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Covid-19 third Wave - Impact on Financial Markets and Economy

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Carl Heinz Daube¹

Covid-19 third Wave - Impact on Financial Markets and Economy

Abstract

The pandemic, caused by Covid-19, has hit the whole world since the beginning of 2020. The current extent of the resulting economic and social upheaval cannot be estimated yet. In this working paper, an attempt to compare Covid-19 figures with the development on the financial markets and the real economy is made. We try to analyse whether significant effects have already occurred and where these could still come with a time lags.

Zusammenfassung

Die Pandemie, hervorgerufen durch Covid-19, hat seit Anfang 2020 die ganze Welt erfasst. Das tatsächliche Ausmaß der dadurch verursachten wirtschaftlichen und sozialen Verwerfungen sind noch nicht abschätzbar. In diesem Working-Paper wird ein Versuch unternommen, Covid-19 Zahlen der Entwicklung an den Finanzmärkten und der Realwirtschaft gegenüber zu stellen und zu analysieren, wo es bereits zu massiven Auswirkungen gekommen ist und wo diese mit zeitlicher Verzögerung noch kommen könnten.

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Introduction

So far, almost 140 million people worldwide have been infected by Covid-19² and the pandemic has caused about 3 million deaths.³ In addition to human fate, the economy suffers considerable losses, which in turn puts additional strain on the situation of many people and in some cases leads to considerable existential fears.⁴

In March 2020 - shortly after the outbreak of the corona pandemic - there were significant price drops on the international financial markets.⁵ While the real economy continues to suffer from considerable losses,⁶ the stock markets worldwide recovered relatively quickly and in some cases even reached new historical highs.⁷

It therefore appears to be of great interest, after roughly one year of the corona pandemic, to compare the development on selected financial markets with some real economic time series and analyse them in more detail. Labor market data, bankruptcies and incoming orders are used for this purpose. This is done here in relation to Germany. The financial markets often anticipate the development of the real economy by many months.⁸ The parentheses function above all are the daily numbers of new infections in Germany.

² In accordance with WHO we us the term Covid-19.

³ <https://covid19.who.int> 15.04.2021.

⁴ cf. https://www.deutschlandfunk.de/coronakrise-die-existenzangst-vieler-menschen-wird-immer.694.de.html?dram:article_id=475886 09.04.2021.

⁵ cf. Daube (2020) : The Corona Virus Stock Exchange Crash, <http://hdl.handle.net/10419/214881>.

⁶ cf. <https://www.bmwi.de/Redaktion/EN/Dossier/economic-development.html> 09.04.2021.

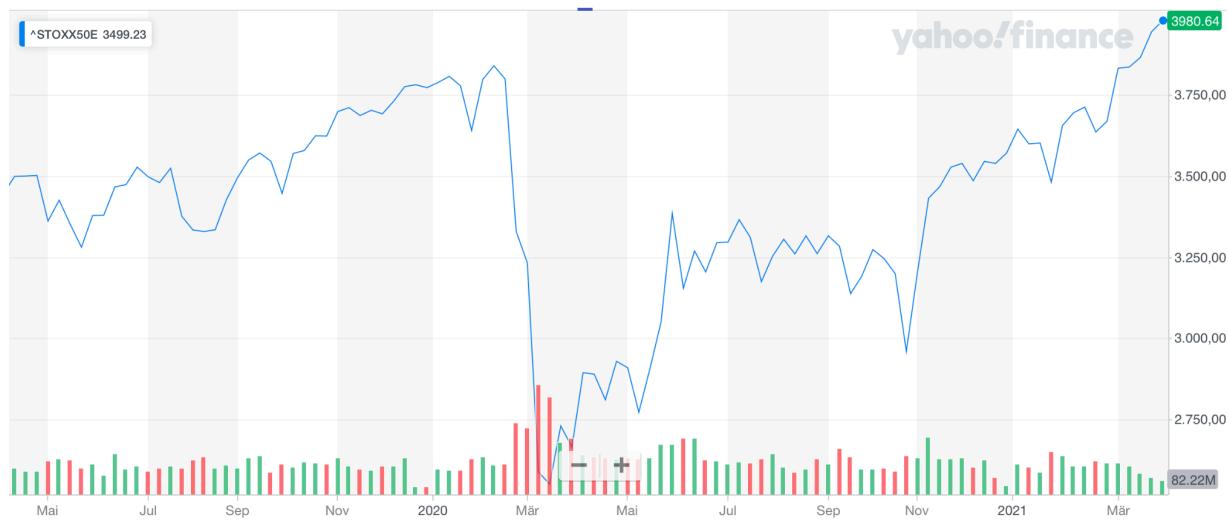
⁷ cf. <https://www.boerse.de/nachrichten/Dax-mit-neuem-All-Time-High/31966991> 09.04.2021.

⁸ cf. <http://www.wirtschaftslexikon.co/d/eskomptieren/eskomptieren.htm> 09.04.2021.

Selected developments on the international financial markets

EUROSTOXX50

The EUROSTOXX50 is used as a representative for the share price development in Europe. This index comprises the 50 largest stocks in the euro area.⁹



<https://de.finance.yahoo.com/quote/%5ESTOXX50E/chart?p=%5ESTOXX50E#> 09.04.2021

The EUROSTOXX50 recovered from its heavy drop in March 2020 within a few months. In autumn 2020 there was another brief and limited drop. Since then, the EUROSTOXX50 has been in an uninterrupted upward trend and in April 2021 it was slightly above the level before the slump in March 2020.

⁹ cf. https://www.finanzen.net/index/euro_stoxx_50/werte 09.04.2021.

DAX

The German stock index DAX currently contains the 30 largest and most liquid German stock corporations.¹⁰



<https://de.finance.yahoo.com/quote/%5EGDAXI/> 09.04.2021

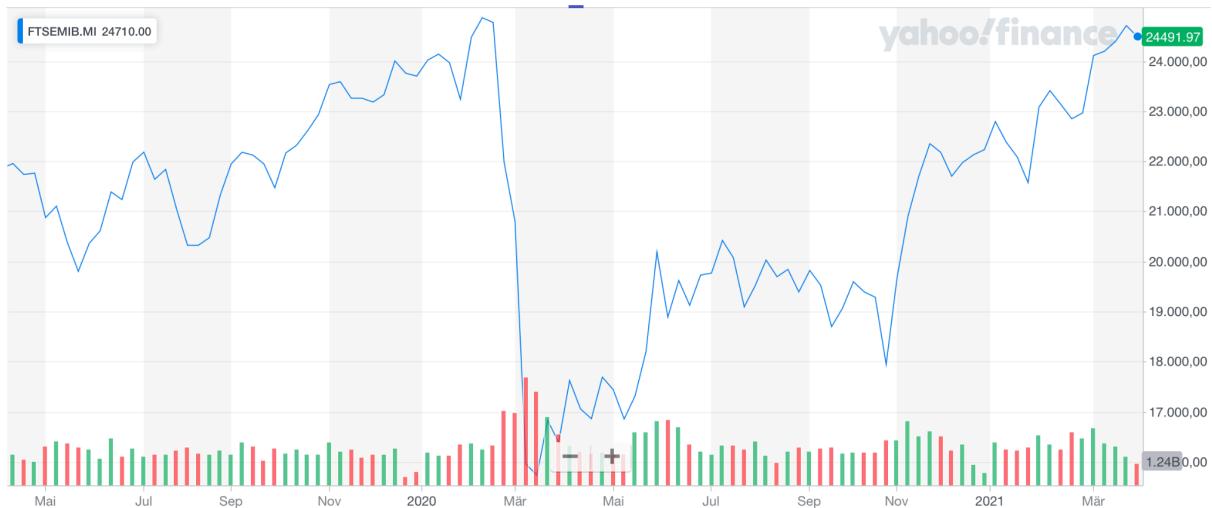
The DAX recovered quite quickly after its slump in March 2020 and in July 2020 was almost back at the level before the price drop in March. The DAX also took a brief and limited drop in autumn 2020. Nevertheless, the share price began to rise afterwards, leading the DAX to new historical highs until April 2021.¹¹ The index is currently more than 1,000 points above its level before the price slump in March 2020.

¹⁰ cf. <https://deutsche-boerse.com/dbg-en/media/deutsche-boerse-spotlights/spotlight/DAX-benchmark-and-barometer-for-the-German-economy-139948> 09.04.2021.

¹¹ vgl. <https://www.faz.net/aktuell/finanzen/dax-hat-seit-corona-tief-im-maerz-2020-70-prozent-zugelegt-17225015.html> 24.03.2021

FTSE MIB

The FTSE MIB represents the 40 most important listed companies of Italy.¹² Italy was the European country that was hit hardest by Covid-19 in early 2020.¹³



<https://de.finance.yahoo.com/quote/FTSEMIB.MI/> 09.04.2021

The crash in March 2020 was dramatic, the index level almost halved. The price recovery over the summer of 2020 was significantly less than that of the EUROSTOXX50 or the DAX, only about half of the price loss was regained in the next few months. Nevertheless, the stock exchange in Milan continued to rise in autumn 2020 and in April 2021 reached roughly the level it had before the price drop in March 2020.

¹² cf. <https://www.boerse.de/indizes/FTSE-MIB/IT0003465736> 09.04.2021.

¹³ cf. <https://de.statista.com/statistik/daten/studie/1101075/umfrage/entwicklung-der-fallzahlen-des-coronavirus-in-italien/> 09.04.2021.

FTSE

The FTSE comprises 100 listed companies from the UK and represents about 80% of the market capitalisation of the London Stock Exchange.¹⁴ However, the development in England differs from the indices examined so far.



<https://de.finance.yahoo.com/quote/%5EFTSE/> 09.04.2021

First of all, it is noticeable that the FTSE was already moving in a horizontal trend at a high level before the price slump in March 2020. One reason for this could have been a certain Brexit euphoria. After the share price decrease in March 2020, the FTSE recovered comparatively moderately and entered a downward trend at the end of May / beginning of June. Hence, the price drop in autumn 2020 was much smaller than that of the other indices. In contrast to the indices examined so far, the FTSE was unable to return to its level from before the price drop in March 2020 - on the contrary: the index is currently about 1,000 points below the level of March 2020.

¹⁴ cf. https://www.finanzen.net/index/ftse_100 09.04.2021.

DJIA

The DJIA represents the 30 largest US companies.¹⁵ The development of the DJIA differs from the indices examined so far - despite (or perhaps because of) Covid-19 and the election campaign.



<https://de.finance.yahoo.com/quote/%5EDJI/> 09.04.2021

Even before the price slump in March 2020, the DJIA was in a sustained upward trend. This was interrupted by the crash in March 2020. The index then quickly resumed its upward trend, and there was no brief drop in autumn 2020. Since then, the DJIA has been in an unbroken upward trend, which led it to new historical highs until April 2021. This is quite remarkable for two reasons. The United States is one of the countries that was hit the hardest in the world by Covid-19.¹⁶ In addition, the country was in the midst of campaigns and elections mode for the new President for a long period of time.¹⁷

¹⁵ cf. <https://www.wallstreet-online.de/indizes/dowjones/enthaltenewerte> 09.04.2021.

¹⁶ cf. <https://www.aerzteblatt.de/nachrichten/117404/USA-Uebersterblichkeit-uebertrifft-Zahl-der-gemeldeten-Todesfaelle-an-COVID-19> 09.04.2021.

¹⁷ cf. <https://www.nzz.ch/international/wahlen-in-den-usa-trump-und-biden-im-duell-um-das-weisse-haus-ld.1561833?reduced=true> 09.04.2021.

NIKKEI

The NIKKEI is the stock exchange index of Japan, it comprises the 225 largest Japanese companies.¹⁸ The picture in Japan is far more similar to the picture in the USA than in Europe.



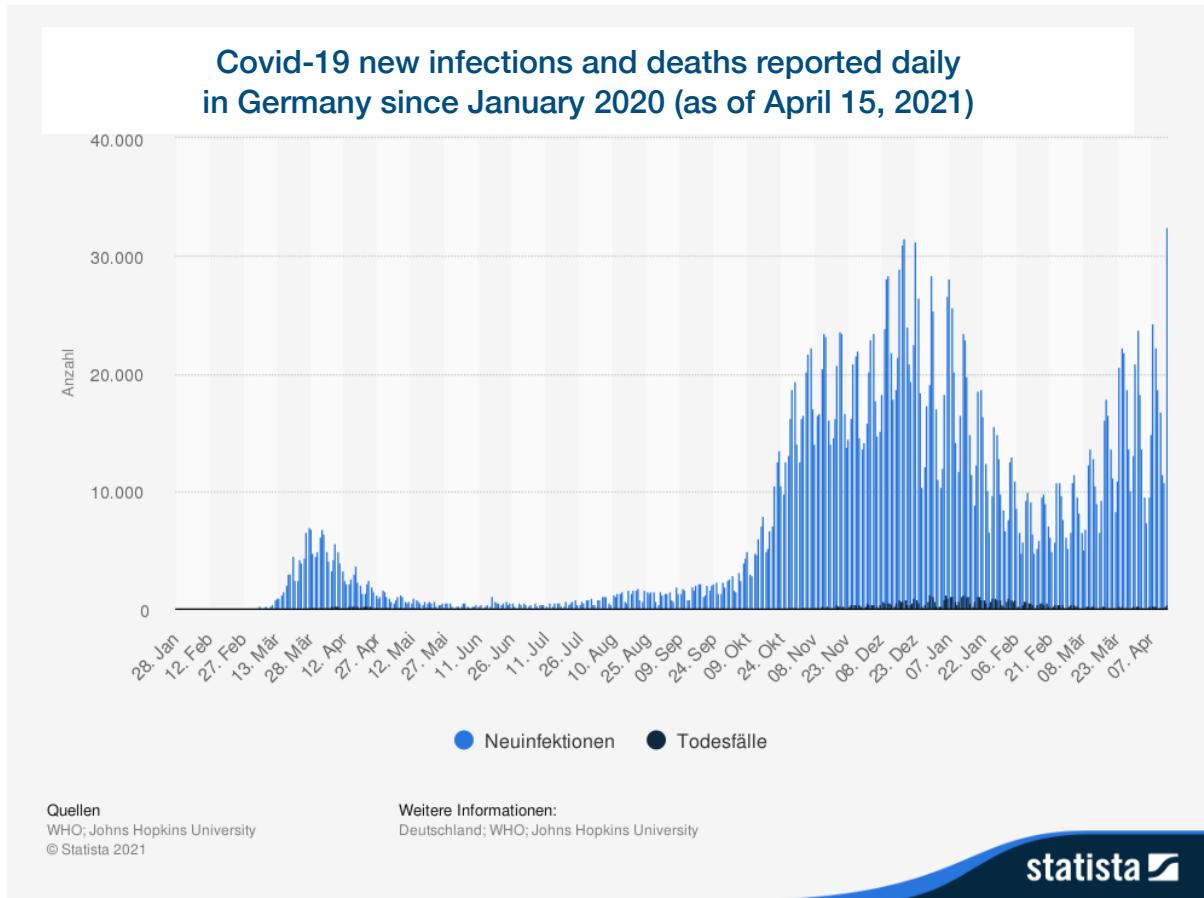
<https://de.finance.yahoo.com/quote/%5EN225/> 09.04.2021

Before the price collapse in March 2020, the NIKKEI was in some kind of horizontal movement. The brief slump was comparatively moderate. Then the NIKKEI takes off and has made a remarkable development; there was no short drop in autumn - as in Europe, for example. The NIKKEI has increased by about 13,000 points since March 2020.

In summary, it can be stated at this point that the international financial markets have not suffered from Covid-19 - on the contrary: new historical highs were reached in many markets. Once again, the international financial markets seem to have decoupled from the real economy. How does that fit in with the big number of infected and dead people?

¹⁸ cf. https://www.finanzen.net/index/nikkei_225 09.04.2021.

Corona-data



<https://de.statista.com/statistik/daten/studie/1100739/umfrage/entwicklung-der-taeglichen-fallzahl-des-coronavirus-in-deutschland/> 15.04.2021

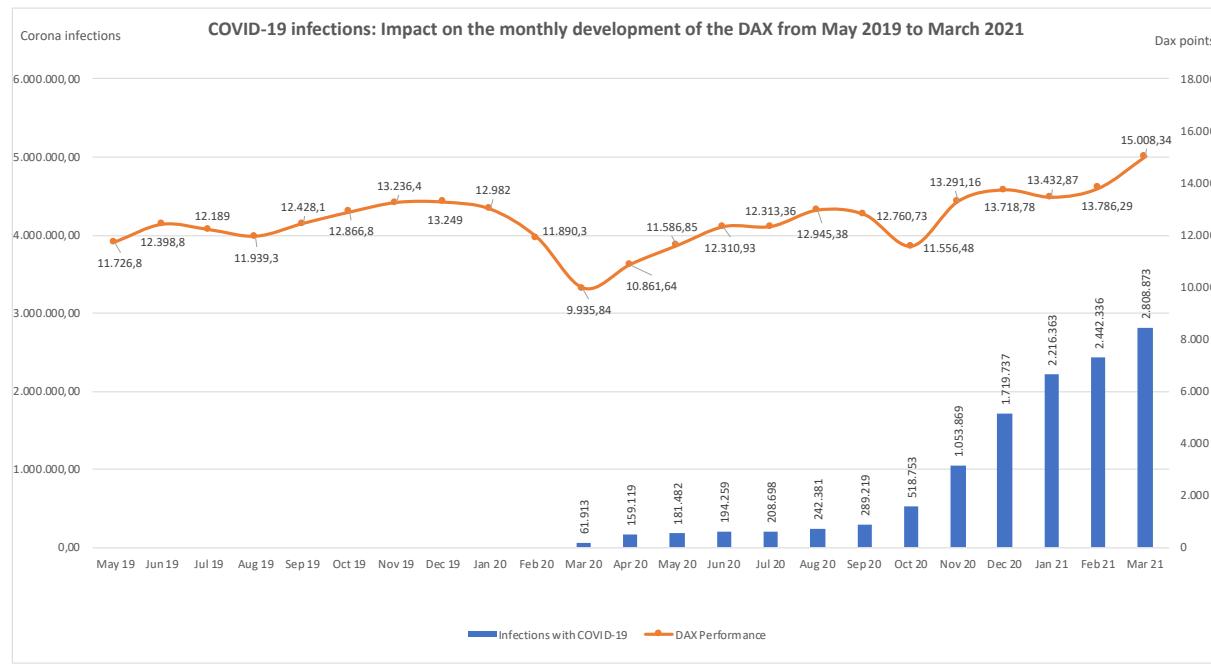
If one looks at the data from the above figure soberly, it is easy to see that Germany is currently facing the third wave. The second wave already significantly exceeded the first in terms of its amplitudes. None of this came as a real surprise. Scientists had predicted exactly this development in May / June 2020.¹⁹ Those responsible in Berlin and Brussels could therefore have used the summer months to draw up a number of action plans. There are more than enough suitable tools, e.g. from project management.²⁰ The question of why none of this has been used must be answered by those responsible, and is not subject of this working paper. In addition, it is

¹⁹ cf. <https://www.zdf.de/nachrichten/panorama/coronavirus-zweite-welle-wendtner-100.html> 07.04.2021. <https://www.faz.net/aktuell/gesellschaft/gesundheit/coronavirus/virologe-drosten-weshalb-eine-zweite-corona-infektionswelle-droht-16733977.html> 07.04.2021.

²⁰ cf. z.B. Litke (2004), Projektmanagement - Handbuch für die Praxis. Schwarze (2014), Projektmanagement mit Netzplantechnik. Borrman et al. Hrsg. (2021), Building Information Modeling.

not really surprising that a number of mutations in the original SARS-CoV-2-virus have now occurred - scientists warned about it in summer 2020.²¹ Nevertheless, the question remains unanswered as to why, in view of the reliable forecasts from spring and summer 2020, no vigorous and consistent action was taken.²²

If you look at the development of the DAX since May 2019 and add the number of Covid-19 infections since March 2020, you get the following picture.



own calculation own representation

It can be stated that the increasing number of infections has not affected the price development at the German Exchange. What may be surprising at first glance is easy to understand at second. As already mentioned above, on the stock exchanges future developments are evaluated and traded. For the current price development, it is not so much today's data, which reflects the here and now, that it is of particular importance than what expectations are being cherished with regard to inflation, economic growth, employment, etc. And the forecasts for 2021 and 2022 by

²¹ cf. https://www.rki.de/EN/Home/homepage_node.html;jsessionid=6877ACE4F9EF98D1B1692ED3CEEA3D00.internet082_05.04.2021.

²² However, potential answers and explanations may be found in e.g. Freibe / Gürtler (2018), Clusterfuck.

the German Advisory Council on the Assessment of Economic Development look good given the circumstances.²³

Key economic indicators for Germany

	Unit	2019	2020	2021 ¹	2022 ¹
Gross domestic product ^{2,3}	Growth in %	0.6	- 4.9	3.1	4.0
Gross domestic product, calendar-adjusted ^{2,3}	Growth in %	0.6	- 5.3	3.1	4.1
Current account balance ⁴	%	7.1	7.1	7.9	6.0
Persons employed (domestic)	Thousand	45,269	44,782	44,744	45,179
Persons employed, covered by social security	Thousand	33,518	33,578	33,767	34,245
Registered unemployment, stocks	Thousand	2,267	2,695	2,682	2,429
Unemployment rate ⁵	%	5.0	5.9	5.9	5.3
Consumer prices ³	Growth in %	1.4	0.5	2.1	1.9
General government budget balance ⁶	%	1.5	- 4.2	- 4.1	- 1.5

1 – Forecast by the GCEE. 2 – Constant prices. 3 – Change on previous year. 4 – In relation to nominal GDP. 5 – Registered unemployed in relation to civil labour force. 6 – In relation to nominal GDP; regional authorities and social security according to national accounts.

Sources: Federal Employment Agency, Federal Statistical Office, own calculations

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The federal government also comes up with similarly good figures in its annual projection for 2021.²⁴ Incidentally, no gray clouds appear to be gathering in the inflation sky.²⁵

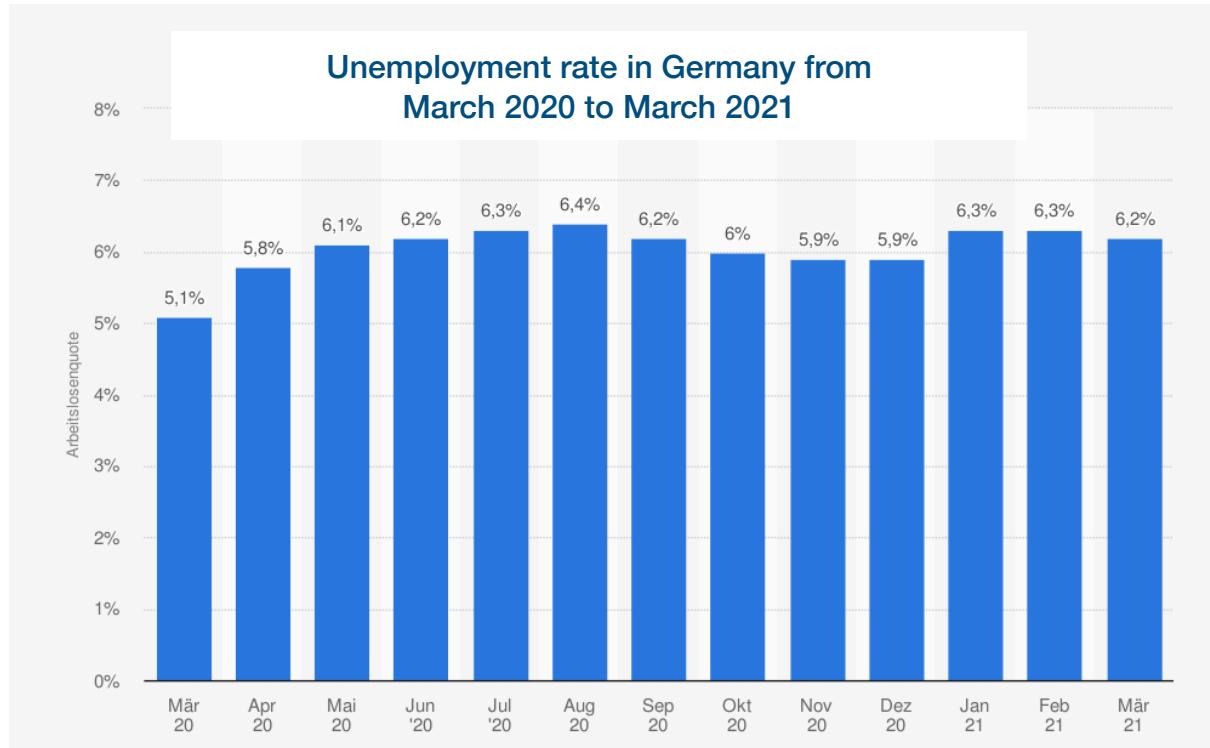
²³ cf. <https://www.sachverstaendigenrat-wirtschaft.de/en/economic-outlook-2021.html> 09.04.2021.

²⁴ cf. <https://www.bmwi.de/Redaktion/EN/Dossier/economic-development.html> 09.04.2021.

²⁵ cf. <https://www.ecb.europa.eu/press/pressconf/2021/html/ecb.is210311~d368d7151a.en.html> 09.04.2021.

Labor market

If we look next at the effects of Covid-19 on the labor market, it is noticeable that the unemployment rate has not changed significantly, as can be seen in the following figure.



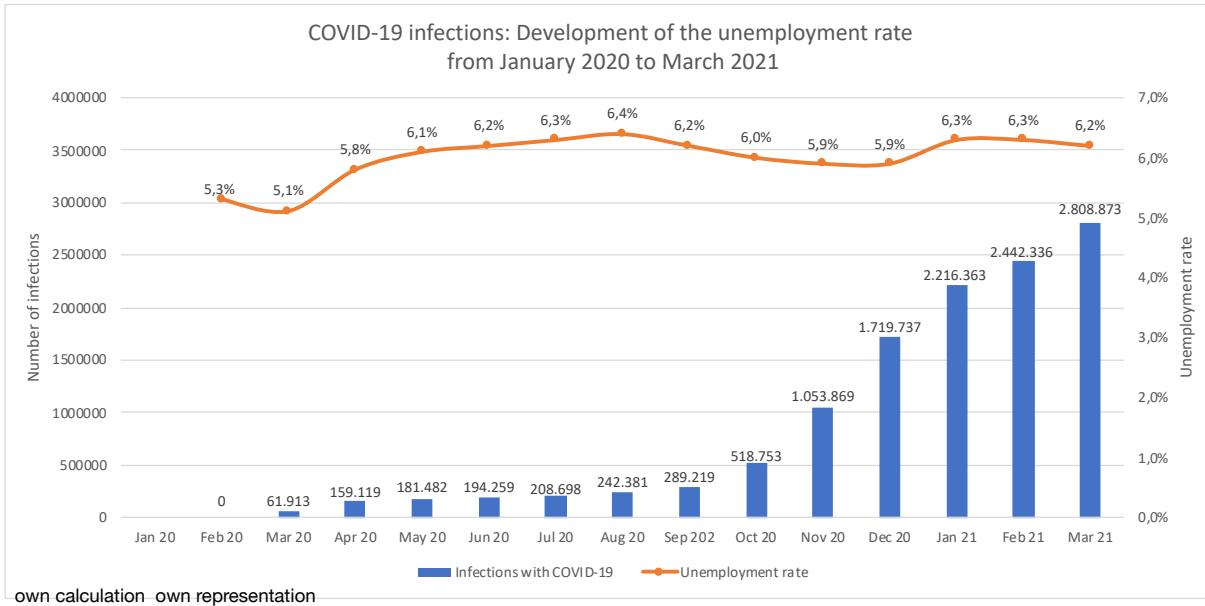
<https://de.statista.com/statistik/daten/studie/1239/umfrage/aktuelle-arbeitslosenquote-in-deutschland-monatsdurchschnittswerte/> 09.04.2021.

In fact, there was an increase of about 1%-point from March to April 2020; thereafter the unemployment rate more or less remained at this level. The reason for this was and is primarily that the federal government immediately took a number of measures to cushion the effects of Covid-19 on the labor market and the economy as a whole.²⁶ In the meantime, a number of rescue packages and bridging support have been launched.²⁷

Hence, it is not surprising that the unemployment rate has remained almost at its level, completely unaffected by the increasing number of infections, as can be seen from the following figure.

²⁶ cf. Becker (2020), Staatliche Förderung in Zeiten des Corona-Virus, <http://hdl.handle.net/10419/214899>.

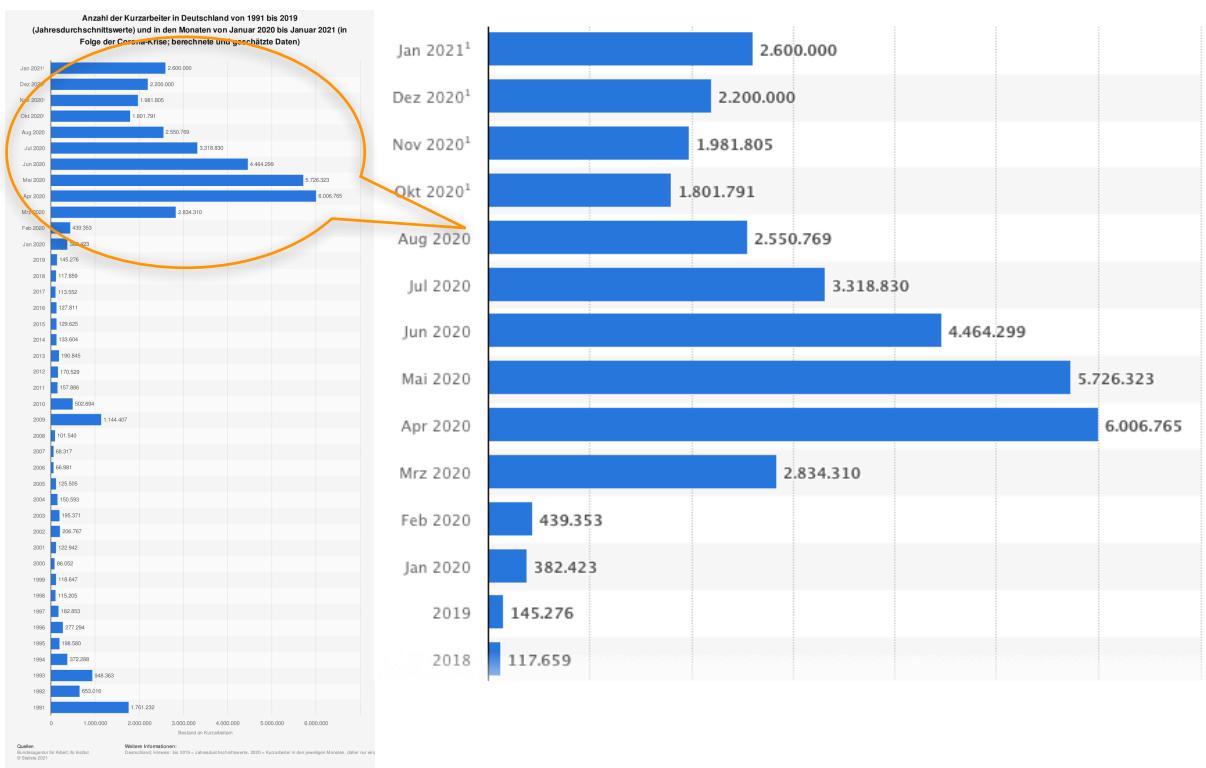
²⁷ cf. <https://www.bundesfinanzministerium.de/Web/EN/Home/home.html>; <https://www.bmwi.de/Redaktion/DE/Pressemitteilungen/2021/03/20210401-ueberbrueckungshilfe-3.html> 07.04.2021.



The main reason why the unemployment rate has not increased significantly is likely to be the immediate introduction of short-time work benefits in March 2020.²⁸ The amount of short-time allowance granted has never been higher than since the outbreak of the Corona crisis. The figure below shows the number of people on short-time work since 1991 on an annual basis. For the period January 2020 on a monthly basis, the Covid-19 effect is obvious.

²⁸ cf. <https://www.zeit.de/wirtschaft/2020-12/corona-hilfen-2020-kurzarbeit-soforthilfen-ueberbrueckungshilfen-bilanz> 07.04.2021. On the economic benefit of short-time work cf.. <https://www.ifw-kiel.de/de/publikationen/das-ifw-in-den-medien/2020/09/rettet-kurzarbeit-wirklich-jobs/> or e.g. <https://www.ifo.de/publikationen/2021/aufsatzeitschrift/die-post-covid-19-wirtschaft-welche-unerwarteten-spuren> 14.04.2021.

Average number of companies with short-time work in Germany from 1992 to 2021



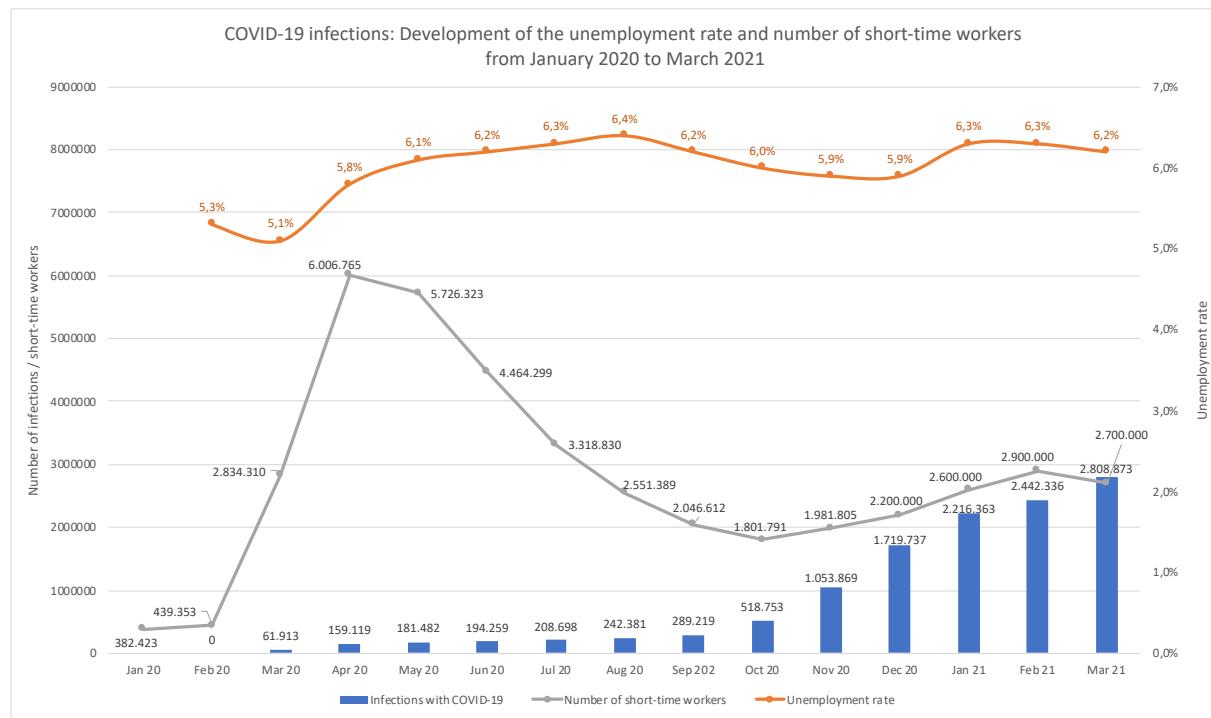
<https://de.statista.com/statistik/daten/studie/154744/umfrage/anzahl-der-kurzarbeit-anbietenden-betriebe-in-deutschland-seit-1991/> 09.04.2021

The introduction of short-time working allowance had already been proven to be successful a decade ago during the financial market and national debt crisis.²⁹ The short-time work is intended to keep the company's workforce and to be able to return to their jobs immediately when the economy picks up momentum again.³⁰ As a result, they do not appear in the unemployment statistics, do not receive any unemployment benefits and remain connected to their companies. The prerequisite, however, is that the economy really picks up again. This may not always be the case, as it assumes that the companies concerned survive the crisis. We will come back to this topic later when we look at bankruptcies.

²⁹ cf. <http://doku.iab.de/kurzber/2009/kb1409.pdf> 06.04.2021.

³⁰ cf. Eichhorst / Marx(2009). Kurzarbeit: Sinnvoller Konjunkturpuffer oder verlängertes Arbeitslosengeld? <http://hdl.handle.net/10419/91840> 05.04.2021.

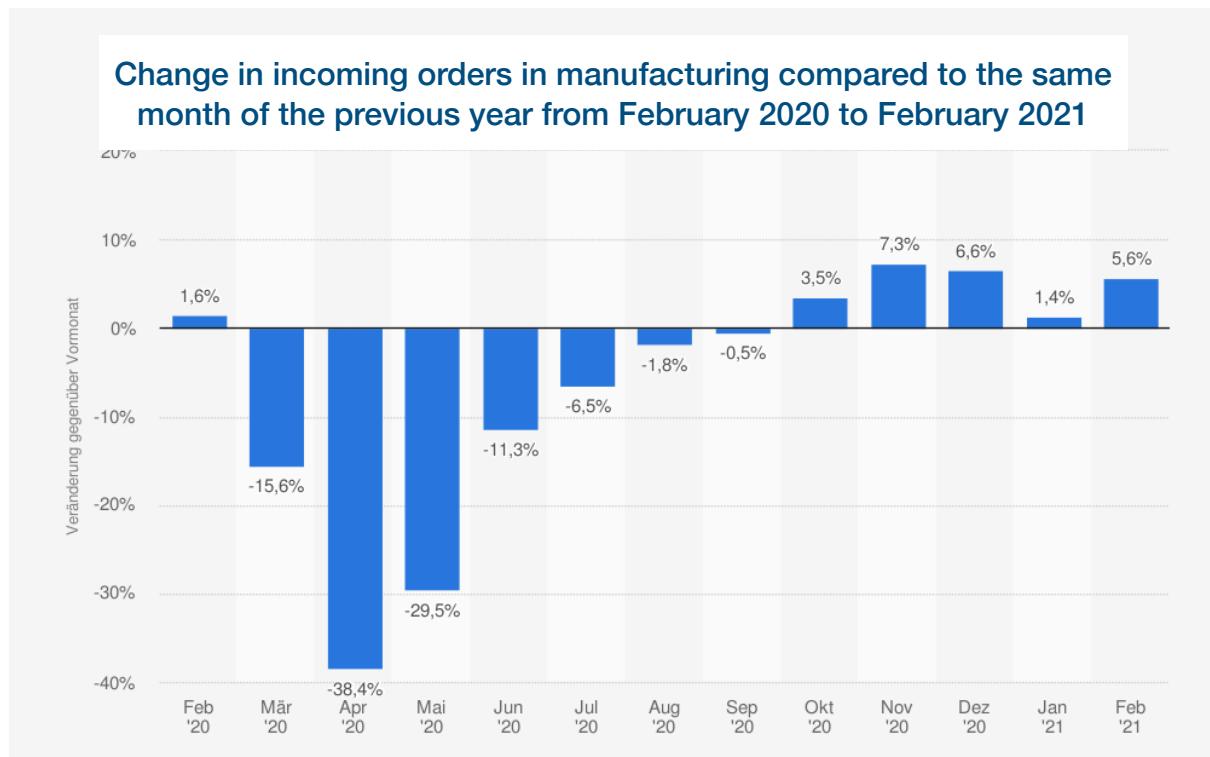
If we look at the following figure, which shows the Covid-19, unemployment quota and short-time work, it is noticeable that the highest level of people on short-time work was reached when the first wave broke out in March 2020. The number of short-time working then fell again, only to rise again after a low point at the beginning of the second wave in autumn 2020. The current level is still significantly lower than half of the value from March 2020. A plausible reason could be that many companies are now employing their workforce to a greater extent again, but not on-site in the company, but many work from home.



own calculation own representation

Incoming orders

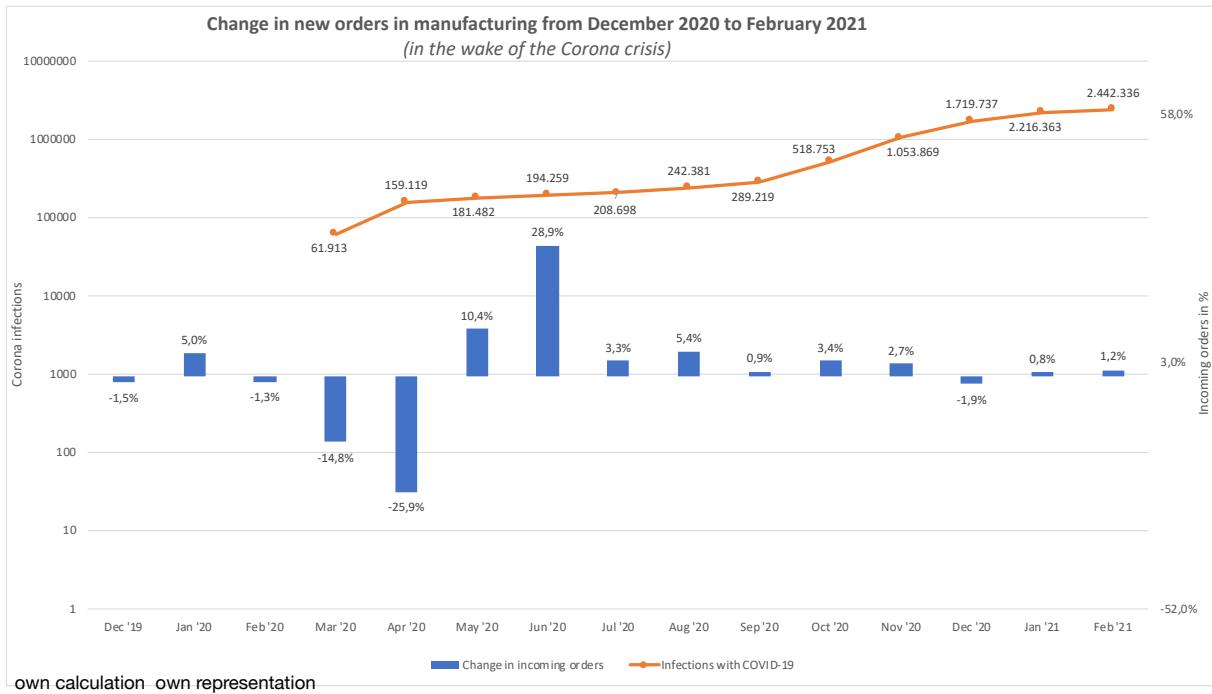
The change in incoming orders is a leading indicator for further economic development. As can be seen from the following figure, the incoming orders show positive changes again, i.e. incoming orders are increasing.



<https://de.statista.com/statistik/daten/studie/1020669/umfrage/veraenderung-der-auftragseingaenge-im-verarbeitenden-gewerbe/> 09.04.2021

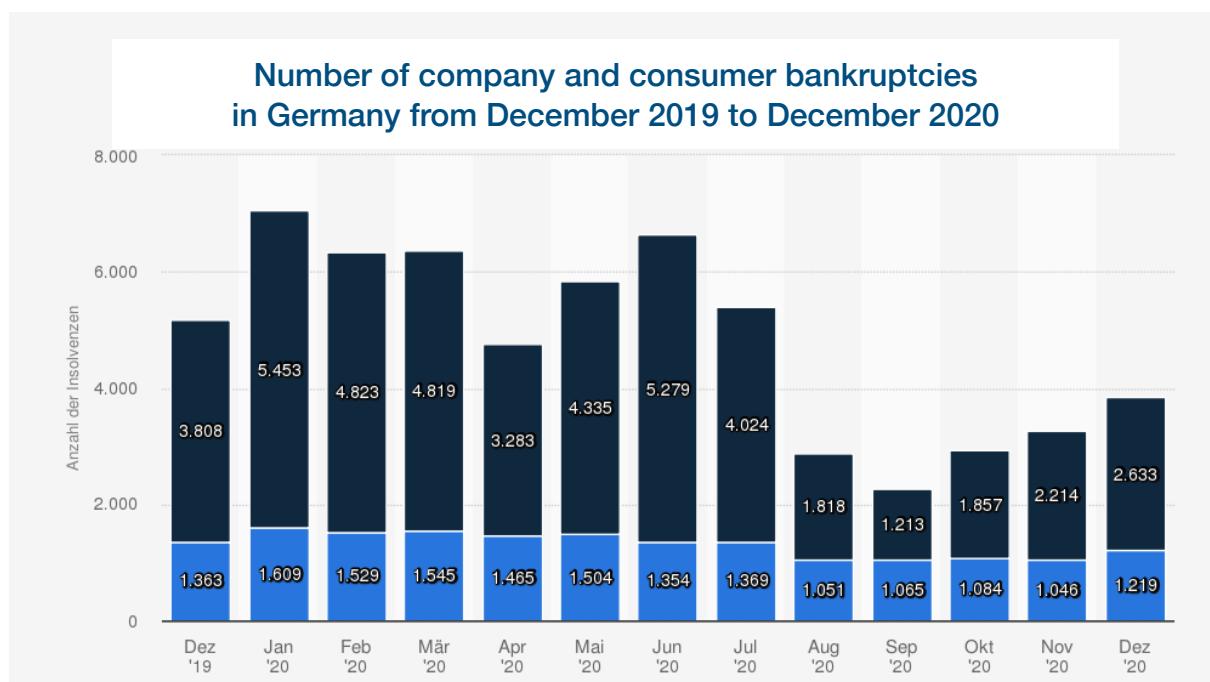
In short, today's incoming orders are tomorrow's production and the day after tomorrow's sales. The development of incoming orders could therefore also be used as evidence for the economic forecasts presented above. The development of incoming orders often proves to be the mainstay of the economy.³¹ The figure below shows that, despite the increasing number of Covid-19 infections, there have been positive changes in incoming orders. Incidentally, that should also have boosted share prices.

³¹ cf. https://www.bmwi.de/SiteGlobals/BMWI/Forms/Suche/DE/Servicesuche_Formular.html?resourceId=180050&input_=2305118&pageLocale=de&selectSort=score+desc&templateQueryStringListen=Entwicklung+der+Auftragseingänge+im+Verarbeitenden+Gewerbe+, 22.03.2021 05.04.2021.



Insolvencies

There is often a very close correlation between economic development and the number of bankruptcies; the number of bankruptcies in Germany has tended to decline since the beginning of the new millennium.³² Therefore, one should expect that in an economic downswing or even a recession, the number of bankruptcies would increase. A look at the development since the end of 2019 shows, however, that no increase has been recorded - neither for companies nor for consumers.



<https://de.statista.com/statistik/daten/studie/70709/umfrage/anzahl-der-insolvenzen-in-deutschland-unternehmen-und-verbraucher/> 09.04.2021

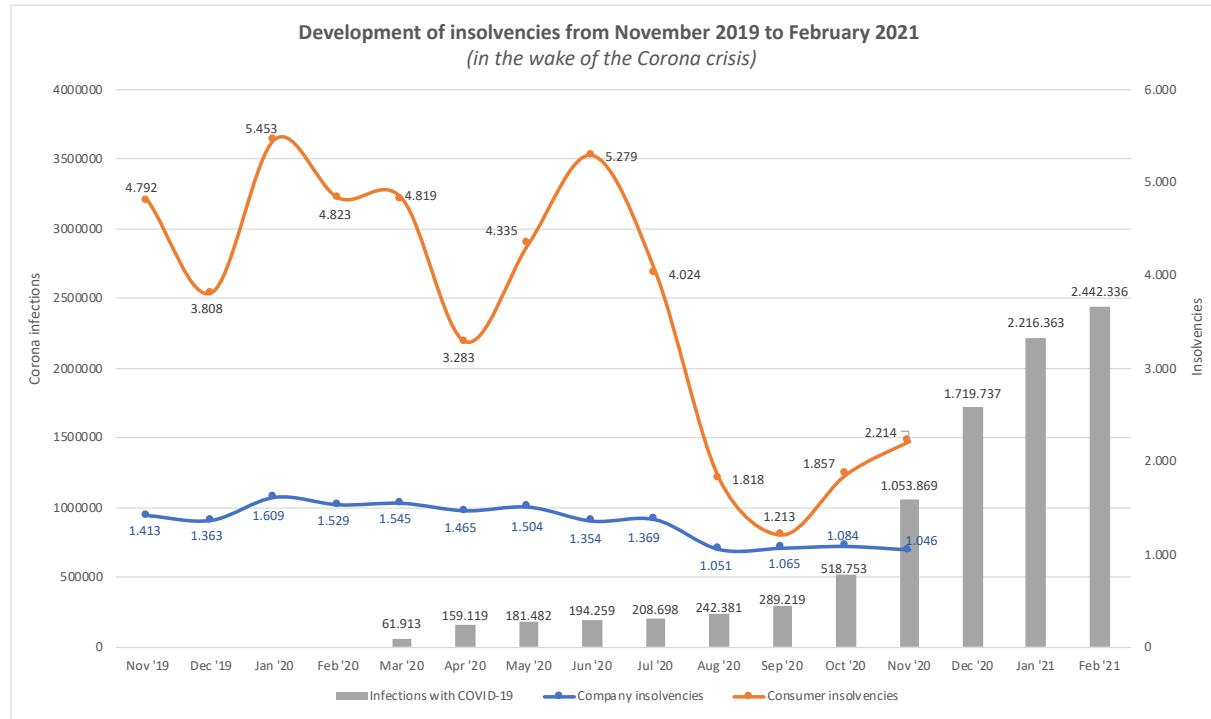
The dynamic that was actually to be expected has not materialised because the federal government has suspended the statutory obligation to file for insolvency.³³ The regulations for the suspension of the obligation to file for insolvency were adapted to the respective developments in the course of the COVID-19 pandemic.³⁴ It remains to be seen what happens when this

³² cf. Röhl / Vogt (2016). Unternehmensinsolvenzen - Anhaltender Rückgang bei fortbestehenden regionalen Differenzen.

³³ cf. Holtmöller (2021), Unternehmensinsolvenzen in Deutschland im Laufe der Corona-Krise.

³⁴ cf. https://www.bmjjv.de/DE/Themen/FokusThemen/Corona/Insolvenzantrag/Corona_Insolvenzantrag_node.html 10.04.2021.

application requirement is reinstated.³⁵ A connection between the Covid-19 infection numbers and the bankruptcies has therefore not yet been identified. Nevertheless, there are already many voices warning of “zombie companies” and “zombie workplaces”.³⁶



own calculation own representation

³⁵ cf. <https://www.n-tv.de/wirtschaft/Weniger-Insolvenzen-als-befürchtet-article22462694.html> 10.04.2021.

³⁶ cf. <https://www.ifo.de/node/58822> oder auch <https://www.iwkoeln.de/studien/iw-kurzberichte/beitrag/klaus-heiner-roehl-droht-eine-zombiefizierung-der-deutschen-wirtschaft-495885.html> 15.04.2021

Summary and outlook

In this working paper, an attempt was made to analyse the development of the international financial markets, the Covid-19 figures and some selected time series of economic data. In summary, the following can be stated.

- At first glance, the development of the financial markets has moved away from the numbers of the pandemic and the real economy. At second glance, however, it is likely that the financial markets have anticipated the expected significant recovery in economic development with increasing vaccinations and a decline in the number of infections.
- The effects on the economy and, above all, the labor market have been largely cushioned by the accompanying measures of the federal government - at the price of unprecedented net new debt in the federal budget.³⁷ The actual burden for future generations will depend largely on future economic developments and budgetary discipline.
- The positive changes in incoming orders give reason to hope for an early economic recovery.
- Due to the suspension of the obligation to file for insolvency, companies are currently remaining on the market that may not have a positive going concern forecast. It will take many months to see whether they are really capable of survival. Should there then be a significant increase in bankruptcies, this could have a domino effect on the labor market and tax revenues.

It seems to be attractive to examine further economic time series and their correlation with the Covid-19 numbers. In addition, it would certainly be interesting to make comparisons with other economies.

Hopefully the pandemic will ease off over the course of this year due to increasing vaccinations. And it would be more than desirable if those responsible in Berlin and in the 16 federal states, but also in Brussels, were to deal intensively at European level with the question of what could be

³⁷ cf. <https://www.sueddeutsche.de/wirtschaft/deutschland-regierung-plant-mit-nettokreditaufnahme-in-hoehe-von-218-milliarden-euro-1.4936493> 10.04.2021.

done better, more coordinated and, above all, faster and more consistently in the future if the next big catastrophe appears on the horizon. A look at federal printed matter 17/12051 of the year 2013 could be an approach.³⁸

³⁸ cf. <https://dipbt.bundestag.de/dip21/btd/17/120/1712051.pdf> 10.04.2021.

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