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COVID-19: Crisis resilience made in Germany

Germany has emerged from the global COVID-19 crisis as an undisputed success story. It will become the model for how to deal with future pandemics. It recorded by far the lowest number of fatalities per million of inhabitants of any of the major industrial countries. It responded early and comprehensively to outbreaks of infections. Its federal structure allowed for nuanced differentiations across the Länder. Above all its "best in class" health care system was able to deliver immediate and overwhelming assistance. Medical equipment, including intensive care units, no shortage of medical personnel, and above all no shortage of testing. Furthermore, Germany's decentralized health administration offices, the Gesundheitsämter, will now be able to play an integral part in the tracing and tracking approach to localize or prevent a second wave of the pandemic.

Equally as important, Germany's often ridiculed fiscal frugality during the good times prior to the pandemic gave it the firepower to respond with shock and awe and will make it possible to come close to achieving the stated goal that no one should lose their job because of corona and no business should have to close its doors because of corona. That is what a EUR 1.9 trn (55% of GDP) support program, followed by a EUR 130 bn cyclical spending program, will buy. Germany's debt as percentage of GDP will still remain at around 80%. If necessary there is plenty of room for a further cyclical support program. Furthermore, almost half of the cyclical program was intelligently targeted to support green, digitalization, and e-mobility goals. The downturn will be sharp, but that happens when you shut down an economy. However, we comfortably predict that Germany's recovery will be one of the fastest among of the industrial countries, being held back only by the lackluster performance of its traditional trading partners.

There are many lessons for the European Union and its member countries that can be learnt from Germany's economic and health care policies. Above all, that crises come out of nowhere when least expected. We need to act fast, build and maintain infrastructure to protect our populations, restore fiscal balances, and normalize monetary policy to regain our ability to act decisively when it is needed.

Germany has shown the way.

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Germany has got COVID-19 under control faster than many other countries. It also recorded one of the lowest infection fatality rates among the G10 countries. The complete fiscal policy U-turn in response to COVID-19 induced economic damage should allow the German economy to weather this crisis better than many other countries – although the impact will still be massive. We have identified 6 structural features of the German society contributing to its superior collective resilience:

- A well-functioning public health system: Universal health insurance coverage, high numbers of intensive care units (ICU) and medical practices per capita. A tight net of local Gesundheitsämter, playing a key role in identifying and tracing infections.
- A federal system based on subsidiarity with cooperative political decision makers: This allows for a united policy approach while providing flexibility for states and counties, enhancing the acceptance of measures and regulations.
- A conservative fiscal policy approach: Substantial fiscal resources are being rapidly deployed, creating the largest fiscal policy response among industrial countries.
- A tightly knit social security system boosting citizens' resilience: Providing a high level of protection for the German labour force, with Kurzarbeitergeld as an efficient tool to bridge dire straits for employees and companies.
- Responsible, long-term oriented companies and labour unions: Especially in the family-owned Mittelstand companies – the backbone of the German economy – there is a strong sense of mutual responsibility and trust.
- High levels of institutional trust and future-oriented citizens: The Germans' trust in their government and public service in combination with a low time preference makes people patient and fosters stable household finances, providing them with resources to cope with temporary income loss.

Due to these features we expect the German recession in 2020 to be less severe than in most other industrial countries. This crisis resilience should also further improve Germany's relative position among the major industrial economies once COVID-19 has been overcome. This will increase pressure on Germany to play an even more supportive role within EMU/EU in the medium term.

The number of COVID-19 deaths per 1 m inhabitants has reached 840 in Belgium, 609 in the UK and 337 in the US. By contrast, the German mortality per 1 m stands at a mere 105, substantially lower than in any other G10 country except Japan. Not only has the mortality rate been exceptionally low, Germany also stands out with regard to the time required to bring the growth of new infections under control. The number of infected surpassed a 0.001% of populations threshold on March 8th less than two months later, on May 5th, the growth rate of new infections was pushed below 0.5%, the shortest time among major countries. Why is this so?¹

¹ We are aware of differences with respect to testing and classifications regarding causes of death, which have to be kept in mind with these kind of cross country comparisons. Still, we think the overall conclusion is valid as we will show in this text.



The ultimate test of society's capacity

COVID-19 certainly presents a force majeure no country or government could anticipate. Its impact on people, the economy and society and the political system provides an unprecedented challenge – at least during peace times. A country's ability to cope is to a large part a function of its prosperity. But the experience with COVID-19, so far, shows that there is more to it and that it is not necessarily the richest countries which have coped best. The pandemic provides the ultimate test of a country's resilience and flexibility, its institutions and capacities including its social capital carried by its citizens. It is exactly these factors which have helped Germany to cope so surprisingly well so far. But besides generating wide admiration, its resilience has also encouraged criticism from some of its European partners for not showing more fiscal solidarity, despite Germany's preparedness to significantly step up its financial engagement for the various EU crisis measures already decided (e.g. SURE, EIB guarantee fund) to help in particular the countries hit hardest. These complaints have meanwhile tapered off after the German-French proposal for a bold, debt-financed recovery fund in the context of the next multiannual EU budget which paved the way for the Commission's proposal for the EUR 750 bn recovery fund. This, however, still needs the backing of all 27 EU members.

Quick measures to squish the pandemic spread

On March 12th, when Germany counted around 1,500 infections and 3 patients had died from COVID-19, first measures to restrict social contacts were implemented. By March 22nd Germany went into COVID-19 lockdown by tightening earlier measures, closing most non-essential retail business and requiring strict social distancing, although Germans had - under the impression of the dramatic pictures from Italy – already clearly adjusted their behavior. This proactive behavior probably allowed for less draconic measures than some other EU countries had to take. There was no curfew in Germany and manufacturing and construction companies were not forced to shut down operations. The number of new infections peaked at the beginning of April at more than 6,000 per day. The following sharp deceleration in the number of newly infected and the resulting decline in active cases, allowed for a first cautious easing of the lockdown measures just one month later starting on April 20th (parks, commercial spaces with less the 800 m², car and bike dealers, book shops), when the daily increase had slowed to around 2,000. On May 6th a second major step to reopen (shops, restaurants, schools, etc.) was taken with Länder in charge of the implementation in order to take their specific situation into account. While events involving larger crowds (concerts, fairs, etc.) remain prohibited until August 31st, schools and cultural institutions have been reopened at different speeds and extents in the 16 German Länder.

Reasons for Germany's superior results

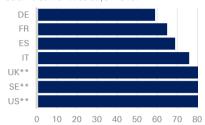
Of course setbacks in virus containment or a second wave cannot be ruled out, which could easily cause a regress into a renewed lockdown in parts of the country. But Germany seems to come out of this crisis earlier and is likely to encounter relatively less economic damage than many other countries.

There are several reasons behind Germany's exceptional performance:

- 1. A well-functioning public health system
- 2. A federal system with cooperative political decision-makers
- Substantial fiscal resources which are rapidly deployed
- 4. A tightly knit social security system boosting citizens' resilience

Figure 1: Germany managed to reduce daily infection rates quite fast

Days until growth rate of daily infections was below 0.5% for three days in a row*



* Time series starts for each country when 0.001% of population (cumulated) was tested positive for COVID-19.

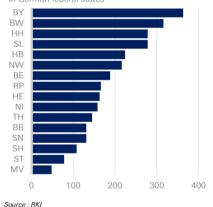
** UK, SE and US have still not managed to record three days in a

Source: Worldometer based on WHO, Deutsche Bank Research

row with a daily infection growth rate below 0.5%

Figure 2: Differences between federal states in terms of infection events

Cumulated confirmed COVID-19 cases per 100k pop in German federal states





- 5. Responsible, long-term oriented companies and labour unions
- 6. High levels of institutional trust and future-oriented citizens

Many of these traits have triggered strong criticism in the past (from us as well). The health system was perceived as bloated and inefficient. For many the Groko had become the epitome of political gridlock and was seen as a consequence of Germany's cumbersome consensus-oriented federal system. Under the Groko the social security budget rose from EUR 666.6 bn in 2013 to EUR 845.9 bn in 2019 (+26.9%), largely to the benefit of pensioners and at the expense of the younger generation. Germany's overall conservative fiscal policy and in particular the government's insistence on the black zero had become the bête noire of many well-meaning international institutions including the ECB. German companies aiming to secure their long-term competitiveness were vilified as unfair competitors, even helped by toothless unions giving them a leg up via wage moderation. Altogether, these factors, once cornerstones of the German Wirtschaftswunder, were increasingly seen as liabilities, keeping Germany trapped in an outdated economic model, while the global economy was undergoing rapid change.

1. A well-functioning public health system

Historically, Germany has been a top global force in medical and pharmaceutical research. The first ever Nobel Prize in medicine went to German immunologist Emil von Behring in 1901. In 1905 he was followed by the microbiologist and hygienist Robert Koch, who together with the French Louis Pasteur became the founding father of modern bacteriology and microbiology. The German government's central scientific institution in the field of biomedicine has been named after him. Until the second half of the last century Germany was called the "world's pharmacy". German medical technology is still the global number 2, exceeded only by the US.

Figure 4: Severe infection process in Central Europe and the US

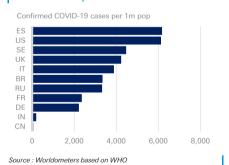
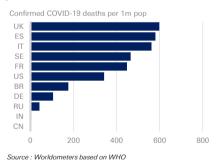


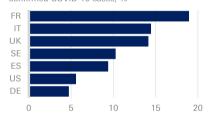
Figure 5: Many deaths per capita in Central Europe



Admittedly Germany was lucky as it was not one of the first European countries hit by the COVID-19 virus, providing it with more information about the virus and some lead time to prepare. But while the number of infections in percent of the population is by now similar to other countries, the low mortality rate – albeit rising – stands out. Initially this was due to the fact that the young and healthy people – with a much lower probability of becoming seriously ill – brought the infection back home from their skiing vacations in Austria and Italy. As the virus continued to spread in Germany the infection fatality rate has risen from 1.1% on April 1st to 4.7% of late but is still one of the lowest in the world. This can certainly be attributed to the quality of Germany's health system.

Figure 3: Low infection fatality rate in Germany

Share of confirmed COVID-19 deaths in total confirmed COVID-19 cases, %



Source: Worldometers based on WHO, Deutsche Bank Research



The quality of a health systems is, of course, related to its financial resources. Public supply of health services is a function of a country's fiscal means while the private demand for health services is strongly correlated to per capita income. But in contrast to some other countries there is consensus in the German society that the provision of health services is a key pillar of public welfare provision. The share of privately operated hospitals has risen to 37%, although these are tightly integrated into the public health service. Still, a debate to bring them back into public ownership and management has resurfaced. There is little doubt that Germans enjoy one of the best health systems in the world. However, it is a complex, decentralized, self-governing system with many different layers. Not surprisingly this has been one key point of criticism over the last decades. The unsuccessful fight to reduce the health system's complexity and red tape has made the job of the Federal Health Minister a dead end for many promising political careers.

There is no commonly accepted framework for assessing the quality of a health system. With respect to the input side a common yardstick is health expenditures in % of GDP, where Germany (11.2%) has one of the highest among OECD countries (avg. 8.8%, highest US 16.9%, Source: OECD, 2018 data). This indicator ignores how efficient the money is spent and whether there is universal access to medical services. Output measures such as the number of specific services, for example the number of MRIs or the length of hospital stays for certain procedures, are often the result of country-specific guidelines or economic incentives for providers and patients. Of course, life expectancy or healthy life expectancy are the ultimate goals of health systems and should hence provide a good benchmark for their assessment. However, these depend on a whole set of cultural and social factors. Hence, one should not overinterpret international comparisons, in particular those including the assessments by patients, which are influenced by their expectations and likely to differ across countries.² In one quite comprehensive survey which tries to address such factors, the German health system scores well but does not rank within the top countries.3

For coping with a pandemic such as COVID-19 a health system's core capacities such as the number of hospital beds and ICUs are key in keeping mortality rates down. Physician density and the number of physician visits is an important factor, as for example in Germany 6 out of 7 COVID-19 patients are outpatients.⁴ On these measures Germany scores well. Especially with regard to ICUs fitted with respiratory ventilation equipment (respiratory ICUs) Germany stands out. At the start of the COVID-19 pandemic Germany recorded 1,200 ICUs with 28,000 beds (most have lung ventilators), according to health sector officials this number has in the meantime been ramped up to almost 40,000.⁵ The number per 100,000 citizens, which was already the highest among major countries, has probably increased from 34 to around 48.

Since April 4th a declining trend in the number of newly infected is visible. Since April 12th the number of active cases has been falling. Currently 533 (June 9th), less than 10% of the roughly 5,500 active COVID-19 patients are in ICU treatment, of which 320 are being treated with ventilators. Even when taking other ICU patients with issues unrelated to COVID-19 into account Germany has some 12,000 spare ICU

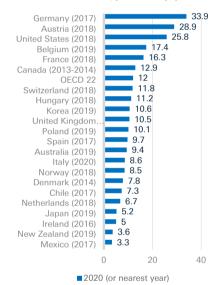
Figure 6: Health insurance coverage of German population 2018

	Percentage share	Insured, m
Statutory health insurance	87.7	72.8
Private health insurance	10.5	8.7
Other/Without insurance coverage	1.8	1.5
Total	100	83

Source : Association of Substitute Health Insurance Companies (vdek)

Figure 7: Capacity of intensive care beds

Selected OECD countries, per 100.000 population



Source : OECD Policy Brief on the response to the COVID-19 crisis

^{2 &}lt;a href="https://interactives.commonwealthfund.org/2017/july/mirror-mirror/#methodology">https://interactives.commonwealthfund.org/2017/july/mirror-mirror/#methodology

³ https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)30818-8/fulltext

⁴ Health minister Jens Spahn, press conference, April 16, 2020.

⁵ Number reported by Germany's official DIVI register are somewhat lower, as not all hospitals are included in the register yet.



beds. This trend and the large buffer of spare ICUs was an important factor for the Federal and the Länder governments' decision on April 15th to gradually start easing the lockdown measures.

Testing, testing, testing

After some starting problems the German health system quickly provided high numbers of testing kits and sufficient laboratory capacity for analysis. In the meantime the potential weekly testing capacity exceeds 1 million, actual numbers haven been in a 300 k to 400 k in recent weeks. While initially only those with clear symptoms or exposure to an infected person were tested, the RKI is now recommending that everyone with symptoms of a respiratory infection should be tested. Tests have also been extended in hospitals, care homes and in cases of local outbreaks which is important to contain such local events. Germany has performed some 5,200 tests per 1 million inhabitants a number clearly above many other EU countries, but exceed by Spain (95,500), the UK (84,000) Italy (70,000), given the higher number of still active cases in these countries.

Besides the medical capacities the nationwide health coverage (98.2% of Germans do have either public or private health insurance) makes a big difference. In the public system serious preconditions do not result in higher contributions, since they are cross-subsidized by the more healthy insured. While in some other countries preconditions complicating COVID-19 infections and a major reason for its high mortality rate are often undetected, they are usually known and well treated in Germany.

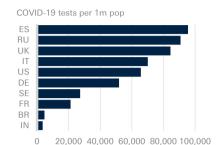
With respect to the overall health of the working population the statutory accident insurance (Gesetzliche Unfallversicherung) plays an important role. It covers employers, employees, apprentices, unemployed, kindergarten kids, students, even various kinds of community services such as members of the voluntary fire brigade. This insurance covers medical and rehab costs in case of work-related accidents. Its carriers, the professional organizations (Berufsgenossenschaften), are also involved in accident prevention and the workplace safety and implement binding hygienic and safety measures with regard to COVID-19.

A federal system with cooperative political decisionmakers

While the health related legislation is set at the federal level, German States have a strong role when it comes to the provision of health services. With regard to infectious diseases more than 400 local health offices (Gesundheitsämter) provide the first line of defense. These health offices are in charge of tracking the line of infections. For this task they have to provide teams of five employees per 20 k inhabitants and are supported by mobile teams in cases of staff shortages. With the number of new infections skewed towards so-called super spreading events, tracking rather than mass testing is seen as the best strategy to contain the virus.

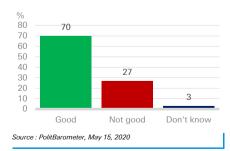
Länder governments are entitled to implement measures to prevent the spread of infectious diseases.⁶ While some States such as Bavaria – which was the first German State to implement statewide lockdown measures (March 20th) – went ahead, the different lockdown steps were agreed between Chancellor Merkel and the 16 State Prime Ministers. Of course views were not always 100% in line, which

Figure 8: Differences in test intensity



Source: Worldometers based on WHO

Figure 9: Regions' and municipalities' responsibility for monitoring infections is ...



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⁶ Infektionsschutzgesetz, §17.



might also be due to the fact that the impact of COVID-19 has differed strongly between the 16 States. This mix of centralized and regional decision pattern has been applied to the exit strategy as well. While speed and extent of easing measures were coordinated top-down, the federal-state-conference on May 6 decided to return the full responsibility for monitoring and coping with the infections to the states and the regions to benefit from more targeted control of the infections. Subsequently, stronger differentiation of measures according to the level of local infections could be observed proving the benefit of quick and targeted action in case of local outbreaks. The public strongly backed this political strategy (see chart) though a majority finds it difficult to cope with the patchwork of the differing rules in the regions.

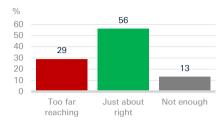
The preparedness of the politicians and the state leaders, including those belonging to opposition parties in the Bundestag, to close ranks with the Chancellor (a clear differentiation from other countries) was a major success factor in Germany's fight against COVID-19. It was all the more impressive given the looming federal elections in 2021 and the upcoming decisions about the new CDU leader and ultimately the CDU/CSU's joint candidate for German Chancellorship in 2021. Still, statements by the PMs of North Rhine-Westphalia and Bavaria, Armin Laschet and Markus Söder (CSU), were scrutinized for tactically motivated divergences. Laschet who still seems to be the frontrunner for CDU-party leadership was increasingly challenged by Markus Söder as possible joint CDU/CSU chancellor candidate – at least in polls a relative majority regards him as the most promising candidate (Deutschlandtrend May 2020). The fact that Germany ranks second in the world regarding the efficiency in coping with the pandemic (Deep Knowledge Group) is not to a small extent the result of its multi-layered political system and the smooth interaction of the different authorities.

3. Opening the fiscal flood gates

In lockstep with the measures containing the pandemic, the German government has responded quickly and decisively to reduce the economic damage caused by the virus and these containment measures. The ultimate aim of the government measures is to avoid that healthy and viable businesses are pushed into bankruptcy by the COVID-19 shock. The government wants to protect the economy's capital stock and its human capital in order to prevent an avoidable loss of potential output, which would make the necessary fiscal consolidation further down the road even more difficult.

In late March it adopted a EUR 156 bn supplementary federal budget for 2020 (or 4½% of GDP in 2019) in order to build up a "protective shield" against the economic fallout of the corona pandemic. Altogether, Germany's immediate fiscal response to the crisis sums up to an astronomic value of around EUR 1.273 trillion (around 37% of GDP in 2019), according to government calculations. While around EUR 453 bn of the total response are related to extra spending, tax relief measures as well as loan/ participation programs, roughly EUR 820 bn are due to the extension of the authorized amount of public guarantees the government could utilize in case of need. This massive fiscal response is possible since Germany entered the coronavirus crisis with a stronger government budget balance and a lower debt ratio compared to the situation prior to the global financial crisis. Moreover, Germany enjoys sizeable financial reserves, in particular in the social security

Figure 10: How do you view the current easing of COVID-19 restrictions?



Source: Deutschlandtrend, June 4, 2020

⁷ See German Stability Programme 2020.



system where buffers amount to roughly EUR 96 bn. Assuming a GDP contraction of 9% this year, the headline fiscal deficit will peak at almost 8.7% of GDP in 2020 pushing the debt ratio above 75% of GDP. By the end of next year, Germany's debt ratio could be more than 25 pp higher compared to our pre-COVID-19 forecasts. This would present a major setback for Germany with respect to the demographic challenge of the coming years, but provides it still with a substantially more comfortable situation than many other countries.

Figure 14: Discretionary measures in response to the COVID-19 pandemic

		% of GDF (2019) 13. 2	
neral government (total of all government measures)	453.3		
Federal budget	155.8	4	
Additional expenditure based on supplementary budget	122.3	3	
Immediate assistance for small companies and self-employed individuals	50.0		
Other assistance	55.0		
Unemployment benefit II (basic income support), housing and heating costs	7.5	(
Indemnifications arising from guarantees	5.9	(
Domestic guarantees	1.6	(
Foreign guarantees	4.3	(
Other	3.9	(
Tax measures and other reductions in tax revenue	33.5		
Economic Stabilisation Fund	200.0		
Acquisition of capital instruments and holdings	100.0	- :	
Refinancing of KfW programmes	100.0	- 2	
Länder	65.2		
Budgetary measures, liquidity support, holdings, loans	31.1	(
Ongoing grants and subsidies	18.0	(
Loans and holdings	12.7	(
Other	0.4	(
Tax measures and other reductions in tax revenue	34.1		
Local authorities	17.0	(
Housing and heating costs	2.1	(
Tax measures and other reductions in tax revenue	14.9	(
Social security	15.3	(
Compensation for short-time work	4.1	(
Reimbursement of social security contributions	6.0	(
Additional expenditures for statutory health insurance and long-term care insurance	5.2	(
rce : Federal Ministry of Finance (Stability Programme 2020). Deutsche Bank Research			

Figure 15: Guarantees in response to the COVID-19 pandemic

	Maximun	Maximum amount	
	EUR bn	% of GDP (2019)	
General government (total of all government guarantees)	819.7	23.9	
Federation: Expansion of guarantee framework	356.5		
Domestic guarantees	300.0		
Other guarantee matters	56.5	1.6	
Economic Stabilisation Fund: Guarantees provided to companies	400.0	11.6	
Länder: Expansion of guarantee framework	63.2	1.8	
Existing federal guarantee framework prior to COVID-19	465.5	13.5	
Source: Federal Ministry of Finance (Stability Programme 2020), Deutsche Bank Research			

KfW: Supporting firms' access to affordable bank loans

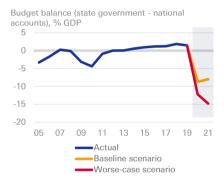
A key element of the federal government's protective shield is the liquidity assistance for businesses facing severe liquidity shortages. Existing liquidity assistance programs provided by KfW, the government's promotional bank, were therefore expanded and amended. Specifically, the provision of government guarantees should facilitate firms' access to affordable loans. To this end, the government has also taken various measures to make KfW credit instruments

Figure 11: Forecasts for government debt (baseline)

% GDP	Q4 2020	Q4 2021
US	105.0	116.0
Euro Area	119.3	125.1
Germany	75.6	82.2
UK	101.0	101.0

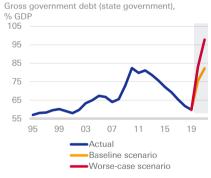
Source : Deutsche Bank Research

Figure 12: German state slides heavily into the red



Source : Federal Statistical Office, Deutsche Bank Research

Figure 13: German public debt rising dramatically



Source : Federal Statistical Office, Deutsche Bank Research

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available to an increasing number of firms.8 The government has launched a "Quick Loan Program" open to financially stable firms which recorded a profit in 2019 (or on average over the past 3 years). Commercial banks - which provide the loans to companies can sidestep detailed and lengthy credit risk assessments thanks to the government guarantee applied to 100% of the eligible loan amount. (In previous programs commercial banks had to bear 10% or 20% of the credit risk.). The maximum amount of a quick loan can be three months of a firm's revenue in 2019 but is capped at EUR 0.5 m for firms with up to 50 employees and EUR 0.8 m for firms with over 50 employees, respectively. Overall, about 52,500 firms have requested almost EUR 47 bn in liquidity support from KfW, of which EUR 30 bn have been approved so far, according to press reports citing internal government documents. While most of the smaller requests have been granted, several larger transactions have not been decided yet. Sector-wise, manufacturing firms, car dealers, transport and housing enterprises account for the largest shares. Of the immediate cash grants of up to EUR 15,000 for self-employed and small companies with up to 10 employees, about EUR 13 bn have been approved (based on about 2 m applications).

A new "Economic Stabilisation Fund" for larger companies

In order to support large corporates – usually outside the scope of KfW programs – the federal government has founded an "Economic Stabilisation Fund" ("Wirtschaftsstabilisierungsfonds"; WSF). The WSF has a financial firepower of EUR 600 bn (17.5% of GDP in 2019) and is intended for corporates with 250 or more employees by supplementing the existing liquidity assistance programs by the KfW, which is mainly targeting smaller and medium-sized companies. The WSF is provided by federal credit authorizations and guarantees with: (1) a credit authorization of EUR 100 bn (2.9% of GDP in 2019) usable for capital measures (e.g. direct recapitalization such as purchases of shares, silent partnerships, drawing participation rights or subordinated debt), (2) a credit authorization of up to EUR 100 bn to finance already agreed KfW programs and (3) a guarantee volume of up to EUR 400 bn (11.6% of GDP) e.g. to facilitate the issuance of corporate debt by supplying government guarantees.

Financial assistance and protective shields by the German federal states

In addition to the federal government's protective shield, many of the 16 German federal states – including the four economic heavyweights North-Rhine Westphalia (NRW), Bavaria, Baden-Württemberg (BW) and Hesse, which generate more than 60% of Germany's GDP – have launched separate financial assistance programs to support their local economies, with volumes in the double digit EUR bn ranges.

A EUR 130 bn fiscal package: From crisis fighting to securing the recovery ...

In early June, the government announced two stimulus programs with a total volume of EUR 130 bn (3.8% of GDP in 2019) for 2020/21. A key element of the first program—the "Fiscal Stimulus and Crisis Management Program" (Konjunktur- und Krisenbewältungsprogramm)—is the temporary reduction in the value added tax in H2 (starting on July 1st and ending on 31 December 31st 2020). The VAT rate should fall to 16% from a current 19% (the reduced rate to 7% from 5%). The tax relief to consumers and/or firms is estimated at around EUR 20 bn (0.6% of GDP in 2019). Further relief to households and firms will come through lower electricity tariffs in

⁸ Deutsche Bank Research, Focus Germany, Government support for German companies in the corona crisis, March 19, 2020.



2021 and 2022, through a reduction of the "renewable energy law share" – financed by federal extra payments (estimated at EUR 11 bn). Moreover, families will receive for every child a one-time payment of EUR 300 (estimated at EUR 4.3 bn).

As regards financial support to firms strongly affected by the corona pandemic ("interim aid") (Programm für Überbrückungshilfen), the coalition agreed to provide further liquidity/financial support in the amount of up to EUR 25 bn (0.7% of GDP in 2019) during the three months period June to August 2020. Although this financial assistance (subsidy) is meant to be inter-sectoral, it aims specifically at the most affected economic sectors like the hotel, restaurant, touristic, logistics and exhibition businesses. The programme will be financed by unutilized funds from existing programs. Moreover, companies' liquidity situation should be supported by stepping up the tax loss carry-back in the years 2020 and 2021 (EUR 2 bn). Furthermore, an extension of the depreciation allowance for 2020/21 should incentivize firms to increase business investments (EUR 6 bn).

... and securing the future

With around EUR 50 of the total volume a substantial share should be allocated into so-called "future investments" ("Future Program"; Zukunftspaket). This includes for instance the promotion of e-cars (doubling of buyer's premiums) (EUR 2.2 bn), the roll-out of e-charging points (EUR 2.5 bn), the modernization of bus/truck fleets (EUR 1.2 bn) and airplanes (EUR 1.0 bn). The coalition also agreed to strengthen the health sector (by e.g. increasing staffing at health offices) (Pakt für den öffentlichen Gesundheitsdienst) (EUR 4 bn), to improve the infrastructure at hospitals (Zukunftsprogramm Krankenhäuser) (EUR 3 bn), to promote the flexible activation of a national production for important pharmaceutical/medical products (EUR 1 bn) and to build-up stockpiling of protective clothing (EUR 1 bn).

4. A tightly knit social security system boosting citizens' crisis resilience

The health and statuary accident insurances discussed above are only parts of Germany's comprehensive social security system network with statutory social insurance at its center. The various social insurance schemes are not purely a state matter but are instead characterized by self-administration, i.e. significant (joint) decision-making powers by employer associations and labour unions. This encourages social harmony and makes it easier to take economic concerns into account. Above all it boosts citizens' resilience, especially in times of extreme economic uncertainty as is the case currently. Anyone who loses their job in Germany usually receives 'level I' unemployment benefit for at least one year, with older people receiving this benefit for a maximum of two years. This is equivalent to a generous 60% (67% for people with children) of their previous net wage. In response to the pandemic the government has extended the period in which level I unemployment benefits are paid for another 3 months if the payment would otherwise end before year-end. The German Federal Employment Agency also pays contributions to social insurance schemes to ensure continuing provision for old age and to preserve health insurance cover. In the event of extended unemployment, individuals can generally access means-tested 'level II' unemployment benefit, during the corona crisis these means-tests have been suspended.



Figure 16: Registered short-time workers

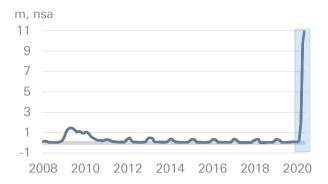


Figure 17: German labour market: COVID-19 with strong impact in April and May



Source : Deutsche Bundesbank

Source : Federal Employment Agency, Deutsche Bank Research

Kurzarbeitergeld: The deus ex machina for the German labour market

Ever since the GFC when German GDP slumped by 5.7%, but the unemployment rate inched up a meager 0.3pp, as the lack of labour demand was taken up by close to 1.5 m employees working short shifts, with the income loss offset by the Federal labour agency, the German word Kurzarbeitergeld has become another internationally recognized trademark of Germany's social market economy. The main application of this subsidy is a temporary lack of demand, hence its duration is normally limited to 3 months, but can be renewed for 12 months. The benefits for both parties of the employment contract are obvious. The employee keeps his job and his income loss is curtailed, as he receives up to 60% (67% in case of kids) of his net-income for hours on short-shift. Employers can flexibly adjust manpower utilization and benefit from a substantial relief in ongoing outlays. They can hold on to their qualified labour force and avoid costly dismissals as well as search costs in case demand recovers. More generally this instrument suits the traditional, long-term commitment to the employment relationship in Germany as it avoids high emotional costs common in dismissals.

Not surprisingly, the easing of the conditions for Kurzarbeitergeld was one of the first measures implemented in fighting the economic fallout of the pandemic (retroactively starting on March 1st). In mid-March the federal government predicted the number of short-time workers to spike to EUR 2.35 m persons, implying additional fiscal costs of EUR 10 bn (0.3% of GDP in 2019). The actual number of people working short-shift is only known with a 3 months delay, when the financial support is finally settled by the BA, but companies do have to apply for the benefits in advance. Around 855 k firms have applied for short time working (corresponds to notifications for 11.7 m employees as of 27 May). Such numbers imply that the BA's reserves of around EUR 26 bn will be depleted during the year, requiring a loan from the Federal Government of more than EUR 5 bn will then be needed. Moreover, on April 22nd the governing coalition agreed to increase Kurzarbeitergeld to 70% / 77% of the previous pay after three months of receiving it and further to 80%/87% after half a year (the staggered increase is limited until the end of 2020 and applies to employees' working hours cut be at least half).

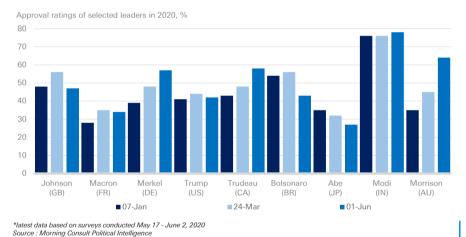
5. Responsible, long-term oriented companies and labour unions

The Mittelstand, the small and medium-sized companies, is probably the most important trademark of corporate Germany. Around one in six people in



employment in Germany works for one of these companies, many of which operate globally. These companies - often family-owned - are tightly integrated in their home region with a strong sense of responsibility for their staff's well-being, often sponsoring schools and technical colleges but also cultural institutions and sport facilities. For most of these companies the protection of their work force is a matter of pride but also one of necessity as their highly qualified workers are a key factor behind their economic success. This has fostered a very cooperative stance of the local works councils in these companies, quite often to the chagrin of federal union leaders. Still in times of crises even the somewhat more belligerent union leaders are focusing on the long-term survival of the companies. These can be seen by the flexible instruments which have been integrated into German collective wage agreements over the years (annual working time accounts, performance related pay components and the possibility for companies to deviate from regulations of the collective pay agreements in difficult times). Not surprisingly, IG Metall in NRW relinquished demands for higher pay and settled for a topping-up of Kurzarbeitergeld for lower wage brackets in a recent collective pay agreement. Many Mittelstand companies have shifted their production lines towards medical equipment and protective gear and provided their employees with leeway to engage in voluntary communal work.

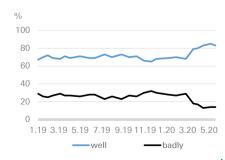




6. High levels of institutional trust and future-oriented citizens

In many countries the popularity of government leaders has risen during the pandemic crisis, a typical behavior during times of crisis. Still, Germany's Chancellor Merkel stands out, in particular, given that she was considered a lame duck by many observers, after she gave up CDU party leadership and announced last year that she would not seek reelection. Her cautious, unagitated technocratic management style, relying on expert advice from scientists, served her and Germany well. Especially in comparison to countries where helpless leaders hoped to escape the crisis by ignoring it. The German government's crisis management benefitted from Germans' traditionally high level of trust in their governments, especially in the local governments. This is certainly one reason why people have followed the lockdown measures better than in many other countries. But behavioral traits have probably helped, too. The population has a very long-term, risk-averse attitude, as can be seen by their low time preference. In behavioural

Figure 19: Chancellor Merkel does her job rather...



Source : Forschungsgruppe Wahlen. Politbarometer, 29 May 2020

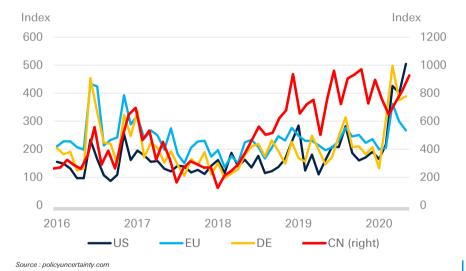


science these patterns are referred to as self-regulation and the ability to forgo instant gratification. Studies show that impatience leads to significantly lower investments in a person's own human capital and thus significantly lowers income over a lifetime. Investigations and experiments have revealed that German society is very much characterized by conscientiousness and a readiness to forgo instant gratification. This leads among others to greater attention to personal health. The overall good financial situation of households, in particular the low level of indebtedness—another consequence of the low time preference—provides German households with the resources to maintain a longer period of social distancing, which they will most likely aim for.

Germany: Hard hit but standing out against other countries

There should be no doubt there will be no business as usual for a long time. The heightened global uncertainty related to COVID-19 will continue to hamper global trade and investment spending providing a retarding force for the German recovery. Moreover, after Brexit and the US/Chinese trade conflict, COVID-19 is the third blow to globalization within just a few years. Germany, with its export oriented economy, is more exposed than other countries to a likely structural deceleration of global trade.

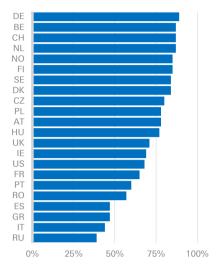
Figure 21: News based economic policy uncertainty index



Although the government is trying to utilize the massive fiscal expenditures to promote structural change towards digitization and sustainability, the bulk of the expenditures goes into income support and will not be available for more future-oriented projects. Finally, the apparent consensus between politicians, business lobbying groups and the vast majority of the population that a bigger role of the government is needed in solving each and every problem, has triggered concerns that the government's role in the economy might be permanently increased rather than being scaled back after the crisis. Still, these six interconnected factors discussed above (there are probably more) suggest that the German economy was better prepared to cope with this crisis and is likely to come out of it better than many

Figure 20: Which offer do you prefer? USD 3400 this month or 3800 next month





Source: T. Hens, M. O. Rieger und M. Wang (2016), How Time Preferences Differ: Evidence from 53 Countries, Journal of Economic Psychology

⁹ Deutsche Bank Research, Focus Germany, Are we on our way to state capitalism?, April 14, 2020.



other countries – as it did already after the 2009 crisis. This is reflected in our forecasts, although we expect the German economy to slump by 9% this year. However, for the other larger EMU economies our colleagues predict contractions of 14% to 15%. The UK is expected to shrink by 11.5%. The increase in Germany's unemployment rate to around 7% in 2020 is hardly noticeable, when compared to double digit unemployment rates in the US and the rest of EMU. Despite the fiscal deterioration, the German debt level is much more manageable than in many other countries, not least since Germany has proved after unification and after the GFC that it is willing and capable of fiscal consolidation. Finally, Germany's competent crisis management and the society's overall resilience certainly did not go unnoticed and could attract more highly-skilled people from the rest of the world – especially as their preferred destinations so far did not exactly cover themselves in glory during the COVID-19 crisis.



Appendix 1

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