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KfW Entrepreneurship Monitor 2020 Entrepreneurship in Germany in 2019: First growth in 5 years – 2020 overshadowed by coronavirus pandemic



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Entrepreneurship in Germany in 2019: first growth in five years – 2020 overshadowed by coronavirus pandemic

Number of start-ups has increased

Bolstered by cyclical and labour market growth, entrepreneurial activity in Germany picked up again in 2019 for the first time in years. The number of business starters rose to 605,000 (+58,000). This was primarily due to a significant rise in part-time business start-ups, while full-time start-ups dropped to a new low. At the same time, the number of opportunity start-ups grew by a disproportionately high 439,000.

Start-up activity is more innovative, more growth-oriented and, above all, more digital Innovative and growth start-ups were slightly more common in 2019 than in the previous year. In contrast, internet-based and digital start-ups increased noticeably, especially as full-time businesses. Whereas these types of start-ups previously tended to be a part-time activity because of the lower barriers to entry, their share of full-time start-ups has now caught up.

Start-ups are more capital-intensive again

Average capital input in start-ups has risen in the past years, with full-time start-ups exhibiting a particularly strong increase. In part, this is a reflection of the stronger focus on opportunity start-ups in entrepreneurial activity.

Coronavirus crisis has hit self-employed hard

After years of playing a minor role, economic worries are again a more severe start-up barrier. The coronavirus crisis is set to further accelerate this trend. Self-employed persons are particularly affected by the coronavirus crisis. At the beginning of April, 90% of self-employed persons suffered turnover losses, while revenues dried up completely for one third. Only one in three have enough funds to ride out this situation for more than three months.

Outlook for 2020

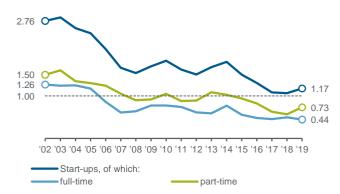
The outlook for start-up activity in 2020 was positive but the coronavirus pandemic is changing much of this. Many start-up plans, the number of which had increased again, will now likely be put off. However, the crisis can be expected to result in more necessity start-ups.

After a long decline, start-up activity is growing – full-time and part-time activity is drifting apart

The strong labour market has been weighing on start-up activity in Germany for about 15 years now. But because the record employment boom has subsided, the absorption capacity of the labour market is declining, which benefits start-up activity. Bolstered by the development of the domestic economy, the number of business starters grew to 605,000 in 2019, an increase of 58,000 persons over the previous year (Table 4). The start-up rate thus rose from 1.06 to 1.17%, moving away from the one per cent mark for the time being (Figure 1). However, the increase is due exclusively to part-time start-ups. They increased to 377,000 (+85,000), while the number of full-time start-ups dropped again to 228,000 persons (-27,000) after growing in the previous year.

Figure 1: Drop in start-up rate has bounced off the one per cent mark for now

Start-up rate in per cent



Start-up rate: Share of business founders in the working-age population (18 to 64 years).

Source: KfW Entrepreneurship Monitor.

Box 1: The KfW Entrepreneurship Monitor

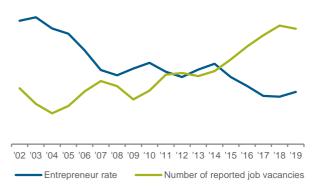
The KfW Entrepreneurship Monitor is based on the information provided by 50,000 randomly selected persons domiciled in Germany. They are interviewed by telephone on an annual basis as part of a representative survey of the population. The survey covers a broad range of start-ups: full-time and part-time business starters, self-employed professionals and business owners, new businesses and takeovers. The KfW Entrepreneurship Monitor thus provides a comprehensive picture of start-up activity in Germany.

Domestic growth provides crucial impetus for positive development of start-up activity

Overall economic development in 2019 was noticeably weaker than in previous years. Growth of domestic demand halved, falling by 1.0%, adjusted for price variations (2018: +2.1%). Unemployment also dropped at a slower rate than in the previous year, falling by 0.2 percentage points to 3.0% (2018: -0.4 PP)². The record boom in the labour market appears to be waning. While the slower decline in unemployment on the previous year alone is no proof, evidence is mounting. The number of reported job vacancies also dropped for the first time in years. Unlike in the previous year, the economic growth impact in 2019 was sufficient to overcompensate the pull effect of the labour market even though domestic growth was down by half, allowing start-up numbers to increase.

Figure 2: Start-up rate and number of job vacancies correlate closely

Development of start-up rate and job vacancies



Start-up rate: Share of business founders in the working-age population (18 to 64 years).

Sources: KfW Entrepreneurship Monitor and Federal Employment Agency³

For the time being, however, the increase in the number of business starters in the year 2019 is only a snapshot against the backdrop of years of declining start-up activity in Germany. One of the main reasons for the negative long-term trend is the exceptionally long employment boom. Another cause is the waning entrepreneurial spirit. This development might be even more critical for start-up activity in the long term. After all, it affects not just cyclical conditions that can change relatively fast but also attitudes. Specifically, the desire for self-employment has decreased – not just in Germany but in many other countries as well (Figure 3).⁴

This also has to do with demographic change. The average age of the (shrinking) population is increasing. The desire for self-employment, however, decreases with age for various reasons.⁵ Thus, the older the popu-

lation structure is, the more entrepreneurial spirit declines across society.

Figure 3: Desire for self-employment has fallen since the year 2000

Share of population aged 18 to under 67 years who would prefer to be self-employed, in per cent



Sources: Flash Eurobarometer Entrepreneurship for the years 2000–2012, KfW Entrepreneurship Monitor for the years from 2017. 6

Opportunity start-ups are picking up

Business start-ups are typically distinguished into opportunity start-ups and necessity start-ups. A large portion of start-ups are opportunity start-ups founded by entrepreneurs in order to seize a business opportunity (Figure 4). The number of opportunity entrepreneurs grew disproportionately to 439,000 in 2019 (+57,000, Table 4), rising to a share of 73%. A start-up created for lack of a better income alternative is referred to as a necessity start-up. Their number declined to 141,000 in 2019 (-7,000).

Figure 4: Favourable business opportunities – share of opportunity start-ups is up slightly

In per cent of all start-ups



The question asked about the motive for self-employment was: 'Which statement would you rather agree with: You started your own business to seize an opportunity, or you started your own business for lack of a better income alternative (out of necessity)?'

Source: KfW Entrepreneurship Monitor.

One reason for the growing number of opportunity business starters is the diverging trend between full-time and part-time start-ups. Opportunity start-ups are more often established as part-time businesses (78%) than as full-time operations (66%). When the number of part-time start-ups grows disproportionately, this will positively impact on the proportion of opportunity start-ups.

The number of necessity start-ups is more heavily influenced by the labour market than opportunity start-ups. The reason is that the number and quality of advertised positions is a crucial determinant for finding an employment alternative that meets personal expectations, for instance in regard to income, independence or career prospects. The enduring robustness of the labour market therefore primarily affects the number of necessity start-ups, which more than halved since the years prior to 2012.

In a way, a necessity start-up can be seen as an 'inevitable' response to a lack of better alternatives but it can still match a person's desired job. Thus, for around two thirds of necessity business starters, being self-employed also represents their actual desired activity (Figure 5). They may have wanted to fulfil their desire to be self-employed at a later stage but were then 'forced' into entrepreneurship prematurely by an event such as unexpected unemployment. Around one third of necessity business starters became self-employed although they would prefer to be in a salaried employment.

Figure 5: One third of necessity business starters would prefer to be an employee

Desired form of employment in per cent



Source: KfW Entrepreneurship Monitor.

One in five opportunity business founders actually wish to be an employee. At first glance, this appears to be a contradiction because opportunity entrepreneurs typically are not forced into self-employment. But a look at the type of self-employment reveals that 95% of these start-ups are part-time businesses. In other words, they seize a business opportunity without having to neglect their true employment preference.

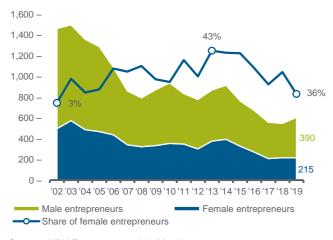
More male business starters

The growth in start-up activity in 2019 is the result of a higher number of male business starters (Figure 6). It grew by 390,000 (+59,000) after declining for four years. The number of female entrepreneurs, in contrast, stagnated and remained almost unchanged from the previous year, at 215,000 (-1,000). The share of female business starters thus dropped to 36% (2018: 40%). The stagnating number of female entrepreneurs is the result of two diverging trends: Part-time start-ups

increased to 153,000 (34,000), while full-time start-ups dropped by 35,000 to 62,000, reaching a new low.

Figure 6: Share of female business starters is falling – but number is hardly changing

Start-ups in thousands



Source: KfW Entrepreneurship Monitor.

The number of male business starters has increased, both on a full-time and part-time basis. Full-time start-ups grew by 167,000 (+9,000), while part-time start-ups increased by 223,000 (+50,000). In both segments the number of male business starters thus recovered again from the lows of the previous year.

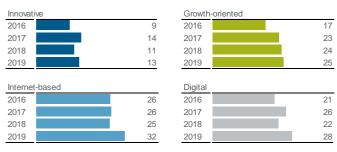
Start-up activity is again becoming more innovative, growth-oriented and, above all, digital

Some forms of start-ups are associated with economic expectations. Because of their proximity to new technologies, innovative and digital start-ups⁸ take on the role of Schumpeter's 'creative destroyers'. They, in particular, target established markets or create entirely new ones, thereby driving structural change. Since fast-growth business starters expect their business to grow 'as large as possible', their hope is that they will make a lasting contribution to sustainable employment.

Innovative and growth start-ups were more common in 2019 than in the previous year but only marginally (Figure 7). In contrast, internet-based and digital start-ups are now significantly more common. Whereas only one quarter of start-ups were internet-based in the previous year, in 2019 the internet was a core element of nearly one third of businesses. The proportion of digital start-ups grew from 22 to 28%. The share of internet-based and digital start-ups exhibited a significant increase particularly in full-time start-ups (from 19% and 21% to 28% each). They are characterised by lower barriers to entry than other start-ups, which explains why they have so far been more common as a part-time activity.

Figure 7: Nearly one third of start-ups in 2019 were internet-based

In per cent of all start-ups



Note: The offering of digital start-ups is accessible only through the use of digital technologies; ⁸ in internet-based start-ups the internet is a core element of the business model; innovative start-ups perform research and development in order to make a technological innovation ready for the market; fast-growth start-ups aim to become 'as large as possible'. These groups can overlap, so their shares must not be added.

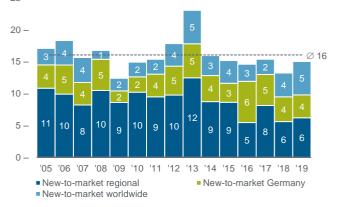
Source: KfW Entrepreneurship Monitor.

Start-ups that offer new-to-market innovations also have the potential to be 'creative destroyers'. However, they comprise more than innovative start-ups, for example, which develop technological innovations. Most new-to-market innovations are offerings that already exist elsewhere and are brought to a market in a different area – from other regions into their own, or from other countries into Germany. On a long-term average, 16% of start-ups offer new-to-market innovations. Most of them operate on a regional scale (9%) and at national level (4%). Worldwide new-to-market innovations, which are by definition indeed 'unprecedented', are least common, at 3%.

Start-ups with new-to-market innovations accounted for 15% of newly founded businesses in 2019 (Figure 8). That was 2 percentage points more than in 2018 but still less than the average since 2005. The increase resulted from slight shifts in the shares of regional, national and global new-to-market innovations but overall they have hardly changed.

Figure 8: More start-ups with new-to-market innovations

Start-ups with new-to-market innovations in per cent 25 –



Note: New-to-market innovations are products or services viewed by the surveyed start-ups as being new to either the regional, the national or the global market.

Source: KfW Entrepreneurship Monitor.

Businesses started from the ground up and solo start-ups predominate

Self-employment can be entered in different ways. You can establish a business from the ground up by putting in place initial business structures, e.g. for customer acquisition and sales, and you can take over or participate in existing businesses. Starting from the ground up is the most common form, representing eight in ten start-ups in 2019. A long-term comparison shows a trend towards starting from the ground up. In the 2010s the share mostly remained below 70%. Takeovers or participations each accounted for around one in ten start-ups in 2019.

A large portion of newly founded businesses are solo start-ups. Unlike in team start-ups, these businesses are founded by a single person without any co-founders. Solo start-ups represented 79% of start-ups in 2019, which was roughly the long-term average. Most solo start-ups did not have any employees either, with such absolute solo business starters making up 64% of start-ups in 2019. Businesses started from the ground up are even more likely to be solo start-ups, at 72%.

Start-up activity by state: Hamburg and Brandenburg have switched places

In the state ranking of start-up activity, Berlin is sitting comfortably at the top of the leaderboard (Table 1). On average for the years 2017 to 2019, 198 out of 10,000 employable persons started working for themselves there each year (Figure 9).

Brandenburg overtook Hamburg, moving up to second place for the first time, with 155 start-ups. It can be assumed that the above-average start-up activity in Berlin is radiating to its periphery because entrepreneurs are shifting their locations and residences into the city's outlying suburbs for cost reasons, for example. As the state of Brandenburg surrounds Berlin completely, it benefits directly from such a development – especially because every new arrival has a strong impact on the relatively low number of inhabitants. Hamburg is in third place with 122 start-ups per 10,000 employable persons, just ahead of Bavaria with 121. Lower Saxony occupies fifth place with 116 start-ups per 10,000 employable persons.

Start-up activity is higher in conurbations

Urban agglomerations are characterised by short distances and high population and business density. That benefits service providers and retailers most of all. These are precisely the sectors where self-employment is a more common form of economic activity.

Table 1: Berlin still leads

Entrepreneurial activity by federal state

	Rank new	Δ	Rank old
Berlin	1	•	1
Brandenburg	2	_	3
Hamburg	3	<u> </u>	2
Bavaria	4	•	4
Lower Saxony	5	_	6
Baden-Württemberg	6	<u> </u>	7
North Rhine-Westphalia	7	<u> </u>	5
Hesse	8	_	10
Rhineland-Palatinate	9	▼	8
Schleswig-Holstein	10	_	11
Saxony	11	▼	9
Saxony-Anhalt	12	<u> </u>	15
Saarland	13	▼	12
Thuringia	14	A	16
Mecklenburg-Western Pomerania	15	•	14
Bremen	16	▼	13

Rank by number of businesses founded per 10,000 employable persons in the periods from 2017 to 2019 (new ranking) and from 2016 to 2018 (old ranking).

Source: KfW Entrepreneurship Monitor.

As a result, the higher population density of western German (non-city) states is probably one reason they typically follow the city states in the business starter ranking. However, the federal states' particular economic structure also plays an important role. Thus, start-up activity in Hamburg and Berlin is strongly driven by the media and IT industries with their high shares of business starters. A manufacturing-based economy, in turn, tends to have less startup activity. Large enterprises typically offer attractive jobs that are also of interest to potential business founders. The bottom of the ranking list is consistently populated with large eastern German states. Start-up activity there is hampered by lower average purchasing power. Their older population structure also has an adverse effect on start-ups activity as the propensity to start a business usually declines with age.9 These characteristics still apply to Brandenburg, even if the state only ranks third in the leaderboard. The positive effect of start-up activity in Berlin appears to overcompensate the negative impact of these characteristics.

Figure 9: Berlin bolsters Brandenburg

Number of start-ups per 10,000 employable persons between 2017 and 2019, \varnothing p. a.



Source: KfW Entrepreneurship Monitor.

Entrepreneurs as employers: Diverging trends in full-time and part-time start-ups

Most business start-ups do not employ any workers. On a long-term average, a good one quarter of business starters have employees (26%), in 2019 it was slightly fewer (24%, Figure 10). A look at businesses founded from the ground up – that is, not counting takeovers or active participations in businesses that already had employees before the new business was founded – shows that on a long-term average a good one fifth (21%) of start-ups have employees. The percentage was just below average (19%) for businesses founded from the ground up in 2019 as well.

Figure 10: Roughly one in four start-ups has employees

Start-ups with employees in per cent



Source: KfW Entrepreneurship Monitor.

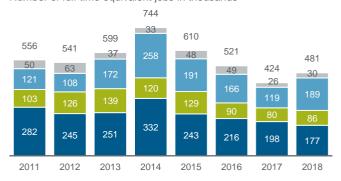
On a long-term average, full-time start-ups are around twice as likely to have employees (37%) as part-time start-ups (18%). But a gap has opened up here since the year 2012. Part-time start-ups are employing increasingly fewer workers, while the trend is pointing slightly upwards for full-time start-ups. Until 2019 the shares have drifted apart to 40% for full-time start-ups and 11% for part-time start-ups.

Newly founded businesses are creating fewer jobs

In businesses started through a takeover or participation, the existing company often has employees already. Including them in calculating the employment effect of start-up activity would unjustifiably overdraw its contribution to job creation. A separate analysis of new entrepreneurs would therefore be necessary to assess their contribution to employment. The direct gross employment effect is measured in full-time equivalent (FTEs) and the number of jobs is standardised to a 40-hour workweek. ¹⁰ In the year 2019 the gross employment effect dropped to 454,000 FTEs.

Figure 11: Employment effect dropped to 454,000

Number of full-time equivalent jobs in thousands



- Employees of part-time new business founders
- Employees of full-time new business founders
- Part-time new business founders
- Full-time new business founders

Note: The calculation of full-time equivalent jobs for the new entrepreneurs themselves was changed since last year's publication. ¹⁰

Source: KfW Entrepreneurship Monitor.

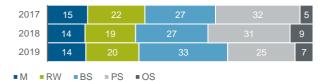
The decreasing employment effect has two main reasons: the lower number of full-time start-ups and a decline in their average headcount. Newly founded fulltime businesses thus contributed much less to job creation. Still, full-time and part-time businesses created a combined total of 151,000 full-time equivalent jobs in 2019. What did increase, however, was the full-time equivalent number of jobs which entrepreneurs created for themselves - both on a full-time and part-time basis. This appears to contradict the lower number of fulltime start-ups overall. But this decline is overcompensated not just by the fact that a portion of newly founded businesses in full-time start-ups rose slightly on the previous year but also by the circumstance that business founders' average weekly working hours were higher in full-time start-ups in 2019 than in the previous year.

Services predominated – more business than personal services

The sectoral structure of start-up activity is very stable over time. Most start-ups are founded in the services sector. Around two thirds of start-ups in 2019 were service providers (Figure 12). Service providers who focus on commercial customers (business services) are typically more common than service providers who focus on retail customers (personal services). They made up half the new businesses created in the services sector in 2019. Personal services were the largest group in the two preceding years but that was atypical.

Figure 12: One third of start-ups provide business services

Sector shares in per cent



Note: Start-ups were allocated to particular branches of economic activity in accordance with the 'Classification of Economic Activities' of the German Federal Statistical Office, Edition 2008, on the basis of project descriptions provided by the business founders. Sectors: Manufacturing (M); Retail/Wholesale (RW); Business services (BS); Personal services (PS); other services (OS).

Source: KfW Entrepreneurship Monitor.

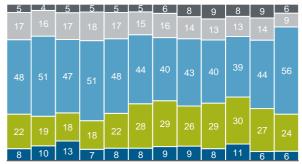
Other services (the financial services, transport and communications sectors) accounted for 7% of entrepreneurial activity in 2019. The shares of start-ups in retail/wholesale (20%) and the producing sector (14%) hardly changed at all.

Capital is an important start-up resource

Start-ups have many faces. The motives and business models of entrepreneurs influence what resources they need to employ. In general, however, most start-ups require financial resources – in a long-term comparison, 60–70% annually (Figure 13). In the year 2019 the share was on the upper end of the range, at 70%.

Figure 13: More than half the start-ups were funded exclusively from own resources

Start-ups by use of resources in per cent



2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

- Macrofinance
- Microfinance
- Own resources only
- Non-monetary resources only
- No monetary / non-monetary resources

Note: Microfinance is external start-up capital up to EUR 25,000, macrofinance is more than EUR 25,000. Differences may be due to rounding.

Source: KfW Entrepreneurship Monitor.

This time, however, an unusually high number of founders started their businesses using only their own funds. In 2019 more than half the business founders (56%) used such funds exclusively. The share of busi-

ness founders who mobilised external funds from thirdparty capital providers, on the other hand, fell noticeably (15%). This share was 9% microfinance (not more than EUR 25,000 in borrowed funds) and 6% macrofinance (more than EUR 25,000). Microfinance is usually provided by family and friends while macrofinance tends to come from credit institutions.

Changes in the use of resources between different start-up cohorts are usually due to changes in the composition of businesses. If more start-ups have employees, more start-ups require funds because a large portion of them are reliant on start-up capital (2019: 82%). On the other hand, solo businesses, for example, can often start up without any funds at all. In 2019 that was the case for 34% of solo business founders (without employees). In cases where solo start-ups did require funds, the entrepreneurs' own funds were usually adequate. Funding using own resources exclusively became much more common than in the previous year, rising from 39 to 59% of solo start-ups (without employees). That also explained the increase in funding solely based on own resources (Figure 13).

Over the years, business founders have employed significantly more funds to start their businesses. While both full-time and part-time start-ups used around EUR 10,000 in 2008, that figure rose to EUR 16,700 per start-up in 2019 (including those that did not use any funds). The gap between full-time and part-time start-ups widened noticeably here. Because the highest amounts increased, the average amount of capital used for full-time start-ups increased to EUR 36,400 up to the year 2019, while the average used for part-time start-ups shrunk to EUR 6,900.

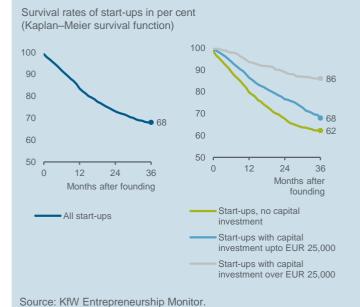
Founders had fewer financing difficulties

The share of start-ups that ran into difficulties in obtaining finance dropped to 12% in 2019 (2018: 17%). That was the lowest rate in years. Financing difficulties occur when entrepreneurs cannot obtain start-up finance as expected. For example, their own funds may not be sufficient, they may have no or insufficient access to external capital, or they need to expend more planning or persuasive effort vis-a-vis capital providers. Start-ups are systematically at a disadvantage compared with established companies specifically when seeking external finance. They tend to lack confidencebuilding and risk-minimising elements such as a corporate history or collateral. Besides, they often have relatively low credit requirements. However, lenders find it less attractive to extend small amounts to them because of the fixed costs involved. The effort required to secure entrepreneurial finance can therefore be sub-

Start-up discontinuation rates

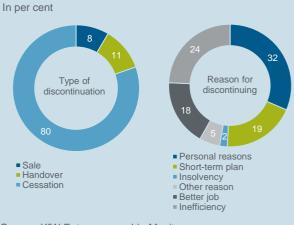
The KfW Entrepreneurship Monitor shows a stable empirical pattern in the survival rate of business start-ups. Some 30% of new businesses close down again within the first three years (3-30 rule of thumb). That means some 70% of start-ups are still in business 36 months after launching (Figure 14, left). The reasons for aborting are diverse. By far the largest proportion of entrepreneurs discontinue their venture for personal reasons, not because of immediate financial stress (Figure 15, right). Examples of personal reasons include family pressures, illness, dissatisfaction with income achieved or the emergence of a more attractive job alternative. Besides, many start-ups are planned only for the short term to begin with, particularly part-time businesses.

Figure 14: The more capital a business has, the longer it survives



Only a small fraction of start-ups end because of insolvency. Discontinuation rates therefore cannot be equated to 'default rates'. That would also be wrong because a large portion of businesses start without external capital input, so they would not be able to 'default' at all. By comparison, founders who employ larger sums in excess of EUR 25,000 (regardless of whether these are their own or borrowed funds) have significantly higher survival rates (Figure 14, right). Discontinuation rates are particularly high among entrepreneurs who start off without any financial capital at all. This has to do with the goal of their venture: such start-ups are more likely to be designed to achieve temporary income, whereas more highly capitalised businesses are designed for the longer term. 10

Figure 15: Start-ups are usually discontinued for personal, not financial reasons



Source: KfW Entrepreneurship Monitor.

stantial. Securing entrepreneurial finance is therefore a challenge that many fail to meet already during the planning stage.

Discontinuation of start-up plans is often related to financing difficulties. On a long-term average, roughly half the discontinuers reported having financing difficulties, and this was no different in 2019, at 54%. The more often discontinuers encountered a particular problem compared with actual start-ups, the more often this problem is likely to have posed a barrier and effectively prevented business foundation. The corresponding difference between the shares of discontinuers and founders with financing difficulties increased to 42 per-

centage points in 2019. The barrier effect of financing difficulties has thus increased again.

Impact of coronavirus pandemic hits self-employed workers hard

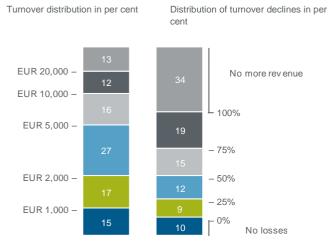
Economic worries also act as a barrier but their effect has not been particularly strong in the past years. During the global financial crisis they had a stronger impact on entrepreneurial activity and this might be the case again in 2020. After all, the measures adopted to contain the coronavirus pandemic have led to a global recession. Self-employed persons are hit hard by the coronavirus crisis. This was the finding of a flash poll conducted by KfW in cooperation with the start-up plat-

form 'Gründerplattform' (see Box 2) in early April 2020. 13

Even before the pandemic arrived in Germany, local businesses and self-employed persons were suffering losses in turnover. Travel warnings, for example, weighed on the turnovers of travel agents. After the first coronavirus infections were confirmed in Germany, the restrictions were gradually tightened – first at state level, then nationwide. Businesses and self-employed persons were therefore affected not just indirectly by customers' reluctance to spend but in some cases directly by government-mandated restrictions or business closures.¹⁴

This has posed an existential threat to many selfemployed persons. At the beginning of April, 90% of the participants in the flash poll suffered turnover losses and one in three earned no income at all (Figure 16). Only one third of respondents reported having enough funds to ride out the situation for more than three months. The government assistance schemes are particularly helpful for those who have limited reserves to remain solvent for longer.

Figure 16: Nearly one third of self-employed persons have lost all revenues in the coronavirus crisis



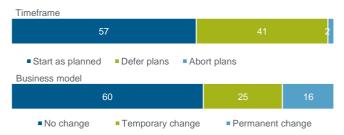
Source: Flash poll on the coronavirus by KfW Research and Gründerplattform $\,$

Many businesses and self-employed workers are attempting to mitigate their loss of turnover in the pandemic by adapting their business model. Hospitality businesses, for example, were already shown one possible adaptation through the official restriction that they could no longer serve guests: selling takeaway food or delivering meals is still permitted. Many have therefore switched to takeaway or delivery alternatives. Businesses and self-employed persons working in other sectors are also following this example, with more than

half of self-employed professionals adapting their services to the new conditions at least temporarily. The crisis is also having an impact on start-up plans, as four in ten potential business starters have decided to defer their plans and a similar proportion want to adapt their business model (Figure 17).¹⁵

Figure 17: Four in ten start-ups intend to change their timeframe and business model

Responses in per cent



Source: Flash poll on the coronavirus by KfW Research and Gründerplattform

Box 2: Other databases

Flash poll on the Gründerplattform¹⁶

In April of this year, KfW Research teamed up with the start-up platform 'Gründerplattform' to conduct a joint flash poll among its registered users. Within one week, the online survey returned 596 usable responses – 429 from persons currently self-employed and 167 from those who were in the planning stage. The results of the flash poll are not representative because of the way the survey was designed. But they do provide an important insight into how the respondents have been affected by the coronavirus crisis.

Follow-up interviews to the KfW Entrepreneurship Monitor

Since 2015, a follow-up interview to each main survey of the KfW Entrepreneurship Monitor has been carried out in spring of the subsequent year. In these follow-up interviews, all start-up entrepreneurs who had been identified in the respective main survey and had given their consent to a follow-up interview were contacted again with a handful of more detailed questions.

Germany is a good start-up location but has upside potential

More than a year before the coronavirus pandemic spread to Germany, the Federal Government started the entrepreneurship campaign 'GO!' This campaign includes the expansion of certain instruments that promote start-up finance but also more challenging undertakings such as strengthening start-up culture in Germany.

By international standards, Germany is a good start-up location but can be further enhanced. ¹⁸ This was confirmed by the evaluation of specific start-up conditions performed by experts as part of the Global Entrepreneurship Monitor. Over the past years, a trend towards better average scores can be observed here (Table 2). But some factors still have room for improvement.

Business starters tend to be rather more critical of the specific conditions than the experts (Table 3). This is confirmed by the regular follow-up interviews to the KfW Entrepreneurship Monitor (see Box 2). Moreover, the scores they give have not improved noticeably in the past years. Thus, entrepreneurs see start-up finance conditions (availability of own and borrowed capital, public promotion) in the lower midfield, while experts assign them to the upper third of possible scores. In an international comparison of public promotion, experts see no country with a significantly better performance than Germany. Germany's official promotional infrastructure appears to set international standards. 19 The comparatively poor score given by entrepreneurs may be due to the fact that it is difficult for them to stay abreast of the wide range of support and that there is a need to improve the information policy on promotional schemes and simplify access.

Table 2: Experts see an improvement in conditions over time

Scores given by experts on the basis of a Likert scale (\varnothing , higher is better)

	2015	2017	2018	2019
Physical infrastructure	3.8	4.0	3.6	3.6
Advisers and suppliers	3.5	3.4	3.4	3.6
State promotional programmes	3.4	3.4	3.5	3.6
Market dynamics	2.7	2.8	3.1	3.4
Financing	2.6	2.8	2.8	3.1
Market access barriers	3.1	2.7	3.1	3.1
Extracurricular entrepreneurial training 2.5		2.6	2.7	2.9
Start-up culture	2.5	2.6	2.7	2.9
Knowledge and technology transfer 2.4		2.6	2.8	2.9
Regulation and taxation	2.3	2.5	2.6	2.6
Policymakers' priority and commitment 2.5		2.7	2.6	2.6
Teaching of business skills in school 1.7		1.6	1.8	2.0

Source: Global Entrepreneurship Monitor, surveys of experts.²⁰

Table 3: Entrepreneurs see only little progress in overall conditions

Scores given by entrepreneurs using customary German school marks from 1 to 6 (\varnothing)

	2015	2017	2018	2019
Free market access	2.5	2.5	2.4	2.4
Business founder image	2.3	2.5	2.5	2.5
Infrastructure quality	2.3	2.7	2.6	2.7
Protection of intellectual property	2.9	2.9	2.8	2.8
Advisory services	2.6	2.7	2.8	2.7
Statutory provisions	3.2	3.3	3.1	3.1
Access to venture capital	3.3	3.4	3.3	3.3
Access to official promotional funds	3.2	3.4	3.4	3.3
Reporting requirements	3.5	3.7	3.6	3.6
Tax burden	3.6	3.8	3.6	3.7
Credit availability	3.7	3.6	3.7	3.7
Policymakers' commitment*	3.6	3.9	3.8	3.7
Educational system**	3.8	4.2	3.9	4.0

^{*} To the concerns of business starters, self-employed persons and entrepreneurs

Source: Follow-up interviews to the KfW Start-up Monitor (see Box 2), unweighted score given by respondents.

Entrepreneurs and experts did agree on certain aspects, however. The highest level of agreement existed with respect to the delivery of business skills and knowledge. In both rankings, this aspect scored last. Thus, there is obviously a strong call for business skills to be taught in greater depth at German schools. Although topics around entrepreneurship are on the economic-policy agenda, entrepreneurs perceive policymakers' advocacy for their concerns as merely sufficient. Entrepreneurship experts' assessment of governmental support was also in second but last place despite the start-up campaign.

Start-up activity in 2020: The coronavirus pandemic is overshadowing the positive signals

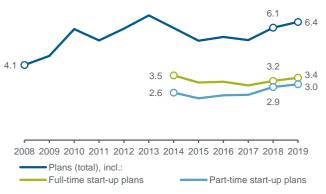
The increase in start-up activity in 2019 was ushered in already in 2018, when the number of nascent entrepreneurs – persons who were in the process of starting a business – grew noticeably. ²¹ It is true that many start-up plans are never put in practice – as there are many times more plans than start-ups – but the planning rate is secondary; what matters is the outcome. The process from the idea to implementation usually takes several months, so the change in the planning rate is a good indicator of the development of the start-up rate in the following year. ²²

^{**} With respect to the teaching of business knowledge and skills

The planning rate continued to increase in 2019 (Figure 18). Under normal circumstances, this would be a positive sign of start-up activity in 2020. But because of the coronavirus pandemic, this signal has become less meaningful because the effects of this exceptional situation are difficult to predict. Thus, both the recession in general and the impression of the existential threat which the current crisis has created for self-employed persons in a wide range of sectors will have an impact on current start-up plans. The flash poll of KfW Research and the start-up platform Gründerplattform.de has demonstrated this already: 4 in 10 start-up plans are being deferred (Figure 17). 23 But the crisis will also have an effect that drives entrepreneurial activity. The number of necessity start-ups can be expected to rise this year as a result of growing crisis-induced unemployment. It remains to be seen which effect will ultimately prevail.

Figure 18: Start-up plans have increased again

Employable persons with start-up plans in per cent



The shares are based on the responses given to the two questions: 'In the past 12 months, have you ever given serious thought to self-employment – whether full-time or part-time?' and 'Have you given up these plans in the meantime?'

Source: KfW Entrepreneurship Monitor.

Table 4: Overview of the number of start-ups by different categories

Number of start-ups in thousands

	2017	2018	2019
Start-ups (total)	557	547	605
Full-time start-ups	234	255	228
Part-time start-ups	323	292	377
Opportunity start-ups	390	382	439
Necessity start-ups	135	148	141
Female business starters	208	216	215
Male business starters	349	331	390
Start-ups from the ground up	430	432	481
Takeover start-ups	58	72	67
Solo start-ups	487	488	531
of which: without employees	371	341	385
Start-ups with employees	115	147	147
Innovative start-ups	76	58	77
Digital start-ups	144	122	170
Fast-growth start-ups	127	130	149

Source: KfW Entrepreneurship Monitor.

Box 3: Further analyses of entrepreneurial activity and data access to the KfW Entrepreneurship Monitor

The Appendix of Tables and Methods to the KfW Entrepreneurship Monitor along with further information and publications from KfW Research on start-up activity in Germany can be found on our thematic page <u>'Innovations and Start-ups'</u>.

The KfW Entrepreneurship Monitor is a scientific data record compiled for the purpose of economic analysis of entrepreneurial activity in Germany. It is available to external researchers for empirical research work subject to certain access criteria.

¹ Federal Statistical Office (2020), Deutsche Wirtschaft ist im Jahr 2019 um 0,6% gewachsen (*German economy grew by 0.6% in 2019, press release No. 018 of 15 January 2020 – our title translation,* in German only, **link**).

² Own calculations on the basis of the national accounts, inhabitants and labour market participation (resident concept) of the Federal Statistical Office, as at 30 April 2020 (link)

- ³ Federal Employment Agency, reports: Blickpunkt Arbeitsmarkt Monatsberichte zum Arbeits- und Ausbildungsmarkt, Dezember eines jeden Jahres (*Focus on the labour market monthly reports on the labour and training market, December of each year –* our title translation, in German only).
- ⁴ Metzger (2019), Wunsch nach beruflicher Selbständigkeit nimmt ab, Lichtblick durch Jüngere (*The drive for self-employment is slowing, younger entrepreneurs are a silver lining* in German only), Focus on Economics No. 261, KfW Research (**link**)
- ⁵ The reason people lose the appetite for self-employment as they grow older likely has to do with the experience they typically acquire during their working life. The longer a person works exclusively as a salaried employee, the more they are shaped by this form of work. They become so accustomed to it that they have no interest in entrepreneurship. Furthermore, as people grow older their personal network becomes less open, their own specialised knowledge grows, they become more financially dependent on a single employer and they develop closer ties with their family. Literature also refers to this as 'career handcuffs', 'golden handcuffs' and 'family handcuffs' which deter older workers from entrepreneurship more effectively than younger ones; see Wasserman (2012), The founder's dilemmas: anticipating and avoiding the pitfalls that can sink a startup, Princeton University Press.
- ⁶ The data refer to the Flash Eurobarometers with the numbers 83, 107, 134, 146, 160, 192, 283 and 354. Until 2009, the relevant question in the Flash Eurobarometer Entrepreneurship was: 'Suppose you could choose between different kinds of jobs, which one would you prefer: being an employee or being self-employed?' In 2012 the question was reworded slightly to read: 'If you could choose between different kinds of jobs, would you prefer to be an employee or self-employed?' In the KfW Entrepreneurship Monitor the question read: 'Irrespective of your current personal situation, if you could choose between different types of jobs, would you prefer to be an employee or self-employed?' The slightly different wording of the questions may have influenced interviewees' response behaviour. As the survey showed that developments differed depending on the group of persons under observation and deviated from the overall trend, nothing indicates that the questions distorted the responses into any particular direction.
- ⁷ In the reporting on the KfW Entrepreneurship Monitor 2019 the definition of 'opportunity entrepreneur' was adapted to research practice. Opportunity entrepreneurs are characterised by the drive to seize a business opportunity. This definition was applied one-to-one. Previously, opportunity entrepreneurs were identified as those who put a business idea in practice. Therefore, the share and number of opportunity entrepreneurs is no longer comparable to earlier publications of the KfW Entrepreneurship Monitor.
- ⁸ Digital entrepreneurs are those whose product or service can be accessed only through digital technologies. The business models of digital start-ups are diverse: They can be purely digital, as in the case of app providers, operators of web portals or web hosting services; they can have a major digital component, as in the case of online traders or providers who sell products or services (they produce themselves) exclusively via online marketplaces ('gig economy'), or they comprise an activity that is essentially based on digital technology, such as that of software developers, web designers or IT consultants, or in online marketing or digital photography.
- 9 Metzger, G. (2015), Are start-ups the same throughout Germany? Hardly! A comparison of German states, Focus on Economics No. 111, KfW Research (link).
- ¹⁰ Full-time equivalents (FTEs) of new start-ups reflect the sum of their individual weekly working hours in relation to a standard workweek of 40 hours. As full-time business founders typically work more and part-time founders work significantly less than a standard workweek, their contribution as measured in FTEs is regularly higher and lower, respectively, than their headcount. While earlier publications of the KfW Entrepreneurship Monitor did not take into account outliers in data on weekly working hours, from now on the data on weekly working hours is capped at 80 hours. Applying this limit reconciles the average weekly working hours for full-time solo entrepreneurs with the data collected in the report on working hours prepared by the Federal Institute for Occupational Safety and Health, see BAuA (2016), Arbeitszeitreport Deutschland 2016, Dortmund: Federal Institute for Occupational Safety and Health, in German only (Link). In order to calculate the employee FTEs, those working full-time are counted in full and those working part-time are treated as half jobs. Outliers of workforce numbers are not counted.
- ¹¹ See also Egeln, Falk, Heger, Höwer and Metzger (2010), **Ursachen für das Scheitern junger Unternehmen in den ersten fünf Jahren ihres Bestehens** (*Causes for the failure of young enterprises during the first five years*), study commissioned by the Federal Ministry for Economics and Technology, Mannheim and Neuss, March 2010 in German only (**link**).
- ¹² For more on the influence of various business founder and project characteristics on the survival rates of start-ups see Metzger (2019), KfW Entrepreneurship Monitor 2019, Appendix of Tables and Methods, KfW Research, page 22 (**link**).
- ¹³ Metzger, G. (2020), Blitzbefragung: Auswirkungen der Corona-Pandemie treffen Selbstständige hart (*Flash poll: Impact of coronavirus pandemic hits self-employed workers hard* in German only), Focus on Economics No. 282, KfW Research (**Link**).
- ¹⁴ A joint decision by the federal and state governments of 16 March 2020 requires bars, clubs, discos, pubs and theatres, opera houses, concert venues, museums, trade fairs, cinemas, recreational parks and zoos as well as casinos, gaming halls, brothels, betting outlets, playgrounds, sporting grounds, swimming pools and gyms to remain closed until further notice. Overnight stays in hotels and guesthouses for tourism purposes are no longer permitted. Religious services are no longer taking place. Restaurants, cafes and pubs are no longer permitted to receive guests. However, they may continue to sell or deliver takeaway meals.
- ¹⁵ Metzger, G. (2020), Blitzbefragung: Auswirkungen der Corona-Pandemie treffen Selbstständige hart (*Flash poll: Impact of coronavirus pandemic hits self-employed workers hard* in German only), Focus on Economics No. 282, KfW Research (**Link**).
- ¹⁶ In cooperation with the key actors of entrepreneurial promotion, the German Federal Ministry for Economic Affairs and Energy, KfW and BusinessPilot developed the start-up platform 'Gründerplattform' as a digital working environment for entrepreneurs. The platform makes it easier to start a business in Germany. Gründerplattform.de can be used free of charge to further develop initial ideas on a business model, draw up a business plan and contact potential support and funding partners. Tools from modern entrepreneurial advice and entrepreneurship teaching provide help in taking the next steps towards establishing a new business. An important aim of the platform is to involve start-up promoters with their offerings. The platform bundles the support expertise available in Germany and shows support offers exactly at the stages where they provide specific help in advancing the start-up process.
- ¹⁷ The 'GO!' start-up campaign is an initiative of the Federal Ministry for Economic Affairs and Energy (**link**).
- ¹⁸ Metzger, G. (2018), Start-up location Germany: good with upside potential, Economics in Brief No. 155, KfW Research (link).
- ¹⁹ Sternberg R. and von Bloh J., (2017), Global Entrepreneurship Monitor, National Report Germany 2016 (in German only), Hannover, June 2017, page 22 (**link**). With respect to the indicator 'public promotion', Germany 'stands on the victory podium' as well; Losse, B., Die Angst vor dem Coronablues (*Fear of the coronavirus blues* our title translation, in German only), in: WirtschaftsWoche No. 18 of 24 April 2020, p. 40 (**link**).
- ²⁰ Data of the German expert survey of the Global Entrepreneurship Monitor, retrieved from http://www.gemconsortium.org/data on 4 May 2020.
- ²¹ 'Nascent entrepreneurs' are persons who are in the process of starting a business, meaning they have start-up plans. Information on start-up plans has been collected in the KfW Entrepreneurship Monitor since the year 2008. A very steady pattern has emerged since the year 2012: Around 45% of annual start-up

plans are in the brainstorming phase, 30% in the phase of conceptual review or feasibility assessment and 25% in the implementation phase with initial organisational stages.

²² The planning rate is many times higher than the start-up rate. This shows that many start-up plans are never realised. On a 12-month horizon, 45% of nascent entrepreneurs expect to start their business activity. This probability varies quite substantially with the phase of start-up planning. During the brainstorming phase, 25% of nascent entrepreneurs expect to realise their business idea within the next 12 months, during the design phase it is 51% and in the implementation phase 76%. These percentages are also very steady over time. The qualitative development of a planning rate that takes into account these probabilities of realisation and the planning rate itself is the same, so for the sake of simplicity the latter is used as an indicator of the development of entrepreneurial activity in subsequent years.

²³ Metzger, G. (2020), Blitzbefragung: Auswirkungen der Corona-Pandemie treffen Selbstständige hart (*Flash poll: Impact of coronavirus pandemic hits self-employed workers hard* – in German only), Focus on Economics No. 282, KfW Research (**Link**).