

KfW Start-up Monitor 2013

Start-up activity hits rock bottom – no revival in sight

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- **Start-up activity continues to decline:** The number of people who started their own business in Germany dropped again in 2012 (-7 % against 2011). At 775,000 new entrepreneurs i. e. new self-employed persons and business founders, this was the lowest level since surveys began in the year 2000. The main reasons were the weak economy, the good job market situation and most recent changes to support schemes offered by the Federal Employment Agency for newly self-employed persons. **We do not expect a noticeable recovery of entrepreneurial activity in the current year.**
- **The decline in the number of new entrepreneurs reduces the direct gross employment effect of new businesses:** They created 383,000 full-time-equivalent jobs overall (14 % less than in 2011). Of this total, 212,000 jobs were for the full-time business founders themselves and 171,000 for employees.
- **There are significantly more opportunity entrepreneurs:** This means that more new entrepreneurs of the year 2012 implemented an explicit business idea with their start-up project than prior-year business founders (2012: 47 %; 2011: 35 %).
- **More new entrepreneurs in liberal professions:** In 2012 the share of new entrepreneurs in liberal professions increased to 39 % (2011: 36 %). That share has increased almost continuously since 2005. Thus the number of new entrepreneurs in liberal professions has bucked the trend (2005: 187,000; 2012: 303,000).
- **The following obstacles to entrepreneurship are more widespread than five years ago:** Bureaucratic hurdles and delays, the strain on the family, financial risk, financing difficulties and having to sacrifice benefits provided by paid employment (such as job security aspects or limits to working hours).
- **Start-up plans are implemented quickly: Three quarters of full-time founders usually take much less than a year from the first idea until their business is set up.** On average, it takes new entrepreneurs seven months to turn their idea into a business. Half of the founders take less than three months.
- **New entrepreneurs work more on average than employees:** Full-time founders have a 48-hour week on average while sideline entrepreneurs work an average of 13 hours per week in their business. Most sideline entrepreneurs continue to be in full-time employment. The hours they work in their own business and as paid employees add up to a total similar to that of full-time entrepreneurs.
- **Measured by the change in household income, self-employment usually pays off. However, because of the long working hours the arithmetic hourly earnings rate of start-up entrepreneurs is often on the minimum wage level.** Entrepreneurs' household income often falls into higher income categories than that of paid employees. Self-employment enables a large portion of new entrepreneurs (42 %) to earn higher net household income than before.
- **Fewer new entrepreneurs came from unemployment:** As expected, because of the restrictions on grants from the Federal Employment Agency, fewer business founders came from unemployment (-32 % against 2011). However, many people who were previously unemployed ventured into self-employment even without support from the Federal Labour Office. The number of part-time entrepreneurs in this group increased to 41 % (up 10 percentage point on the average 2008–2011).

New entrepreneurs face high economic expectations. They are expected to create jobs, stimulate innovation activity and challenge existing competitors. This can only succeed if a minimum number of people make the decision to become their own bosses. However, since the entrepreneurial boom early in the decade of 2000, start-up activity in Germany has been on the decline, dropping to its lowest point so far in 2012. Accordingly, start-up businesses also contributed little to employment creation in 2012.

Start-up activity has fallen again

In 2012, 775,000 people started their own business. This represents an entrepreneurship rate of 1.5 % (see Figure 1). It also means 60,000 fewer founders than in 2011 (see Box 1). The decline is due to a drop in the number of new full-time entrepreneurs while the number of sideline founders remained almost steady at 460,000 persons.ⁱ

The main determinants:

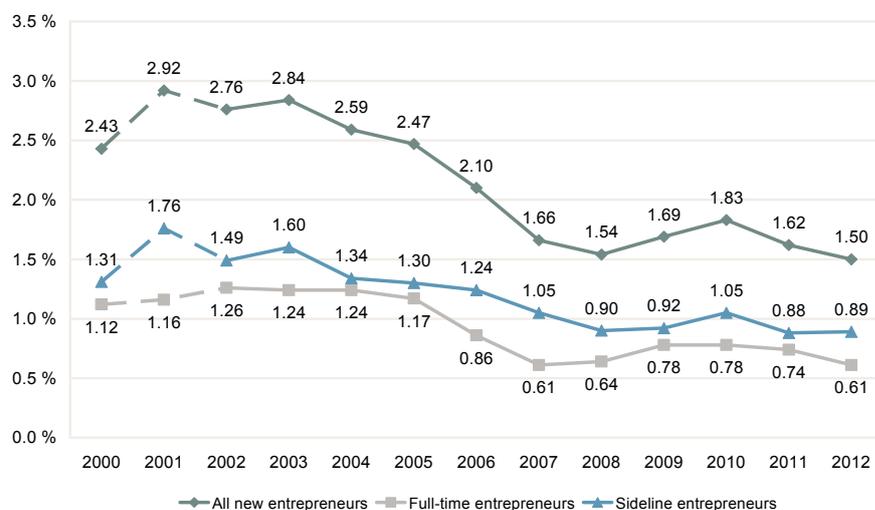
(1) In the year 2012 the job market evolved positively. The rate of unemployment dropped by 0.4 percentage points to 5.3 % against the prior year.¹ This development – and the slight increase in registered jobs² – signal that the prospect of finding paid employment remains good. Accordingly, the job market provided negative impetus for start-up activity.

(2) On an annual average, calendar-adjusted real gross domestic product grew by 0.9 %.³ The already weak economic momentum dropped further in the

ⁱ The overall economic situation provides the framework for individual entrepreneurial decisions. Accordingly, macroeconomic push and pull factors can be identified that influence start-up activity. Both the push effect of unemployment and the pull effect of the business cycle situation were not as strong as in 2011, so that start-up activity overall slackened. The improved job market situation is primarily due to an increase in part-time employment subject to social insurance contributions (Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung [Council of Economic Experts on the Evaluation of the Overall Economic Development] (2012), *Stabile Architektur für Europa – Handlungsbedarf im Inland [Stable Architecture for Europe – Need for Action at Home]*. Annual Report 2012/13). Part of the pressure to start a business was therefore shifted from full-time to part-time occupation. We therefore saw fewer full-time start-up entrepreneurs than in the prior year and an almost steady number of sideline start-up entrepreneurs.

Figure 1: Entrepreneurship rates in Germany 2000 to 2012

(Share of entrepreneurs in the population aged 18 to 65 years)



Note: For the years 2000 and 2001 the entrepreneurship rates are based on survey questions that diverge both from one another and from the questions in the following years. Therefore, the rates in these years can be compared only to a limited extent with one another and with the entrepreneurship rates of the following years.

Data source: KfW Start-up Monitor

Box 1: Development of numbers of new entrepreneurs

	2010	2011	2012
All new entrepreneurs	941,000	835,000	775,000
Full-time entrepreneurs	401,000	381,000	315,000
Sideline entrepreneurs	540,000	454,000	460,000
Opportunity entrepreneurs	356,000	292,000	361,000
Entrepreneurs in liberal professions	270,000	300,000	303,000

Data source: KfW Start-Up Monitor

course of the year and was even negative in the last quarter. Accordingly, the performance of the economy had a weak pull effect on start-up activity.

(3) The restructuring of support for new entrepreneurs by the Federal Employment Agency (see Box 2) has also contributed to the decline in start-up numbers. In a year-on-year comparison, the number of entrepreneurs starting a business from unemployment was 32 % lower.ⁱⁱ

Higher proportion of opportunity entrepreneurs

For the new entrepreneurs of the year 2012 the opportunity motive – that is, the

explicit implementation of a business idea as the reason for self-employment – played a much greater role than in the prior year (2012: 47 % of start-ups, 2011: 35 %). Since the share of opportunity entrepreneurs fluctuated in recent years without a visible connection to overall economic developments, we do not see a systemic cause behind this strong increase either. Nevertheless, the increase is a positive sign. After all, opportunity entrepreneurs introduce market novelties more frequently and are therefore more innovative. Analyses demonstrate that innovative enterprises tend to remain innovative in future as well and therefore contribute particularly to economic renewal and growth.⁴

Liberal professions buck the trend

In 2012 the share of new entrepreneurs in liberal professions increased to 39 % (2011: 36 %). This continued the positive trend of recent years. Thus, the share today is more than 2 1/2 times higher than in 2005 (15 %). This structural shift

ⁱⁱ The 32 % decline is owed to a 10.4 % share of start-up entrepreneurs coming from unemployment in total start-ups in 2012. Unlike the usual approach, this share was calculated only on the basis of the start-ups who founded a business in the observation year 2012 (the KfW Start-up monitor captures all persons as start-up entrepreneurs who founded a business of their own in the 12 months prior to the survey date).

was so strong that the number of new entrepreneurs in liberal professions increased (2005: 187,000; 2012: 303,000), even though the total number of new entrepreneurs as a whole declined by 40 % during this period. In the last two years, for example, the increasing number of childminders contributed to the increase. New entrepreneurs in liberal professions by definition provide scientific, advisory, artistic, educational, didactic or other intellectual services.⁵ Compared with other new entrepreneurs they are more frequently middle-aged, have higher levels of education and tend to be full-time entrepreneurs.

No revival of start-up activity expected in 2013

We expect the number of new entrepreneurs to move sideways in the course of the year. According to our forecasts, economic output in real terms will not grow more strongly in 2013 than in 2012.⁶ We expect the labour market to remain steady without any major changes to the unemployment rate. Since start-up activity in Germany responds relatively sensitively to changes in the labour market situation, this will ultimately be the deciding factor.

City-states take the lead in start-up activity

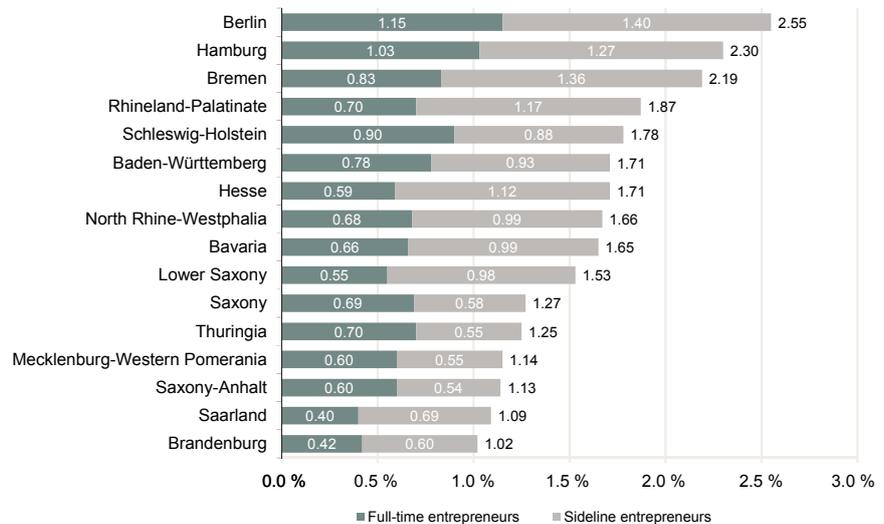
In an analysis of start-up activity by federal states, the city-states continue to top the ranks (see Figure 2). They are followed by the western German states, while start-up activity in eastern Germany trails behind. The Saarland and Brandenburg record the lowest activity.

Taking into account the year 2012, there were only minor changes in the rank of federal states by total entrepreneurship rates against prior years:

- The Saarland and Brandenburg swapped places at the bottom end of the scale.
- Saxony has again taken the lead in the eastern German states, overtaking Thuringia.
- Hessen has moved up to second place among the large western German states.

Figure 2: Entrepreneurship rates by federal state (average 2007 to 2012)

(Share of new entrepreneurs in the population aged 18 to 65 years by federal state)



Note: The regional new entrepreneurship rates were calculated on the basis of cumulative start-up figures of the years 2007 to 2012 in order to obtain statistically reliable results. The total new entrepreneurship rate is the sum of full-time and sideline entrepreneurship rates.

Data source: KfW Start-up Monitor

Start-up activity in the city-states of Berlin, Hamburg and Bremen benefits from agglomeration effects. In these large cities the distances and, thus, transport costs are comparatively low and there are large local sales markets. Moreover, new entrepreneurs can find employees with specific and diverse qualification profiles in the local job markets. In addition, enterprises are geographically concentrated, which facilitates the transfer of knowledge between start-up enterprises but also the exchange with incumbent enterprises in industry clusters.

With the exception of the Saarland, in the western German states more than half the new entrepreneurs start their business on a part-time basis. This can be traced to the higher economic output in the prosperous large states. This creates favourable demand conditions and opens start-up opportunities. The demand potential is an incentive for sideline start-up activity in particular.

Accordingly, the eastern German states are underperformers in the overall ranking. Their economic output is lower than that of the western German states and, consequently, demand conditions are less favourable. Thus, the entrepreneurship rates of sideline entrepreneurs are lower, which in turn drags down the overall entrepreneurship rates as the sum of full-time and sideline start-ups.

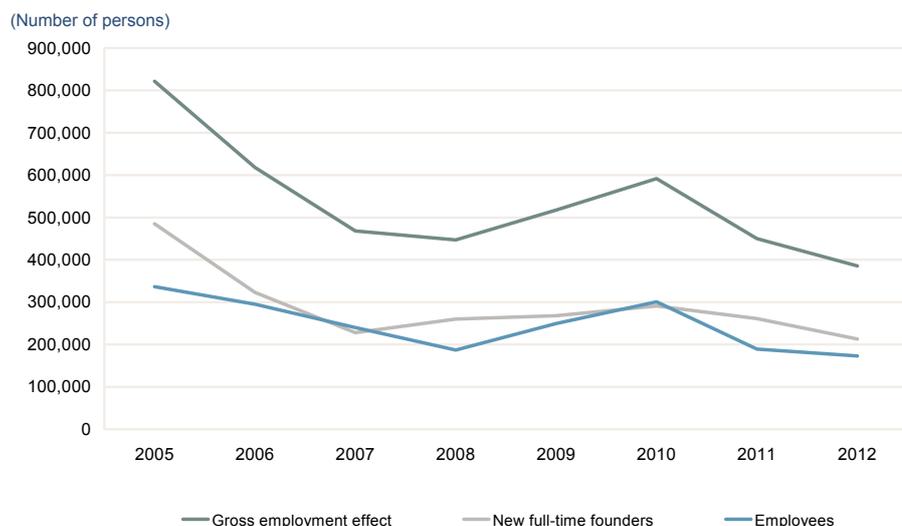
New start-ups make the lowest contribution to employment creation since 2005

New start-ups, meaning enterprises that did not exist before they were established by their founders, are generally expected to make a positive contribution to employment. They offer employment opportunities for the founders themselves and create new jobs for employed workers after all. In 2012 a good three quarters of new entrepreneurs established new businesses while 10 % took over an existing enterprise and 14 % acquired an interest in an existing enterprise.

The total number of jobs created by new enterprises at the time of establishment in any particular year is referred to as the direct gross employment effect of new start-up businesses. In 2012 this gross employment effect was 383,000 full-time equivalent jobs. Of this total, 212,000 jobs were occupied by the new full-time entrepreneurs themselves and 171,000 were jobs created for employees.ⁱⁱⁱ Compared with the year 2011, the contribution to employment dropped by 14 % (see Figure 3). The number of jobs created thus dropped to the lowest level since the start of the time series in 2005. The decline of the employment effect

ⁱⁱⁱ Sideline business founders in their own right are not counted.

Figure 3: Direct gross employment effect of new start-ups



Note: Single-year calculation. In order to reduce the influence of outliers and potential false information about the number of partners in a team and employees, only such positive information on team partners and employee numbers were included in the average value calculation that were at most as high as the 95 % percentile of the positive value figures. Team partners and employees given as "zero" were included in the average calculation. Observation figures on numbers of employees and team partners may be as low single-digit in some individual waves. For example, the estimate of the average team size of new team founders without employees in the year 2011 was based on eight observations. In an annual comparison, robust patterns are visible nevertheless.

Data source: KfW Start-up Monitor

therefore is not only the result of a lower number of new full-time entrepreneurs against the prior year but also of the lower number of new jobs created for employees.

The reason for this is that the good labour market situation not only reduced incentives for self-employment but also made the search for suitable employees more challenging for new entrepreneurs. When adequate career opportunities exist in paid employment, workers are usually more inclined to give preference to a job in an existing enterprise over a job in a less robust, new enterprise. In addition to job security, established enterprises are often able to offer more attractive salaries than start-up businesses.⁷

Some obstacles to entrepreneurship are growing

By becoming their own bosses, many new entrepreneurs seize a personal opportunity. They put a business idea into practice, try out the alternatives to paid employment, fulfil their desire to work on their own terms or seize the opportunity to earn additional income. They do not have the certainty that their start-up project will prove viable. Around one third of start-ups has left the market after three years. New entrepreneurs must be willing and able to manage this risk. Furthermore, they must meet a diversity of

challenges. These range from the administrative and organisational difficulties of preparing a start-up venture to financing problems in putting the start-up idea into practice.

Bureaucratic hurdles and delays, the strain on the family, the financial risk, financing difficulties and the benefits of paid employment were the five obstacles to self-employment that became most important for new full-time entrepreneurs in the years 2008 to 2012 (see Figure 4).^{iv} The statements made, however, apply only to the share of new entrepreneurs who regard these hindrances as a problem or difficulty during the start-up process, not to the intensity of the individual problems.

(1) New entrepreneurs perceive bureaucracy more strongly as a hindrance:

Bureaucratic hurdles and delays are mentioned as the most frequent start-up obstacle both by new full-time and sideline entrepreneurs – with increasing frequency over the last five years, although progress has been made in reducing bureaucracy.⁸ For example, the cost of founding a business has dropped no-

^{iv}In the KfW Start-up Monitor a list of 17 possible difficulties that may have arisen during the start-up process is read out loud to the interviewees, including a category named "Others".

ticeably. In addition, the number of working days which a business founder must expect the administrative implementation of the project to take has fallen from 18 days in 2008 to 15 days in 2012. However, the number of steps needed for putting the new business into practice has not changed. Perhaps the fast-tracking and streamlining of processes in the private sector has altered business founders' expectations in such a way that they expect this speed and simplicity from the state as well. If this is absent, frustration with bureaucracy may rise because expectations are disappointed even though the situation itself has not worsened.

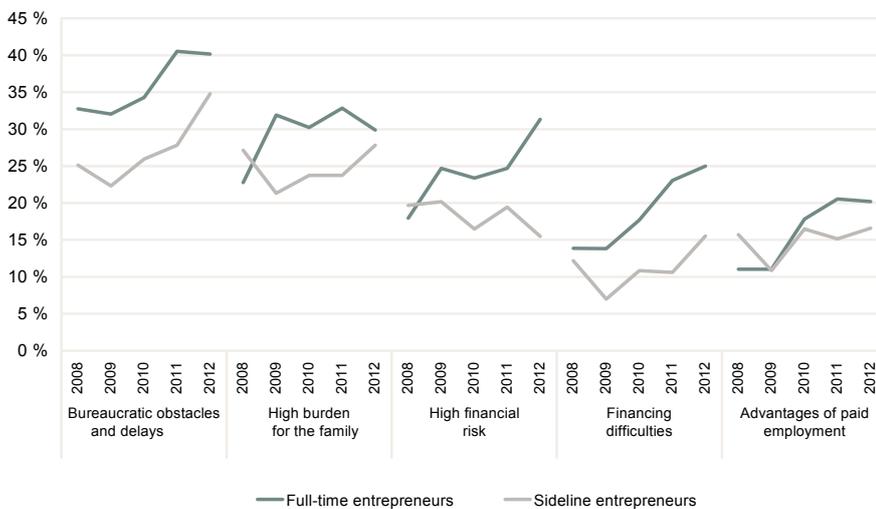
(2) New entrepreneurs want a better work-life balance, too:

Another concern that more business founders have now than five years ago is that their self-employment will put too much strain on their family. This trend is not as strong among sideline business founders. Overall, new entrepreneurs have a substantially longer working hours per week than paid employees (see section from page 6). Furthermore, annual working hours for paid employees have fallen since the early 1990s, and the number of paid extra hours has dropped slightly as well.⁹ If the strain on the family is equated to lack of private time, new entrepreneurs appear to be intent on following the overall social trend towards a balanced relationship between work and family.¹⁰

(3) New entrepreneurs are more aware of their financial risk:

In the start-up process, acquiring resources is an essential task of new entrepreneurs. When capital expenditure is made to set up the business, they expect a return on this expenditure after a certain period of time. Whether or not this will happen is uncertain. Besides, new full-time entrepreneurs are poorly diversified because they not only invest financial capital in their start-up project but tie up their human capital in it as well. So it is understandable that they would have a particular concern over the excessive financial risk of setting up a business. If they also invest funds of their own in their start-up project, such as savings, this directly impacts the entrepreneurs'

Figure 4: Annual comparison of start-up obstacles



Note: Unlike prior evaluations, information from secondary interviews is no longer included for the survey wave 2008.

Data source: KfW Start-up Monitor

personal assets. As a result, they will very closely analyse the financial risk of founding a business.^v The fact that the volume of financing – including own funds – has tended higher in comparison with previous years contributes to the further spread of this start-up hurdle.

However, the financial and economic crisis has probably also contributed to the fact that new entrepreneurs perceive financial risk as a greater concern.^{vi} The more convinced entrepreneurs are that their new business will be successful, the lower they are likely to rate their financial risk. But the macroeconomic environment, shaken by crisis since 2008, makes it difficult to assess the prospects of success and is likely to have prompted new entrepreneurs to rate their financial risk higher as well.

(4) Financing difficulties are on the rise:

Not only are they more aware of financial risk; a higher proportion of new entrepreneurs reported difficulties in financing their business.^{vii} Again, this applies more

to new full-time than to new sideline entrepreneurs. Financing difficulties become more likely the more funds are invested. For one thing, new entrepreneurs have only limited resources to invest in the start-up project. For another, financing through third-party lenders can prove to be problematic when information asymmetries between the entrepreneur and the lender hamper the appraisal of financing applications. The trend to higher financing volumes and the higher share of start-ups that introduced novelties to the market in 2012 are likely to have contributed to the financing difficulties (see Table 1).

(5) Paid employment is increasingly appealing:

As a counterpart to heightened risk perception resulting from the uncertain macroeconomic environment, it can be expected that workers will prefer secure job

borrowed funds to begin with and therefore would not have met with any financing problems. It also does not capture persons who refrained from implementing their start-up project because of financing constraints. The significance of this latter problem is expressed by the fact that financing difficulties were the most widespread obstacle for persons who abandoned start-up plans in the last 12 months. There is no trend to be observed here, this affects 64 % of prevented entrepreneurs on average for the years 2008 to 2012. For the further categorisation of the surveyed financing difficulties see Hagen, T., Metzger, G. and K. Ullrich (2012): *Boom auf dem Arbeitsmarkt dämpft Gründungsaktivität (Boom on the Job Market Dampens Start-up Activity)*. KfW Start-up Monitor 2012, the KfW Group, Frankfurt M, Excursus 9, p. 32.

^v Among prevented entrepreneurs, high financial risk was the most frequently mentioned obstacle that prompted them to abort the planning process for their new business.

^{vi} The risk assessment, however, is not driven by the assessment of macro-economic risks. A peak value was recorded here only for the crisis year 2009. Concerns over the development of the economy are even less frequent among part-time entrepreneurs than just five years ago.

^{vii} The figure becomes relative in that it also includes start-up entrepreneurs who did not want to use any

Table 1: Selected features of start-up projects

	2008	2012
Ø Financing volume in EUR	8,900	13,200
Ø Own funds in EUR	5,400	6,900
Share of new entrepreneurs with financing difficulties		
Full-time	14 %	25 %
Sideline	12 %	16 %
Previously un-employed	20 %	34 %
Share of innovative new entrepreneurs or global market novelty		
German-wide	6 %	8 %

Note: Average financing volumes (outlier-adjusted to the 95 % percentile), rounded to hundreds. Unlike prior evaluations, information from secondary interviews is no longer included for the year 2008. Start-ups coming from unemployment from January 2012

Data source: KfW Start-up Monitor

alternatives to self-employment. In fact, in recent years a larger portion of new full-time entrepreneurs than in 2008 were concerned about missing the advantages of paid employment (such as job security, regular working hours and holidays) if they opted for self-employment. This was likely also aided by the positive job market development which, accordingly, offered entrepreneurs good paid employment conditions as a potential alternative to founding a business.

Among sideline entrepreneurs who do not have to rely on the income from their new business alone, the share of those who referred to the advantages of paid employment as an obstacle to self-employment has hardly changed.^{viii}

Specific financing difficulties

Financing difficulties do not necessarily have to lead to financing gaps. When new entrepreneurs have problems with one source of financing they can attempt to shift to other capital providers.

Around 80 % of new entrepreneurs were able to carry out their projects without any financing problems. Four out of five

^{viii} One exception is the year 2009, which featured a significantly reduced share of sideline start-up entrepreneurs who saw advantages in paid employment. A possible explanation could be that in the recession year the stability of the job market was preserved mainly by using short-term work. In other words, the job market situation did not really provide any part-time opportunities for employees.

entrepreneurs either had no financing requirements or were able to cover their financing requirements from their own or funds from third parties without any problems.

Of the remaining entrepreneurs with financing difficulties, 64 % reported that their own funds were not sufficient for them to carry out the project; 41 % did not obtain a requested bank loan and 4 % did not receive the desired amount; 15 % reported less favourable borrowing terms than hoped for.

As anticipated, prevented entrepreneurs, that is, persons who intended to start a business but abandoned their plans, reported financing problems more frequently (53 %). The share of promising start-up ideas, however, is likely lower among prevented entrepreneurs than among those who did put their idea into practice.

Seven months to start a business

A good seven months – this is how long it took new entrepreneurs on average from the first project idea until the start of their business in 2012. But there are stark differences in the behaviour of individual entrepreneurs. Those who take unusually long to implement their project distort this average upwards. It takes half of all entrepreneurs not more than three months to realise their project idea.

How long new entrepreneurs need for realization strongly depends on the importance self-employment has for them as a source of income. Full-time entrepreneurs take significantly longer than sideline entrepreneurs (nine months versus six months). This also reflects the far-reaching consequences of the individual decision. While sideline entrepreneurs often use their business as an additional source of income, full-time entrepreneurs often give up another income alternative in favour of self-employment. Such a decision must be well thought through and, accordingly, takes more time. Unlike sideline entrepreneurs who start their business on average in around six months – regardless of whether they are men or women – full-time entrepreneurs display gender-specific differences. Thus, on average it takes men eight months to realise a full-time project

idea, three months less than women (eleven months). Evidently, women take more time to think over their step into full-time self-employment. For one thing, this probably reflects women's higher risk aversion.¹¹ For another, however, it is also possible that women are less optimistic and therefore take longer to prepare their business.¹²

For new entrepreneurs coming from unemployment who want to use the self-employment grant of the Federal Employment Agency, the time for preparation is limited by the criteria for access to this support. The grant can only be given if the applicant has a residual claim to 150 days of unemployment benefits. Accordingly, not more than seven months may lapse between the start of unemployment and the start of the new business.

One month to set up the project

The time between the first project idea and the step into self-employment covers the entire decision-making and implementation process. However, only part of this time is actually consumed by intensively planning and preparing the business start-up project. This includes activities such as optimising the business idea, preparing a business plan or necessary appointments with authorities.

On average, new entrepreneurs take two months to intensively prepare their step into self-employment. Here again, however, the average value is distorted upwards by particularly meticulous entrepreneurs. However, most of the new entrepreneurs (56 %) take no longer than one month to intensively prepare the launch of their business.

Particular groups of entrepreneurs devote more time to intensive preparation. For example, half of the full-time entrepreneurs spend at least two months on intensive preparation. However, it is mostly female full-time entrepreneurs who account for this portion. This means that women not only think over their start-up project longer than men but also approach it with more intensive preparation.

A 38-hour work week? Out of reach for new entrepreneurs!

As described above, new entrepreneurs must invest time in their self-employment even before realising their start-up project. However, the long working hours do truly begin when the business starts operating.

Full-time paid employees in Germany on average have a 38 hour work week¹³. The average weekly working time of new entrepreneurs, in turn, at first glance appears moderate – 28 hours (see Table 2). This average, however, is distorted downward by the large share of sideline entrepreneurs (59 %). Full-time entrepreneurs work an average of 48 hours a week while sideline entrepreneurs work an average of 13 hours per week in their business. It must be noted, however, that for many sideline entrepreneurs the time they work in their main employment has to be added. The total working hours add up accordingly. Roughly half of all new sideline entrepreneurs (49 %) are in paid full-time employment for their main income.

There are differences in the number of weekly working hours between self-employed men and women. The mean number of weekly working hours for men is 31, for women 23. This difference primarily results from the fact that more women go into sideline self-employment than men (67 % versus 51 %). With reference to the two groups of new full-time and sideline entrepreneurs, the number of weekly working hours for men is only marginally higher (four and three hours more per week, respectively, on average).

Table 2: New entrepreneurs have a very high workload

	1st quartile	Median	3rd quartile	Average
Weekly working hours				
All new entrepreneurs	9	20	50	28.0
Full-time entrepreneurs	40	50	60	48.2
of which: men	40	50	60	49.4
women	30	50	60	45.5
Sideline entrepreneurs	5	10	20	13.3
of which: men	5	10	20	14.6
women	5	10	15	11.8

Note: The first quartile is the limit between the lower 25 % and the upper 75 % of a distribution; the median is the limit that divides the new entrepreneurs into two groups of equal size; the third quartile is the limit between the lower 75 % and the upper 25 % of a distribution.

Table 3: Higher income classes are more populated for entrepreneurs than for paid employees

Net household income:	Up to EUR 1,500	EUR 1,500 to EUR 2,500	EUR 2,500 and more	EUR 3,500 and more
	(Shares in percent)			
All households	24	29	47	25
Employees	16	30	54	28
of which: singles	40	42	19	6
Self-employed persons	15	25	60	38
of which: singles	37	29	34	16
New entrepreneurs 2012	17	25	58	34

Note: Besides employees and self-employed persons, all households include unemployed persons and persons out of the labour force. Self-employed persons are full-time only. Accordingly, sideline self-employed persons are also found among paid employees. Since the structure does not differ for full-time and sideline entrepreneurs, all new entrepreneurs in 2012 (full-time and sideline) are reported in the aggregate.

Data source: KfW Start-up Monitor 2012.

The reward of the effort I: higher income?

What reward can new entrepreneurs expect to receive for their high workload? Sixteen percent of German employee households have a disposable net income of up to EUR 1,500 and a good half earn EUR 2,500 and more (28 % even have EUR 3,500 and more, see Table 3).^{ix} Households of self-employed persons have a very similar income structure. However, the upper classes are somewhat more populated than those of employees. Thus, self-employed persons tend to have higher net household incomes than employees.

To be able to assess whether these higher incomes are possibly generated

by other members of the household who contribute to total household income, it is useful to compare single-person households.^x However, these households provide even stronger evidence that self-employed persons are more frequently found in the higher income classes than paid employees.

This structure is also apparent for entrepreneurs who have just started their business. Their income structure hardly differs from that of entrepreneurs who have been self-employed longer.

Poor hourly pay – in purely arithmetical terms

Entrepreneurs earn their net household income by working long weekly hours. The average hourly pay that results for entrepreneurs in purely arithmetical terms is therefore low. Many entrepreneurs, and self-employed persons in general, thus achieve an hourly pay that

is comparable with that of paid employees in the low-wage sector^{xi}.

However, the direct comparison of hourly pay earned by self-employed persons and paid employees is flawed. For paid employees the hourly pay is usually fixed because it is the result of the number of hours worked and the monthly salary. Longer working hours generate higher income only through paid extra hours – which are limited by law. Self-employed persons, in turn, can generally achieve higher income through more work provided the additional work translates into higher business success.

Self-employed persons work long hours for various reasons. The hard workers among them can be categorised roughly into three "working hour types". The first type is the self-employed person whose income situation is precarious and who therefore wants to avoid missing any income that can be achieved. These entrepreneurs depend on every client and work particularly long hours in order to be available to as many clients as possible. Then there are self-employed persons who, in contrast, are particularly career-minded. They work extra long hours, true to the motto "The more I work, the more successful I will be". The third type is the self-employed person for whom the boundaries between "work" and "non-work" are easily blurred.¹⁴ Often, self-employed persons are additionally motivated to work long hours by the fact that their occupation provides them with greater work satisfaction than paid employees, which applies to the hard workers in particular.¹⁵

The hard workers among the new entrepreneurs are distributed relatively proportionately among the various income categories, which is why the mean number of working hours of new entrepreneurs differs between these categories by only a few hours. Since the majority of entrepreneurs earn medium to high net incomes, most of the hard workers among entrepreneurs are likely to belong to the working hour types described last, who work extended hours not so much

^{ix}This corresponds with the data of the 2010 income and consumption sample collected by the Federal Statistical Office. It shows that 26 percent of German households have an income of up to EUR 1,500 and 45 percent (28 percent) more than EUR 2,600 (EUR 3,600),

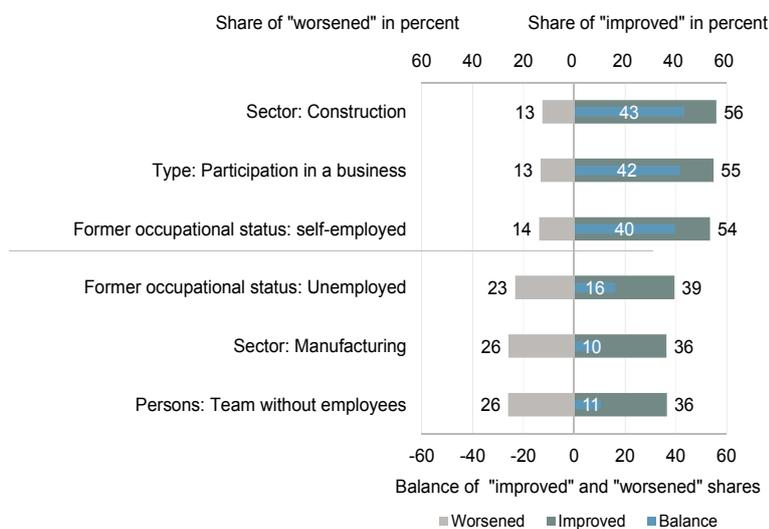
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^xWe define a single-person household as a household in which only one person aged 18 or older lives.

^{xi}Calculations on the basis of the KfW Start-up Monitor 2012. According to the OECD, a low wage is a wage that is lower than two thirds the national mean wage. See also DIW Weekly Report 7/2013.

Figure 5: Income opportunities and risks for new entrepreneurs

(Variation of net household income of entrepreneurs after starting a business)



Note: The figure shows the six characteristics of new entrepreneurs or start-up projects that provide the three biggest opportunities for higher income (share of entrepreneurs with improved net household income, upper section of the figure) and risks of lower income (share of entrepreneurs with lower net household income, lower section of the figure), respectively. The shares were calculated with the aid of an ordered-probit regression and correspond to the resulting predictive margin for the mentioned groups.^{xii} Abandoned start-up projects are not contained in the regression. A regression specified as Heckman selection model provides very similar estimated coefficients.

Data source: KfW Start-up Monitor 2008–2012.

because they have to but because they like to. One third of the entrepreneurs with a net household income of EUR 1,500 to EUR 2,500 and, after all, more than 10 % of entrepreneurs earning more than EUR 2,500 have a "low-wage" hourly pay in purely arithmetic terms.^{xii} However, it would be questionable to factually attribute entrepreneurs with such high net household incomes to the low-wage sector just because they work long hours. Statistics that categorise them in this way ultimately overrate the extent of the problem of precarious income conditions among self-employed persons.

The reward of the effort II: improved income!

In spite of the high workload, for many new entrepreneurs it pays to start into self-employment. For 42 % of entrepreneurs started in 2012 the income situation after they launched their project was better than before. Only 16 % of entrepreneurs reported that their net household income had fallen. Thus the likelihood of achieving better income was two and a half times higher than the risk of income decreasing.

Opportunities were evenly distributed between new full-time and sideline entrepreneurs. 41 % of full-time and 41 % of sideline entrepreneurs reported income improvements compared with the time before they entered into self-employment. On the other hand, the dis-

tribution of risk differed significantly between new full-time and sideline entrepreneurs. While the income situation worsened for 27 % of full-time entrepreneurs after they became self-employed, this was the case for only 8 % of new sideline entrepreneurs. This shows that in many cases sideline self-employment is in fact an additional income source for which no other income must be given up.

The share of new full-time entrepreneurs who improve their household income after starting a business has gradually declined in recent years. In 2009 it was still 56 %. Furthermore, the risk of their income falling was also significantly lower at the time, at 19 % compared with 27 % in 2012. The reason behind this development is that the initial situation has changed for the most recent start-up cohorts. Whether self-employment has the potential to improve household income also depends on the initial income level. In recent years, gross monthly earnings of paid employees have developed positively.¹⁶ This has made it increasingly difficult for new entrepreneurs to match or even exceed their last income by starting their own business.

How the income situation of business founders changes after they have set up their business also depends on the characteristics of the start-up project. In recent years, entrepreneurs who started their business in the construction industry or participated in an existing business had good prospects of higher income. As well, re-establishment of a business from within an existing self-employment situation was usually accompanied by higher income. All other conditions remaining the same, in these projects more than half the entrepreneurs were able to improve their net household income (see Figure 5). In contrast, start-up projects launched by a team of entrepreneurs that had no employees, were situated in the manufacturing industry or in which the founders were previously unemployed carried the greatest risk. Around one-fourth of entrepreneurs with these kinds of start-up projects saw their net household income fall while the prospects of increasing their income were relatively low.

^{xii} Calculations on the basis of the KfW Start-up Monitor 2012.

^{xiii} In the weighted ordered-probit regression for the conditions "improved", "unchanged" and "worsened", the statements provided by the start-up entrepreneurs on their previous earnings status, their age, gender, highest level of education, nationality, household size, self-employment motive, scope, nature and size of their business were controlled for. Also accounted for was whether they resided in western or eastern Germany, how innovative their offering is, in what industry they started their business, how long ago they started it (maximum of 36 months) and in what year (2008 to 2012) we captured the data.

Higher income does not necessarily make entrepreneurs happier

In terms of changing their income situation, setting up a business means success for most entrepreneurs. However, entrepreneurs do not appear to define themselves through this financial success alone. While the life satisfaction of employees rises significantly with the income they achieve, for business founders this correlation is evident only in extreme cases. Their life satisfaction is lower than that of other entrepreneurs when their net household income is less than EUR 500 and higher when it exceeds EUR 3,500.¹⁷

Self-employment is more attractive than unemployment

One economically important group in the start-up scene is that of previously unemployed entrepreneurs. Their share in the total number of entrepreneurs, however, is relatively low. In recent years not more than one out of five entrepreneurs reported having been previously unemployed. As a result of the good labour market situation, this share has recently declined steadily. The new structure of the self-employment grant by the Federal Employment Agency has reduced the share significantly yet again, as only one out of ten entrepreneurs in 2012 indicated having been previously unemployed.

Unemployment has a noticeable and persistently negative impact on life satisfaction.¹⁸ Accordingly, unemployed persons can be assumed to have an interest in income-generating work – be it as employees or working for themselves. The labour market reforms of 2005 intensified the corresponding incentives. The Federal Employment Agency also promotes the self-employment of unemployed persons.

The reorganisation of the self-employment grant (see Box 2) drastically reduced the number of supported start-ups coming from unemployment in 2012. The decline in previously unemployed entrepreneurs (-32 %), however, is not nearly as pronounced as the decline in applications to the Federal Employment Agency for self-employment assistance

Box 2: Self-employment grant by the Federal Employment Agency with changed conditions from 28 December 2011

Various adjustments to the instruments provided by the Federal Employment Agency to promote self-employment influenced the number of start-ups in the past and continued to do so in 2012. Since the end of 2011, new conditions have applied to the self-employment grant (“Gründungszuschuss”), the main instrument of the Federal Employment Agency in this area:

- The self-employment grant was converted from a partially statutory benefit into a completely discretionary benefit. In particular, the so-called “employability-takes-precedence” criterion now applies. This means that irrespective of their start-up project, unemployed persons who are regarded as employable on the labour market are less likely to receive the grant.
- The residual unemployment benefit entitlement period was increased from 90 to 150 days. This means that in order to remain eligible for the self-employment grant, unemployed persons have less time to decide in favour of self-employment and starting a business.
- The first support phase (a grant in the amount of the unemployment benefit plus a lump sum of EUR 300) was shortened from nine to six months while the second support phase (lump sum of EUR 300) was extended from six to nine months.

The immediate impact of these adjustments was an 85 % reduction in the number of new accessions for the self-employment grant in 2012 on the prior year (Federal Employment Agency (2012), *Zeitreihen zu arbeitsmarktpolitischen Instrumenten (Time Series on Labour Market Policy Instruments)*, Germany, December 2012). The overall reduction in applications for self-employment support from the Federal Employment Agency (including early-phase assistance and payments for the integration of self-employed persons) was 74 %.

as a whole (-74 %) ^{xiv}. Apparently, many unemployed persons also venture into self-employment even without benefits from the Federal Labour Office.

The self-employment grant makes it easier for unemployed persons to start a business and creates an incentive for full-time entrepreneurship. Since previously unemployed business founders now increasingly have to manage with-

out a grant, they no longer have the incentive to start a business full-time. Accordingly, in the year 2012 we saw a higher share of new sideline entrepreneurs coming from unemployment than in the prior years (see Table 4). Apparently, entrepreneurs try out self-employment first while relying on the security of unemployment support payments for part of their income – as long as they meet the criteria pertaining to sideline income.

Self-employment grant makes financing easier

Inadequate financing for a start-up project is a major reason for its subsequent failure. The financing situation is particularly problematic for previously unemployed entrepreneurs, especially when they have no savings to bridge longer periods of financial hardship. So it comes as no surprise that the share of previously unemployed new entrepreneurs with financing difficulties has recently increased as a consequence of the restructuring of the Federal Labour Office assistance – from an average 21 % in the period between 2008 and 2011 to 34 % in 2012. In this context, for previously unemployed entrepreneurs the fi-

^{xiv} The 32% decline is owed to a 10.4% share of previously unemployed start-up entrepreneurs in total start-ups in 2012. Unlike the usual approach, this share was calculated only on the basis of the start-ups who founded a business in the observation year 2012 (the KfW Start-up Monitor captures all persons as start-up entrepreneurs who founded a business of their own in the 12 months prior to the survey date). Only in this way can the development of the number of previously unemployed start-up entrepreneurs be directly compared with the decline in applications for self-employment grants in 2012. Under the methodology typically applied in the KfW Start-up Monitor, the share of previously unemployed entrepreneurs in the total number of start-up entrepreneurs is 12.7%. Accordingly, the number of previously unemployed entrepreneurs would have declined by only 16%. However, this development is not suitable for a comparison with the decline in the self-employment grant because it turns out too moderate as a result of a pull-forward effect. Many previously unemployed entrepreneurs pulled forward their entry into self-employment to a date in 2011 on which the self-employment grant was still a statutory benefit (see Box 2).

ancing difficulties are significantly more likely^{xv}:

(1) For women than for men (+12 percentage points).

(2) For persons with migration background (+24 percentage points).

The socio-demographic and project characteristics of previously unemployed new entrepreneurs in 2012 are different from those of prior years, influencing the occurrence of financing difficulties:

(1) In 2012 there were significantly more women among previously unemployed new entrepreneurs than in prior years (2012: 39 vs. 2008–2011: 33 %). The quota of women now more closely matches the quota of women among all unemployed persons (45 %).¹⁹

(2) The quota of new entrepreneurs who are immigrants and were previously unemployed has also increased by four percentage points.

However, there have also been structural changes that had positive impacts on the financing situation of previously unemployed entrepreneurs. For example, the share of university graduates in this group was significantly higher in 2012. In contrast, the age structure of previously unemployed entrepreneurs shifted significantly to the middle-aged cohorts (35 to 44 years) who did not report increased financing problems.

Moreover, the share of previously unemployed entrepreneurs who introduced market novelties increased to 19 % against 14 % during 2008 to 2011). This is a positive development as it can be read as a sign of more innovative and, hence, future-oriented start-up projects.

Overall, the changes in the structure of previously unemployed entrepreneurs are multi-layered. In general they do not yet allow a prediction of their long-term impact, such as the resilience of the start-up projects.

What we see

Start-up activity in Germany is promoted in many different ways. Germany's pro-

Table 4: Comparison of previously unemployed new entrepreneurs

	2012 (percent)	2008 to 2011 (percent)	Variation (Percentage points)
Sideline	40.7	30.9	9.8
Women	38.8	33.3	5.5
Immigrant	28.5	24.3	4.2
Vocational qualifications			
University / university of applied sciences	28.5	22.9	5.6
Technical college / master school	5.9	8.8	-2.9
Apprenticeship, vocational school	48.7	40.4	8.2
No vocational qualifications	17.0	27.9	-10.9
Age			
18–24 years	8.7	10.3	-1.6
25–34 years	16.5	25.0	-8.6
35–44 years	41.7	30.0	11.7
45–54 years	20.9	20.8	0.2
55–65 years	12.2	13.9	-1.7
Market novelties	19.3	14.0	5.3

Note: The survey concept of the KfW Start-up Monitor captures persons who have taken up self-employment in the twelve months prior to the survey. The evaluations pertaining to previously unemployed new entrepreneurs in 2012, in contrast, only refer to entrepreneurs from January 2012.

motional infrastructure is regularly assessed positively, also in an international comparison.²⁰

Nevertheless, start-up activity has been on the decline for quite some time now. This is cause for concern because lively start-up activity is economically important to support the innovative power and competitiveness of the economy. In recent years, the positive labour market development has worked against a sustainable revival of start-up activity. The good labour market situation has reduced the importance of unemployment as a repository for potential new entrepreneurs and as an incentive for starting an independent occupation. Accordingly, the restrictions on the self-employment grant have not had any serious impacts for the moment. They have had the same effect as the general development of the labour market situation by reducing the number of entrepreneurs coming from unemployment. At the same time, the socio-demographic structure of previously unemployed new entrepreneurs and their projects have changed in 2012 as well. Without support through the self-employment grant, for example, a greater share of previously unemployed entrepreneurs now only risk "semi-self-employment", meaning sideline self-employment, with significantly more frequent financing difficulties. Business founders must take financing difficulties

seriously because they increase the risk of aborting the start-up projects.²¹

Not just previously unemployed new entrepreneurs but all business founders generally face a number of difficulties and problems as they start a new business. Some of the obstacles have become more widespread in recent years. For example, in spite of efforts to reduce red tape, bureaucratic hurdles and delays have increased in the perception of business founders and continue to be the most widespread of all problems. In addition, an increasingly larger share of entrepreneurs is concerned about the financial risk they take by working for themselves. In recent years, however, it has become evident that the income risks are manageable for most entrepreneurs. Net household income has increased for a large portion of business founders after they became self-employed. Income reductions affected only a significantly smaller portion of them.

What remains to be done

- If the unemployment rate should increase again in future, promoting previously unemployed entrepreneurs will become important again. **Politicians will then be called upon to respond flexibly as the need arises.**
- Since financing difficulties have become more widespread, it is important to

^{xv} The results of the corresponding estimate are contained in the accompanying publication on figures and methods.

continue providing all entrepreneurs with access to promotional programmes, including the financing of lesser amounts. At the same time, awareness of the corresponding programmes should be enhanced with greater intensity.

- In order to make it easier for entrepreneurs to start their own business, public authorities should work to **further streamline the administrative process of business establishment**. For example, they could **more effectively reach modern business founders** with online offers. KfW, too, has its eyes on the modern client. As a first step under its service modernisation initiative KfW completely revamped its Internet offering

with effect from 1 April 2013. Now new entrepreneurs can access the necessary information intuitively and quickly. The planned next step is that clients will be able to send an advisory request to their bank on the KfW website itself.²²

- In order to encourage entrepreneurship among the population, **self-employment would have to be successfully established as an occupational alternative that is equivalent to paid employment**. For this to occur it is necessary to equip the young generation with entrepreneurial skills. These include self-initiative, self-responsibility, determination and the readiness to take risks. The earlier these skills are developed – for example during school years

– the sooner self-employment will be the first choice.

- Nevertheless, everyone who is prepared to start a business is explicitly called upon to weigh the opportunities and risks of self-employment, to assess them realistically and to thoroughly think through what it means to be self-employed. This also includes reflecting intensively on what to expect from being self-employed. Potential entrepreneurs can request support from experienced coaches. Advisory grant programmes such as KfW's Start-up Coaching are here to help. ■

A quick note on the Start-up Monitor

The KfW Group has been conducting the survey on start-up activity in Germany – the KfW Start-up Monitor – since the year 2000. The survey collects information on both the new entrepreneur and the start-up project, as well as on a comparison group of non-entrepreneurs. This follows a person-centred approach with a broad entrepreneur definition. New entrepreneurs were identified as persons who have entered self-employment within the last 12 or 36 months before the time of the survey by founding a new business, participating in or taking over an existing business.

The present publication "Start-up activity hits rock bottom – no revival in sight" on the 2013 KfW Start-up Monitor presents some of the results in more detail. The accompanying publication of Tables and Methodology provides further information on the structure of start-up activity that was taken from the most recent survey and the two prior survey waves.

¹Federal Statistical Office (2013), National Accounts of the Federal Republic – population, employment: Germany, years. As at 24 January 2013.

²Federal Labour Office (2013), registered jobs in Germany, labour market in figures, statistics of registered jobs. January 2013.

³Federal Statistical Office (2013), Deutsche Wirtschaft trotz 2012 europäischer Wirtschaftskrise (*German economy defies European economic crisis in 2012*). Press release of 15 January 2013.

⁴Rammer, C. (2004), FuE-Verhalten von jungen Unternehmen in Deutschland – eine Panelanalyse für den Zeitraum 1998–2003 (*R&D behaviour of young enterprises in Germany – a panel analysis for the period 1998 to 2003*), Studien zum deutschen Innovationssystem Nr. 8-2005 (*Studies on the German Innovation System No. 8 – 2005*), Zentrum für Europäische Wirtschaftsforschung (*Centre for European Economic Research*), Mannheim.

⁵Federal Statistical Office (2010), Statistical Yearbook 2010, Wiesbaden September 2010.

⁶Borger, K. (2013), Deutschland erholt sich rasch vom Einbruch im Schlussquartal 2012 (*Germany is quickly recovering from the contraction in the final quarter of 2012*). KfW Economic Compass Germany, Frankfurt, 21 February 2013.

⁷Brixy, U., Kohaut, S. and C. Schnabel (2007): Do newly founded firms pay lower wages? First evidence from Germany, *Small Business Economics* 29 (1/2), 161–171.

⁸World Bank, IBRD and Palgrave Macmillan (2008), Doing Business 2009, Comparing Regulation in 181 Economies. Washington.

World Bank and IBRD (2013), Doing Business 2013, Smarter Regulation for Small and Medium-Size Enterprises. Comparing Business Regulation for Domestic Firms in 185 Economies. Washington.

⁹Brautzsch, H.-U., Drechsel, K. and B. Schultz (2012), Unbezahlte Überstunden in Deutschland, *Wirtschaft im Wandel (Unpaid Extra Hours in Germany, the Changing Economy)* 18 (10): 308–315.

¹⁰Manager Magazin (2013), „Manager-Monitor“-Umfrage zum Thema Karriereorientierung/Generation Y. www.manager-magazin.de. Accessed: 21.02.2013.

LaBier, D. (2010), The 4.0 Career Is Coming: Are You Ready To Upgrade? Published on December 2, 2010 by Douglas LaBier, Ph.D. in *The New Resilience*, www.psychologytoday.com/blog/the-new-resilience/201012/the-40-career-is-coming-are-you-ready-upgrade. Accessed: 25.02.2013.

LaBier, D. (2010), Gen X and Gen Y -- How They're Driving The New "4.0" Career, Published on December 13, 2010 by Douglas LaBier, Ph.D. in *The New Resilience*, <http://www.psychologytoday.com/blog/the-new-resilience/201012/gen-x-and-gen-y-how-theyre-driving-the-new-40-career>. Accessed: 25.02.2013.

¹¹Charness, G. and U. Gneezy (2012), Strong Evidence for Gender Differences in Risk Taking, *Journal of Economic Behavior & Organization*, 83 (1), 50–58

or
Dohmen, T., Falk, A., Huffman, D., Sunde, U., Schupp, J. and G. G. Wagner (2011), Individual Risk Attitudes: Measurement, Determinants, and Behavioral Consequences *Journal of the European Economic Association*, 9 (3), 522–550.

¹²Jacobsen, B., Lee, J. B. and W. A. Marquering (2008), Are Men More Optimistic? (February 1, 2008). available at SSRN: <http://ssrn.com/abstract=1030478> or <http://dx.doi.org/10.2139/ssrn.1030478>.

¹³IAB (2012), Durchschnittliche Arbeitszeit und ihre Komponenten in Deutschland (*Average working hours and their components in Germany*) <http://doku.iab.de/grauepap/2012/tab-az11.pdf>.

¹⁴Muckenhuber, J. (2009), Arbeit ohne Ende? Arbeitszeiten Solo- und Mikroselbstständiger zwischen Mythos und Realität (*Work and no End? Working hours of Solo and Micro Entrepreneurs between Myth and Reality*), Dissertation University of Vienna.

¹⁵Bradley, D. E. and J. A. Roberts (2004), Self-Employment and Job Satisfaction: Investigating the Role of Self-Efficacy, Depression, and Seniority, *Journal of Small Business Management* 42 (1), S. 37–58.

¹⁶Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung (*Council of Economic Experts on the Evaluation of the Overall Economic Development*)2013, Index der durchschnittlichen Bruttomonatsverdienste der vollzeitbeschäftigten Arbeitnehmer nach Wirtschaftszweigen (*Index of average gross monthly earnings of full-time employees by industry*). www.sachverstaendigenrat-wirtschaft.de/zr_deutschland.html#c180 Accessed: 16 April 2013

¹⁷Kohn, K. and K. Ullrich (2012), Die Mär vom Gründer im Glück, *Zeitschrift für KMU und Entrepreneurship (The Myth of the Happy Entrepreneur, Magazine for SMEs and Entrepreneurship)* 60 (2), pp. 137–161.

¹⁸Lucas, R. E., Clark, A., Georgellis, Y. and E. Diener (2004): Unemployment Alters the Set Point for Life Satisfaction. *Psychological Science* 15 (1): 8–13.

Clark, A. E. (2010): Work, Jobs and Well-Being across the Millennium, in: Diener, E., Helliwell, J. and D. Kahnemann (Hrsg.), *International Differences in Well-Being*. Oxford University Press, Oxford: 436–468.

¹⁹Federal Labour Office (2012), Der Arbeits- und Ausbildungsmarkt in Deutschland. (*The Employment and Training Market in Germany*). Monthly Report December and Year 2012, page 50.

²⁰Sternberg, R., Vorderwülbecke, A. and U. Brixy (2013), Global Entrepreneurship Monitor, Country Report Germany 2012, Hannover, Nuremberg.

²¹Fryges, H., Gottschalk, S., Metzger, G., Mohr, B., Murmann, M. and K. Ullrich (2012), Start mit Strategie - Beschäftigungsfuktuation und Finanzierungsverhalten junger Unternehmen (*Start with Strategy - Occupational Fluctuation and Financing Behaviour of Young Enterprises*), KfW/ZEW-Gründungspanel, KfW Bankengruppe, Mannheim.

²²KfW Bankengruppe (2013), Chancen-Impuls, Year 15, April 2013,

<https://www.kfw.de/migration/Weiterleitung-zur-Startseite/Startseite/Inlandsförderung/Meine-KfW/ Chancen-Impuls-4-2013-130412.pdf>.