

Fourth Evaluation Report (2023) – Management Summary¹ –

- 1** A general statutory minimum wage has been in force in Germany since 1 January 2015. The Minimum Wage Commission² decides on the adjustment of its level. In deviation from this, the statutory minimum wage was raised by the German Bundestag to 12 euros gross per hour with effect from 1 October 2022. This increase of the statutory minimum wage through an act of parliament had the effect that the level of the minimum wage last decided by the Minimum Wage Commission was suspended from October 2022 and that the next adjustment of the minimum wage by the Minimum Wage Commission was postponed from the year 2023 to the year 2024. The Minimum Wage Commission thus decided in June 2023 on minimum wage upratings for the years 2024 and 2025. The Minimum Wage Commission has the legal mandate to prepare a report on the effects of the minimum wage on the protection of workers, competitive conditions and employment in relation to specific sectors and regions as well as productivity.
- 2** This report documents the current state of knowledge on the introduction and subsequent increases of the statutory minimum wage. The reporting period mainly covers the years 2020 to 2022 and thus coincides with the Coronavirus pandemic and Russia's war of aggression against Ukraine, which had a strong impact on the economic situation in Germany during this period due to, among other things, the company closures conditioned by the government measures to contain the pandemic and the ensuing collapse of the gross domestic product. In the reporting period, there was a strong increase in inflation in Germany, which was also essentially caused by the consequences of the Coronavirus pandemic as well as Russia's war of aggression against Ukraine. In 2022, the labour market returned to normal and the overall economy recovered moderately.
- 3** With regard to the increase of the statutory minimum wage to 12 euros, this report examines those aspects for which data is already available. However, a comprehensive evaluation of this increase on a broad data basis will only be possible in the next report of the Minimum Wage Commission in 2025. In July 2022, before the minimum wage was raised to 12 euros, about 5.8 million employees or about 15 per cent of employees in Germany received an hourly wage of less than 12 euros. According to a representative company survey by the Minimum Wage Commission, about 19 per cent of all companies were affected by the increase. The number of companies affected was significantly higher in eastern Germany (28 per cent) than in western Germany (17 per cent). In the affected companies, about 29 per cent of the employees earned less than 12 euros.

¹ Translation of the German management summary of the German Minimum Wage Commission's Fourth Evaluation Report to the Federal Government on the effects of the statutory minimum wage. For the full report (in German) see Mindestlohnkommission (2023), Vierter Bericht zu den Auswirkungen des gesetzlichen Mindestlohns. Bericht der Mindestlohnkommission an die Bundesregierung nach § 9 Abs. 4 Mindestlohngesetz, Berlin, <https://www.mindestlohn-kommission.de/DE/Bericht/pdf/Bericht2023.html>

² For more details on the Minimum Wage Commission (in English), see https://www.mindestlohn-kommission.de/EN/Commission/Commission_node.html

- 4 With regard to the theoretical effect of the minimum wage, there are divergent predictions. Depending on the model or model assumptions used, minimum wages in theory can have negative, positive or neutral effects on company-level and macroeconomic indicators. After about eight years since the statutory minimum wage came into force, numerous empirical analyses are now available. Against the background of the positive economic development in the years 2015 to 2019, model-based forecasts according to which the introduction of minimum wages would lead to considerable employment losses have not been confirmed. The existing empirical studies are based on descriptive evaluations and causal analyses. So far, the clearest effects, both at the level of employees and at the level of companies, can be seen for the period immediately after the introduction of the statutory minimum wage. As a result of the minimum wage adjustments of the Minimum Wage Commission, however, hardly any additional effects can be observed. This also applies to the period of the Coronavirus pandemic.
- 5 Minimum wage research must identify the effects of the statutory minimum wage on wages, employment and a variety of other indicators based on existing data. On the one hand, this involves the challenge of isolating the effect of the minimum wage from other influencing factors such as the business cycle or labour market and economic policy measures, e.g. the containment measures during the Coronavirus pandemic. Secondly, the analyses are usually based on survey data from employees and companies. Such data are subject to various types of measurement error, which must be taken into account when interpreting the results. This applies in particular to the question of how many employees receive hourly wages below the statutory minimum wage. As a result of the extensive use of short-time allowance (Kurzarbeitergeld), errors in the recording of monthly wages and working hours in the surveys of enterprises and employees occurred frequently during the Coronavirus pandemic. For the years 2020 and 2021, earnings information for the evaluation of the statutory minimum wage is therefore only available to a limited extent.

Minimum wage and worker protection

- 6 The development of earnings in 2020 and 2021 was mainly influenced by the Coronavirus pandemic and the measures taken to contain it and, according to current knowledge, hardly at all by the statutory minimum wage. According to the available aggregate earnings data, hourly wage growth during the Coronavirus pandemic was weaker than in previous years, both in the sectors of the economy highly affected by the minimum wage and in the economy as a whole. The hourly wage development was slightly more pronounced for regular employees (i.e. subject to social security contributions) in the economic sectors highly affected by the minimum wage than for regular employees in the overall economy. Monthly earnings excluding short-time allowance, on the other hand, declined more in economic sectors highly affected by the minimum wage than in the economy as a whole.
- 7 The measures taken to combat the Coronavirus pandemic impacted sectors of the economy highly affected by the minimum wage disproportionately. To contain the pandemic, company and store closures were imposed by the state in large parts of the economy. This mainly affected the service sector, which at the same time has an above-average share of employees paid at the minimum wage. This includes, for example, the hospitality industry, parts of the retail sector or personal services such as hairdressing salons. Establishments affected by the minimum wage have reduced or suspended wage increases more frequently than other establishments in 2020 and 2021 due to the pandemic. A larger proportion of businesses in sectors highly affected by the minimum wage than in the rest of the economy took advantage of short-time allowance

during the pandemic and were thus able to secure regular employment. Employees in the minimum-wage sector were less likely to receive company supplements to short-time allowance than higher-paid employees. Marginal workers (i.e. with a monthly gross income of up to 450 euros and only partially subject to social security contributions), who have an above-average chance of having wages in the minimum wage range, had to cope with particularly high income losses and job losses during the pandemic, as they are not entitled to short-time allowance.

- 8** The increase of the statutory minimum wage by the German Bundestag from 10.45 euros to 12 euros per hour in October 2022 has led to significant increases in hourly and monthly earnings at the lower end of the hourly wage distribution. According to the Federal Statistical Office's Earnings Survey (VE), employees in the minimum wage range recorded an increase in hourly wages of around 15 per cent between July and October 2022. Gross monthly wages increased by around 16 per cent between July and October 2022 for employees with hourly wages in the minimum wage range. The development of monthly wages during this period was significantly weaker for marginally employed than for regular full-time and part-time employees. This can be explained by a decrease in the average paid working time of marginally employed persons in the minimum wage range by about 8 per cent.
- 9** The introduction of the minimum wage in 2015 caused an increase in hourly wages in the range of about 5 to 13 per cent for workers who previously earned less than 8.50 euros per hour. The increases were higher in eastern Germany than in western Germany. The gender pay gap in hourly wages has decreased slightly due to the introduction of the minimum wage. The first and second minimum wage adjustments in 2017 and 2019 had no statistically significant impact on the level of hourly wages. With regard to the impact of the minimum wage introduction on monthly wages, the findings are inconclusive. Minimum wage-related increases in hourly wages can lead to unchanged monthly wages through a corresponding reduction in working hours. Depending on the data set used, no changes were found due to the introduction of the minimum wage, or increases in monthly wages of up to 7 per cent were identified. No causal studies for earnings are available on the effects of the adjustments to the statutory minimum wage since 2020. Due to the limited reliability of the earnings and working time information for the years 2020 and 2021, causal research of minimum wage effects on earnings is only possible again with data for the year 2022.
- 10** The minimum wage has changed the structure of the wage distribution. On the one hand, a compression can be observed at the lower end of the wage distribution. After the introduction and with each increase of the minimum wage, there was an accumulation of employment relationships with an hourly wage at or just above the minimum wage. On the other hand, a number of findings suggest that there were also wage effects in higher wage ranges (spill over effects). Wage inequality has decreased overall and within companies because of the minimum wage. The low-wage sector has become significantly smaller in 2022. The minimum wage also influenced the collective wage dynamics in sectors whose lowest collective wages were close to the minimum wage. A qualitative study commissioned by the Minimum Wage Commission shows that the increase of the minimum wage to 12 euros in particular led to above-average wage increases in the lower wage range and often to a compression of the collectively agreed wage structure.
- 11** There are still deficits in the implementation of the statutory minimum wage. This is illustrated, among other things, by the inspections carried out by the customs authorities, whose Financial Control Unit for Undeclared Employment (Finanzkontrolle Schwarzarbeit, FKS) is responsible

for monitoring compliance with the minimum wage. In 2022, 53,182 employers were inspected. 5,898 preliminary proceedings were initiated for a violation of the Minimum Wage Act (MiLoG). Around 40 per cent of the proceedings were for non-payment or late payment of the statutory minimum wage and around 60 per cent for breaches of documentation requirements. The Minimum Wage Commission finds minimum wage violations unacceptable. The Minimum Wage Commission reaffirms its assessment that customs should focus its inspections even more on those sectors, company sizes, forms of employment and regions in which the statutory minimum wage has a particularly high relevance. A high density of controls in these areas particularly affected by the minimum wage makes an important contribution to ensuring that violations of the Minimum Wage Act are quickly detected and punished.

- 12** Customs audits and qualitative studies have identified various ways of circumventing the minimum wage. The incorrect recording of working hours is particularly relevant. This includes, among other things, the non-documentation of hours worked, the inclusion of breaks not granted in working time, the non-reimbursement of set-up times or preparatory and finishing work, the non-reimbursement of empty runs in the passenger transport sector as well as incorrectly kept working time accounts. Undeclared work also constitutes circumvention of the minimum wage. However, a connection between changes in the level of the statutory minimum wage and changes in the extent of undeclared work demanded or offered cannot be proven on the basis of preliminary data available from a representative survey commissioned by the Minimum Wage Commission.
- 13** According to customs estimates and the available qualitative studies, explicitly agreed hourly wages below the minimum wage are rare. Accordingly, available and frequently cited figures on the estimated non-compliance with the minimum wage from both the Structure of Earnings and Earnings Survey (VSE/VE) of the Federal Statistical Office and the Socio-Economic Panel (SOEP) at the German Institute for Economic Research (DIW), based on paid or agreed hourly wages, are of limited value for the question of how many employees are presumed to earn below the minimum wage, but nevertheless provide indications of problems regarding compliance with the minimum wage. Neither survey is designed to measure non-compliance with the minimum wage. This also explains the wide range of results available. Regardless of their significance for measuring non-compliance with the statutory minimum wage, both surveys are important data sets for analysing developments in wages and working hours. Part of the estimated non-compliance with the minimum wage observed in the first month after the adjustment must be considered a transitional phenomenon as it falls into a legally tolerated time limit for implementing minimum wage adjustments.
- 14** An important prerequisite for the implementation of the minimum wage is knowledge of the current level of the statutory minimum wage. Representative employee surveys commissioned by the Minimum Wage Commission concluded that only about half of the respondents know the approximate amount of the minimum wage within a range of 50 cents around the actual value. As a central information service for employees and companies, the Federal Ministry of Labour and Social Affairs maintains a telephone hotline dedicated to minimum wage issues, which received around 500 calls per month in 2022. Around half of the calls came from employees, a quarter from companies and just under 10 per cent from tax consultants. Most frequently, callers asked about the regulations on internships. Other questions concerned the calculation of wages and salaries and the consideration of remuneration components. From the point of view of the Minimum Wage Commission, it is an important prerequisite for compliance with the minimum wage that companies and employees know its current level. Therefore, it is important to expand the information offered on the statutory minimum wage.

15 The amount of transfer payments for so-called top-up recipients, i.e. for employees who receive benefits according to Social Security Code Book II (SGB II) despite being gainfully employed, has slightly decreased due to the introduction of the minimum wage. This reduced the amount of overall fiscal expenditure for supplementary benefits under Social Security Code Book II. This decreased by around 170 million euros in 2015 due to the minimum wage and by around 280 million euros in 2016. The number of people receiving supplementary benefits decreased only slightly more than the average of previous years due to the introduction of the minimum wage and the subsequent adjustments. The fact that there was no significant reduction in the number of people is due in particular to the fact that the supplementary receipt of SGB II benefits results regularly from low weekly working hours and/or a high number of non-working household members. In addition, high housing costs, especially in urban areas, can lead to indigence despite earning the minimum wage. With regard to the risk of poverty, no clear picture has emerged so far. Depending on the study methodology, the introduction of the minimum wage was shown to lead to no change or a slight reduction in the risk of poverty. In households at risk of poverty, the share of employees is lower than the average of the population. The minimum wage is therefore only of limited use in reducing poverty risks.

Minimum wage and employment

16 As a result of the measures to contain the Coronavirus pandemic, total employment shrank in 2020 for the first time since the introduction of the statutory minimum wage. Sectors of the economy highly affected by the statutory minimum wage showed a greater decline in employment than the rest of the economy. Current research results show that the minimum wage had no causal influence on the decline in regular employment (i.e. subject to social security contributions) during the pandemic. There was a particularly strong decline in exclusively marginal employment in the economic sectors highly affected by the statutory minimum wage during the Coronavirus pandemic. Research findings on the causal impact of the minimum wage on this decline are inconclusive. In 2022, total employment grew again and exceeded the pre-Coronavirus pandemic employment level over the course of the year. In the industries highly affected by the statutory minimum wage, employment grew at nearly twice the rate of the rest of the economy in 2022. This was mainly due to the growth of regular employment.

17 Studies on the causal effect of the minimum wage on employment make clear that the introduction of the minimum wage in 2015 had significant negative effects on the number of exclusively marginally employed persons. This effect translated into a slightly negative effect on the total number of employees, which consists of regular employees (i.e. subject to social insurance) and exclusively marginally employed persons. The statutory minimum wage had no effect or, depending on the study, only a small positive or negative effect on regular employment. These results apply both to the short period after the introduction of the minimum wage and to the period up to the first quarter of 2022.

18 Individual study results indicate that negative employment effects of the introduction of the minimum wage in 2015 can be observed above all in regions with low growth in gross domestic product before the introduction of the minimum wage. The effect of the minimum wage on employment is thus related to the strength of regional economic growth. The minimum wage did not have a negative effect on manual labour or the share of routine-intensive jobs that could be automated. The fear that the introduction of the statutory minimum wage would have a negative effect on the development of simple jobs is therefore not confirmed. Unemployment increased in 2020 and 2021 as a result of the Coronavirus pandemic. In the years before and since the introduction of the minimum wage, it had been declining due to favourable economic

conditions. In causal impact analyses extending into the first quarter of 2022, no statistically significant effect of the statutory minimum wage on the development of unemployment was found.

- 19** The Coronavirus pandemic has also affected working time. Companies have reacted by introducing short-time work, shortening working hours or reducing overtime and working time accounts. Survey results show that the percentage reduction in working hours was greater among employees at the minimum wage than among higher-paid employees. In descriptive evaluations, a comparison of the years 2014 and 2022 shows a clear decrease in working hours, especially among marginally employed persons. For regular full-time and part-time employees a smaller decrease can be observed. The available causal impact studies show that there was a significant decrease in agreed working hours in 2015. Results for the following years as well as for the amount of actual working time and for overtime are inconclusive.
- 20** Short-time work was used more frequently during the Coronavirus pandemic in sectors of the economy highly affected by the statutory minimum wage than in the rest of the economy. The share of companies with short-time work in all companies as well as the share of employees receiving short-time allowance in all regular employees was significantly higher in the economic sectors highly affected by the statutory minimum wage during the lockdown phases than in the rest of the economy. With the closure of large parts of the retail, hospitality and service sectors, the containment measures had a greater impact on businesses in economic sectors highly affected by the minimum wage. Minimum wage employees were on short-time work for a larger share of their working hours than employees in higher wage groups.
- 21** The number of reported job vacancies declined more in sectors highly affected by the legal minimum wage than in the economy as a whole during the Coronavirus pandemic. In 2022, the number of job vacancies in sectors highly affected by the minimum wage and in the economy as a whole returned to pre-pandemic levels. According to impact studies for the period up to 2018, the minimum wage had no causal influence on the number of job vacancies. With regard to in-company training and in-company continuing training, no changes due to the minimum wage are discernible. The development of the number of internships over time shows no significant changes for the period after the introduction of the minimum wage. However, the differentiated regulations for different types of internships introduced with the Minimum Wage Act led to uncertainty and a need for advice among employers, employees and students alike.
- 22** Solo self-employment can be an alternative to dependent employment. Causal analyses indicate that solo self-employment has declined due to the minimum wage. Especially in regions and economic sectors where low average wages were observable before the introduction of the minimum wage, solo self-employment became less attractive compared to dependent employment. The employment of freelancers by companies has not increased due to the minimum wage.

Minimum wage and competition conditions

- 23** The extent to which companies are affected by the statutory minimum wage varies depending on the data set. Despite different levels, the data sets show similar patterns. Companies in eastern Germany and in the service sector are affected by the minimum wage above average. Small establishments in particular have a high proportion of minimum wage employees. As the size of the enterprise increases, the proportion of affected enterprises decreases. In addition, companies not bound by a collective agreement are comparatively often affected by the mini-

imum wage. In the years following the introduction of the minimum wage, the number of companies affected decreased continuously. With the increase of the statutory minimum wage to 10.45 euros in July 2022 and the increase to 12 euros in October 2022, the proportion of affected companies rose again.

- 24** The statutory minimum wage has had only a limited impact on the total wage bill. Under the assumption that all eligible employees receive the minimum wage and that there are no changes in working hours, estimates by the Federal Statistical Office show an increase in the monthly wage bill of around 0.34 per cent as a result of the increase in the minimum wage to 12 euros. This means that the increase decided by the German Bundestag had a similarly high impact on the wage bill as the introduction of the minimum wage in 2015.
- 25** Companies have reacted to the increase of the statutory minimum wage to 12 euros with various adjustment measures. According to a company survey commissioned by the Minimum Wage Commission, 70 per cent of the companies already made adjustments immediately after the increase. Only 4 per cent of the companies wanted to take further adjustment measures in the future. Among the measures already implemented, the most frequent indication at 93 per cent was that hourly wages that had previously been below 12 euros were raised. 27 per cent of the enterprises increased sales prices. Another 13 per cent optimised work organisation or work processes. Eight per cent of the enterprises each reported a restraint in hiring or re-staffing as well as a postponement or reduction of operational investments. Seven per cent reduced their working hours. In addition, six per cent of the companies affected by the minimum wage stated that their requirements for applicants at the minimum wage level had risen.
- 26** As a further effect of the increase of the statutory minimum wage to 12 euros, 32 per cent of the affected companies stated that the job satisfaction of minimum wage employees had increased. According to 11 per cent of the companies, this was also the case for employees earning more than the minimum wage. About 10 per cent of the companies reported an increase in turnover. Nine per cent of the companies affected by the minimum wage increase reported a worsening of their competitive position compared to other companies in the sector.
- 27** Qualitative research findings indicate that downwards competition through low wages has partly decreased since the introduction of the statutory minimum wage and that the competitive conditions have become more transparent for the enterprises. Company managers report that due to the introduction of the minimum wage, competition by means of very low wages is no longer possible and companies with a corresponding competition model have left the market. At the same time, there are enterprises that perceive increased competitive pressure due to the minimum wage, which is attributed, among other things, to falling profit margins and higher personnel costs. Small and medium-sized enterprises in particular complain about a distortion of competition in favour of large enterprises and retail chains.
- 28** The effect of the statutory minimum wage on the overall price level is ambiguous. Particularly in the year immediately after the introduction of the minimum wage, descriptive analyses show above-average price increases in some sectors of the economy that were particularly affected by the minimum wage. In the following years up to and including 2022, such price increases are no longer recorded to the same extent. The so-called inflation contribution of the minimum wage, i.e. the share of goods and services from the economic sectors highly affected by the statutory minimum wage in the overall increase in consumer prices, was only above average in the years 2015 and 2020. The only existing causal analysis to date determined a minimum wage-related increase in producer prices because of the introduction of the minimum wage.

- 29** In 2020, there was a significant decline in private consumption in connection with the Corona-virus pandemic, after it had grown steadily in the years 2015 to 2019. In 2022, private consumption expenditure increased to some extent again. According to causal analyses, the bottom 40 per cent of means-weighted household incomes registered an increase due to the introduction of the minimum wage and its uprating in 2017. The effects were stronger on gross household incomes than on net household incomes. However, the effects on private consumption and savings were mostly not statistically significant. Descriptive analyses show an increase in consumption in minimum-wage households for the period up to 2018, which was also stronger than in comparative households without minimum-wage employees.
- 30** The introduction of the minimum wage in 2015 led to a decline in profits for affected businesses. In the period from 2015 to 2019, the profits of businesses affected by the minimum wage were up to 9 percent lower per year than those of businesses not affected. This effect was particularly due to establishments in eastern Germany and to establishments that were under high competitive pressure. No statistically significant effects can be determined for the minimum wage increases up to 2019. No study results are yet available for later increases in the minimum wage. In 2015 and 2016, companies affected by the minimum wage showed an increase in labour costs of up to 4 percent due to the minimum wage. On average from 2015 to 2020, however, the increase in labour costs was not higher compared to enterprises without minimum wage employees.
- 31** With regard to investment, based on the studies available, the minimum wage led to a decline in companies affected by the minimum wage in the year of its introduction, while investment behaviour in later years was no longer influenced by the minimum wage. This applies both to overall investments and to investments dedicated to the expansion of companies. The level of investment in companies affected by the minimum wage is generally significantly lower than in other companies, regardless of the minimum wage. Qualitative studies indicate that companies affected by the minimum wage invested heavily in the introduction and implementation of hygiene measures during the coronavirus pandemic and in introducing online services and in structural improvements implemented during the periods of company and store closures.
- 32** Causal analyses show a slight reduction in the number of companies as a result of the introduction of the minimum wage, which can be attributed to an increased number of micro-enterprises with up to four employees leaving the market. Corresponding study results show that employees have switched from these micro-enterprises to larger and more productive companies as a result of the introduction of the minimum wage.
- 33** With the introduction of the statutory minimum wage, an obligation to record the working hours of their employees was introduced for many employers for the first time. The corresponding salary limits relevant for the documentation of working hours, from which the obligation to record does not apply anymore, were adjusted upwards with the Minimum Wage Increase Act (MiLoEG) in 2022 in order to correspond again to the ratio of minimum wage to monthly earnings at the time the minimum wage was introduced in 2015. According to a company survey commissioned by the Minimum Wage Commission, the personnel costs of recording working hours and storing documents for employers have not changed as a result. They amounted to around 270 million euros per year. This corresponds to around 6 percent of the total effort for the documentation of working hours in the German economy, last measured in 2019. Qualitative study results and the decline in the corresponding inquiries to the minimum wage hotline suggest that the obligation to keep records plays a less prominent role for companies now compared to when the minimum wage was introduced. In the discussion about compliance costs, the

documentation obligations anchored in the Minimum Wage Act must be distinguished from the provisions of the Working Hours Act, which were already in force before the introduction of the minimum wage. Apparently, the requirements of the Working Hours Act have moved more into the focus of companies in the course of the implementation of the documentation obligation of the Minimum Wage Act. This applies, for example, to observing the maximum daily working hours and the documentation of overtime. From the point of view of the customs authorities, the documentation requirements are necessary so that their statutory control mandate can be fulfilled. They can also help to make it easier for employees to enforce their claims for payment for the work they have done.

- 34** In the period up to 2025, the Minimum Wage Commission will place a special focus on identifying the effects of raising the minimum wage to 12 euros as part of its ongoing evaluation of the effects of the minimum wage. In doing so, it can build on a large body of research on the effects of the minimum wage that was carried out on its behalf and that is by now thematically and methodologically well grounded. As the economic environment and the relationship between labor supply and demand have changed significantly compared to when the minimum wage was introduced, the research will also have to answer the question of whether the increase in the minimum wage has resulted in a continuation of the previously found effects or whether the effects differ in type and scope.