much smaller than what will be achieved by other countries in the eurozone.

We turn next to briefly comment on how Italy struggled, unsuccessfully, to recover from the Great Recession (GR) of 2009, with real GDP at the end of 2019—before the pandemic began—still 5 percent below the peak recorded at the beginning of 2008.

**Table 1 Economic Projections for Italy, 2020–21**

|                           | Source                     | 2020  | 2021 |
|---------------------------|----------------------------|-------|------|
| OECD, June (single hit)   | OECD (2020a)               | -11.3 | 7.7  |
| OECD, June (double hit)   |                            | -14.0 | 5.3  |
| OECD, September           | OECD (2020b)               | -10.5 | 5.4  |
| European Commission, July | European Commission (2020) | -11.0 | 6.0  |
| IMF, June                 | IMF (2020)                 | -12.8 | 6.3  |
| Bank of Italy, July       | Bank of Italy (2020)       | -9.5  | 4.8  |
| ISTAT, July               | ISTAT (2020)               | -8.3  | 4.6  |
| Our baseline projection   |                            | -12.1 | 6.8  |

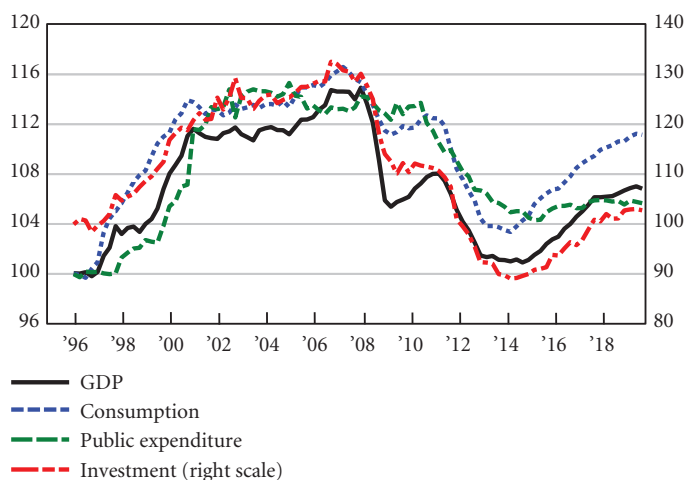
We will illustrate in detail the impact of the shutdown and the available evidence for a recovery in the first months of 2020Q3. We will also discuss the measures taken by the government to reduce the impact on the incomes of workers and businesses. This will form the basis of our baseline projection for 2020–22.

Finally, we will highlight the sources of uncertainty related to any economic projection at a time of a very large, unprecedented shock, and evaluate the size of the stimulus required to restore economic growth, putting the level of public debt on a more sustainable path.

### Before the Pandemic, a Double-dip Recession

In Figure 1 we report real GDP per capita, along with its domestic components, as a ratio of their respective values in 1996, the first year for which series are available from quarterly national accounts. We have omitted the data for 2020, which will be discussed below (and would require a dramatic change in the scale of the chart).

As discussed by Cesaratto and Zezza (2019), Italy’s economic decline over the last three decades has many roots, including the turn toward a new, restrictive monetary regime—beginning in 1979, when the government decided to enter the European Monetary System (EMS) first and the European Monetary Union (EMU) later—and strict adherence to the

**Figure 1 Italy: Real GDP and Domestic Components, Per Capita (1996=100)**

Source: Istat

Maastricht macroeconomic fiscal rulebook that marked the country’s political economy in the two decades preceding the GR.

Labor market reforms aimed at augmenting flexibility together with fiscal austerity measures designed to contain inflation pressures both contributed to the convergence toward the Maastricht criteria: the inflation rate was lowered—even though not as much as in some partner countries (notably Germany), with a price differential persisting and fueling trade imbalances—and so were interest rates. This, however, came at the price of stagnant domestic demand and a marked deceleration in productivity growth.

As Storm (2019) argues, however, the external constraint cannot be blamed for Italy’s structural crisis. Instead, “Italy’s permanent crisis is a self-inflicted wound, a story of ruin from within” (Storm 2019, 197). On the one hand, Italy has far too many delusional economists who favor fiscal austerity (Alesina, Favero, and Giavazzi 2019) and labor market deregulation (Boeri et al. 2019), in the hope that these will prove “expansionary” over the medium term; on the other, business and political groups have consistently used Brussels and the European Union (EU) as scapegoats for policy reforms that they wanted but were not feasibly sellable to voters at home.

Before the start of the pandemic, at the end of 2019, real GDP per capita was still 7 percent below its peak, which was reached in 2008Q1. In Italy, the impact of the GR was slightly stronger than in the other major European economies: real

GDP per capita fell<sup>1</sup> by 7.9 percent between 2008Q1 and 2009Q2 (before recovery began in 2009Q3), against a fall of 7.2 percent, 6.2 percent, and 5.3 percent for Germany, Spain, and France, respectively. Countries with a larger share of exports in GDP, like Germany and Italy, suffered relatively more during the GR even when (as was the case for Italy) their financial sector did not immediately suffer large losses on the asset side of banks' balance sheets.

As Italy was slowly recovering, a new recession hit in 2011Q4 (a period later labeled the “European sovereign debt crisis”), triggered by eurozone institutions' reaction to the Greek public debt crisis. When the newly appointed Greek Prime Minister George Papandreou revealed at the end of 2009 that Greek public debt was higher than what was reported by the previous government, eurozone institutions pushed for an austerity plan, which made it clear to financial markets that, in case of trouble, other eurozone countries with a large public debt (like Italy and Spain) would not be backed up by the European Central Bank (ECB). In August 2011, the ECB incumbent President Jean-Claude Trichet and incoming

President Mario Draghi jointly sent a letter to the Italian Prime Minister Silvio Berlusconi asking for austerity measures and labor market reforms. A similar letter was sent to Spain's prime minister in the same period.

Berlusconi resigned shortly afterwards, and a new government led by Mario Monti started a period of austerity and labor market and pension system reforms that, by his admission a few years later, contributed to a large drop in domestic demand (Monti 2012).<sup>2</sup>

Data reported in Figure 2 show that both components of public expenditure—individual and collective consumption—decreased steadily as a share of GDP after the end of the GR, acting in a procyclical way. This fall was compensated for by the increase in pension and transfer payments (Figure 2c), but the switch from the production of public services to monetary transfers implies a lower expenditure multiplier, reducing the stimulative effect of public expenditure overall.

In Figure 2d we also report government interest payments as a percent of GDP. With the start of the sovereign debt crisis such payments increased, following the surge in the interest

**Figure 2a Italy: Main Components of Government Expenditure (percent of GDP)**

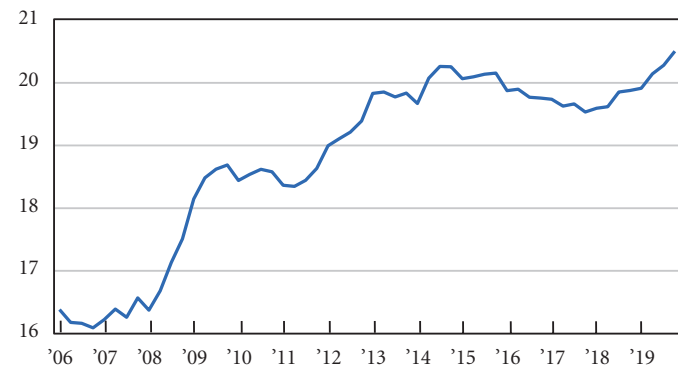
2a. Individual Consumption



2b. Collective Consumption



2c. Pensions and Other Transfers

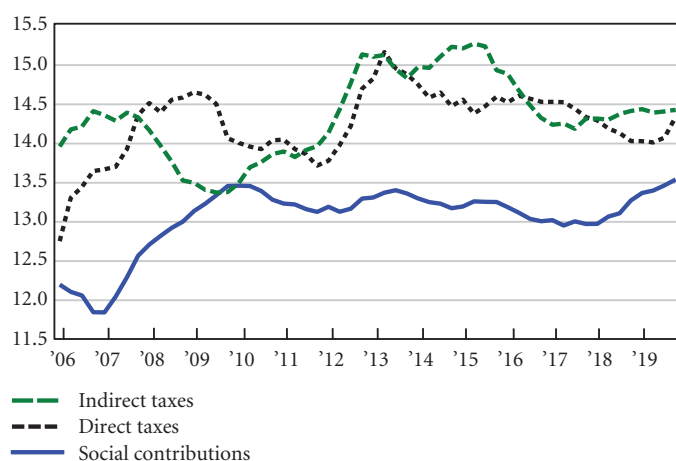


2d. Interest Payments



Source: Istat

**Figure 3 Italy: Main Components of Government Revenues (four-quarter moving average, percent of GDP)**



Source: Istat

rate spread between Italian Treasuries and German Bunds, but when the ECB enacted its new phase of purchases of government Treasuries, interest payments dropped again considerably.

In Figure 3 we report the data on the main sources of revenues for the public sector. Direct taxes and social contributions increased as a percent of GDP during the GR, implying that this side of fiscal policy was also procyclical. Taxes also increased after 2011 as part of the austerity measures.

Italian households managed to minimize the GR's impact on consumption (Figure 1) by increasing their propensity to spend out of disposable income (household saving as a share of disposable income fell from 14 percent to 10 percent between 2008 and 2011). Consumption, however, suffered a major blow from austerity in the second recession in 2011–13, with the savings rate now being stable. At the end of 2019, real consumption per capita was still 4.7 percent below its previous peak in 2007.

Investment dropped considerably, and as a component of GDP it recovered less (Figure 1). The largest overall drop was for investment in construction, reaching a peak at 12 percent of GDP in 2007 and steadily falling ever since to only about 8 percent in 2019; investment in machinery, etc. fell as well between 2008 and 2013, but has been recovering, even though it is still below its previous peak in 2002.

It is interesting to note that in recent years the dynamics of investment seem to be unrelated to firms' retained profits. Profits for the nonfinancial business sector have increased steadily from 2008 onwards without a corresponding increase in

overall investment, placing that sector in a net lending position since 2012: retained profits are being used for financial investment, rather than increasing the stock of productive capital.

Exports of goods and services were severely hit by the GR, but recovered quickly as a share of GDP and, being unaffected by the sovereign debt crisis, have been rising steadily. Exports of goods were close to 25 percent of GDP at the end of 2019 (up from 22 percent in 2008), and exports of services were close to 6 percent of GDP (up from 5.2 percent in 2008).

Slow growth in domestic demand, along with good export performance, resulted in a dramatic improvement in the current account balance, which turned positive in 2012 and has fluctuated between 2 percent and 3 percent of GDP from 2014 to 2019.

These developments in the components of aggregate demand, combined with the austerity measures, widened regional gaps. The bulk of the exporting industry is located in the north of Italy, while in the south, domestic demand (and the construction industry) is relatively more important, so that the pre-COVID economic situation was also in dire need of policies aimed at correcting regional imbalances on top of helping the recovery.

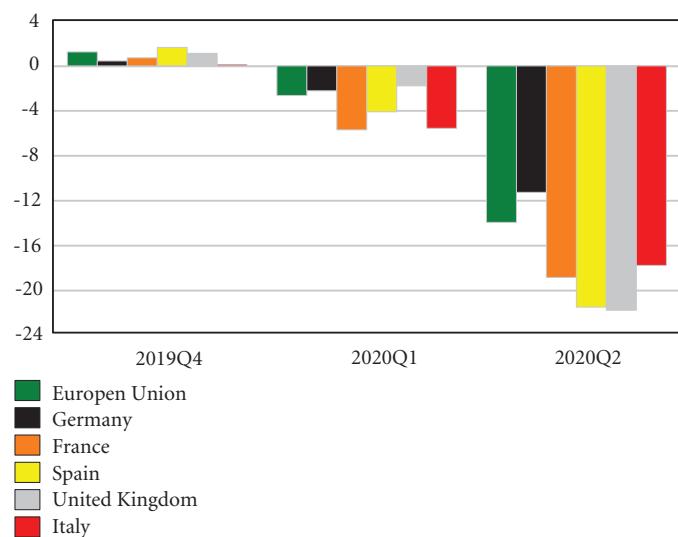
### COVID-19 and the Government's Response

The first COVID-19 cases in Italy, reported on January 31st, 2020, were the first among the Western countries. From the outbreak of the pandemic, the death toll had rapidly surged to over 30,000 by April. On February 23rd, Italy's prime minister signed the first of a long series of administrative decrees (the so-called DPCMs), establishing the first red zones across the northwestern part of the country. By March, the government extended the complete lockdown to the entire country, starting what was labeled as Phase 1, which ended in May when the government started to gradually ease the restrictions.

Although European countries did not act simultaneously, and sometimes followed different strategies, the economic impact of the epidemic was similar, as reported in Figure 4. If Italy had the largest drop in real GDP in 2020Q1, other countries were even more severely hit in 2020Q2. In any case, the size of the economic impact is unprecedented.

In 2020Q2, domestic demand collapsed by 9.7 percent, led by falls in consumption (8.7 percent) and investment (14.9 percent), while net external demand dropped by 2.4 percent (-26.4 percent in exports and -20.5 percent in imports). This is, by

**Figure 4 Selected Countries, Real GDP Growth (percent, year-over-year)**



Source: Eurostat

far, the largest drop in production recorded for Italy since the start of the quarterly GDP series in 1995: in 2009Q1, GDP decreased by “only” 2.8 percent.

As reported by ISTAT in its annual report on the Italian economy (ISTAT 2020), 45 percent of firms suspended their activities between March and May 2020 due to the government restrictions, with an even higher percentage among small- and medium-sized enterprises. On the other hand, roughly one-third of (mostly large) firms remained open throughout the crisis, accounting for over 60 percent of domestic production.

The industrial production index reached a historic low in April (at 59.4) due to the restrictions on activity related to the lockdown measures. Between April and June, value-added dropped in all industrial sectors: 22 percent in construction, 19.8 percent in industry, and 11 percent in services. Provisional monthly data, however, display a partial recovery throughout the summer (with some heterogeneity among sectors).

As domestic demand collapsed, preliminary estimates of the consumer price index for the whole nation (NIC) in August display a monthly increase of 0.3 percent and an annual decrease of 0.5 percent: the deflation is led by the fall in energy prices and a further drop in prices of services related to transport. Food prices continue to increase, though at a slower pace with respect to the first months of the lockdown.

Along with the measures aimed at containing the spread of the virus, between April and August the government

intervened with a series of DPCMs<sup>3</sup> aimed at sustaining the national health service (NHS), households, and firms, totaling just above €100 billion in additional outlays for 2020. It is worth noting that only the resources allotted by the first decree have been immediately spent—as the government used funds already available in the Treasury account—while most of the remaining decrees are being modified at a very slow pace by legislation: out of 165 implementing decrees, fewer than 20 percent have been modified to date.<sup>4</sup> Moreover, almost all measures affect only the 2020 budget: the additional outlays for 2021–22 are indeed mostly due to the abolition of the “safeguard clauses” related to the expected value-added tax increases that were scheduled to take effect for 2021 and 2022.

Table 2 details the expected impact of each measure on the government’s budget.

The expected size of the fiscal stimulus for 2020, at €100 billion, is roughly 5 percent of the Italian GDP in 2019, and will therefore be relatively small, if—as we discuss below—GDP falls by more than 10 percent in 2020. On top of that, at the time of writing (September 2020) only about 20 percent of the 2020 legislated plan has materialized, as noted above. The government is obviously waiting for additional EU resources as a source of finance for the medium-term recovery.

Part of the stimulus package enacted by the government has taken the form of tax credits made available for: (1) financing sustainable mobility (electric bicycles, etc.) to reduce the congestion of public transportation during the pandemic, (2) vacations to alleviate the impact of the crisis on tourism-related activities, and (3) restructuring buildings to reduce their impact on the environment and increase their resilience to earthquakes. The latter type of tax credit can be discounted at banks for firms that need liquidity, and plans for implementing a full payment system for the transmission of such tax credits are being discussed. If such a system is implemented, it would create the basis for a type of fiscal currency that some of us have been advocating for some time (see Amato et al. 2016) to introduce a degree of freedom in the conduct of fiscal policy under eurozone rules. At the time of writing, however, the size of this particular program is still too limited.

In addition, the success of fiscal stimuli based on tax credits crucially depends on firms being compliant with tax obligations. The need to match public expenditures with tax revenues has probably implied a growing tax burden, especially for small- and medium-sized businesses, which has sometimes been

**Table 2 Impact of Single Measures on the Government's Accounts (€billion)**

|   | 2020         | 2021        | 2022        |
|---|--------------|-------------|-------------|
| <b>DL Cura Italia (net)</b>                                     | <b>19.9</b>  | -           | -           |
| NHS   | 3.2          | -           | -           |
| Household   | 9.6          | -           | -           |
| <i>Layoffs (CIG)</i>  | 3.4          | -           | -           |
| <i>Bonus self-employed</i>                                      | 3.6          | -           | -           |
| <i>Other</i>  | 2.8          | -           | -           |
| Firms   | 6.2          | -           | -           |
| Transfers to local government                                   | 0.8          | -           | -           |
| <b>DL Rilancio (net)</b>  | <b>55.3</b>  | <b>26.0</b> | <b>34.6</b> |
| NHS   | 5.0          | 0.6         | 1.6         |
| Household   | 19.0         | -           | -           |
| <i>Layoffs (CIG)</i>  | 11.0         | -           | -           |
| <i>Bonus self-employed</i>                                      | 4.2          | -           | -           |
| <i>Other</i>  | 3.8          | -           | -           |
| Firms   | 17.0         | 4.7         | 1.5         |
| Public administrations  | 7.0          | 1.1         | 0.6         |
| <i>Transfers to local government</i>                            | 6.0          | -           | -           |
| <i>School &amp; universities</i>                                | 1.0          | 1.1         | 0.6         |
| Interest on additional emission of public debt                  | 0.3          | 1.5         | 2.1         |
| Abolition of the safeguard clauses on VAT and excise duties (-) | -            | 19.8        | 26.7        |
| Tax exemptions (-)  | 6.5          | 1.3         | 1.8         |
| <b>DL Agosto (net)</b>  | <b>24.9</b>  | <b>5.3</b>  | <b>0.8</b>  |
| NHS   | 0.5          | -           | -           |
| Household   | 6.6          | 2.2         | 0.4         |
| <i>Layoffs (CIG)</i>  | 4.7          | 1.2         | -           |
| <i>Other</i>  | 1.9          | 1.0         | 0.4         |
| Firms   | 2.2          | 3.2         | -           |
| Public administrations  | 6.5          | 3.1         | 1.9         |
| <i>Transfers to local government</i>                            | 5.5          | 2.2         | 1.9         |
| <i>School &amp; universities</i>                                | 1.0          | 0.9         | -           |
| Interest on additional emission of public debt                  | -            | 0.4         | 0.5         |
| Tax exemptions (-)  | 9.0          | -3.6        | -2.0        |
| <b>Net Lending (additional)</b>                                 | <b>100.1</b> | <b>31.3</b> | <b>35.4</b> |

avoided through an increase in tax evasion. Payments made with tax credits are therefore looked at with suspicion, and a general reform of the tax system is needed to make such instruments viably acceptable.

Another form of support to small businesses has taken the form of public guarantees on bank credit. The available evidence for the first half of 2020 shows that this has succeeded in expanding credit: firms have been deleveraging on their bank loans since their debt peaked in 2008, with a negative flow of net lending up to 2019 turning positive in 2020. Its effect on investment, however, remains to be seen.

Monetary policy did its best to support both financial institutions and the market for Treasuries, at a time when all eurozone country governments were expected to increase their deficits and look for additional market-drawn funds. The ECB announced another round of long-term refinancing operations (LTRO) loans to the banking system in April and, in March, launched a new Pandemic Emergency Purchase Programme (PEPP), which, along with the existing Public Sector Purchase Programme (PSPP), would buy public and private European bonds for a total of €1,350 billion. The reinvestment of such funds would last—at least—until the summer of 2023. By the end of June 2020, the stock of public bonds in the hands of the ECB stood at €2,350 billion (€399 billion in Italian bonds).

As a result of such programs, and given the negative rate on the ECB deposit facility, in the last two months the Italian government was able to raise funds in the market for short-term debt at negative rates.

Along with the monetary injections from the ECB, the EU Commission has proposed several additional policy programs to support households and firms across the continent: (1) a temporary Support to Mitigate Unemployment Risks in an Emergency (SURE), (2) European Investment Bank loans to the private sector, (3) a new European Stability Mechanism (ESM) credit line, the Pandemic Crisis Support, and, finally, (4) an investment plan to be financed through the emission of (newly created) European debt instruments. This is the “Next Generation EU” (NGEU) fund: intended to be around €750 billion in July 2020, but already revised downwards to €500 billion in August. European governments will present their projects to the European Commission for approval by the end of October, but the political debate in Italy in connection with this program has escalated, and a clear plan has not been put out for public discussion yet.



## Baseline Projections, 2020–21

We will use the preliminary evidence available for 2020Q3, discussed above, along with the planned government intervention to evaluate a baseline projection for the Italian economy up to 2022.

As noted, the shock that hit the economy is unprecedented and macroeconomic models relying on the estimates of parameters obtained over “normal” times should be used with extreme caution. We have therefore decided to use our model of the Italian economy (Zezza and Zezza 2020) to assess the plausibility of the most recent OECD projections for Italy.

For our simulation, we have a full set of statistics for 2020Q1, and data for GDP and its components for the second quarter, but we are still missing the detailed information on the sectoral accounts for 2020Q2. We have simulated the model to produce our projections up to 2020Q2, to obtain the simulation error for the first two quarters of the year.

As expected, the unpredictable shock caused by the shutdown implied large simulation errors for all GDP components: consumption was 7 percent lower than what the model would predict in 2020Q1, and 10 percent lower in 2020Q2. Given that the model’s predictions are based on available information on household disposable income and wealth, our measures provide an estimate in the shift in consumer behavior during the shutdown. Analogously, the model overestimates real investment by 9 percent in 2020Q1 and 10 percent in 2020Q2, from which we derive our estimates of the negative impact of the epidemic on investment behavior. (Note that the model’s simulation error for consumption in the 2018–19 period never exceeded 0.2 percent and the average simulation error for investment is 0.2 percent.)

We have next computed the adjustment needed for each component of GDP to replicate the OECD projections for 2020, which assume the recovery starts in 2020Q3 with an increase in real GDP of 12.7 percent over the previous quarter, followed by a further increase of 4.5 percent in 2020Q4.

According to our calculations, consumption would have to increase in 2020Q3 by about 16 percent over an “unadjusted” baseline, exports would have to increase by about 30 percent, and imports would also have to be higher by about 11 percent.

Are these values realistic? Uncertainty about the evolution of the COVID-19 epidemic is still high and a risk of a second shutdown cannot be ruled out, so it seems that the OECD projections may be overoptimistic.

We have therefore computed a new baseline, assuming that the negative impact of the lockdown dies out in the third quarter, but consumption and trade do not overreact with respect to their determinants in the model. Conditional on these assumptions, real GDP will fall by 12.1 percent in 2020 and recover in 2021 by 6.8 percent, without taking into account additional stimuli that may be financed by European funds.

As a result of additional government expenditure, lower tax revenues, and the unprecedented fall in GDP, the public-debt-to-GDP ratio is expected to increase to 156 percent and stabilize around this level in 2021.

## Recovery?

The political debate in Italy has been focusing excessively, in our view, on the need to avoid further increases in public debt, and whether European funds—from the ESM or other sources—present an opportunity to access a cheap source of finance. This discussion is getting surreal, since in the latest sale of public bonds at short maturity, market demand was larger than supply, even with negative interest rates.

Our view is that as long as the ECB keeps its PEPP running, on top of the PSPP, the Italian government should not run into any problems getting funds from the markets when needed.

Italy could obtain ESM funds up to €37 billion to be used for pandemic-related expenditures. In a series of informal communications, Italian politicians have stressed that, unlike the memorandum of understanding (MOU) that Greece had to sign in order to get financial support, this loan would not be subject to conditionalities. However, some economists have pointed out that no formal changes in the rules governing the ESM have been signed, and an open letter<sup>5</sup> to the Italian finance minister to clarify the matter has yet to be answered.

A similar debate is starting around the NGEU funds currently being discussed among eurozone authorities. At the time of writing, the magnitude of the program is still subject to change, but it is expected to be around €500 billion for the whole European Union, to be split between grants and loans. Funds should be disbursed to eligible countries beginning in 2021 and continue to 2027 based on income per capita, past unemployment developments, and, from 2023 onwards, GDP dynamics. For Italy, the package should amount to slightly less than 2 percent of 2019 GDP, net of expected repayments, since grants would be funded from the European budget, while

NGEU loans would be funded by the emission of newly created euro-bonds, which will have to be repaid by participating governments.

While on the one hand the NGEU somewhat signals the political willingness to design a common fiscal tool when need arises—even though this is intended to be a one-off program—on the other hand it reinforces some of the doubts surrounding the EU project: first of all, the absence of a permanent fiscal capacity at the supranational level for macroeconomic stabilization in deep crises, and, secondly, the lack of standard automatic fiscal stabilizers. EU institutions suffer from a fundamental flaw, arising from the idea that fiscal policy is not needed to address downturns in the business cycle, which implies complex and lengthy procedures for obtaining support from all participating governments.

Should the NGEU funds materialize, therefore, the impact on the Italian economy is likely to be too little, and too late.

Moreover, as reported above, the Italian finance minister recently stressed the need for fiscal consolidation, suggesting that the disbursement of NGEU funds will be accompanied by a cut in other fiscal expenditures—with a positive impact on GDP only if NGEU funds are used for expenditures with a higher multiplier than for those that are cut.

In our view, the government should recognize the lesson from the last decade: if public debt has to be reduced relative to GDP, austerity measures aimed at reducing the numerator have a larger impact on national income (the denominator), such that the target will never be achieved. The alternative, which has been effective historically, is to strengthen real GDP growth.

We endorse a proposal for increasing employment in the public sector, which has been put forward recently (Bianco et al. 2018; Reyneri 2020). Using the Eurostat classification of economic activities, the number of (private and public) workers in the provision of public services is lower in Italy with

respect to other EU countries (Table 3). The gap appears in all subsectors in Table 3, including health services, which will be of growing importance given the lasting shock of the COVID-19 pandemic. Reyneri (2020) also reports that while employment in these sectors has been (sensibly) growing on average in the European Union in the last decade, employment in Italy in 2019 is roughly the same as it was in 2009.

As mentioned, the data in Table 3 refer to total employment in these sectors, and therefore include private workers. An estimate of the number of workers in the public sector is not available for 2019, but has been published by ISTAT for 2017, which reported 3.5 million workers in public institutions, a number that can be compared to the 4.7 million workers in the four sectors of Table 3.

In order to align public employment to the EU average, the Italian public sector should increase the number of workers by about 40 percent, i.e., hire approximately 1.4 million workers. Given that the number of unemployed workers at the end of 2019 was 2.4 million, and that it is expected to increase substantially when the temporary prohibition on layoffs expires at the end of 2020, a substantial increase in public sector employment should be more than welcome.

In addition, as pointed out by Bianco et al. (2018), the age of public workers in Italy is much higher than in other EU countries, and the share of workers with a university degree is not high enough. Increasing the number of younger public sector workers with good qualifications (more than 300,000 workers with a university degree were unemployed at the end of 2019, not to mention the number of discouraged workers) could be a key element to increasing the efficiency of Italian public administration and addressing their stagnant productivity problem.

**Table 3** Employment in Public Services in Selected EU Countries (per 1,000 people)

|                | Public administration | Education | Health activities | Social work activities | Total |
|----------------|-----------------------|-----------|-------------------|------------------------|-------|
| European Union | 30                    | 32        | 28                | 20                     | 111   |
| Germany        | 35                    | 35        | 38                | 30                     | 137   |
| Spain          | 29                    | 29        | 24                | 12                     | 94    |
| France         | 37                    | 30        | 30                | 29                     | 126   |
| Italy          | 21                    | 26        | 22                | 10                     | 79    |

Source: Eurostat



We have simulated the model assuming that the government increases employment starting in 2021Q1, for a quarterly expenditure of €17 billion until the end of 2021. The model simulation shows that the debt-to-GDP ratio would be slightly lower in 2021 with respect to the baseline, since the fiscal expansion would increase the real GDP growth rate by 2 percentage points. As the stimulus is removed in 2022 (without further increases in employment) the debt-to-GDP ratio increases slightly above the baseline. It is worth remembering that our model only considers the demand-side effect of such stimulus, without taking into account the potential impact on productivity and efficiency of public services.

The experience of the pandemic has brought to light the many weaknesses of the Italian economy, some of which—like the downsizing of the public sector and its health services—are a direct consequence of the austerity programs implemented by previous governments. Other weaknesses, like the size of tax avoidance and evasion, would require appropriate changes in the tax system, restoring a stronger progressivity in direct taxation, or perhaps introducing temporary (or permanent) taxes on wealth—the impact of which, however, we defer to future research.

## Notes

1. We refer to real GDP scaled by active population, based on Eurostat data.
2. In a May 20th, 2012 interview with CNN's Fareed Zakaria, Monti notes: "We are actually destroying domestic demand through fiscal consolidation." <http://transcripts.cnn.com/TRANSCRIPTS/1205/20/fzgps.01.html>
3. DL 17 marzo 2020 /18 – "Cura Italia," <https://www.gazzettaufficiale.it/eli/id/2020/03/17/20G00034/sg>; DL 8 aprile 2020/23 – "Liquidità," <https://www.gazzettaufficiale.it/eli/id/2020/04/08/20G00043/s>; DL 19 maggio 2020/34 – "Rilancio," <https://www.gazzettaufficiale.it/eli/id/2020/05/19/20G00052/sg>; DL 14 agosto 2020/104 – "Agosto," <https://www.gazzettaufficiale.it/eli/id/2020/08/14/20G00122/sg>.
4. Information regarding the adoption of the implementing decrees can be found at <http://www.programmagoverno.gov.it/it/>.

5. See <http://temi.repubblica.it/micromega-online/fare-chiarezza-sul-mes-lettera-aperta-al-ministro-gualtieri-di-35-economisti/>

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## Data Sources

For a full list of data sources for the model used in this report, see Zeza and Zeza (2020).

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- IMF’s *World Economic Outlook*: <https://www.imf.org/external/pubs/ft/weo/2020/01/weodata/index.aspx>
- ISTAT: <https://dati.istat.it>
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