

# An effective economic response to the Coronavirus in Europe

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#### <u>Abstract</u>

The COVID-19 pandemic represents a major shock to the global and European economy. Most European countries will need to take bold guarantine and lock-down measures, as has been done in Italy, to prevent an explosion of the epidemic which would lead to many deaths and the collapse of healthcare systems. The economic consequences of such measures are major, and are felt through both supply and demand-side channels. A coordinated and bold response by authorities is necessary. First, ample national funds need to be provided to national health services. Second, targeted measures to support individuals (such as the self-employed), companies and the local communities most affected should be put in place or reinforced. Third, broad macroeconomic insurance needs to be provided because targeted measures will not cover the many second-round effects of the shock. To alleviate financial and cash-flow constraints, and to provide incentives to preserve employment, we recommend all EU member states agree to halve companies' social security contributions for three months, or cut the payroll tax. Such measures could amount to support of some 2.5 percent of GDP and would be funded by increased national deficits. Last but not least, the European Central Bank should provide abundant liquidity, increase swap lines to ensure sufficient dollar liquidity and increase its sovereign-bond purchase programme to prevent distress in sovereign bond markets. 'Whatever it takes' needs to be the motto to preserve lives and reduce the impact on the economy of the epidemic.

<sup>&</sup>lt;sup>1</sup> Excellent research assistance was provided by Marta Domínguez-Jiménez.



# 1. Introduction

COVID-19 spread alarmingly rapidly in China after the country first alerted the World Health Organisation to several cases of unusual pneumonia at the end of December 2019<sup>2</sup>. The Chinese authorities, after some initial vacillation, acted decisively to stop its spread, placing affected areas under effective quarantine. These measures have been apparently largely successful in containing the spread of the virus within Hubei province, the epicentre of the outbreak.<sup>3</sup>

Curbing the spread of the virus in such a short time has only been possible because China is able and willing to incur huge short-term economic losses and has used means (such as tracking phones) that would not be easily acceptable in other parts of the world. In February, the Chinese economy came to a virtual halt. The composite PMI (Purchasing Managers' Index) fell from 53.0 at the end of January to 27.5 at the end of February, the lowest level ever recorded in China<sup>4</sup>. No wonder that China's GDP is expected to shrink in the first quarter of 2020, the first contraction since the death of Chairman Mao.

Given the role of China as the factory of the world and the importance of its market for products from other countries, this severe economic contraction is bound to affect companies throughout the world, including in Europe. But with the Chinese economy expected to rebound in Q2, it was initially hoped that the effect would be limited. Such hope has been dashed as the epidemic has become global. The European Union is heavily affected, with a particularly severe situation in Italy.

Even if one assumes that EU countries will manage like China to put in place quarantine and other drastic measures to stop the virus from spreading (as currently being done in Italy), the number of cases of infection is likely to increase significantly in the coming weeks. Infection curves in Italy, Germany, France and Spain and elsewhere in the EU so far look remarkably similar to that seen Hubei (see Figure 1 and the Annex). It would therefore not be surprising if the numbers of cases reached similar levels to Hubei (about 68,000 at time of writing) in Italy and France, which have similar populations to Hubei. In Germany, even higher numbers could be expected. This scenario cannot be ignored given the rapid spread of infection, and worse scenarios are entirely possible.

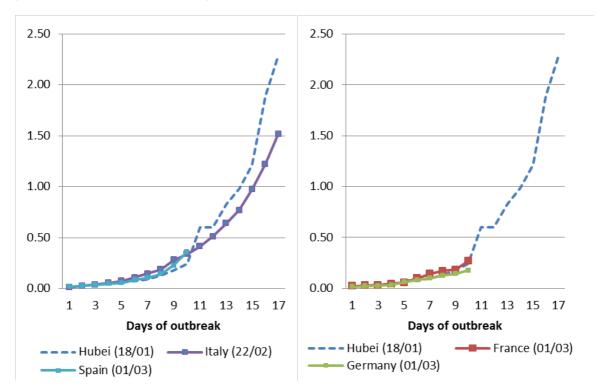
<sup>&</sup>lt;sup>2</sup> The virus was unknown. A week later, it was announced that this virus was a new variety belonging to the coronavirus family, which includes the common cold and SARS, the severe acute respiratory syndrome that killed more than 770 people worldwide in 2002-2003.

<sup>&</sup>lt;sup>3</sup> Today, only 16% of the cases in Mainland China are outside Hubei province, and barely 134 of the 3,158 deaths in China have occurred outside this province.

<sup>&</sup>lt;sup>4</sup> <u>https://www.reuters.com/article/china-economy-pmi/chinas-services-activity-plunges-as-virus-wipes-sales-</u> caixin-pmi-idUSZRN0008L4



This situation is already placing unprecedented pressure on health systems, most notably on intensive care units. As around 14 percent of COVID-19 cases require hospital care and 5 percent intensive care, scaling-up intensive care units represents the top priority for governments, as currently exemplified by Italy (see Box).



**Figure 1:** Confirmed COVID-19 cases, Italy, Spain, Germany and France compared to Hubei (cases per 10,000 inhabitants)

Notes: The date in brackets represents day 1 for the specific country or region. Day 1 is calculated as the first day with 100 or more cases per 60 million (approximately the population of Hubei). Source: Johns Hopkins University, Eurostat

As well as providing more resources for hospitals and healthcare systems in general, authorities need to limit the spread of the disease, including in some instances by closing down some activities, closing schools, encouraging people to stay home or even locking down entire cities, regions or even entire countries, like Italy. Inevitably, these measures have major effects on economic activity, to which economic policy needs to respond. The downgrades of economic forecasts by international institutions including the International Monetary Fund and the Organisation for Economic Co-operation and Development are characterised by huge uncertainty because of the unprecedented nature of the shock.

In Europe, national and regional authorities are mainly responsible for the health and economic policies to respond to the health and economic crises. But European countries are closely intertwined and therefore these responses need to be coordinated at European level. In some instances, where European instruments exist, including the EU budget and the European Central Bank, these must also be deployed in support of national and regional policies.



Our discussion is divided into two parts. First, we examine market reactions so far and the effects of measures already taken. Second, we address economic policy recommendations to both national and European authorities.

#### Box - COVID-19 outbreak in Italy: facts and policy response

Italy has been the epicentre of the COVID-19 outbreak in the EU, accounting for 60 percent of confirmed cases and 90 percent of EU deaths (at time of writing). Italy is the second-most impacted country in the world after China.

As the virus quickly spread, most notably in Lombardy and neighbouring regions, the Italian government adopted increasingly tougher measures to: i) contain the outbreak; ii) shore up the health system; iii) address the socio-economic impacts.

#### Containment measures

The government initially reacted to the spread of the virus by locking down the 11 most affected municipalities in Lombardy and Veneto – the so-called 'Red zone', home to some 50,000 people – and by adopting other containment measures including the temporary closure of schools and universities in all northern regions. As the number of cases has continued to multiply, the government has locked down the whole of Lombardy and other northern regions. On 9 March, decided to extend internal travel restrictions to the entire country, effectively locking-down 60 million people.

#### Reinforcement of the health system

To shore up the health system in the face of the outbreak, the government has adopted measures to recruit more than 20,000 doctors, nurses and operators (such as recalling retired personnel and recruiting post-graduate medical students), to scale-up the purchase of intensive-care ventilators and to enable the requisition of health materials and facilities in case of shortage. As 14 percent of COVID-19 cases require hospital care and 5 percent intensive care, scaling-up these capacities represents the top priority. Italy indeed has around 5,000 intensive care beds, of which 900 are in Lombardy – too few to face this crisis. Regional authorities are thus trying to rapidly scale-up intensive care capacity, to avoid the collapse of the system.

#### Addressing the socio-economic impacts

On the socio-economic front, Italy has focused on providing social insurance to families and businesses. The government has adopted a series of measures to:

- i) Provide fresh funds to the *Cassa Integrazione Guadagni*, the national redundancy fund, which helps companies maintain the labour force in times of economic difficulties by paying to workers part of their wages;
  - ii) Provide financial aid of €500/month for three months to self-employed workers;
- iii) Provide fresh funds to *Fondo di Garanzia per le PMI*, a national guarantee scheme aimed at giving SMEs access to finance;
- iv) Suspend mortgage payments, tax payments and social security contributions;
- v) Provide tax credits for businesses that have reported a 25 percent drop in revenues;
- vi) Provide extraordinary parental leave and vouchers for babysitters to cope with the closure of schools.



vii)Italy initially allocated €900 million to implement such measures in the 11 municipalities quarantined in February. As the containment measures were expanded nationally, Italy has allocated an additional €25 billion (1.1 percent of GDP) to implement the measures country-wide.

# 2. Understanding market reactions and the effects of measures taken

**Markets have reacted violently and a number of industries have taken a big hit from the COVID-19 shock.** The S&P 500 has fallen by almost 18 percent from its peak in mid-February, while Eurostoxx 50 is down by almost 25 percent (data refers to 10 March). This is a more violent reaction than caused by previous epidemics. Measures of the volatility of financial markets, such as the VIX, have reached levels not seen since the 2008 crisis. Global demand for flights has seen an immediate and very sharp drop. The International Air Transport Association estimates<sup>5</sup> global revenue losses for the passenger business of between \$63 billion and \$113 billion. Airline share prices have fallen nearly 25 percent since the outbreak began. This is 21 percentage points more than the decline that occurred at a similar point during the SARS crisis of 2003. Tourism in Italy has seen a 40 percent to 80 percent fall following the coronavirus outbreak<sup>6</sup>, and the situation will further worsen because of the country's nationwide lockdown. France has also seen a 30 percent to 40 percent fall in tourists following the coronavirus outbreak<sup>7</sup>.

Measures that limit social interaction have major economic effects well beyond the sectoral effects. Large parts of the economy, even in the digital era, depend on people-to-people interactions. Initially, the shock to the European economy resulted from supply-chain disruptions due to the lock down in China. But as the virus has spread, further lock-down measures have been enacted in European countries, especially Italy. More measures will likely be taken in other EU countries in the coming weeks to limit and contain the spread of the virus. As lock-down measures are taken, production is affected in multiple ways. While initially mostly tourism and the transport sectors have been affected, the longer the measures last and the more comprehensive they become, the more the entire economy will be affected.

**This economic shock is a combination of both supply and demand effects**. The initial supply shock came from supply-chain disruption<sup>8</sup> and was followed by the effects of people being kept away from their jobs. The initial demand shock came from uncertainty about the heath and economic situation, which led consumers to cut their physical interactions with others and companies to delay investment. The resulting falls in incomes and revenues led to a further fall in demand, which in turn has led to cuts in supply as companies have difficulties

<sup>&</sup>lt;sup>5</sup> <u>https://www.iata.org/en/pressroom/pr/2020-03-05-01/</u>

<sup>&</sup>lt;sup>6</sup> <u>https://www.ilsole24ore.com/art/turismo-coronavirus-crollano-prenotazioni-turistiche-pasqua-e-oltre-ACrSd5LB</u>

<sup>&</sup>lt;sup>7</sup> <u>https://www.cnbc.com/2020/02/23/coronavirus-impact-france-sees-tourism-numbers-fall-by-30percent-to-40percent.html</u>

<sup>&</sup>lt;sup>8</sup> For a detailed discussion, see <u>https://www.bruegel.org/2020/03/the-cost-of-coronavirus-in-terms-of-interrupted-global-value-chains/.</u>



paying their employees and meet their financial obligations. Second round effects are likely to become stronger the longer the lock-down measures persist: demand will fall as consumers postpone or even cancel their consumption. While for some consumption there might be catching-up consumption later when the health crisis is over, other consumption is unlikely to recover – for example restaurant visits. Finally, demand is affected by confidence effects. As citizens worry about the future, they might increase their precautionary savings.

The longer the health problem lasts the longer the economic difficulties will last. Clearly, Europe and other parts of the world are not China. EU countries might not be able or willing to take the kind of strict measures adopted by China to stem the spread of the virus in the space of about one month. The result could be that many more people will be infected and that partial lock-down measures will last for longer. We are likely already beyond the point where the virus can be contained in specific regions and so the real question is how much one can slow the spread of the virus using economically costly lock-down measures, in order to prevent health systems from collapsing.

**Open borders require a coordinated approach to the pandemic**. As long as borders are open and travel relatively unrestricted between EU countries, EU countries should adopt a common view on the choice between the strictness of the lock-down measures and the immediate economic fallout, while keeping in mind the specific conditions that prevail in each country. Failing to coordinate their response is sure to make the health and economic crises in EU countries worse than they would be otherwise.

If the pandemic becomes severe in other parts of the world, coordination will be required at global level. As the virus spreads widely in Europe and in the US, it is also important to contemplate the consequences for China and other global economies. The more widely it spreads in the US and Europe, the more China, Japan and other global economies will have to restrict travel into their countries if they want to prevent a renewed spread of the virus. As a result, international travel could become constrained for a substantial period. Moreover, as the major global trading hubs of Europe and the US see their GDP and output plummet, global trade and supply chains with China and other economies will also be affected. So, there will likely be second-round effects of measures in Europe and the US, which will weigh on the global economy.

### 3. Which responses by public authorities in Europe?

The scale of the health crisis is very substantial. Public authorities need to give health services the adequate resources. According to the WHO, about 80 percent patients with COVID-19 experience mild illness, while approximately 14 percent experience severe symptoms, thus requiring hospitalization. Overall, 5 percent are critically ill, thus requiring intensive care<sup>9</sup>. As the virus spreads, the strain on health services is high in several countries and is likely to continue to increase. Lombardy is a clear example of this as it has high-quality

<sup>&</sup>lt;sup>9</sup> <u>https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200301-sitrep-41-covid-19.pdf?sfvrsn=6768306d\_2</u>



health services<sup>10</sup>, but is struggling because of a shortage of intensive-care beds. Public authorities need to provide sufficient financial resources so emergency activities can be quickly expanded. They also need to increase their efforts to procure the necessary medical equipment and supplies of which there are shortages.

**European solidarity could alleviate bottlenecks in health provisioning through temporary secondments of doctors and sharing of medical supplies.** As different EU regions and countries are at different stages of the spread of the virus, they face different levels of hospitalisation and stress on medical supplies and workers. Temporary secondment schemes for doctors, sharing of medical supplies and cooperation in procuring medical equipment and supplies would help manage shortages. This is the opposite of what certain EU countries have been doing by imposing export bans on masks and other personal protective equipment<sup>11</sup>. Clearly if each country imposes export bans on certain critical supplies all countries will suffer, as none can be self-sufficient.

At national level, we see three main areas where fiscal authorities can provide targeted support. First, in many EU countries, health insurance already does cover the costs of quarantine measures. If necessary, health insurance can be supported by public budgets. Second, a support fund could be established to assist those sectors that are most affected. The German Kurzarbeitergeld and the Italian Cassa Integrazione Guadagni are good possible examples of ways to support companies and workers that have to reduce their output. Third, we consider the provision of monthly lump-sum transfers to the self-employed that are immediately vulnerable to a collapse in demand as key to safeguard this vulnerable group of workers until the end of the emergency period. As schools have to close for long periods (as in Italy), governments must put in place extraordinary schemes to support child care (for example, from vouchers for baby sitters, as is being done in Italy, to extraordinary parental leave). There is evidence that school closures magnify substantially the economic effects<sup>12</sup>, an additional reason to establish fiscal buffers. Finally, fiscal support for local and regional communities needs to be given because they often bear a significant part of the burden. Bank information can identify financial distress among companies and individuals (eg on loan and mortgage payments, on tax servicing or any other arrears).

**The EU's fiscal rules do not constrain a targeted fiscal response to a health emergency.** First, any one-off budgetary spending incurred in relation to the response to the outbreak is excluded from the computation of the structural balance<sup>13</sup>. Second, the current fiscal framework already provides adequate margins of flexibility to cater for *"unusual events outside the control of government"*, provided that *"the temporary deviation does not endanger fiscal* 

<sup>&</sup>lt;sup>10</sup> Health services in Lombardy score 9.9/10 according to the OECD and is at the top 5% compared across all OECD regions (<u>https://oecdregionalwellbeing.org/ITC4.html</u>).

<sup>&</sup>lt;sup>11</sup> <u>https://www.politico.eu/article/health-ministers-squabble-over-face-masks-at-coronavirus-talks/</u>

<sup>&</sup>lt;sup>12</sup> Wren-Lewis, S, J. Edmunds, P. Beuels and R. Smith, (2010). The possible macroeconomic impact on the UK of an influenza pandemic, Volume19, Issue11.

<sup>&</sup>lt;sup>13</sup> This is clearly spelled-out in the letter that Commissioners Dombrovskis and Gentiloni sent on March 5 to Italy's Finance Minister Gualtieri concerning the country's fiscal decisions related to the COVID-19 outbreak. See: <u>http://www.mef.gov.it/inevidenza/La-risposta-della-Ue-spese-contro-il-Covid-19-escluse-dal-deficit-</u>strutturale/



*sustainability in the medium-term*<sup>"14</sup>. There is thus no need to debate a change of the fiscal rules in the context of the coronavirus.

The EU could provide insurance to countries or regions most affected through its budget. The EU Treaty contains a Solidarity Clause that invites the EU and its members to act jointly in a spirit of solidarity if a member state is the object of a terrorist attack or the victim of a natural or man-made disaster<sup>15</sup>. On this basis, the EU could provide financial aid to countries or regions most affected by the COVID-19 outbreak. On 10 March, the European Commission proposed a €25 billion Corona Response Investment Initiative, directed at supporting health care systems, SMEs and labour markets across Europe. According to the proposal, €7.5 billion of investment liquidity would be released<sup>16</sup> by the Commission to trigger the release and use of some €17.5-18 billion of Structural Funding across the EU. This is a start but additional funds should be mobilised in the framework of the EU budget. A first tool might be the EU Solidarity Fund (EUSF), which functions as a sort of supranational insurance policy against natural disasters including floods, forest fires, earthquakes, storms and droughts. The EUSF Regulation<sup>17</sup> should be rapidly amended in order to: i) equate epidemics/pandemics to natural disasters; ii) increase the financial firepower of the fund; iii) streamline its long activation process (Mathieu-Collin and Tagliapietra, 2018<sup>18</sup>) by giving authority to the European Commission. To give an example of the potential order of magnitude, Italy received €1.2 billion following the earthquakes that occurred in central Italy between August 2016 and January 2017. A second tool might be the Flexibility instrument, which provides funding for clearly identified expenditure that cannot be covered by the EU budget without exceeding a maximum threshold. A third tool is the Contingency margin, which represents a last resort instrument to react to unforeseen circumstances and which amounts to 0.03 percent of the EU's gross national income. Both the Flexibility instrument and the Contingency margin have been used in the past to finance immediate budgetary measures to address ongoing migration, refugee and security crises, so it could now be used to counter COVID-19.

The shock is leading to distress in the financial system and in sovereign bond markets, which needs to be alleviated by bold central bank action. Uncertainty has led to major volatility in financial assets and broad-based stress in the financial system. Some companies and households will be late in meeting their financial obligations, for example mortgage payments. Central banks need to provide abundant liquidity to support the financial system and prevent short-term liquidity needs from jeopardising productive economic activity. Stress in interbank markets and money markets needs to be addressed. Swap lines need to be robust and substantial so that the European central banks can provide dollar liquidity if needed. Finally, this exogenous shock may well lead to major distress in euro-area sovereign bond markets. Rather than risking major increases in spreads, we recommend that the bond purchase programmes of the ECB and other European central banks should be increased<sup>19</sup>.

<sup>&</sup>lt;sup>14</sup> <u>https://www.consilium.europa.eu/media/20399/st00tscg26\_en12.pdf</u>

<sup>&</sup>lt;sup>15</sup> TFEU, Article 222.

<sup>&</sup>lt;sup>16</sup> The Commission proposes to relinquish this year its obligation to request refunding of unspent pre-financing for European structural and investment funds currently held by Member States.

<sup>&</sup>lt;sup>17</sup> <u>https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0661&from=EN</u>

<sup>&</sup>lt;sup>18</sup> <u>https://www.bruegel.org/2018/11/italys-floods-how-the-european-union-solidarity-fund-can-help/</u>

<sup>&</sup>lt;sup>19</sup> The main problem for the ECB to increase its asset purchases in the current crisis is that its QE programme is constrained by its (self-imposed) issuer limit. The ECB is already quite close to the limit in several countries, in



Increasing sovereign bond purchases would help support distressed sovereign bond markets. We see little scope for monetary policy stimulus but a very significant role in ensuring liquidity provision and helping support productive companies that might be in distress. Determined action by monetary authorities is urgent. The ECB in particular should act.

Three arguments suggest that beyond targeted measures, national fiscal policy makers should provide macroeconomic 'insurance'. First, targeted measures are unlikely to identify and therefore address all those affected, given the need for speedy reaction. Second, many companies and individuals will be affected through second-round effects, as discussed in section 2. For example, airlines losing customers will also require fewer supplies, affecting companies further down the supply chain. And in a globally highly interconnected economy, shocks propagate across continents and can reinforce each other. Third and perhaps most importantly, an epidemic might also affect expectations and create a crisis of confidence. Macroeconomic policy authorities have a major role to play in managing expectations and supporting the economy. While an announcement of fiscal measures might not bring guests back to restaurants, it will support citizens' confidence in general that governments do indeed make the funds available first to manage the pandemic, and second to support the economy during and after the shock.

A timely and coordinated fiscal response is indispensable. The EU will do well to discuss and agree on a coordinated response in order to be able to mobilise funds in a timely way. An announcement of coordinated fiscal measures would have a number of advantages. First, if only some countries react, especially those with relatively high debt levels, sovereign spreads could increase. Second, fiscal measures have cross-border effects. Coordination therefore increases the effectiveness of the measures, irrespective of the precise magnitude of spillovers. Third, the impact of the virus and the associated economic implications are likely to be felt in all of Europe. A joint response to such a symmetric shock therefore makes sense. Finally, while this crisis is different to the 2009 crisis, because of its simultaneous supply and demand side shock, a joint signal of demand support would still be effective to boost confidence and support the economy also in its recovery phase, when the epidemic recedes.

**Overall and on balance, we therefore recommend that national authorities provide a generalised safety net to the economy.** Going beyond targeted support for specific companies that are particularly heavily affected, a general support scheme could be designed. For example, given the severity of the situation, finance ministers could agree a coordinated measure whereby, during a period of, say, three months, all social security contributions by companies would be halved. Such support would greatly reduce cash-flow constraints, provide income support especially for companies with many employees, and be of a macroeconomically relevant size. It would also provide an incentive to preserve employment. If annual social security contributions amount to some 20 percent of GDP, such a scheme would provide a boost of 2.5 percent to the economy. In the current situation, such an increase in the deficit could be funded at essentially zero cost. The increase in the deficit would also help stabilise financial markets. In fact, safe assets are in short supply as investors scramble

particular in the Netherlands and Germany. In the current setup, this implies that purchases could have to be stopped in a few months (or to deviate from capital keys), especially if the volume of purchase is increased significantly. The most obvious answer to this, and a good signal for markets at the moment, would be to increase the issuer limit once again, at the very least for well-rated countries, in order to allow for this policy to be used as much as needed in the current situation.



to move into sovereign bonds. The advantage of such a measure would be also that it could be enacted quickly, unlike new spending programmes.

# 4. Conclusions

It is impossible to know how long the health crisis will last and how many people will be affected. But already now, at a relatively early stage of the epidemic in Europe, the economic impact has been very significant. The longer that measures have to be taken to contain the virus, and the stricter those measures, the greater their impact on the global economy.

We have argued that fiscal policymakers need first and foremost address the health emergency with sufficient resources. After that, fiscal resources will need to provide direct support to the individuals and sectors most affected. The aim is to protect otherwise productive capacity so it continues to exist after the shock. But beyond direct measures, national policymakers should coordinate a general safety net. There are many ways of doing this, such as in the form of temporary cuts to social security contributions (say by half for a period of three months) and by temporarily funding mortgage payments.

Beyond the immediate crisis response, policymakers will also have to think about sustained measures after the epidemic subsides. What kind of measures will be needed to reboot the economy? This is a not only a question for the EU but also for the global economy, as different parts of the world might be in different phases of fighting the virus. Fears of 'reverse' virus contagion might, for example, limit travel to China and other places.

The pandemic could trigger a rethink of global economic exposures and production patterns. Will companies decide to increase stocks to be better equipped in the future to deal with supply chain disruptions? Will they reduce the length of value chains to become less vulnerable to such shocks? And how will international travel be transformed? As always, such a crisis is also an opportunity to revisit business models and, perhaps also in consideration of the threat to the climate, to reassess international mobility.

There is a clear role for the EU to play in terms of showing the power of cooperation to citizens. So far, responses in different EU countries appear barely coordinated and there has been very little EU communication. It is important that EU institutions provide short-term support<sup>20</sup> and coordinate the response across countries. The EU should also intensify its support to the development of medication and vaccines, true public goods, where the incentives for private pharmaceuticals companies might be insufficient.

<sup>&</sup>lt;sup>20</sup> The EC has announced a 25bn Corona investment fund for health care sector and to support SMEs. It remains to be seen to what extent this is actually additional support.



#### Annex 1

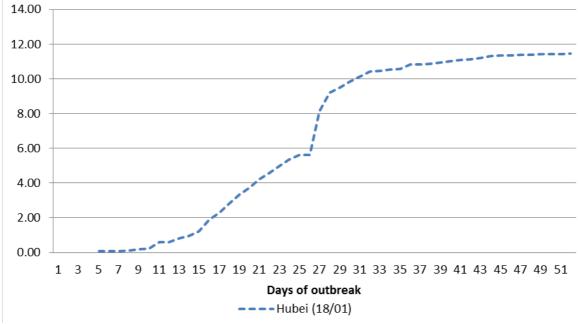


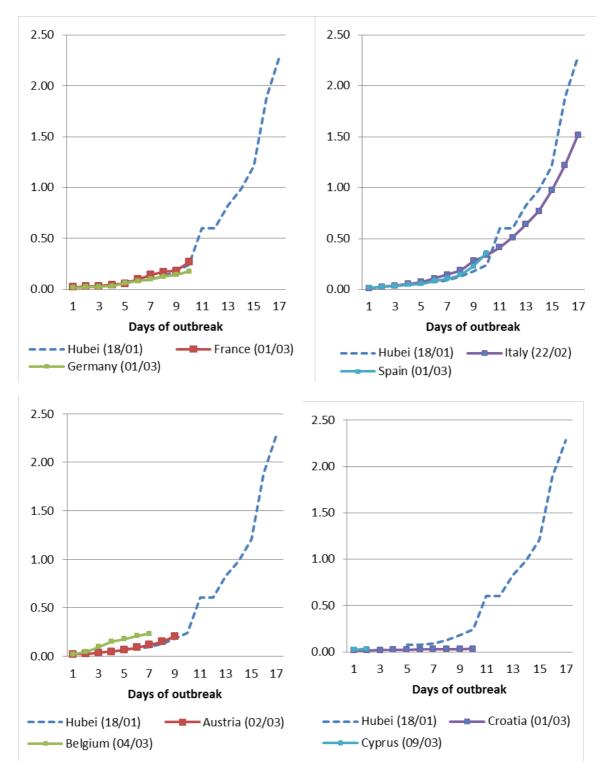
Figure 2: Confirmed COVID-19 cases Hubei (cases per 10,000)

Notes: The date in brackets represents day 1 for the specific country or region. Day 1 is calculated as the first day with 100 or more cases per 60 million (approximately the population of Hubei).

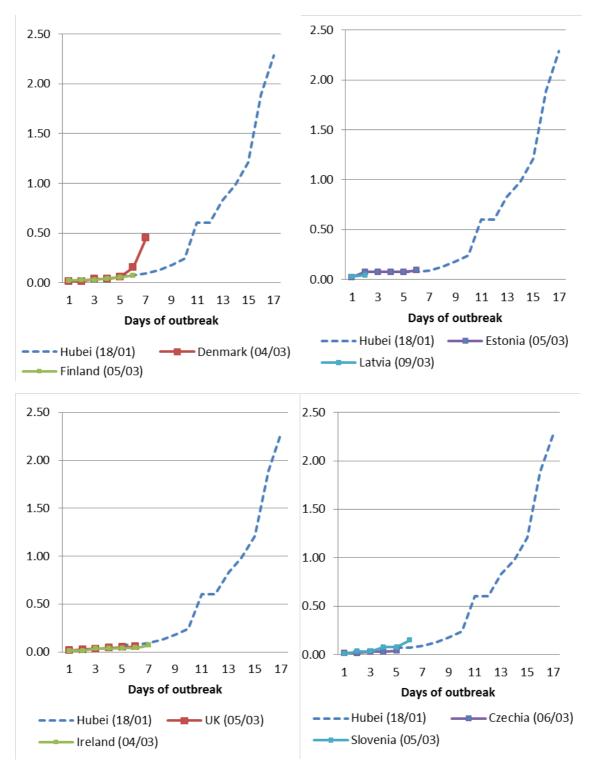
**Figure 3:** Confirmed COVID-19 cases in EU member states, the UK, Japan and the Republic of Korea compared to Hubei (cases per 10,000)

Source: John Hopkins University, Eurostat

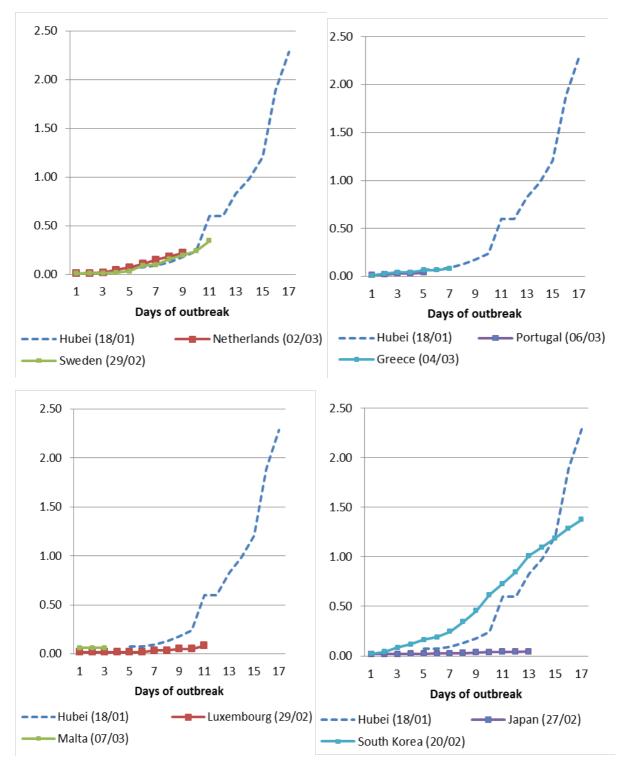












Source: John Hopkins University, Eurostat

Notes: The date in brackets represents day 1 for the specific country or region. Day 1 is calculated as the first day with 100 or more cases per 60 million (approximately the population of Hubei). Only EU member states that have reached this threshold are included.