

Good Practice Lessons from Germany's Economic Policy Measures in Response to the Covid-19

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Abstract: From the very onset of the coronavirus epidemic, the German authorities adopted a set of rigorous measures meant to protect population health by drastically limiting social contact and partly discontinuing economic activity, in order to slow down the spreading of the virus and avoid a possible collapse of the healthcare system. This well targeted strategy was combined with the amplest economic relief package in the country's post-war history, which made Germany the world leader in terms of effectiveness of government measures adopted for combatting the effects of the crisis generated by the Covid-19 epidemic. In the context described, this article aims to review the measures adopted by Germany to combat the epidemic and limit the economic effects of the subsequent crisis, while also pointing out the budget impact of these measures and the need to abandon the traditional federal policy focused on maintaining a balanced budget.

Key-Words: Germany, Covid-19 crisis, economic policy measures, responses to the Covid-19 pandemic
JEL Classification: E62, G28, I18

1 The status of the German economy in the period prior to the onset of the Covid-19 pandemic

According to the preliminary data published at the beginning of this year by the Federal Statistics Office (Destatis, 2020a), in 2019, Germany's economic performance was the lowest in the last six years¹, in the conditions in which the annual growth rate of the real GDP decreased by 0.9 percentage points compared to 2018 (to 0.6%, compared to 1.5%), reaching a level well below the average rate of the last decade (1.3%). The causes leading to this economic development below the country's potential were driven by the conjunctive action of both external, and internal factors (outlined in Box 1).

Box 1: Main factors that contributed to the slowdown of Germany's economic activity in 2019

External factors	Internal factors
<ol style="list-style-type: none">1. The persistence of trade-related tensions at international level;2. The permanence and even intensification of uncertainties related to the potential no-deal Brexit;3. The slowdown of world economy due to both the deadlock encountered in trade negotiations and the geopolitical tensions at international level;4. Blockages in the world oil supply beginning in September 2019, as a result of the attacks against Saudi Arabia's oil infrastructure, which led to lower demand for the products of the German processing industry and, implicitly, to the stagnation of the heavily export-reliant domestic production.	<ol style="list-style-type: none">1. The delay in the introduction of the new internationally standardized emission testing procedures (WLTP)*;2. The reduced production share of electric or hybrid motor vehicles (in the context in which the international demand on this segment increased);3. The structural changes implemented by the German automotive industry seeking to deal with the issues shown in the paragraphs above, and also to:4. The restructuring and technological upgrading of some of the large manufacturing companies, in accordance with the mandatory environmental and climate change international rules (e.g.: the case of the multinational corporation Siemens).

Note: *WLTP/ Worldwide Harmonized Light-Duty Vehicles Test Procedure – is the new test method to determine motor vehicle fuel consumption, emissions, and efficiency, and was launched on 1 September 2017, with a grace period for implementation until 1 September 2018.

Source: Author's synthesis based on the literature studied.

¹ Namely after the period of significant stagnation of 2012-2013, under the impact of the Eurozone sovereign debt crisis.

However, at the onset of the Covid-19 pandemic (January this year), Germany seemed to have overcome the sub-potential growth phase that had lasted since the second quarter of 2019². As a result, at the end of January this year, the first signs of economic recovery – before the discontinuation caused by the outbreak and expansion of the epidemic – came mostly from the industrial sector, which saw an increase by 5.5% in the number of orders, determining a growth by 3% of industrial production compared to the previous months³ (Destatis, 2020b,c). Although exports remained within the same slowdown trend that was visible throughout the previous year – in the conditions in which the seasonal and calendar adjusted value of exports in January this year did not differ significantly from December 2019 –, this evolution was attributed to the reduction of exports to China⁴, which at the time was facing the “peak” of the coronavirus epidemic. In the same period, the seasonal and calendar adjusted value of imports increased by 0.5%, in particular as a result of the increased domestic private consumption, which continued to represent the main growth pillar (Destatis, 2020d).

2 Scenarios of economic evolution in the context of the crisis determined by Covid-19

As far as estimates for economic evolution this year are concerned, national analysts continue to have certain reserves, given the level of uncertainty in terms of length and magnitude of the epidemic, which makes it difficult to assess the medium- and short-term effects on national economy at present. Also, the current international context – characterized by the deterioration of the economic climate and the growth of uncertainties worldwide – further increases the difficulty of developing forecasts, since no accurate assessment can yet be made regarding the impact of this serious transitory event on world economy as a whole, on how international trade relations will take place or on the economic evolution of Germany’s main trade partners. In these conditions, although the majority of scenarios developed so far assume a considerable reduction of economic performance for the current year, estimates regarding its dynamics differ depending on their underlying assumptions. As such, the German Council of Economic Experts (GCEE, 2020) developed three scenarios regarding the evolution of the German economy in 2020 and 2021, based on different assumptions regarding the length of restrictions imposed in the context of the epidemic, and the speed of economic recovery after restrictions are lifted.

⇒ **The baseline scenario** – the most likely scenario in the current context – estimates a return to normal of the economic activity beginning with the second semester. According to this scenario, the economic activity will decrease by 2.8% this year compared to 2019 and afterwards, as a result of the effects of the measures adopted, the GDP growth rate will increase by 3.7% in 2021 (Chart 1).

⇒ **The first risk scenario** (*the “V”-shaped evolution*): starts from the assumption that restrictive measures will be maintained for a longer period of time (around three months), which is likely to have ample consequences on production. In this case, in accordance with the estimates of CGEE analysts, production will suffer a contraction of around 10% in the second semester of this year. As such, it will no longer be possible to counteract the sharp reduction of economic activity in the first part of the year (Chart 2), and the annual GDP growth rate will see a decline by 5.4%, compared to 2019. Just as foreseen for the basic scenario, the effects of some of the measures adopted could lead to the recovery of production only towards the end of this year. An increase by 4.9% of the economic growth rate is foreseen for 2021, in particular as a result of the delayed emergence of the effects of some of the measures adopted to stimulate the economy.

² When the economic activity decreased by 0.2%, in quarterly terms, triggering fears that a technical recession was looming. Although these estimates were not confirmed – since the economic activity increased slightly in Q3/2019 (0.2%) –, the GDP growth rate stalled during the last quarter of the year (0.0%).

³ The monthly data presented are adjusted on a seasonal and calendar basis.

⁴ Which, in 2019, ranked third in the hierarchy of Germany’s main export partners, after the U.S. and France.

Short-and medium-term economic development scenarios

Chart 1: Basic scenario -quarterly and annual GDP growth rate¹

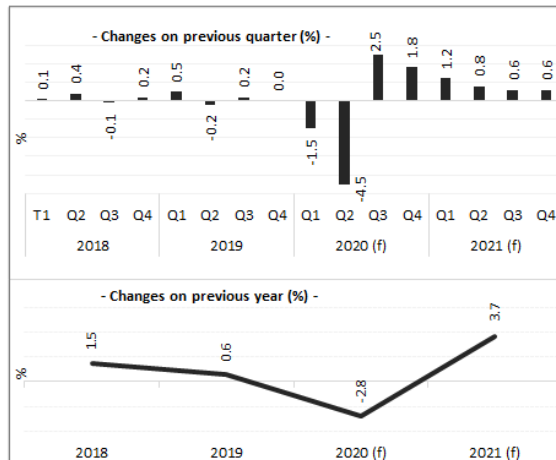
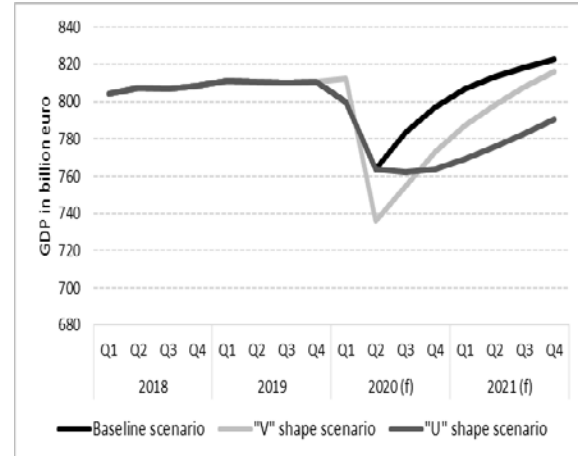


Chart 2: Forecast scenario for the quarterly evolution of the GDP²



Notes: ¹The annual growth rate data are not adjusted on a calendar basis; ² Seasonal and calendar adjusted data.
 Source: Author, based on Destatis (2020) [2018/2019 evolutions] and CGEE estimates (2020) [2020/2021 forecasts].

⇒ **The second risk scenario (“U”-shaped evolution)**: if the restrictive measures to limit social interaction are maintained until the end of summer, a relaunch of the economy will only start in 2021. According to this scenario, the incentives adopted will not be sufficient to prevent the losses caused by bankruptcies and layoffs. In this case, it is estimated that the deterioration of the financing conditions and the increased uncertainty will contribute to a major reduction of investments and a significant decrease of private consumption. In these conditions, the economic growth could face a contraction of 4.5% compared to the previous year, while the GDP growth rate is forecasted to evolve at a slower pace in 2021 than in the other two scenarios (with an increase of 1%).

3 Germany: a model of resilience⁵ in the face of the pandemic shock

As one of the EU countries with the largest financial resources allocated to healthcare (both as percentage of the GDP and as per capita amount)⁶, Germany has a well prepared and effective healthcare system, with the largest number of doctors, nurses and hospital beds per capita in the European Union (OECD; European Observatory on Health, 2019). As such, unlike other European countries, Germany has an increased capacity to resist the healthcare shock created by the Covid-19 epidemic, and this is the result of both the long-term investments in the national medical system, and its continued monitoring and assessment, aimed at permanently improving performance and, at the same time, increasing the capacity to adapt to crisis situations (Robinet-Borgomano, 2020). Also, because of the positive situation of public finance – resulting from the prudential tax policy applied over the last years –, the federal government was able to afford adopting ample measures to mitigate the negative consequences caused by the coronavirus on companies and on the population.

Affected by the onset of the epidemic at a relatively later date (after France and Italy⁷), Germany employed a well targeted strategy to detect persons infected with the new coronavirus, in order to slow down the spreading of the epidemic, and was therefore able to avoid overburdening its healthcare system. The early

⁵ Resilience in this context refers to the capacity of the health system to efficiently adapt to the changing environment, to shocks and crises.

⁶ The latest statistics on health-related public and private expenditure published by the EU Office for Statistics (Eurostat) show that in 2017 (the last data available), in terms of percentage from the GDP, Germany and France ranked first in the EU classification (with an expenditure equivalent of 11.3% of the GDP), followed by Sweden (11.0% of the GDP) and Austria (10.4% of the GDP). In relation to the population during the same year, Germany ranked fourth in the EU classification of medical expenses (EUR 4,459 per capita), after Sweden, Denmark and Luxembourg (Eurostat, 2020).

⁷ According to the data published by the German research institutes, the coronavirus epidemic developed at national level with a delay of 8 days compared to France and 14 days compared to Italy (the results take into account the date when each country recorded 10 deaths) (Markus, 2020).

adoption of massive testing measures – together with social distancing measures less restrictive than in other European countries, seeking to increase population preparedness – enabled the identification and isolation of asymptomatic individuals who carried the disease (and/or of positive individuals without visible symptoms), while at the same time allowing national hospitals the time required to adjust their capacity for the admission and treatment of cases with acute symptoms. Although the “peak” of the epidemic had not been reached yet, government authorities already started the process for the development of an exit strategy comprising a series of measures aimed at a gradual resumption of the economic activity in safe conditions.

To mitigate the effects of the medical crisis generated by Covid-19 – which German Chancellor Angela Merkel described as the “greatest threat faced by Germany in the period after the Second World War” – government authorities approached its management by adopting a set of measures oriented in three directions: (a) limitation of social interaction; (b) increase of the number of tests performed to identify infected but still asymptomatic persons (or persons only carrying the virus); (c) strengthening the capacity of the national healthcare system.

3.1. Early measures to limit social interaction

At the recommendation of the Robert-Koch Institute, in charge with the control and prevention of diseases, Germany adopted social distancing measures earlier than other European countries (as early as the first death caused by Covid-19 at national level – 11 March), which helped limit the spread of the epidemic. Subsequently, pressured by the lands located at the border with France and Austria, the federal government closed the land borders with most of its European neighbours (15 March), reintroduced customs controls at the internal borders of the Schengen area and introduced tests at border crossing points to identify and isolate infected persons. Although initially border crossing was permitted only to freight transports and commuters or to persons who intended to repatriate, on 2 April, by means of an exceptional measure, the government approved the access of seasonal agricultural workers⁸.

An important aspect that must be mentioned is Germany’s federal structure. Although the adoption of measures related to the combating of epidemics lies with the land governments, they must be approved by the federal government, with a considerable margin left to the land authorities in terms of implementation and, accordingly, certain lands (e.g. Bayern, Saarland and Saxony) opted for imposing stricter measures limiting social contacts and the free movement of persons. In these conditions, because actions to combat epidemics require a fast and coordinated response, the federal organisation could have represented an obstacle for the optimum management of the crisis. This is why, in order to avoid dysfunctions caused by inconsistencies, discrepancies or overlaps in the national crisis management plan, the Bundestag approved the *Law on the prevention of infection transmission* (25 March), which granted increased powers to the Minister of Health.

3.2. Increase of the number of tests, involvement of the industrial sector in the production of medical equipment, support for the pharmaceutical industry

The social distancing measures adopted were correlated with massive population testing, in order to identify and isolate asymptomatic carriers of the virus, by using rapid tests, with increased performance. To this end, a strong point of the strategy to combat the epidemiological shock and mitigate its effect is the mobilisation and involvement of the industrial sector. As such, German concern Bosch launched a rapid diagnosis test that provides results in around three hours, without the need for sophisticated medical tests performed in laboratories. Also, a series of German factories (in particular those in the automotive sector) were provided with incentives to redirect their production towards the manufacture of protective masks, mechanical ventilators, laboratory supplies, etc. At the same time, the pharmaceutical industry received financial support to speed up research to develop an antidote, in order to stop the coronavirus evolution curve. According to a press

⁸ Federal authorities reconsidered the decision to restrict the entry of agricultural workers due to the pressure exercised by German farmers whose production depends on the presence of seasonal workers from Eastern Europe, in particular from Bulgaria, Poland and Romania (Reuters, 2020). However, because the entry of seasonal workers through land border crossing points was difficult, requiring transit through several states, federal authorities decided to haul the workers with charter flights, at the expense of the employer, access on German territory being conditional upon prior testing for Covid-19 and or a 14-day isolation scheme.

release of the German bio-pharma concern CureVac⁹, research for a Covid-19 vaccine is advanced, with tests set to commence in June, so that the vaccine may be placed on the market by the end of this year (Deutsch, 2020). Also, the German pharmaceutical company BioNTech was recently granted approval from the Paul Ehrlich Institute – a medical regulatory body for vaccines and biomedicine – to begin the first stage of clinical trials (of three stages envisaged), on a sample of 200 volunteers (Federal Government, 2020a).

3.3. Concerted mobilisation to rapidly strengthen the national healthcare system

From the very onset of the crisis, the German strategy’s primary objective was to avoid overburdening the healthcare system in the context in which the country has an increased vulnerability to the coronavirus epidemic, given the high level of population aging. If at the beginning of the epidemic, according to the *National Hospital Management Company*, Germany had approximately 28,000 ICU beds and around 20,000 mechanical ventilators, due to the rapid mobilisation of the land and federal authorities, the number of ICU hospital beds in national hospitals was 40,000 and the number of assisted ventilation devices increased by 10,000 by the beginning of April.

Considering all the measures taken, the rapid mobilisation of national authorities and institutions, according to the global ranking compiled by the “Deep Knowledge Group”¹⁰ (DKG, 2020), Germany is the world leader in terms of effectiveness of government measures adopted to combat the effects of the crisis generated by the Covid-19 epidemic (Figure 1).

Figure 1: World top-10 most supportive governments during the Covid-19 pandemic



Source: Deep Knowledge Group (DKG, 2020). Retrieved from: <https://www.dkv.global/governments-ranking>. Also, Germany also ranks among the first in the global/regional classification based on other indicators: e.g. in terms of regional safety: 2nd (after Israel) and 1st among the Eurozone countries.

4 Budget implications of the policies adopted in response to the Covid-19 crisis

Although, as we mentioned above, it is not yet possible to fully estimate the negative effects generated by the Covid-19 epidemic on the population and the federal economy, given the particularly severe impact felt so far and the imminence of risk factors, the German government authorities launched the largest package of measures in the country’s post-war history, the major objectives of which being the protection of citizens, the strengthening of the national healthcare system to be able to deal with new challenges, and the limitation of the economic consequences of the crisis generated by the new coronavirus. As such, the ample economic policy measures adopted by Germany – both at national level, and at the level of the individual federal states – to counteract the effects of the crisis seek to: *a*) finance direct government costs; *b*) mitigate the economic pressure exercised on certain categories of employers and employees; and *c*) protect the national economy against a potential wave of insolvencies among the companies affected, in order to limit, as far as possible, the future economic recession that is impossible to avoid (Becker, 2020). To achieve these objectives, federal authorities resorted to a mix of fiscal instruments, based on: subsidies from the state budget, the

⁹ In March this year, the German company CureVac, an innovator in the field of vaccines, received up to EUR 80 million in funding from the European Commission to speed up the development and production of a vaccine against Covid-19 (European Commission, 2020).

¹⁰ Deep Knowledge Group (DKG) is a Hong Kong-based consortium bringing together commercial organisations and non-profit bodies and operating worldwide in a variety of fields, among which: scientific research, consulting, entrepreneurship, etc. Based on the data published for individual national economies, DKG developed an advanced analysis framework – presented in the form of worldwide rankings (based on a series of specific indicators) –, to support national government authorities in their decision-making process.

supplementation of public expenditure for the national healthcare system, the adoption of measures for the exemption from, and/or delay of, tax payments, government guarantees and credits, as well as on the establishment of financial support programmes, i.e. temporarily acquiring stakes in the capital of major national companies affected by the crisis (German Council of Economic Experts, 2020).

To secure the budget resources required for the financing of the economic support measures, on 25 March this year, the German Parliament approved a budget rectification of EUR 156 billion (representing the equivalent of 4.5% of the GDP₂₀₁₉), in the conditions in which the package of measures adopted will mean government spending will increase by EUR 122.5 compared to the annual target proposed (+33.8%) and income-related estimates indicate a reduction by EUR 33.5 billion compared to the same target assumed before the onset of the crisis generated by the Covid-19 epidemic. Through the budget rectification adopted, the federal government abandoned its traditional public finance austerity policy – namely the *schwarze Null* (*black zero*) – and, for the first time since 2013, national authorities contracted loans as an integral part of the package of exceptional measures implemented to mitigate the negative effects caused by the coronavirus epidemic (Federal Government, 2020b). At the same time, the measures adopted by government authorities in the context of the Covid-19 epidemic are unprecedented both in terms of scope (presented as a synthesis in Box 2), and in terms of total value. As such, beyond the necessary EUR 122.5 billion (around 3.6% of GDP₂₀₁₉), included in the budget rectification for this year, the immediate additional spending required for some of the federal states is estimated at around EUR 10 billion (approximately 0.3% of GDP₂₀₁₉). Also, a series of other additional expenses will be required by the payments made through the social security funds (in particular, the National Health Insurance Company and the Federal Employment Office). As regards state guarantees, federal authorities have authorised their granting – both by land governments and by the Economic Stabilisation Fund, described in Box 2 – up to an amount of EUR 1,272 billion (around 37% of GDP₂₀₁₉), which, if needed, could be increased to EUR 1,519 billion (44.2% of GDP₂₀₁₉), through the activation of the flexibility clauses at federal level. As regards the government credit and shareholding programmes, the German government could allocate an additional EUR 250 billion (the equivalent of around 7.3% of the GDP₂₀₁₉) to help small, medium and large companies overcome the difficulties they are facing as a result of the effects of the crisis. As it turns out, government spending intended to protect the national economy could reach a maximum value of approximately EUR 1,900 billion (which represents over 50% of the GDP₂₀₁₉). Nevertheless, because the amounts shown are based on ex-ante calculations, it cannot be assessed at present whether the economic situation will require the full use of these funds (e.g. in particular in the case of government guarantees). However, according to national estimates, budget spending could exceed the values envisaged, in the conditions in which, depending on the evolution of internal demand in the second half of this year, the national authorities could provide for the implementation of an incentive package to foster economic relaunch in 2021 (Becker, 2020).

Box 2: Overview of the measures adopted by Germany to counteract the effects of the Covid-19 epidemic

Economic policy measures	Objectives of the measures adopted
Direct and indirect fiscal measures	In collaboration with the tax authorities of the lands with the highest tax revenues, the Federal Minister for Finance adopted a set of fiscal measures seeking to replenish the liquidity of companies affected by the Covid-19 epidemic (Federal Ministry of Finance, 2020a)
	<p>1. Postponement of tax payments</p> <p>In the situation in which, as a result of the effects of the coronavirus crisis, companies face difficulties or are in the impossibility of paying their tax obligations for the current year, they can request the temporary postponement of the overdue tax payments, without the application of interest.</p>
	<p>2. Adjustments of the early tax payments</p> <p>Companies and freelancers may request adjustments for the early payment of the income tax and corporation tax. This provision may also be applied to the taxable amount from which the value of early payments is calculated. If evidence is presented that the income of a taxpayer this year will be lower than the one estimated prior to the onset of the epidemic, early payments are automatically reduced.</p>
	<p>3 Suspension of enforcement measures</p> <p>The application of enforcement measures for overdue tax payments will be suspended until the end of 2020. Also, during this period, delay penalties under the tax legislation will be</p>

Economic policy measures	Objectives of the measures adopted
	cancelled.
Employment-related measures	<p>1. Flexibilization of the short-time work regulations (in German <i>Kurzarbeit</i>) Federal authorities have adopted a package of measures meant to temporarily simplify regulations concerning the granting of compensations for reduced working time, by: a) facilitating access to compensations; b) exempting companies from the payment of social security contributions (full reimbursement through the Federal Employment Office, where applicable; c) enabling employees with fixed-term contracts to access compensatory benefits for reduced working time (Federal Government, 2020c).</p> <p>2. Amendment of the Law on the prevention and control of infectious diseases The amendments brought to this law provide that in case of illness or isolation based on the suspected infection with Covid-19, the employer has the obligation to pay full salary entitlements for a period of six weeks. Afterwards, the employee will receive the equivalent of 70% of the net salary from the national health insurance fund (KPMG, 2020). Freelance workers will also benefit from financial reimbursements based on estimate statements of losses.</p>
Social measures package	<p>1. Basic benefits for freelance workers Freelance workers, small entrepreneurs or self-employed persons working in their own enterprises will benefit from welfare support based on a simplified, rapid and non-bureaucratic procedure: i) enterprises with up to five employees may request up to EUR 9,000 for a period of 3 months; ii) enterprises with up to ten employees may submit financing applications for up to EUR 10,000; iii) self-employed entrepreneurs working in their microenterprises (single employees), freelance workers (natural persons performing activities on their own), owners of small enterprises could receive subsidies of up to EUR 9,000. At the same time, the professional categories referred to in the last paragraph will have priority access to financing provided as subsistence benefits (Federal Government, 2020d).</p> <p>2. Simplification of the measures for the granting of child-raising allowances The procedures for the review of child-raising allowance application files will only take into account the salary income obtained by the parents in the last calendar months (according to the previous procedure, the income for the last six months was taken into account) (Federal Ministry for Family Affairs, Senior Citizens, Women and Youth, 2020).</p> <p>3. Social protection measures to combat labour force shortages</p> <ul style="list-style-type: none"> • New incentives for workers who are granted compensatory benefits as a result of the reduced working time and who offer their services on a voluntary basis during their free time; • To ensure the necessary labour force, procedures were simplified for the extension of the activity of persons at the age of retirement, in particular in the healthcare sector and in other fields of national interest facing severe staff shortages; • In order to ensure the continuous provision of healthcare services and national public interest services during the epidemic and during the restrictive measures, the authorities decided on exemptions from the application of legal rules on working hours. For example, for agricultural workers, the duration of short-term/seasonal contracts was extended to six months, in order to ensure appropriate supplies for the population during this period.
Measures to support the businesses	<p>1. Support for companies' access to affordable banking loans In order to facilitate the access of as many companies as possible to low-interest credits, the German government extended the financial support programmes granted through the KfW bank, without imposing an upper limit on the loans that can be granted. The measures aimed at improving company liquidity include the following:</p> <ul style="list-style-type: none"> • The relaxation of the conditions for the granting of business credits to existing companies and start-ups (with a lifespan below five years), by increasing the level of risk undertaken in case of operating credits; • The extension of these instruments to large enterprises, with a turnover of up to EUR 2 billion (the previous limit was EUR 500 million); • In the case of growth credits (the KfW programme targeting large enterprises), the current turnover threshold (EUR 2 billion) will be raised to EUR 5 billion, and the degree of risk will be increased to 80% (from 50%), to improve company access to syndicated loans; • For companies with a turnover above EUR 5 billion, financing will be granted in

Economic policy measures	Objectives of the measures adopted
	<p>particularised, company-specific conditions.</p> <p>2. Establishment of the Economic Stabilisation Fund (ESF) to support large companies</p> <p>In addition to the special crediting programmes granted by KfW, in order to further support companies facing severe business disturbances and liquidity shortages, as well as in order to avoid massive job losses, the federal government established the Economic Stabilisation Fund (Federal Government, 2020e). To benefit from financing from the ESF, a company must meet at least two of the following conditions: <i>a</i>) a total annual balance exceeding EUR 43 million; <i>b</i>) sales revenues of above EUR 50 million; <i>c</i>) a number of over 249 employees/year. In certain particular cases, smaller companies may receive support from the ESF, for example, when they have increased relevance for the critical infrastructure. The ESF has a series of specific instruments available: <i>i</i>) a guarantee framework totalling EUR 400 billion, used to acquire stakes in companies facing liquidity shortages; <i>ii</i>) a loan programme amounting to around EUR 100 billion, aimed at consolidating the capital of affected companies (recapitalisation); <i>iii</i>) a loan programme carried out through the KfW bank. To finance all these measures, the federal government will resort, depending on the needs, to additional funds existing on the capital market, through the German Finance Agency.</p> <p>3. Increase of the maximum limit for government guarantees</p> <p>As part of the budget supplementation, government authorities raised the maximum state guarantee ceiling for this year to EUR 822 billion, compared to EUR 465 billion in 2019. At the same time, the flexibility clause was extended from 20 to 30%, which means that the upper limit of guarantees could be raised by another EUR 246.6 billion, to a total of EUR 1,070 billion.</p>

Source: Author's synthesis, based on the referenced literature.

5 Conclusions

German authorities responded rapidly and effectively and adopted ample economic relief measures from the very onset of the crisis generated by the coronavirus epidemic. The programmes implemented were unprecedented both in terms of value and in terms of variety of fields of application, aiming to mitigate financial tensions for companies, employees and freelance workers who were severely affected by the effects of the epidemic. Also, they were permanently revised, supplemented and consolidated, to build a true “protective shield for companies and employees,” seeking to preserve the capacity of the national economy to deal with the new context characterised by negative developments. As a result, the ample package of measures adopted by the federal government in the context of the crisis plays a vital role in minimising the shock caused by the onset and expansion of the epidemic. As such, measures aiming to *a*) restore the liquidity of affected companies; *b*) postpone tax payments; and *c*) grant guarantees, seek to provide a lifeline to companies facing possible bankruptcy as a result of the sudden and steep decrease in demand or of the severe disruptions in the intermediary product supply chain. Also, a series of facilities such as the adjustment of the framework for the granting of compensatory benefits for reduced working time, the work from home arrangements, etc., enabled affected companies to avoid massive redundancies and/or temporary layoffs. With the adoption of this ambitious plan aimed at sheltering the federal economy from a serious recession, it became obvious that the federal authorities have abandoned the long-disputed „schwarze Null” (black zero) policy – based on maintaining a balanced budget, without resorting to loans. In fact, the German government recently announced that for the first time since 2013 it will contract new loans as part of the set of measures adopted to mitigate the negative effects of the coronavirus epidemic.

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