

Year 3 Evaluation of the Bounce Back Loan Scheme, Coronavirus Business Interruption Loan Scheme, and Coronavirus Large Business Interruption Loan Scheme

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List of terms

ASHE – Annual Survey of Hours and Earnings

BBB – British Business Bank

BBLs – Bounce Back Loan Scheme

BCR – Benefit to Cost Ratio

BICS – Business Insights and Conditions Survey

BEIS – Department for Business, Energy & Industrial Strategy (now DBT)

CBILs – Coronavirus Business Interruption Loan Scheme

CJRS – Coronavirus Job Retention Scheme

CLBILs – Coronavirus Large Business Interruption Loan Scheme

Covid-19 Loan Guarantee Schemes – Bounce Back Loan Scheme, Coronavirus Business Interruption Loan Scheme and Coronavirus Large Business Interruption Loan Scheme

DBT – Department for Business & Trade (formerly BEIS)

Facility – A Covid-19 Loan Scheme facility, being either a term loan facility, a revolving credit facility, an invoice finance facility or an asset finance facility (as applicable) made available by an accredited lender to a borrower

HMT – His Majesty's Treasury

IDBR – Inter-Departmental Business Register

ONS – Office for National Statistics

PAYE – Pay As You Earn

PSM – Propensity Score Matching

Schemes – Unless otherwise stated, refers to the Covid-19 Loan Guarantee Schemes

SME – Small and Medium-Sized Enterprises

UK – United Kingdom

VAT – Value-Added Tax

Year 1 report – The first of three commissioned reports published (in 2022) as part of this evaluation. It assesses the impacts of the schemes in 2020 and the scheme design and lender accreditation processes

Year 2 report – The second of three commissioned reports published (in 2023) as part of this evaluation. It assesses the impacts of the schemes in 2021 and the monitoring, repayment and counter fraud processes.

Year 3 report – This report, the third of three commissioned reports published as part of this evaluation.

Note to readers

Responding to the increasing risk of a pandemic-induced economic crisis, the UK Government introduced three loan guarantee schemes in 2020 to help businesses navigate their way through a period of significant uncertainty. The British Business Bank and Department for Business and Trade are determined to learn lessons from the design and delivery of these schemes. To support this, London Economics and Ipsos have been commissioned to independently evaluate the schemes' effectiveness over three years.

This publication is the third of three commissioned reports (the first was published in 2022 and the second in 2023); it considers more evaluation evidence which builds on, cross-checks, and further develops the findings of the previous reports. It also provides an assessment of the benefits and costs of the scheme on the whole.

The processes used to deliver the schemes have been refined over the course of delivery, with particular improvements in identifying and responding to cases which involve fraud. However, there have been some wider challenges faced in the delivery of counter fraud enforcement work and in the governance of the Covid-19 Loan Guarantee Schemes.

Businesses continue to self-report that the schemes were effective in preventing their permanent closure – even three years on. Econometric analysis of secondary data suggests that the schemes prevented additional permanent closures after two years; however, the estimated impact is lower compared to self-reported findings. The analysis also finds statistically significant positive impacts of the schemes on business turnover and employment, suggesting that access to finance helped businesses to grow or recover during and after the pandemic.

Most importantly, the evidence suggests that the scale of the benefits of the schemes means that they represent good value for money (to the overall economy), in spite of the large losses arising from businesses that are not able to repay their loans.

Executive summary

In March 2021 London Economics and Ipsos were commissioned to undertake a three-year evaluation of the Bounce Back Loan Scheme (BBLs), Coronavirus Business Interruption Loan Scheme (CBILs) and Coronavirus Large Business Interruption Loan Scheme (CLBILs) (hereafter referred to as the 'Covid-19 Loan Guarantee Schemes' or the 'schemes').

This report provides findings from the third year of the three-year evaluation, which consists of three main parts. These are an economic evaluation, which looks at value for money across the schemes for the first time, and updated process evaluation and impact evaluations. The updated process evaluation focuses on repayments, recoveries and counter fraud work. The updated impact evaluation assesses the impact of the schemes in the third year after the onset of the pandemic and provides a secondary analysis of key results from the impact evaluation presented in the Year 2 report.

Key findings

This section provides an overview of the most important findings of each of the main strands of the third year of this evaluation.

Economic Evaluation

- The Covid-19 Loan Guarantee Schemes resulted in tens of billions of additional Gross Value Added (GVA) in the UK economy (£15 billion to £36 billion for BBLs, £12 billion to £33 billion for CBILs and £0.4 billion to £8 billion for CLBILs). The range of the GVA estimates reflect statistical uncertainty as well as uncertainty around future benefits and the level of product market displacement.
- The evidence suggests that the benefits of the Covid-19 Loan Guarantee Schemes outweigh their costs. The evidence is particularly compelling in the case of the CBILs scheme. Taken collectively, the benefit to cost ratios of the schemes are estimated to be between 1.24 and 3.78 across different modelling scenarios.

Year 3 impact evaluation

- Borrowers were surveyed about the impact of the schemes on their survival three years on from the pandemic. Analysis of these self-reported impacts suggests that an extra 11%-48% of BBLs, and 7%-38% of CBILs/CLBILs borrowers could have permanently closed between April 2020 and December 2022 in the absence of the schemes. This compares to an estimated 12%-42% of BBLs, and 6%-35% of CBILs/CLBILs borrowers that would have permanently closed between April 2020 and December 2021 as reported in the Year 2 evaluation. These borrowers reported that the reasons that they would have permanently closed without access to finance through the schemes were primarily lockdown rules, cashflow issues and changes in market conditions as a result of the pandemic.
- Depth interviews with borrowers were undertaken to explore the differences in self-reported and secondary data findings from the Year 2 report. The results of the interviews highlight the difficulty that borrowers face when assessing their hypothetical likelihood of permanent closure in the absence of the schemes. Indeed, when asked to assess their likelihood of closure in the absence of the schemes at the end of the depth interview, the majority of respondents gave a different answer to that they had given to the same question in a survey previously. As a result, there is a strong case to be made that the estimates for the impact of the schemes on business survival using secondary data are more robust.

Secondary analysis of Year 2 impacts

- The second-year impacts of the schemes on survival, turnover and employment are also analysed using secondary data – the IDBR¹. The analysis finds that the schemes prevented closures among an additional 5.9%-8.0% of BBLs borrowers and 5.8%-6.8% of CBILs/CLBILs borrowers between April 2020 and March 2022. These impacts are statistically significant. These estimates are slightly larger than the previous secondary estimates related to business closures from April 2020 to March 2021 (which suggested that the schemes prevented closures among an additional 5.0%-6.5% of BBLs borrowers and 4.0%-4.7% of CBILs/CLBILs borrowers).

¹ The IDBR is a database of around 2.7 million businesses primarily compiled from VAT and PAYE records from HMRC.

- Econometric analysis of IDBR data finds that turnover was 6.8% higher among BBLs borrowers and 6.8% higher among CBILs/CLBILs borrowers in the second year of the pandemic than it would have been in the absence of the schemes. This impact (while still statistically significant) is slightly smaller than the corresponding impact from the first year of the pandemic (9.7% and 11.5% for BBLs and CBILs/CLBILs borrowers respectively).
- An estimated 1.0m total extra jobs likely would have been lost among BBLs and CBILs/CLBILs borrowers in the second year of the pandemic without the schemes. It is estimated that BBLs and CBILs/CLBILs borrowers respectively had 7.9% and 12.0% higher employment than they would have in the absence of the schemes. This highlights that the schemes likely had a positive social impact during the time of crisis as well as an economic impact.
- There is some evidence to suggest that the schemes may have had different impacts for different kinds of businesses depending on their level of finance need. For businesses with a substantial finance need, the largest impact of the schemes was likely related to business survival, whereas for businesses with less of a finance need the impact of the schemes was likely more related to increased growth.

Process Evaluation

- **Repayments and recoveries:** The British Business Bank's management data (as of September 2024, published in November 2024) suggests that 61% of the Covid-19 Loan Guarantee Schemes portfolio value² has been repaid or removed from the guarantee schemes and is not at risk of loss to the public purse. A further 22% is on schedule to be repaid (although this could fall into arrears or default). The value of facilities that have defaulted (including facilities that have been settled and claimed) or are in arrears in the Covid-19 Loan Guarantee Schemes is 17%, with the BBLs representing the largest value (91% of the total Guarantee Schemes default value, 26% of the value of BBLs, or £12 billion). Stakeholders and lenders reported that in general, lenders have utilised Business As Usual (BAU) approaches to secure repayments and recoveries, which is in line with the lender agreements for the Covid-19 Loan Guarantee Schemes. These approaches, alongside the lender challenge process, assurance activities, enforcement activity and

² The total value of the portfolio drawn.

exploration of new recovery strategies, were reported in stakeholder interviews to be effective.

- **Enforcement activities** undertaken by the Insolvency Service (INSS) and the National Investigation Service (NATIS) have had key successes in punishing and recovering money from individuals committing fraud. Successful outcomes include: 830 director disqualifications, 22 criminal convictions and bankruptcy restrictions imposed on 93 businesses from INSS, and 258 investigations from NATIS into BBLs fraud. However, both NATIS and the INSS faced significant challenges in investigating fraud and misconduct related to the COVID-19 Loan Guarantee schemes. Initially limited resources, delays in the judicial system and the sheer volume of cases all represented obstacles.
- **Governance:** The governance approaches used as part of the Covid-19 Loan Guarantee Schemes were reported to be largely appropriate and had some key successes around information sharing and coordination, relationships with lenders, and independent oversight. However, there were some challenges with governance, with the main one being the reported slow decision-making within DBT, impacting various aspects of the COVID-19 Loan Guarantee schemes.

Context

In March 2020, the potential impact of the Covid-19 pandemic became clearer as public health measures designed to combat the pandemic had a substantial impact on businesses.

To combat the wide-ranging business impacts already felt and the uncertainty over the financial challenges ahead, the UK government moved quickly to design and launch a series of three loan guarantee schemes targeted at businesses of different sizes, namely, the Bounce Back Loan Scheme (BBLs), Coronavirus Business Interruption Loan Scheme (CBILs) and Coronavirus Large Business Interruption Loan Scheme (CLBILs). CBILs was launched on 23 March 2020, then CLBILs was subsequently launched on 20 April 2020 and BBLs on 4 May 2020. The schemes closed for applications on 31 March 2021.

In March 2021, the British Business Bank (BBB) commissioned London Economics and Ipsos to undertake a multi-year evaluation of the three Covid-19 Loan Guarantee Schemes. The aim of the evaluation was to assess whether the objectives of the Covid-19 Loan Guarantee Schemes were met. Key research questions are divided into economic, process, and impact questions.

- The economic evaluation focuses on the costs and benefits of the Covid-19 Loan Guarantee Schemes to assess their value for money.
- The process evaluation focuses on scheme design, scheme delivery, debt recovery and fraud processes, and variations in processes.
- The impact evaluation focuses on the extent to which the Covid-19 Loan Guarantee Schemes affected business outcomes – for instance, whether having received funds under the Covid-19 Loan Guarantee Schemes was associated with a higher likelihood of business survival, or greater turnover, employment or productivity.

The Year 1 report (published in 2022) focused on the first year of the pandemic and presented the findings from the first phase of the analysis. The analysis was comprised of the process evaluation and early impact evaluation of the Covid-19 Loan Guarantee Schemes, based primarily on data collected through a survey of borrowers and non-borrowers.

In the Year 2 report (published in 2023), the impact evaluation focused on using survey data collected in 2022 to assess the impact of the Covid-19 Loan Guarantee Schemes on business outcomes in the second year of the pandemic. Analysis related to the first-year impacts of the schemes was also conducted using secondary data sources (such as the IDBR). A process evaluation focused on monitoring, repayment and counter fraud processes was undertaken, drawing on scheme management information, wider data and a series of qualitative interviews with key stakeholders and accredited lenders.

In this (the third) phase, the impact evaluation focuses on using survey data collected in 2024 to assess the impact of the Covid-19 Loan Guarantee Schemes on business outcomes in the third year since the onset of the pandemic. The survey is complemented by depth interviews with borrowers who had previously completed the survey.

Additionally, the Year 2 results are re-assessed using secondary data sources. The economic evaluation component assesses the value for money of the Covid-19 Loan Guarantee Schemes through an exploration of their costs and benefits. The results of a further stage of process evaluation are also presented, which focus on some of the processes that could not be fully assessed in Year 2 (for example, recovery pilots, the effect of the introduction of a formal counter fraud strategy and further analysis of counter fraud activity).

Approach

Methods

The evaluation uses a mixed methods approach combining both qualitative and quantitative methods. It also draws extensively on both primary and secondary data.

The Year 3 impact evaluation relies on a large-scale survey and qualitative interviews of businesses, as well as a number of secondary datasets including BBB management information. Survey fieldwork, undertaken by Ipsos, resulted in 654 businesses completing a mixed mode survey (online and telephone) between March and May 2024, of which 191 interviews were with BBLS borrowers, 145 interviews were with CBILS borrowers, and 7 interviews were with CLBILS borrowers. The remaining 311 interviews were with non-borrowers. Non-borrowers were selected to be similar to borrowing businesses in the key

respect that they have all faced challenges or opportunities because of the Covid-19 pandemic. This increases the likelihood that both groups of businesses have faced similar financial and operational issues.

In addition to the Year 3 impact evaluation, this report presents an analysis of the impacts of the schemes in the second year of the pandemic using secondary data. The analysis assesses the same business outcomes in the second year of the pandemic as in the Year 2 report (business survival, turnover and employment) but uses a different methodology based on secondary data rather than primary survey data. In particular, the secondary analysis does not rely on self-reported data as in the Year 2 report and is therefore less prone to poor recall or behavioural bias (for example, businesses may be overly pessimistic about their chances of surviving the pandemic without access to the schemes). This exercise is based primarily on the IDBR. The secondary analysis also explores variations in these business outcomes for borrowers that may have had a substantial need for finance during the pandemic. The reason why the analysis of second year impacts of the schemes using secondary data is possible only in the third year of the evaluation is due to lags in the secondary data.

Reference periods

The time periods referenced across the evaluation can vary depending on the analytical methods employed and underlying data sources. Business survival impacts are measured up to December 2021 in the Year 2 survey and up to December 2022 in the Year 3 survey. Business survival impacts from the IDBR secondary analysis of Year 2 findings are measured from 1 April 2020 to 31 March 2022.

For turnover, employment and productivity impacts, the exact reference period varies across businesses. In the survey, the reference periods for the Year 3 analysis are individual businesses' third financial year since the beginning of the pandemic, but businesses may have different financial year-end months. For businesses with a financial year ending in March, the reference periods for the Year 3 analysis would be April 2022-March 2023.

In the case of the secondary analysis of Year 2 impacts, the reference period for the turnover and employment analysis can also vary across businesses due to differing data sources. The most common reference period for the turnover impact is the calendar year 2021, and the most

common reference periods for the employment impact are the 12-month period from July 2021 to June 2022.

The periods covered by the survival analysis and the turnover and employment analysis are different between the survey analysis and the secondary analysis due to these differences in reporting periods between the survey data and the IDBR.

Economic Evaluation

The impact evaluation (in the first two published evaluation reports as well as this report) has provided evidence that the Covid-19 Loan Guarantee Schemes have had substantial benefits for UK businesses. However, there are also substantial costs arising from the schemes. The economic evaluation assesses the value for money of the schemes by comparing the benefits and costs for each scheme.

In this evaluation, the benefits, costs and value for money are assessed from the perspective of the entire UK economy. The costs and benefits are estimated over a 10-year time period from the origination of the schemes (i.e. up to March 2030).

There is a certain level of uncertainty and methodological challenge when trying to estimate the benefits and costs of the schemes. Indeed, some benefits and costs will be accrued beyond the end of the evaluation period so must be forecasted based on certain assumptions. This uncertainty is addressed by considering three different scenarios, which vary key supporting assumptions. We present a 'Most Pessimistic' scenario (Scenario 1); a 'Pessimistic' scenario (Scenario 2); and a 'Core' scenario (Scenario 3).

Benefits

The benefits of the schemes are measured by additional GVA of borrowers that would have been lost without the schemes, and are estimated under the three different scenarios. Unfortunately, the GVA of borrowers in the absence of the schemes is not directly observable and so it must be estimated. For the purposes of the economic evaluation, estimates for the GVA³ of borrowers in the absence of the schemes are obtained econometrically based on the

³ More specifically, the turnover of borrowers is analysed econometrically, which is then converted into GVA.

GVA of a group of non-borrowers that are similar to borrowers in terms of their pre-pandemic characteristics.⁴ Benefits are estimated using IDBR data. The table below summarises the assumptions made in each of the three modelling scenarios considered in the economic evaluation.

Table 1: Economic evaluation assumptions - benefits

Factor	Scenario 1 (Most Pessimistic)	Scenario 2 (Pessimistic)	Scenario 3 (Core)
Projection of future benefits	No impact beyond Year 2 ⁵	Impact on borrowers beyond Year 2 declines at a rate of 75% per year	Impact on borrowers beyond Year 2 declines at a rate of 50% per year
Product market displacement	Additional GVA is partially displaced from other firms in all years	Additional GVA is partially displaced from other firms in all years, but to a lesser extent in Year 1	Additional GVA is partially displaced from other firms in all years, but to a lesser extent in Year 1 and Year 2
Benefit estimates ⁶	Low estimate	Low estimate	Central estimate

In the Core and Pessimistic scenarios, it is assumed that the impact of the schemes on GVA continues (but declines) beyond the second year of the pandemic. In the Most Pessimistic scenario, it is assumed that the schemes have no impact beyond the second year of the pandemic, which, at the time of this analysis, is the latest year for which data on realised outcomes is available.⁷

⁴ This is done using PSM.

⁵ Year 2 refers to 2021/22.

⁶ This assumption relates to how the estimates from the econometric analysis of IDBR data is translated into a quantified economic benefit. See Table 83 in Annex 5 for an explanation of what the low and central estimates are.

⁷ The reason for this is that, due to lags in the IDBR data, the econometric analysis covers only Year 1 and Year 2. Therefore, while it may be highly likely that some benefits would persist to Year 3, there is no econometric evidence that this is the case.

In all scenarios it is assumed that the additional GVA of borrowers due to the schemes is partially displaced from other firms (i.e. the GVA impact is multiplied by 1 minus the displacement rate). In the Core scenario, it is assumed that there is a lower level of displacement in 2020/21 and 2021/22 compared to the “full” displacement rate (derived from the Year 1 survey). This is due to the spare capacity and the absence of competition as normal across the economy. In the Pessimistic scenario, it is assumed that there is a lower level of displacement only in 2020/21, but not in 2021/22. In both of these scenarios, the GVA impact is multiplied by 1 minus this lower displacement rate in 2020/21 (and also in 2021/22 in the case of the Core scenario), and by the full displacement rate in subsequent years. In the Most Pessimistic scenario, it is assumed that the additional GVA of borrowers due to the schemes is partially displaced from other firms in all years at the full displacement rate (i.e. the GVA impact is multiplied by 1 minus the full displacement rate).

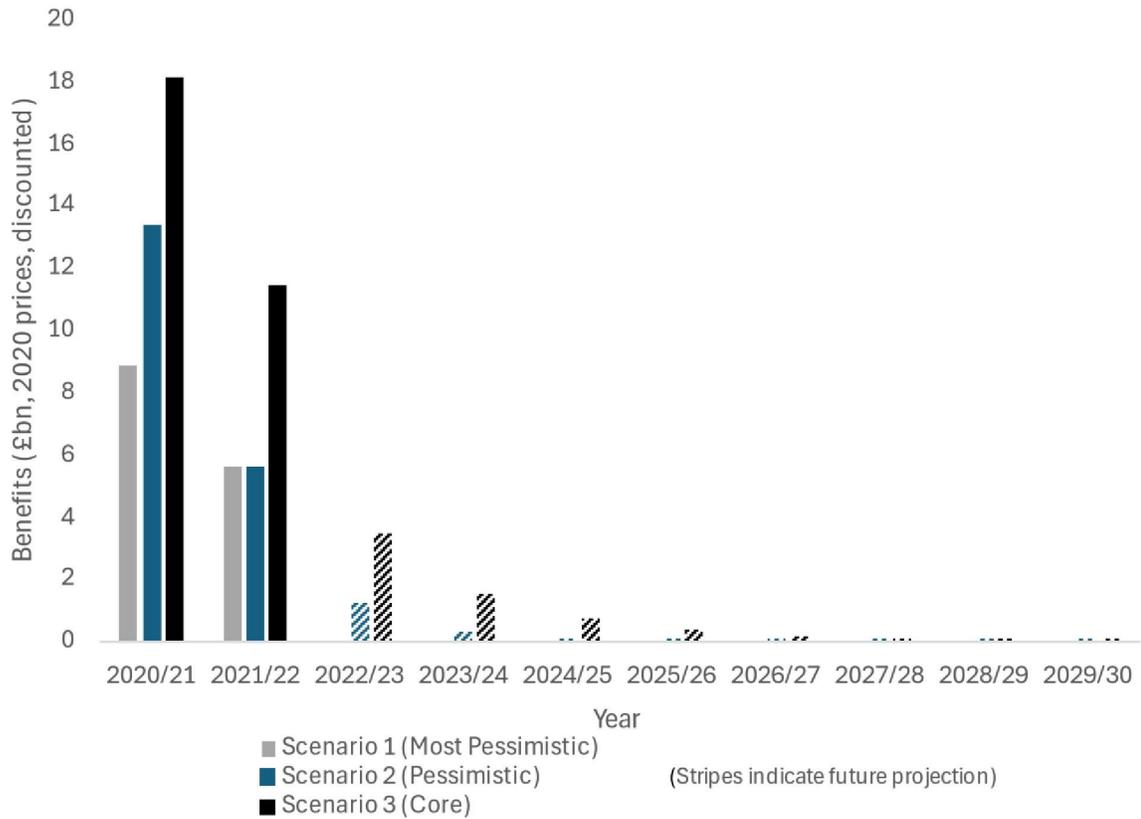
Table 2: Total estimated benefits of the schemes from March 2020 to March 2030 (£m, discounted, 2020 prices)

Scheme	Benefits (Scenario 1 – Most Pessimistic)	Benefits (Scenario 2 – Pessimistic)	Benefits (Scenario 3 – Core)
BBLS	14,524.9	20,662.8	35,949.2
CBILS	12,476.4	18,041.4	32,965.4
CLBILS	404.0	634.5	7,934.8
Overall	27,405.3	39,338.7	76,849.4

Source: London Economics’ analysis.

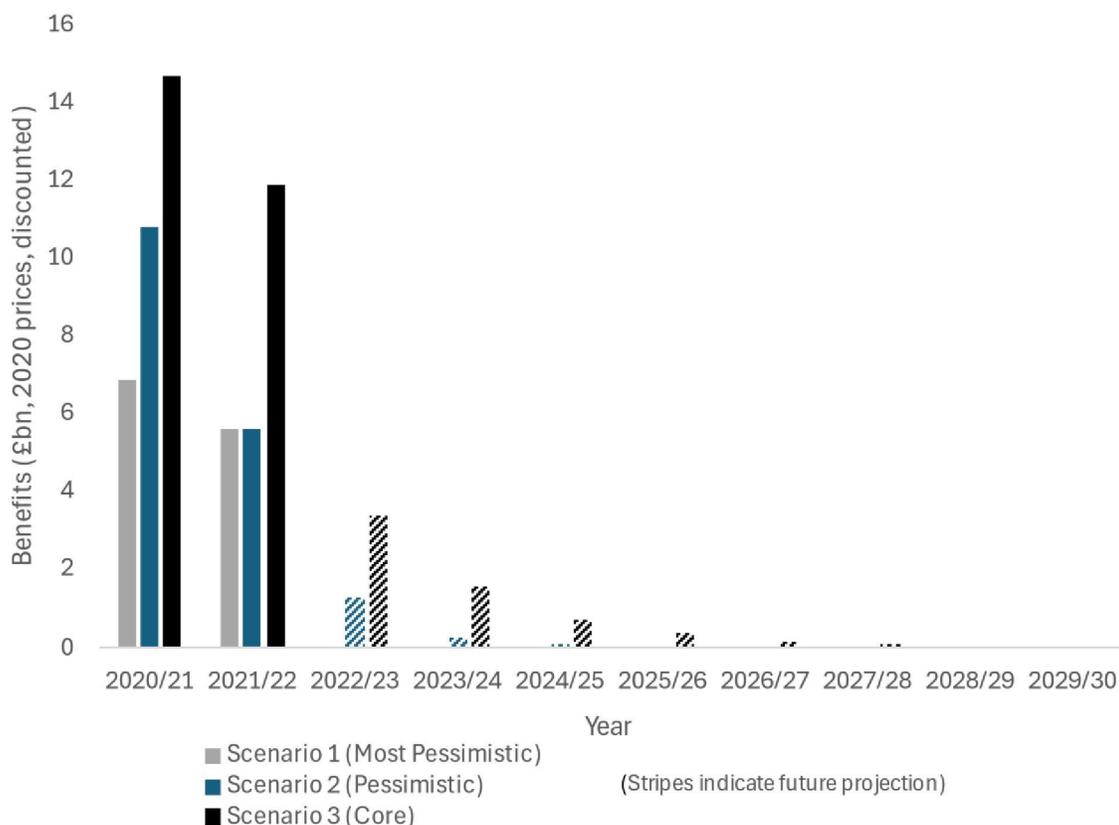
Figure 1 and Figure 2 show the evolution of the benefits for BBLS and CBILS across the period covered (there is a lack of evidence of benefits beyond 2020/21 for CLBILS).

Figure 1: Benefits of BBLs over time



Source: London Economics' analysis.

Figure 2: Benefits of CBILS over time



Source: London Economics' analysis.

In the Core and Pessimistic scenarios, it is assumed that the benefits decline after 2021/22. In the Most Pessimistic scenario, it is assumed instead that the benefits of the schemes end after 2021/22 as the secondary analysis only covers up to that period and, as such, there is no evidence that the benefits go beyond 2021/22.

The estimated benefits are largest for BBLs in all three scenarios. The estimated average GVA benefit of BBLs on a per borrower basis range from £10k to £24k. For context, the maximum amount of finance available under BBLs was £50k. The estimated benefits for CBILS are substantially larger on a per-firm basis (£171k to £451k across the three scenarios). This is to be expected given that borrowers typically obtained significantly more finance (more than £200k on average and up to a maximum of £5 million) than through BBLs. As well as the fact that the amount of finance per borrower was much higher for CBILS, these differences in benefits are likely a reflection of the different origination profiles and objectives of BBLs and

CBILS. Indeed, whilst both schemes were designed to have a substantial and positive impact on participating businesses, BBLS was introduced to ensure that finance was distributed extremely quickly.

There is more variation in the estimated benefits of CLBILS (£783k to £15.4 million per borrower) across the three scenarios than for BBLS or CBILS. In the sample of the IDBR used for the analysis there are only a few hundred CLBILS borrowers, compared to tens of thousands for BBLS and CBILS. As a result, the evidence from the econometric analysis is less strong for CLBILS than for the other two schemes (see the main body of this report and Annex 5 for further details on the three modelling scenarios).

Costs

The most significant cost of the Covid-19 Loan Guarantee Schemes are the losses from unrecovered loans. BBB provided data on scheme losses up to March 2024 (approximately £8 billion under BBLS, £800 million under CBILS and £49 million under CLBILS)⁸ as well as high, medium and low forecasts for future losses. It should be noted that these statistics do not line up with published data, primarily because they reflect the total losses rather than the guaranteed losses. The table below provides estimates for the total expected losses from unrecovered loans under each of the schemes.

Table 3: Economic cost of unrecovered loans from March 2020 to March 2030 (£m, discounted, 2020 prices) – BBLS, CBILS, CLBILS

Scheme	Low estimate	Central estimate	High estimate
BBLS	10,364.7	11,714.3	13,077.4
CBILS	935.4	1,210.1	1,611.7
CLBILS	31.9 ⁹	64.0	97.5
Total	11,331.9	12,988.5	14,786.6

Source: London Economics' analysis of BBB data.

⁸ These figures are discounted and in 2020 prices.

⁹ The reason why the estimated losses in this scenario are lower than the losses to date (approximately £49 million) is that there may be expected to be some recoveries of previously unrepaid finance in future years.

The (expected) losses under BBLs are substantially higher than for the other two schemes. Whilst the cost of unrecovered loans is almost ten times higher for BBLs than CBILs, the total value of finance provided by BBLs was only slightly more than twice as much as for CBILs. This is likely in part due to the fact that the quality of loan origination under BBLs is lower than for CBILs due to differences in scheme design and use between BBLs and CBILs. This may be because BBLs was introduced in order to facilitate the provision of finance to businesses more quickly than CBILs and also recipients of BBLs typically tend to be smaller. Additionally, and likely for similar reasons, there is substantially more suspected fraud under BBLs than under CBILs.

The cost of unrecovered loans is even lower for CLBILs. Even in the higher estimate, the losses would account for less than 3% of the total value of finance made available under the scheme. This result is in part driven by the extremely low closure rate of businesses that participated in CLBILs.

This evaluation also considers the opportunity cost of the funds that were tied up as a result of the schemes. This opportunity cost reflects the value of potential alternative investments that lenders could have made in the absence of the schemes. The opportunity cost is substantial, at £3.6 billion for BBLs; £1.5 billion for CBILs and £0.2 billion for CLBILs. For BBLs, this is the second largest cost, after the cost of unrecovered loans (in all estimates). For CBILs, the opportunity cost of capital is either the highest or second highest (after the cost of unrecovered loans) depending on the assumptions related to future loan defaults. For CLBILs, the opportunity cost of capital is the largest cost.

There are also administration costs associated with the schemes. These are borne by lenders, scheme applicants and borrowers (through the time that they spent on their applications and managing their scheme finance) and the public sector. Table 4 presents estimates for each of the different costs that were estimated. These estimates were based on a wide range of data sources including data provided by BBB, survey data and publicly available financial information (see Annex 5 for details of the methodology).

Table 4: Total administration costs of the Covid-19 Loan Guarantee Schemes from March 2020 to March 2030 (£m, discounted, 2020 prices)

Cost	Cost units	BBLS	CBILS	CLBILS
Lender administration costs	Total	72.6	6.1	0.2
Lender administration costs	Per borrower (£000s)	0.0	0.1	0.4
One-off costs for applicants	Total	79.7	34.8	0.2
One-off costs for applicants	Per borrower (£000s)	0.1	0.5	0.4
Ongoing costs for borrowers	Total	1,602.9	65.2	0.3
Ongoing costs for borrowers	Per borrower (£000s)	1.1	0.9	0.6
BBB administration costs	Total	102.2	29.5	5.8
BBB administration costs	Per borrower (£000s)	0.1	0.4	11.2
Total administration costs	Total	1,857.3	135.7	6.5
Total administration costs	Per borrower (£000s)	1.3	1.9	12.5

Source: London Economics' analysis.

Ongoing costs for borrowers (in terms of the time spent managing their scheme finance) are the largest cost associated with the BBLS and CBILS schemes. These costs are particularly high for BBLS, as they are summed across well over one million BBLS borrowers (a much larger number of borrowers than through the other schemes). For CLBILS, the total ongoing costs for borrowers are relatively small (given the small number of borrowers) while BBB administration costs are relatively high (given the higher administration costs associated with larger loans). Administration costs *per borrower* are, unsurprisingly, increasing in the typical loan size (smallest for BBLS and largest for CLBILS).

Value for money

The value for money of the schemes is assessed by comparing the estimated benefits of the schemes to the estimated costs. Before this comparison is made, the benefits and costs accrued after 2020/21 are discounted and converted into 2020 prices. The table below summarises the benefits and costs of each of the schemes under each scenario.

Table 5: Benefits and costs of the Covid-19 Loan Guarantee Schemes (£m, discounted, 2020 prices)

Scheme	Item	Scenario 1 (Most Pessimistic)	Scenario 2 (Pessimistic)	Scenario 3 (Core)
BBLS	Benefits	14,524.9	20,662.8	35,949.2
BBLS	Total costs	18,551.2	18,551.2	17,188.1
BBLS	BCR	0.78	1.11	2.09
CBILS	Benefits	12,476.4	18,041.4	32,965.4
CBILS	Total costs	3,259.5	3,259.5	2,857.9
CBILS	BCR	3.83	5.54	11.53
CLBILS	Benefits	404.0	634.5	7,934.8
CLBILS	Total costs	317.5	317.5	284.0
CLBILS	BCR	1.27	2.00	27.94
Overall	Benefits	27,405.3	39,338.7	76,849.4
Overall	Total costs	22,128.1	22,128.1	20,330.0
Overall	BCR	1.24	1.78	3.78

Source: London Economics' analysis.

In the case of BBLS, the benefit to cost ratios range from 0.78 to 2.09 across the three scenarios. As discussed above, in the Most Pessimistic scenario it is assumed that there are no benefits of the schemes beyond the end of the evaluation period (March 2022). This is a very pessimistic (and perhaps not realistic) assumption, and therefore it is very likely that the true BCR is above 1 (i.e. that the present value of benefits generated by the scheme exceed the present value of the costs).

The estimated BCRs for CBILS are substantially above 1 in all three scenarios. This suggests, with a high degree of confidence, that CBILS provided value for money. Whilst the benefits of

CBILS are of a similar magnitude to BBLs, the costs of unrecovered loans are almost ten times lower and so the BCRs are much higher. As discussed above, this may in part be due to the fact that there is lower origination quality and much more suspected fraud under BBLs due to differences in scheme design.

The benefit to cost ratios for CLBILS are also above 1 in all three scenarios. This suggests that CLBILS provided value for money, albeit on a smaller scale than CBILS as the estimated costs and benefits are much lower. This is perhaps to be expected given finance under CLBILS was extended to large, established businesses which typically repaid their loans quickly and without issue. It is also of note that the range of benefit to cost ratios (1.27 to 27.94) across the three scenarios is much larger than for the other schemes. As discussed above, this is due to the lower level of confidence in the estimation of the benefits of CLBILS, given there are far fewer CLBILS borrowers than borrowers under the other two schemes.

Looking at the schemes collectively, the benefit to cost ratios are above 1 in all three scenarios. Indeed, the evidence suggests that the schemes created £27 billion to £77 billion of benefits for UK businesses. However, the economic costs of the schemes are also very substantial, estimated to be around £20 billion. The fact that the schemes have such large costs and benefits highlights the importance of the design and delivery of any other loan guarantee schemes that might be introduced in the future.

Limitations

Several limitations must be borne in mind when interpreting the findings of the economic evaluation. One limitation is that data was only available for this evaluation to analyse the benefits of the schemes up to the end of the second year of the pandemic (2021/22). This means that our benefits figures beyond this point are forecasts. We also cannot be sure how much of the GVA borrowers created because of the schemes was genuinely additional and what proportion was displaced from other firms. Indeed, we must rely on survey-based estimates for these. Similarly, on the cost side, our figures for the value of unrecovered loans beyond 2024/25 are derived from BBB forecasts.

Finally, it is impossible for us to observe a counterfactual world in which the guarantee schemes had not occurred. So, we must use non-borrowing firms as a (possibly imperfect) control group to understand the effects of the schemes on borrowers, and even doing this is

extremely challenging from a methodological perspective. More broadly, estimating the complex effects of the schemes on the UK economy as a whole (including borrowers and non-borrowers) would require us to construct a counterfactual for the entire UK economy, which is not feasible in the context of this evaluation. Indeed, it is quite possible that the schemes had wider knock-on benefits for the UK economy (e.g. through supply chain impacts) which are not captured in the benefit to cost ratios.

Process evaluation findings

The key findings from the process evaluation, drawing on an assessment of scheme management information, wider literature and a series of qualitative interviews with key stakeholders and accredited lenders, are set out below.

- **Repayments and recoveries:** The British Business Bank's management data (as of 30th September 2024, published in November 2024) suggests that 61% of the Covid-19 Loan Guarantee Schemes portfolio value is no longer at risk of loss to the public purse (£23.3 billion of portfolios fully repaid, and £23.5 billion where repayments have been made or the facility has been removed from the guarantee scheme). A further 22% (£16.7 billion) is on schedule to be repaid (although this could fall into arrears or default). The value of facilities that have defaulted (including facilities that have been settled and claimed) or are in arrears in the Covid-19 Loan Guarantee Schemes are (as of September 2024): 26% of the value of BBLS (£12 billion); 5% of the value of CBILS (£1.2 billion) and 1% of the value of CLBILS (£53 million) – although the volume of defaults could rise in the future. The default rates are above the arrears and default rate for SMEs in commercial lending both before and after the Covid-19 pandemic (around 2%¹⁰). However, the higher rate of arrears observed in the BBLS (when compared to CBILS and CLBILS) was anticipated at the scheme design stage and accepted by Ministers.

Stakeholders and lenders reported that in general, lenders have utilised Business As Usual (BAU) approaches to secure repayments and recoveries, which is in line with the lender agreements for the Covid-19 Loan Guarantee Schemes. Lenders and stakeholders reported that it is difficult to definitively assess the overall effectiveness of the recovery approaches

¹⁰ Experian (2023) Experian UK SME Credit Trends Index (January to March 2023)

compared to BAU practices due to the unique nature of the COVID-19 Loan Guarantee schemes and the absence of a direct counterfactual. However, the findings from stakeholder interviews, combined with the initial success of some recovery pilots, suggest that the approaches taken, including the lender challenge process, assurance activities, enforcement activity and exploration of new recovery strategies, may have been effective.

- **Counter fraud work:** As of September 2024, around £1.8 billion of Covid-19 Loan Guarantee Schemes lending has been flagged as cases with a higher risk of fraud by accredited lenders, or 2.3% of total lending. The vast majority of cases with a higher risk of fraud are in the BBLs portfolio (3.7% of the lending through BBLs), due to the decisions taken around the design of the scheme and the need for rapid access to finance. However, the current estimated level of fraud is lower than previous BBLs estimates from BBB (11%, subsequently revised to 7.5%).

The data analytics used for the Covid-19 Loan Guarantee Schemes was reported by stakeholders and lenders to have played a vital role in counter fraud efforts. However, its effectiveness was limited by challenges related to data volume, data sharing and time lags, and inconsistent application. Addressing these challenges, particularly by improving data sharing between government and lenders and between individual lenders, could significantly enhance the impact of data analytics in future government programmes.

- **Enforcement activities** undertaken by the Insolvency Service (INSS) and the National Investigation Service (NATIS) have had key successes in punishing and recovering money from individuals committing fraud. These include: 830 director disqualifications, 22 criminal convictions and bankruptcy restrictions imposed on 93 businesses from INSS, and 258 investigations from NATIS into BBLs fraud. There have been further successes such as developing routes for lenders and the public to report suspected cases of crime, the development of significant evidence and cases prior to prosecution, raising the awareness of financial crime in other law enforcement agencies and raising the awareness of the skills and expertise of NATIS around the UK.

However, both NATIS and the INSS faced significant challenges in investigating fraud and misconduct related to the Covid-19 Loan Guarantee Schemes. Initially, limited resources, delays in the judicial system and the sheer volume of cases all represented obstacles.

- **Governance:** The governance approaches used as part of the Covid-19 Loan Guarantee Schemes were reported to be largely appropriate and had some key successes around information sharing and coordination, relationships with lenders and independent oversight. However, there were some challenges with governance, with the main one being the reported slow decision-making within DBT, impacting various aspects of the Covid-19 Loan Guarantee Schemes.
- **Formalisation of the counter fraud strategy:** The formalisation of the counter fraud strategy (a document which details the mechanisms and activities to reduce fraud), while a positive step, occurred too late for the strategy to have a significant impact on the Covid-19 Loan Guarantee Schemes. Its delayed development and focus on formalising existing practices rather than introducing new initiatives, and ongoing challenges with implementation limited any potential impact. The experience highlights the importance of developing and implementing a robust counter fraud and enforcement strategy before launching large-scale government programmes, particularly those involving financial assistance.

Summary of impact evaluation findings

Across the three reports published as part of this evaluation of the Covid-19 Loan Guarantee Schemes there have been several different analyses of the impacts of the schemes on business survival, turnover and employment. In this report, the impacts of the schemes in the third year of the pandemic are analysed using survey data, and the impacts of the schemes in the second year of the pandemic are analysed using secondary data. The results of these two analyses are also compared to results presented in the Year 2 report, which assessed the impact of the schemes in the second year of the pandemic using survey data and the impact of the schemes in the first year of the pandemic using secondary data. Table 6 below presents a summary of the analyses related to the impacts of the schemes in the second and third year of the pandemic.¹¹ The table does not include any information on the productivity impacts of the schemes (which are not found to be statistically significant) as productivity impacts are only

¹¹ A similar summary of the results related to the Year 1 and Year 2 impacts can be found in the Year 2 report.

assessed in the Year 3 impact evaluation using survey data (and were not assessed as part of the secondary analysis or the Year 2 impact evaluation using survey data).

Table 6 : Year 2 and Year 3 Impact Evaluation key findings

Analysis completed in this evaluation report

	Scheme impact measure	Two-year Impact*		Three-year Impact**
		Business survey	Secondary data	Business survey
BBLs	(a) Business survival – additional businesses prevented from permanently closing	12% would have definitely closed without the scheme (175k businesses, 0.7 million jobs) 42% would have definitely or (very/fairly) likely closed without scheme (618k businesses, 2.6 million jobs)	5.9% - 8.0% decrease in closure rate (c.87k-118k businesses)	11% would have definitely closed without the scheme (153k businesses, 0.6 million jobs) 48% would have definitely or (very/fairly) likely closed without scheme (642k businesses, 2.8 million jobs)
	(b) Turnover – additional turnover generated by borrowers	No robust statistically significant impact [excludes (a)]	6.8% higher than without BBLs [excludes (a)]	No robust statistically significant impact [excludes (a)]
	(c) Employment – prevented job losses		7.9% higher than without BBLs [excludes (a)] 0.6m job losses prevented [includes (a) and (c)]	
CBILs / CLBILs	(a) Business survival – additional businesses prevented from permanently closing	6% would have definitely closed without the scheme (4k businesses, 0.2 million jobs) 35% would have definitely or (very/fairly) likely closed without scheme (25k businesses, 0.8 million jobs)	5.8% - 6.8% decrease in closure rate (c.4k-5k businesses)	7% would have definitely closed without the scheme (5k businesses, 50 thousand jobs***) 38% would have definitely or (very/fairly) likely closed without scheme (27k businesses, 0.7 million jobs)
	(b) Turnover – additional turnover generated by borrowers	No robust statistically significant impact [excludes (a)]	6.8% higher than without CBILs/CLBILs [excludes (a)]	No robust statistically significant impact [excludes (a)]
	(c) Employment – prevented job losses		12.0% higher than without CBILs/CLBILs [excludes (a)] 0.4m job losses prevented [includes (a) and (c)]	

* Year 2 survey measures impact up to December 2021 in the case of the business survival analysis, and in the first financial year since the pandemic in the case of the turnover and employment analysis (the exact reference period can vary as businesses can have different financial year end months); Year 2 secondary data measure impacts up to March 2022 in the case of the business survival analysis, and in the first year of the pandemic in the case of the turnover and employment analysis (the reference period can vary across businesses given differences in data sources feeding into the IDBR). See "Approach" for more detail on reference periods.

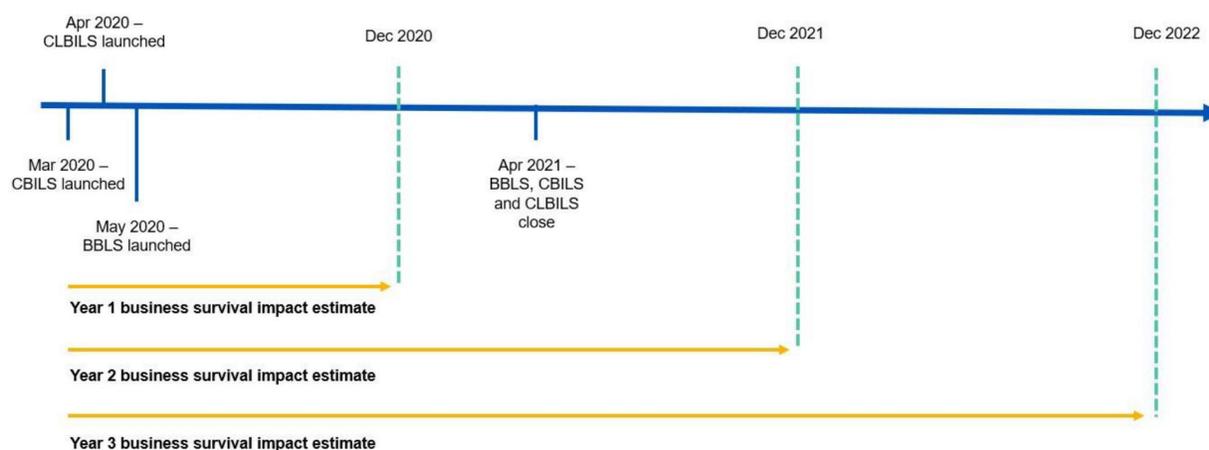
** Year 3 survey measures impact up to December 2022 in the case of the business survival analysis, and in the second financial year since the pandemic in the case of the turnover and employment analysis.

*** Jobs saved estimates account for the share of employment of businesses that were likely to close, meaning that the number of businesses saved can increase whilst the number of jobs saved decreases.

Year 3 impact evaluation

The aim of the Year 3 impact evaluation is to quantify the impacts of the three Covid-19 Loan Guarantee Schemes on business-level economic outcomes of borrowers in the third year after the onset of the pandemic,¹² as well as any wider impacts of the schemes (including on non-borrowers). The Year 3 impact evaluation relies on a combination of survey-based, self-reported impacts, econometric analysis of survey data and structured interviews with borrowers. The figure below illustrates the timing of the survey-based survival estimates.

Figure 3: Timeline of self-reported business survival analysis



Impact on business survival

Between 11% and 48%¹³ of surviving BBLs borrowers would have permanently closed by December 2022 if they had not had access to the Covid-19 Loan Guarantee Schemes, compared to between 7% and 38% of surviving CBILs/CLBILs borrowers. These figures are based on self-reported data, collected during a survey of businesses that borrowed under the schemes.¹⁴ This suggests that an additional 153,000 to 642,000 BBLs borrowers and 5,000 to

¹² Specifically, up to December 2022 in the case of the business survival analysis, and the 2022-23 financial year in the case of the analysis of turnover, employment and productivity (see Approach for more detail on reference periods).

¹³ This refers to the counterfactual closure rate (i.e. the share of businesses that survived but would not have had they not accessed finance through the schemes). This is not to be confused with the survival impact which also takes the observed closure rate of borrowers into account.

¹⁴ The width of the ranges of the estimates reflects the difficulties businesses may have in assessing their likelihood of survival without the loan.

27,000 CBILS/CLBILS borrowers may have permanently closed between March 2020 and December 2022 without access to the Covid-19 Loan Guarantee Schemes, accounting for approximately 0.6 million to 3.5 million jobs.

Borrowers who indicated that there was a significant likelihood that they would have closed without access to finance through the Covid-19 Loan Guarantee Schemes were also asked why they thought this. The vast majority (95% of BBLs borrowers and 93% of CBILS/CLBILS borrowers) highlight lockdown measures and other pandemic related restrictions, cash flow problems or changes in market conditions as a result of the pandemic as the main reason for this. In contrast, very few businesses cite Brexit, the energy crisis or other reasons. The full list of reasons is presented in the table below.

Table 7 : Main reason why businesses would definitely not, very likely not or fairly likely not have survived through to the end of 2022 in absence of the BBLs and CBILS/CLBILS schemes

Reason	BBLs	CBILS/CLBILS
Lockdown measures and other pandemic related restrictions	42%	33%
Cash flow problems	31%	37%
Changes in market conditions as a result of the pandemic	22%	23%
Brexit	4%	0%
The energy crisis has made the goods or services provided by our business too expensive or uncompetitive in the market	2%	3%
The business model we operate under was disrupted by geopolitical tensions (e.g. the war in Ukraine)	0%	0%
Another reason	0%	3%

Source: London Economics' analysis of survey data

Depth interviews related to business survival

In addition to the survey, the impacts of the schemes on business survival were also explored through a series of 17 depth interviews with borrowers. Businesses were asked to provide their estimate for the proportion of UK businesses that permanently closed during 2020. Only five respondents were able to provide an answer that was relatively accurate (between half and double the true closure rate of 10.4%). Six respondents provided an estimate more than double the true closure rate and two provided an answer less than half of the true closure rate. The remaining four were unable to come up with even an estimate. The limited understanding of the prevalence of business closure during the pandemic (and a tendency to overestimate that prevalence) may in part explain why the self-reported impacts of the schemes on business survival were so large compared to the estimates from the secondary analysis.

The interviews also explored how businesses used the finance received through the schemes. Most respondents highlighted that while they faced massive disruption to their revenues, they still had substantial financial obligations that they could not get out of (e.g., rent, salaries, inputs for production). Some businesses also used the finance to try to grow the scale of their businesses (e.g., through moving to new premises or developing new technology).

Many respondents indicated that they would have explored the possibility of obtaining bank financing at market conditions, but several highlighted that they might well not have been able to secure such finance. Most also highlighted that they would not have had much scope to (further) downsize their operations in order to survive. That being said, there were a few businesses that highlighted that they may have been able to make further cost savings by laying off all but essential workers or not topping up furloughed workers' salaries. Respondents highlighted that they were already taking advantage of other government support to the extent that they could, including CJRS, VAT deferral, Scottish Government grants and business rates relief. The fact that borrowers also used other kinds of support and yet still consider the Covid-19 Loan Guarantee schemes vital for their survival highlights the importance of the Covid-19 Loan Guarantee Schemes as a complement to the other kinds of support available during the pandemic.

Lastly, borrowers were asked, if they had not been able to access funding through the Covid-19 Loan Guarantee Schemes, how likely or unlikely it is that their business would have permanently closed. The same question had previously been posed to them during their

survey. Only 5 of the 17 respondents gave the same answer in the depth interviews as during the survey, and almost half (8 out of 17) expressed a more optimistic view about their survival prospects without the schemes during the depth interviews than in the survey. It may be the case that borrowers' collective memory has faded over time, but the extent to which responses changed between the survey and interviews highlights that the reliability of the data related to business survival collected from the survey is variable and possibly skewed towards excessive pessimism when it comes to survival prospects in the absence of the schemes. As a result, when estimating the value for money of the schemes (as presented earlier in this report), the analysis based on secondary data is used as the basis for estimating the benefits of the schemes rather than the self-reported impacts from the survey.

Impact on turnover, employment and productivity

Econometric models are used to estimate the impacts of the Covid-19 Loan Guarantee Schemes on businesses' turnover, employment and productivity in the third year of the pandemic.

The econometric analysis does not identify a robust and statistically significant impact of the BBLS or CBILS/CLBILS schemes on borrowers' turnover, employment or productivity in the third year of the pandemic. This is perhaps unsurprising, given that the corresponding analysis of survey data collected in each of the first two years of the evaluation also did not yield robust and statistically significant impacts, despite the fact that they were based on larger samples.¹⁵ It should be noted that the analysis is based on a survey of businesses that have survived; the survey analysis does suggest that the schemes had an indirect impact on turnover and employment by preventing business closures.¹⁶

Secondary analysis of Year 2 early impact evaluation

To assess the findings from the Year 2 impact evaluation, a secondary analysis of the impact of the Covid-19 Loan Guarantee Schemes on business survival, turnover, and employment in the

¹⁵ The analysis of the impact of the schemes on productivity was not performed in the first two years of the evaluation as it was thought that the existence of the furlough scheme may distort firm level productivity data.

¹⁶ In other words, given that non-borrowers that permanently closed are not included in this analysis, any differences between borrowers and non-borrowers due to higher survival rates among borrowers would not be detected in this analysis. Instead, business survival impacts are estimated separately, as described above.

second year of the pandemic was conducted. This section summarises the results of this exercise. Instead of a quantitative survey, such as the one conducted in the Year 2 impact evaluation, the exercise utilises the IDBR to explore the impact of the Covid-19 Loan Guarantee Schemes on businesses. This allows for a much larger number of businesses to be included in the analysis relative to the survey analysis presented in the Year 2 report.

Impact on business survival

The impact of the schemes on business survival is estimated by comparing the closure rates of borrowers to a matched group of non-borrowers (based on pre-pandemic characteristics). The table below highlights these closure rates (the estimated impact is the difference in closure rates between borrowers and non-borrowers).

Table 8: Impact on business survival: Estimated closure rates among borrowers and non-borrowers (BLS and CBLS/CLBLS)

Scheme	Year 3 report (March 2022), non-borrowers	Year 3 report (March 2022), borrowers	Year 2 report (March 2021), non-borrowers	Year 2 report (March 2021), borrowers
BLS	18.1%	11.2%	9.9%	4.2%
CBLS/CLBLS	8.8%	2.5%	4.9%	0.6%

Source: London Economics' analysis of IDBR data, BBB Management Information and BBB Portal Data.

It is estimated that 5.9%-8.0%¹⁷ of all BLS borrowers and 5.8%-6.8%¹⁸ of CBLS/CLBLS borrowers that survived between March 2020 and March 2022 would have closed by March 2022 without the Covid-19 Loan Guarantee Schemes. As might be expected, this is larger than the estimate for the number of borrowers that survived between March 2020 and March 2021 but would have closed had they not received finance through the schemes (5.0%-6.5% of BLS

¹⁷ 6.9% with a 95% confidence interval of 5.9%-8.0%.

¹⁸ 6.3% with a 95% confidence interval of 5.8%-6.8%.

borrowers and 4.0%-4.7% of CBILS/CLBILS borrowers). The number of borrowers that continued trading but likely would have closed by March 2022 is estimated to be around 87,000-118,000 businesses^{19 20} for BBLs and around 4,300-5,100 businesses^{21 22} for CBILS/CLBILS. It is estimated that these borrowers account for approximately 335,000-438,000 pre-pandemic jobs.^{23 24}

In comparison, the estimated impacts based on analysis of data from the Year 2 survey were larger. That analysis estimated that 12%-42% of BBLs borrowers (i.e. 175,000 to 618,000 businesses) and 6%-35% of CBILS/CLBILS borrowers (i.e. 4,000 to 25,000 businesses) that survived between March 2020 and December 2021 could have permanently closed by December 2021 had the Covid-19 Loan Guarantee Schemes not been in place, accounting for 0.9 million to 3.4 million jobs.²⁵

The fact that the secondary analysis results suggest a smaller impact is likely driven by a multitude of factors. Whereas the secondary analysis relies on observed outcomes, the analysis based on the survey relies largely on borrowers' self-reported likelihood of closing in the absence of the Covid-19 Loan Guarantee Schemes. In addition, the dataset used for the secondary analysis is several orders of magnitude larger. Additional discussion about the robustness of survey-based estimates of survival is provided in the Year 3 impact evaluation section.

¹⁹ 102,939 businesses with a 95% confidence interval of 87,394-118,484

²⁰ This is based on a total BBLs borrower population (with 2019 turnover less than £5m) of 1,488,303 businesses.

²¹ 4,702 businesses with a 95% confidence interval of 4,312-5,092

²² This is based on a total CBILS/CLBILS borrower population of 74,636 businesses.

²³ The associated point estimate is 386,000. This range is not a technically defined confidence interval. It represents an estimate of the range of impact of the schemes on jobs based on the schemes' impact on business closure rates. The width of the range (relative to the point estimate) is defined to be the same as that of the 95% confidence interval associated with the impact of the schemes on business closure rates. For instance, the 95% confidence interval in the case of the BBLs is defined as +/- 13% of the point estimate. Therefore, the lower (upper) bound of the range for the impact of the BBLs on jobs is defined to be 13% below (above) the point estimate. The range is calculated in a similar manner for the CBILS/CLBILS schemes. The overall range is obtained by adding the respective lower bounds (upper bounds) of the ranges for the BBLs and CBILS/CLBILS schemes.

²⁴ This estimate is the sum of the separate estimates for the BBLs scheme (279,000) and the CBILS/CLBILS schemes (107,000). These estimates are calculated by turnover band using average pre-pandemic employment among the sample of borrowers in the IDBR, the total number of borrowers in BBB Management Information data, and the difference between the share of pre-pandemic employment among non-borrowers that permanently closed in by March 2022, and the share of pre-pandemic employment among borrowers that permanently closed by March 2022. This calculation is explained in more detail in Annex 4.

²⁵ For more detail, see British Business Bank (2023) *BBLs, CBILs and CLBILs Evaluation Report 2023*, November 2023.

The analysis also explores how survival outcomes varied for different subgroups of BBLs borrowers that might be expected to have had a substantial finance need. In this evaluation we consider BBLs borrowers who were in arrears (22% of borrowers), used PAYG (Pay as you Grow, 29% of borrowers)²⁶ or have both been in arrears and used PAYG by August 2023 (11% of borrowers) as having a substantial finance need²⁷.

Table 9: Estimated closure rates among different groups of BBLs borrowers and a matched control group of non-borrowers by March 2022

	Have been in arrears	Used PAYG	Have been in arrears and used PAYG	Have neither been in arrears nor used PAYG
Borrower group	19.2%	8.0%	14.0%	4.0%
Matched control group of non-borrowers	17.6%	15.2%	19.2%	11.2%

Source: London Economics' analysis of IDBR data and BBB Portal Data.

The closure rates of each of the three subgroups of borrowers with a substantial finance need are higher than for other BBLs borrowers. As might be expected, given arrears is a first step towards default, the observed closure rate among borrowers that were ever in arrears is higher than that for the matched group of non-borrowers that were similar pre-pandemic. The fact that closure rates among borrowers using PAYG are relatively low (particularly in comparison to the group of borrowers that were similar pre-pandemic) suggests that PAYG may have also had an important role in ensuring the survival of some businesses. The results of this analysis provide

²⁶ Pay as you Grow was a set of options open to BBLs borrowers to make their loan repayments more flexible. In particular, they could extend the term of the loan from 6 years to 10, take a 6-month repayment holiday or reduce their payments to interest only for 6 months. Borrowers could choose these options individually or in combination.

²⁷ Information on the characteristics of these borrowers can be found in Table 75.

further evidence that, for the many businesses that faced extreme challenges and financial pressures due to the pandemic, the schemes played an important role in promoting survival.

Impact on turnover and employment

Both the original Year 2 survey analysis and this report's secondary analysis exercise use econometric models to quantify the impacts of the Covid-19 Loan Guarantee Schemes on businesses' turnover and employment in the second year of the pandemic.

Turnover

The econometric analysis of secondary data finds a positive and statistically significant impact of the BBLs and CBILs/CLBILs schemes on borrowers' turnover. In particular, it is estimated that BBLs and CBILs/CLBILs borrowers' turnover is 7% higher than it would have been in the absence of the schemes. These estimates are lower than those related to the impact of the schemes in the first year of the pandemic (respectively 10% and 12% for BBLs and CBILs/CLBILs). This suggests that the finance received under the schemes played a larger role in allowing businesses to continue their turnover-generating operations in the first year of the pandemic than the second. In contrast, the Year 2 report's econometric analysis of survey data did not find a robust and statistically significant impact of the BBLs or CBILs/CLBILs schemes on borrowers' turnover.

The analysis also explores whether there were variations in outcomes for three subgroups of BBLs borrowers that were likely to have had a substantial finance need (the same three subgroups as discussed above in the context of business survival). The analysis finds that borrowers with a substantial finance need did not perform as well as other borrowers. Furthermore, the analysis finds that borrowers in arrears had a statistically significant and lower turnover than a matched group of non-borrowers with similar characteristics before the pandemic. This is perhaps unsurprising as one might expect that borrowers may have fallen into arrears because their turnover is not sufficient to cover their operational expenses and debt servicing costs. The analysis also highlights that borrowers without a substantial finance need have performed particularly well since the pandemic. This suggests that the finance made available through the scheme may have had a positive impact on businesses even when it may not have been strictly necessary for business survival.

Employment

The econometric analysis of secondary data finds a positive and statistically significant impact of the BLS and CBLS/CLBLS schemes on borrowers' employment levels. This suggests that, on average, BLS and CBLS/CLBLS borrowers' employment was respectively 8% and 12% higher than it would have been in the absence of the Covid-19 Loan Guarantee Schemes in the second year of the pandemic.

Additional econometric analysis was undertaken to estimate the number of additional jobs that could have been lost in the absence of the Covid-19 Loan Guarantee Schemes in the first and second year of the pandemic, taking into account both the impacts on businesses that would have permanently closed in their absence, and businesses that would have survived but with lower employment levels.²⁸ It is estimated that 988,000 additional jobs could potentially have been lost in the first two years of the pandemic among borrowers in the absence of the Covid-19 Loan Guarantee Schemes. This estimate is made up of 588,000 job losses avoided due to the BLS scheme, and 410,000 job losses avoided due to the CBLS/CLBLS schemes.²⁹ This highlights the likely social impact of the schemes in terms of preventing very high unemployment.

The analysis also explores whether there were variations in employment outcomes for businesses with a substantial finance need. As with turnover, the analysis finds that borrowers with a substantial finance need did not perform as well as other borrowers. In particular, while it is found that borrowers that have not been in arrears or used PAYG had a statistically significant and higher employment than their matched control group, this was not the case for borrowers using PAYG or that have been in arrears. This may be because businesses that felt the need to use PAYG, or could not keep up with their debt repayments, needed to cut their employment costs in order to remain financially viable.

²⁸ It should be noted that, due to the way that employment is reported in the IDBR, a business that permanently closed in the first year of the pandemic may show positive employment. Therefore, the impact of avoided business closure on jobs as estimated in this econometric analysis is unlikely to be fully captured.

²⁹ This estimate is not on top of the estimate for the number of jobs in businesses that survived the pandemic but would not have without the schemes.

Conclusion

The Covid-19 Loan Guarantee Schemes had a number of short, medium and long-term objectives at the time when they were introduced. In particular, these were:

- **Short-term:** To offer finance at scale and pace to help businesses disrupted by the pandemic in a manner that complemented other support schemes;
- **Medium-term:** To give businesses the opportunity to maintain liquidity until lockdown measures are lifted and incentivise appropriate risk taking by lenders; and
- **Long-term:** To offer a debt structure that considers long term business survival and growth and in a manner that exhibits value for money against scheme losses.

With respect to the short-term objectives, evidence from Year 1 of the evaluation found that finance made available through the schemes was highly additional. Furthermore, both econometric analysis and depth interviews with borrowers highlight the importance of the schemes for business survival as a complement to other kinds of support.

With respect to the medium-term objectives, most borrowers reported when surveyed that they used their scheme finance for working capital, cash flow or day to day costs and expenses. Furthermore, evidence from the process evaluation suggests that the design of BBLs did in fact drive an increase in lending by lenders which would not have been provided in the absence of the schemes.

In terms of the long-term objectives, further evaluation in a few years' time is needed to assess how the schemes impact survival and growth in the long run. However, results of the economic evaluation suggest that, even if there are no benefits beyond the evaluation period, the schemes still represent good value for money.

With respect to process, the approaches taken for repayments and recoveries, including the lender challenge process, assurance activities, enforcement activity and exploration of new recovery strategies, may have been more effective than simply relying on BAU practices in the context of the Covid-19 Loan Guarantee Schemes' unique characteristics.

Improving data sharing between government and lenders and between individual lenders could significantly enhance the impact of data analytics in future government programmes.

Enforcement activities were hampered by capacity constraints and lack of investigatory powers, which would need to be addressed for future schemes to ensure enforcement can take place rapidly and reduce risks of non-prosecution associated with the statute of limitations and delays in judicial proceedings.

Table 10 outlines the key objectives of the schemes and presents a brief summary of the evidence collected across the whole of this evaluation to assess the success of the schemes against each objective.

Table 10: Performance of the schemes against the key objectives

	Objective	Key supporting evidence	Objective met
Short-term objectives	To unlock finance at a scale and pace such that businesses disrupted as a result of the Covid-19 pandemic still have access to finance	<ul style="list-style-type: none"> 74% of BBLS borrowers and 69% of CBILS/CLBILS borrowers would not have obtained any external finance or sufficient external finance for their cash flow needs without finance obtained under the Covid-19 Loan Guarantee Schemes. 7% of BBLS borrowers and 8% of CBILS/CLBILS borrowers could have obtained a sufficient level of external finance without the Covid-19 Loan Guarantee Schemes but not in a timely manner. The British Business Bank, BEIS, and HM Treasury were able to establish CBILS within twelve days of its announcement, and then introduced BBLS in order to more rapidly provide cashflow support to businesses with smaller credit requirements, which prioritised the aim of increasing the speed of lending. 	Yes, the schemes provided businesses with finance at a scale and pace that could not have been otherwise achieved
	To offer businesses access to finance schemes complementing other government support and incentives	<ul style="list-style-type: none"> There is econometric evidence of a positive impact of the schemes on turnover and employment, including when controlling for use of the CJRS. Borrowers in many cases took advantage of several other kinds of government support but indicated during depth interviews that the schemes were still very important for their survival. 	Yes, the schemes provided support that was complementary to other support schemes such as the CJRS.
Medium-term objectives	To give businesses maximum opportunity to maintain liquidity until lockdown measures are lifted	<ul style="list-style-type: none"> 60% of BBLS borrowers and 68% of CBILS/CLBILS borrowers used their scheme finance for working capital, cash flow or day to day costs or expenses. 81% of BBLS loans and 77% of CBILS/CLBILS loans were estimated to be 'additional'. 	Yes, the schemes provided finance that in most cases otherwise would not have been obtained and was used by most borrowers to continue daily operations.
	To incentivise appropriate risk taking by lenders	<ul style="list-style-type: none"> Arrears rates for SMEs are higher than would be expected in commercial lending (2%), at around 27% for BBLS and 7% for CBILS. The design of BBLS is reported to have driven the arrears and default rate. 	Yes, the design of the BBLS has driven an increase in lending which would not have been provided in the absence of the scheme.
Long-term objectives	To offer a debt structure that considers long-term business survival	<ul style="list-style-type: none"> Analysis of secondary data suggests that an additional 5.9%-8.0% of BBLS borrowers and 5.8%-6.8% of CBILS/CLBILS borrowers would have permanently closed in the second year of the pandemic in the absence of the schemes. Surveyed borrowers report that the finance provided by the schemes has been very important in ensuring that they continue to trade. 	The finance provided by the schemes has played an important role in ensuring survival up to this point, but the extent to which the schemes ensure long-run survival cannot yet be assessed.
	To offer a debt structure that allows businesses with long-term growth potential to continue growing	<ul style="list-style-type: none"> Analysis of secondary data suggests that the turnover of borrowers was 6.8% higher than it would have been in the absence of the schemes during the second year of the pandemic. 	The finance provided by the schemes has boosted the turnover of participating businesses, but the extent to which this continues in the long run cannot yet be assessed.
	To realise long-term economic benefits (from the previous two bullet points) that exhibit value for money against any HMG incurred losses	<ul style="list-style-type: none"> Evidence from the economic evaluation suggests that the benefit to cost ratio of the schemes as a collective is above 1 (1.24 to 3.78). 	Yes, even if there are no further benefits of the schemes beyond the evaluation period the schemes still represent good value for money.

Introduction

In March 2021 BBB commissioned London Economics and Ipsos to undertake a three-year evaluation of the Bounce Back Loan Scheme (BLS), Coronavirus Business Interruption Loan Scheme (CBILS) and Coronavirus Large Business Interruption Loan Scheme (CLBILS) (hereafter referred to as the 'Covid-19 Loan Guarantee Schemes' or the 'schemes').

This report provides findings from the third year of this evaluation, which consists of four main parts. The first of these is an economic evaluation which assesses the overall benefits and costs of the schemes. The second is a process evaluation aiming to assess the processes adopted to deliver the three Covid-19 Loan Guarantee Schemes. The third is an impact evaluation providing estimates of the schemes' impacts on borrower-level economic outcomes in the third year of the pandemic. The fourth and final is a secondary analysis of key results from the impact evaluation presented in the second year report.

Policy context

The extent to which the Covid-19 pandemic could potentially disrupt businesses and challenge them financially became apparent in March 2020 in the UK. Business impacts of the pandemic started materialising at that point following the introduction of public health measures to limit the spread of the virus amongst the UK population. Survey data from the first wave of the BICS³⁰ highlighted early impacts on turnover, with 47% of surveyed businesses reporting that turnover was lower than normal between the period of 9 March to 22 March 2020, and subsequent waves showed that the situation worsened over a short period of time.

There were also other emerging business impacts of the pandemic including disruptions at the operational level, from input provision to exports and to workforce availability, as well as deflated business confidence. Again, the first wave of the BICS found that close to 25% of businesses reported that imports of materials, goods and services were affected by the

³⁰ Collected by the Office of National Statistics (ONS) and previously known as the Business Impact of Covid-19 Survey (BICS).

pandemic, while close to 60% of businesses reported lacking confidence or feeling uncertain about having the financial resources to continue operating throughout the pandemic.

As a result of these early disruptions and the significant uncertainty affecting the UK economy, the government acted quickly, and the Chancellor introduced CBILS as part of the Spring Budget on 12 March 2020. CBILS was developed by BEIS (now DBT), BBB, HMT, and in collaboration with industry bodies and lenders and launched on 23 March 2020. CLBILS was subsequently launched on 20 April 2020 and BBLs on 4 May 2020. Further detail on the development timeline and theory of change of the schemes can be found in the first year report.³¹

Evaluation context

This report is the third in a series of three reports that are the principal outputs of this evaluation. The first year report presented findings from the process evaluation and provided an early impact evaluation. The process evaluation component assessed the effectiveness of the processes adopted to administer the Covid-19 Loan Guarantee Schemes, considering end-to-end processes from scheme design through to implementation and exploring key learning opportunities. The impact evaluation analysed the quantitative survey data collected as a part of the project to assess the additionality of the Covid-19 Loan Guarantee Schemes and their impact on business outcomes (survival, turnover, employment).

The second year report focused on the impact evaluation, using survey data (collected in 2022) to assess the impact of the Covid-19 Loan Guarantee Schemes on business outcomes in the second year of the pandemic. It also assessed the Year 1 results (i.e. impacts in the first year of the pandemic) using alternative (secondary) data sources. Additionally, the wider impacts of the Covid-19 Loan Guarantee Schemes on the general population of businesses (borrowers and non-borrowers) were explored. The process evaluation focused on monitoring, repayment and counter fraud processes, drawing on scheme management information, wider data and a series of qualitative interviews with key stakeholders and accredited lenders.

In this (third) report, the study focuses on the process, impact, and economic evaluations. The process evaluation focuses on some of the processes that were not fully assessed in Year 2

³¹ Pages 29-37.

(for example recovery pilots, the effect of the formalisation of the counter fraud strategy and further analysis of counter fraud activity). The impact evaluation component again uses survey data (collected in 2024) to assess the impact of the Covid-19 Loan Guarantee Schemes on business outcomes in the third year of the pandemic – with the addition of labour productivity as a business outcome. The analysis also explores the impact of the schemes in the second year of the pandemic using secondary data sources and incorporates the use of interviews with businesses in order to bridge the gap between the results of the analyses using primary and secondary data. Finally, the economic evaluation component assesses the value for money of the Covid-19 Loan Guarantee Schemes.

A full list of research questions for this evaluation can be found in the first year report. The remainder of this report is organised as follows:

- The first chapter presents the findings from the economic evaluation.
- The second chapter presents the findings from the process evaluation.
- The third chapter provides the findings of the Year 3 impact evaluation, covering the impact of lending on businesses based on survey data.
- The fourth chapter presents the results of the secondary analysis of the Year 2 impact evaluation using secondary data.
- Finally, there are some concluding remarks related to the performance of the schemes against objectives.

Detailed information on the methods used in the evaluation and supplementary analysis are provided in the annexes to the report.

Economic evaluation

Introduction

The impact evaluation (in each of the first two published evaluation reports as well as in this report) has provided evidence that the Covid-19 Loan Guarantee Schemes have had substantial benefits for UK businesses. However, there are also substantial costs arising from the schemes. The most significant of these relates to the fact that a substantial amount of finance was made available to businesses that were unable to make it through the pandemic even with support from the schemes, resulting in losses under the Government guarantee.

In order to understand the value for money of the schemes, it is important to make a comparison between the benefits and the costs of the schemes. For the purposes of this evaluation, benefits and costs are considered across the entire economy, rather than from the perspective of Government budgets and spending.

It is important to acknowledge the uncertainty around the exact benefits and costs of the schemes. In no small part, this is because the benefits and costs may continue to accrue beyond the period covered by this evaluation. Also, even estimating the benefits accrued to date is methodologically highly complex. Therefore, rather than presenting a single estimate for the benefits and costs, we model the benefits and costs under three different scenarios.

This chapter presents the benefits and costs in each of these three scenarios – a ‘Most Pessimistic’ scenario (Scenario 1), a ‘Pessimistic’ scenario (Scenario 2), and a ‘Core’ scenario (Scenario 3), which are decreasingly conservative in their supporting assumptions – and discusses the value for money of the schemes (as measured by the benefit to cost ratios). Further detail on the underlying methodology and assumptions can then be found in Annex 5.

Benefits

The results of the impact evaluation suggest that the schemes have had a substantial impact on the outcomes of participating businesses. In particular, some businesses that survived would have closed in the absence of the schemes and the turnover of participating businesses

was higher than it would have been in the absence of the schemes.³² Econometric analysis (the full results of which are presented in Table 91) is performed to estimate the impact of each of the three schemes separately on the turnover of borrowers in the first two years of the pandemic. This impact is estimated by comparing the turnover of borrowers to the turnover of non-borrowers that were similar³³ before the pandemic. This is because the true counterfactual (the turnover of borrowers had they not obtained finance through the schemes) is not directly observable. The econometric analysis includes both the impact arising from the prevention of business closures and that arising from businesses that produced more output than they would have in the absence of the schemes.

Table 11: Estimated share of borrowers' turnover that would have been lost without the schemes

Scheme	Year 1	Year 2
BBLS	13.4%***	8.8%***
CBILS	16.7%***	13.8%***
CLBILS	24.0%*	21.0%

Note: *** p-value<0.001, * p-value<0.05. Source: London Economics' analysis of IDBR data and BBB Portal Data.

Whilst the estimated impacts are larger for CLBILS, the statistical significance of the estimates is weaker. The main reason for this is that the CLBILS scheme only had a few hundred participants, compared to tens of thousands for CBILS and more than a million for BBLS.³⁴ As detailed in Annex 5, the results of the econometric analysis presented in the table above are used to estimate the total amount of extra turnover attributable to the schemes. The estimated turnover impacts are then transformed into an estimated GVA impact, which is subsequently

³² Year 2 of the evaluation also explored the possibility that there may have been 'wider' impacts of the schemes (including on businesses that did not participate in the schemes) however there was no evidence to support this idea and so such potential benefits are not considered in the economic evaluation.

³³ As constructed by PSM, see Annex 4 for details.

³⁴ As discussed in Annex 4, the data provided for this evaluation only contains information on a subset of these participants.

scaled by a measure of the finance additionality of the schemes (see Annex 5 for details on the methodology). This last step is necessary to account for the fact that some of the finance which was extended under the guarantee schemes would have been extended even in the absence of the schemes. The three main sources of uncertainty around the level of benefits (which are modelled in the different scenarios presented in the economic evaluation) are as follows:

- 1) The extent to which benefits continue to accrue beyond the end of the period considered by the analysis (i.e. after the 2021/22 financial year);
- 2) The extent to which the additional GVA of participating businesses as a result of the schemes could have been produced by other businesses in the absence of the schemes; and
- 3) The uncertainty surrounding the econometric estimates of the impact of the schemes on turnover.

The table below summarises the assumptions made in each of the three modelling scenarios considered in the economic evaluation.

Table 12: Economic evaluation assumptions - benefits

Factor	Scenario 1 (Most Pessimistic)	Scenario 2 (Pessimistic)	Scenario 3 (Core)
Projection of future benefits	No impact beyond 2021/22	Impact on borrowers beyond 2021/22 declines at a rate of 75% per year	Impact on borrowers beyond 2021/22 declines at a rate of 50% per year
Product market displacement	Additional GVA is partially displaced from other firms in all years	Additional GVA is partially displaced from other firms in all years, but less so in Year 1	Additional GVA is partially displaced from other firms in all years, but less so in Year 1 and Year 2
Benefit estimates	Low estimate	Low estimate	Central estimate

In the Core and Pessimistic scenarios, it is assumed that the impact of the schemes on GVA declines in a linear fashion beyond the second year of the pandemic. Given that the schemes were more targeted towards meeting firms' immediate needs rather than long-term growth, it is assumed that benefits decline more quickly than in the evaluations of some other BBB schemes.³⁵ In the Most Pessimistic scenario, it is assumed that the schemes have no impact on turnover (and therefore GVA) beyond the second year of the schemes.

Estimates for product market displacement (43% for BLS and 46% for CBLS/CLBLS) are obtained from the Year 1 survey. In all scenarios it is assumed that the additional GVA of borrowers due to the schemes is partially displaced from other firms (i.e. the GVA impact is multiplied by 1 minus the displacement rate). In the Core scenario, it is assumed that there is a lower level of displacement in Year 1 and Year 2. In the Pessimistic scenario, it is assumed that there is a lower level of displacement only in Year 1. The lower displacement rate is assumed to be one third of the estimated displacement rate based on the survey. This one third reflects the fact that approximately one third of workers were working in key industries, a proxy for the share of the economy that was operating with normal competition during the pandemic.³⁶ In the Most Pessimistic scenario, it is assumed that the additional GVA of borrowers due to the schemes is partially displaced from other firms in all years at the full displacement rate.

Details on how the low and central benefits are estimated can be found in Annex 5, Table 83. The tables and figures below provide estimates of the benefits of each of the schemes under each of the three sets of assumptions described above.

Table 13: Benefits estimates (£m, discounted, 2020 prices) - BLS

Year	Scenario 1 (Most Pessimistic)	Scenario 2 (Pessimistic)	Scenario 3 (Core)
2020/21	8,869.5	13,352.4	18,091.1
2021/22	5,655.4	5,655.4	11,473.1

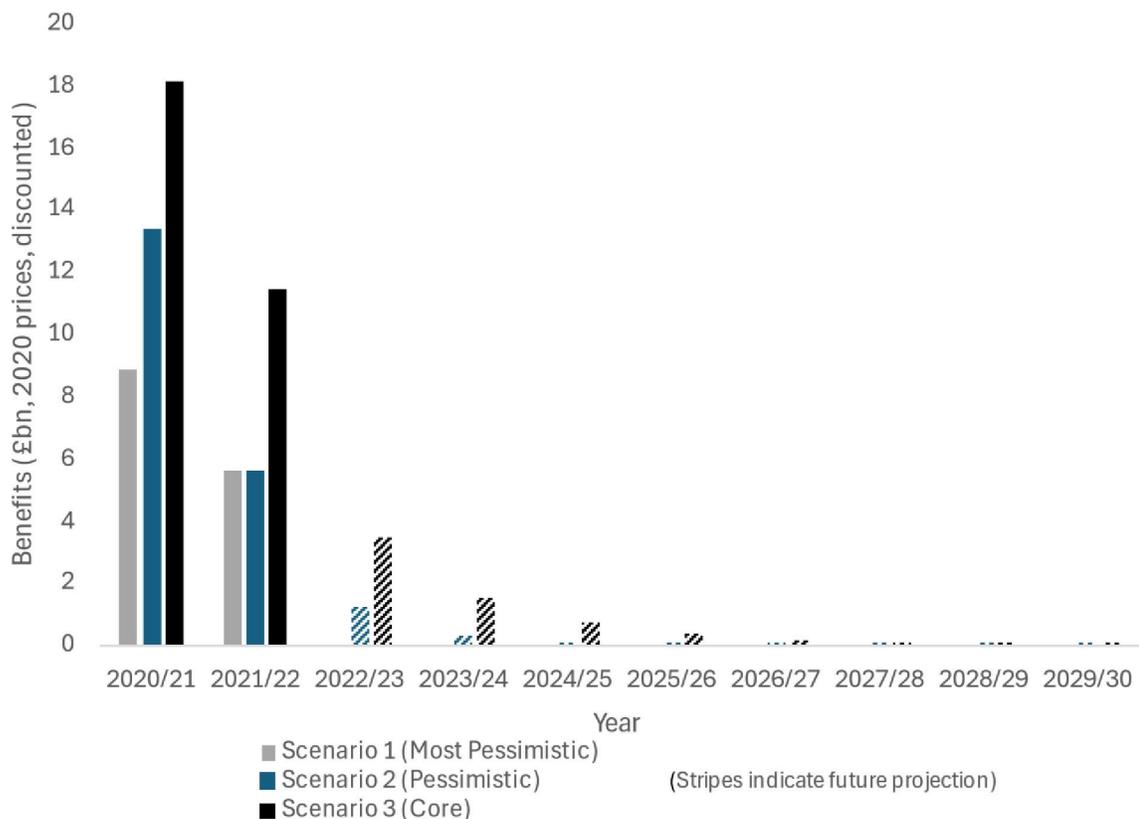
³⁵ See Annex 5 for further discussion on this.

³⁶ Covid-19 and Occupational Impacts. (2022). Industrial Injuries Advisory Council. Available on the gov.uk website.

Year	Scenario 1 (Most Pessimistic)	Scenario 2 (Pessimistic)	Scenario 3 (Core)
2022/23		1,275.1	3,436.7
2023/24		290.2	1,564.2
2024/25		68.5	738.1
2025/26		16.2	348.3
2026/27		3.8	165.0
2027/28		0.9	78.2
2028/29		0.2	37.0
2029/30		0.1	17.5
Total	14,524.9	20,662.8	35,949.2
Average per borrower (£000s)	9.8	14.0	24.3
As a % of borrowers' 2019 turnover	4%	5%	9%

Source: London Economics' analysis.

Figure 4: Benefits of BBLs over time



Source: London Economics' analysis.

The total estimated benefit of BBLs ranges from £15 billion to £36 billion, or roughly £10k to £24k per borrower. This is a sizeable impact given the maximum facility size available under BBLs was only £50k, and the total amount of finance made available was £47 billion.

Table 14: Benefits estimates (£m, discounted, 2020 prices) - CBILS

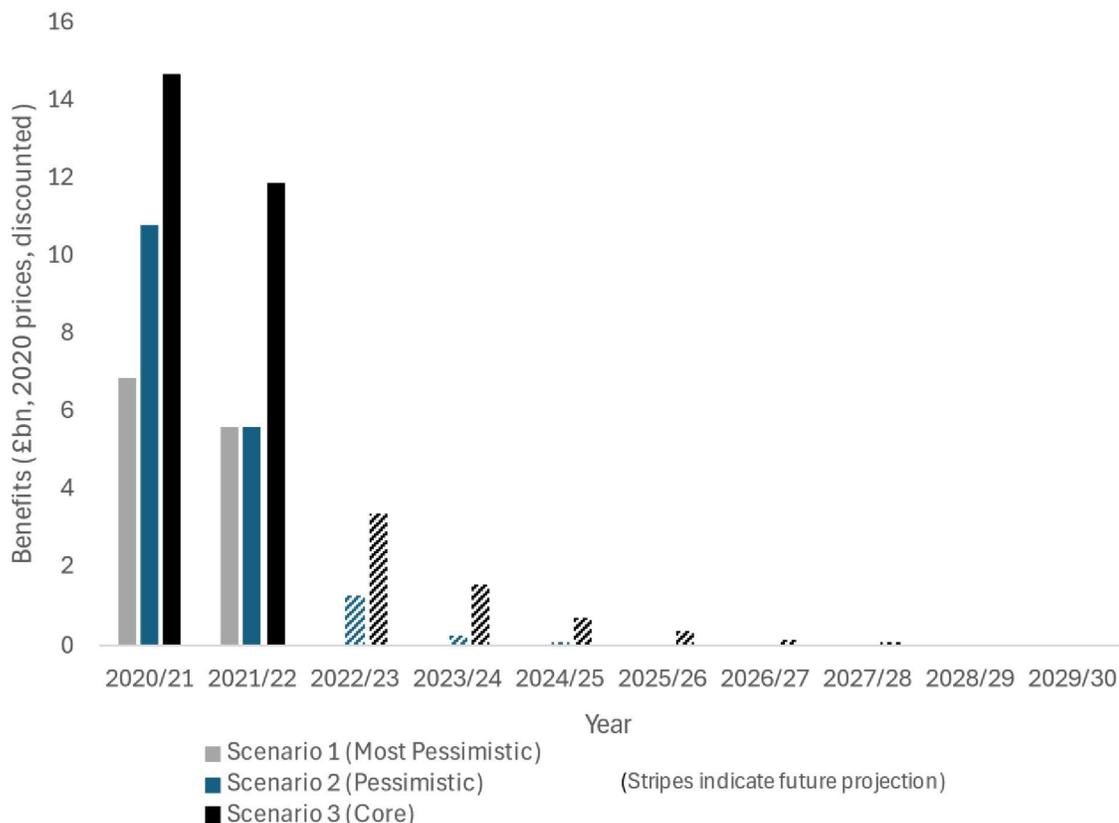
Year	Scenario 1 (Most Pessimistic)	Scenario 2 (Pessimistic)	Scenario 3 (Core)
2020/21	6,882.1	10,810.0	14,699.8
2021/22	5,594.4	5,594.4	11,912.0

Year	Scenario 1 (Most Pessimistic)	Scenario 2 (Pessimistic)	Scenario 3 (Core)
2022/23		1,261.4	3,419.8
2023/24		287.1	1,556.5
2024/25		67.7	734.5
2025/26		16.0	346.6
2026/27		3.8	164.2
2027/28		0.9	77.8
2028/29		0.2	36.9
2029/30		0.1	17.5
Total	12,476.4	18,041.4	32,965.4
Average per borrower (£000s)	170.8	247.0	451.2
As a % of borrowers' 2019 turnover	5%	7%	12%

Source: London Economics' analysis.

The estimated benefits of CBILS range from £12 billion to £33 billion, or approximately £171k to £451k per borrower. Whilst the estimates for the total benefit are lower than for BBLs, as a proportion of the turnover of borrowers the estimated impact is larger for CBILS. The benefits of CBILS are also larger in the context of the total value of facilities offered, which was more than £45 billion for BBLs and less than £25 billion for CBILS. As well as the fact that the amount of finance per borrower (more than £200k) was much higher for CBILS, these differences in benefits are likely a reflection of the different origination profiles and objectives of BBLs and CBILS. Indeed, whilst both schemes were designed to have a substantial and positive impact on participating businesses, BBLs was introduced to ensure that finance was distributed extremely quickly.

Figure 5: Benefits of CBILS over time



Source: London Economics' analysis.

Under all three scenarios, benefits of CLBILS are only realised in the first year of the pandemic. The reason for this is that the econometric estimate of the impact of CLBILS on turnover in the second year of the pandemic was not statistically significant (see Table 11 above). To a certain extent this is to be expected as much of the finance made available under CLBILS was repaid fairly quickly. Indeed, as of March 2022 26% of facilities had been completely repaid, suggesting that many CLBILS borrowers were not taking advantage of the increased financial flexibility allowed by the schemes after the first few years of the pandemic.³⁷

³⁷ Department for Business and Trade (2023). COVID-19 loan guarantee schemes repayment data as at 31 March 2022

Table 15: Benefits estimates (£m, discounted, 2020 prices) - CLBILS

Year	Scenario 1 (Most Pessimistic)	Scenario 2 (Pessimistic)	Scenario 3 (Core)
2020/21	404.0	634.5	7,934.8
Total	404.0	634.5	7,934.8
Average per borrower (£000s)	782.9	1,229.7	15,377.4
As a % of borrowers' 2019 turnover	0.4%	1%	8%

Source: London Economics' analysis.

The estimated benefits of CBILS are substantially higher in the Core scenario than in the Pessimistic and Most Pessimistic scenarios. The benefits in the Most Pessimistic and Pessimistic scenarios are relatively modest (in comparison to BBLs and CBILS) in absolute terms and as a proportion of total CLBILS borrowers' turnover. The reason why there is such a large difference in benefits between the Core scenario for CLBILS and other scenarios, but not for BBLs and CBILS, is that there is a greater degree of uncertainty around the econometric estimates for CLBILS than for the other two schemes (in no small part due to the much smaller sample size for CLBILS).

Costs

The economic evaluation considers six distinct costs of the schemes. This section discusses each of these costs in turn.

Unrecovered loans

The schemes facilitated the provision of finance to businesses across the UK. One of the primary objectives of the schemes was to ensure that businesses were able to meet the challenges presented by the pandemic and continue to trade in the long run. However, some borrowers have not been able (or will not be able) to survive and repay the finance that they

received, resulting in an economic loss. As discussed in Annex 5, estimates for the economic cost of unrecovered loans are based on BBB data. To reflect the fact that there is some uncertainty about future losses, BBB provided high, central and low estimates for the amount paid out under the guarantee. Our Core scenario is based on BBB's 'central' estimate, while the Most Pessimistic and Pessimistic modelling scenarios are based on BBB's 'high' estimate for the future value of unrecovered loans.³⁸ It should be noted that these statistics do not line up with published data, primarily because they reflect the total losses rather than the guaranteed losses. The tables below present estimates for the costs of unrecovered loans for each of the schemes.

Table 16: Economic cost of unrecovered loans (£m, discounted, 2020 prices) - BBLS

Year	Low	Central	High
2020/21	26.2	26.2	26.2
2021/22	1,874.6	1,874.6	1,874.6
2022/23	4,323.6	4,323.6	4,323.6
2023/24	1,705.4	1,705.4	1,705.4
2024/25	994.1	1,746.7	2,391.7
2025/26	764.4	1,135.3	1,559.2
2026/27	416.1	590.0	809.1
2027/28	165.4	203.1	254.9
2028/29	58.8	67.8	83.3
2029/30	36.1	41.6	49.4
Total	10,364.7	11,714.3	13,077.4

Source: London Economics' analysis of BBB data.

³⁸ The 'low' estimate is by definition an optimistic projection, and so is not used for any of the three scenarios but presented here for completeness.

Table 17: Economic cost of unrecovered loans (£m, discounted, 2020 prices) - CBILS

Year	Low	Central	High
2020/21	14.6	14.6	14.6
2021/22	143.9	143.9	143.9
2022/23	377.8	377.8	377.8
2023/24	251.2	251.2	251.2
2024/25	35.3	200.1	410.6
2025/26	59.8	146.0	270.8
2026/27	43.0	68.8	118.8
2027/28	12.3	11.1	22.3
2028/29	-0.4	-2.0	1.4
2029/30	-2.2	-1.4	0.1
Total	935.4	1,210.1	1,611.7

Note: Some figures are negative because estimates account for potential recoveries of previous losses under the schemes.

Source: London Economics' analysis of BBB data.

The cost of unrecovered loans is around ten times higher for BBLs than CBILS, despite the fact that the total value of finance provided by BBLs was only slightly more than twice as much as for CBILS. Indeed, even taking the low estimate for BBLs, the estimated losses represent more than a quarter of the total value of finance made available under the scheme. For context, losses from loans provided through the EFG scheme represented only 8% of the total value of finance made available³⁹ – although a comparison between these schemes must be made with differences in scheme design, such as the annual claim limit applicable to EFG, in mind.⁴⁰

This is in part a function of the fact that, as discussed in more detail in the Year 3 impact evaluation chapter of this report, the proportion of BBLs businesses that have permanently

³⁹ British Business Bank (2018). *Using Intellectual Property to Access Growth Funding*

⁴⁰ Department for Business and Trade (2013). *Understanding the Enterprise Finance Guarantee*. Available at: <https://www.gov.uk/guidance/understanding-the-enterprise-finance-guarantee>

ceased trading is much higher than that for CBILS. This is likely in part due to the fact that the quality of loans under BBLs is lower than for CBILS due to differences in scheme design and use between BBLs and CBILS. This may be because BBLs was introduced in order to facilitate the provision of finance to businesses more quickly than CBILS, and also, recipients of BBLs typically tend to be smaller. Furthermore, there is substantially more suspected fraud under BBLs than under CBILS.⁴¹ The reason why some of the numbers are negative is that the estimates account for potential recoveries of previous losses under the schemes.

Table 18: Economic cost of unrecovered loans (£m, discounted, 2020 prices) - CLBILS

Year	Low	Central	High
2020/21			
2021/22	8.4	8.4	8.4
2022/23	12.5	12.5	12.5
2023/24	28.4	28.4	28.4
2024/25	-12.0	12.7	50.8
2025/26	-3.4	7.6	4.0
2026/27	-1.0	-1.8	-4.3
2027/28	-0.6	-2.5	-1.5
2028/29	-0.3	-0.8	-0.5
2029/30	-0.1	-0.4	-0.2
Total	31.9	64.0	97.5

Note: Some figures are negative because estimates account for potential recoveries of previous losses under the schemes.

Source: London Economics' analysis of BBB data.

The cost of unrecovered loans is even lower for CLBILS. Even taking the higher estimate, the losses would represent only around 2% of the total value of finance made available under the

⁴¹ For more detail, see British Business Bank (2023) *BBLs, CBILs and CLBILs Evaluation Report 2023*, November 2023, p.57.

scheme. Again, this is likely to be driven by the extremely low closure rate of businesses that participated in CLBILS and the lack of (suspected) fraud. The fact that there were no losses in the first year of the schemes reflects the fact that there were no payouts under the guarantee in that year.

Opportunity cost of capital

This evaluation also considers the opportunity cost of the funds that were tied up as a result of the schemes. This opportunity cost reflects the value of potential alternative investments that lenders could have made in the absence of the schemes. Given that BBLs loans offered lenders a risk-free 2.5% interest rate, we reason by a revealed preference argument that alternative lending options could not have offered lenders a risk-free interest rate greater than 2.5%. We use this (highest plausible) alternative interest rate to calculate an estimate for the opportunity cost of capital for each scheme in each year.

Table 19: Estimated opportunity cost of capital (£m, discounted, 2020 prices)

Year	BBLs	CBILS	CLBILS
2020/21	943.4	497.2	87.4
2021/22	891.1	366.9	66.3
2022/23	688.2	303.3	39.9
2023/24	437.8	179.4	16.0
2024/25	281.6	95.8	2.4
2025/26	178.9	50.3	1.2
2026/27	95.1	16.7	0.3
2027/28	49.8	2.0	0.0
2028/29	31.7	0.3	
2029/30	18.7	0.2	
Total	3,616.5	1,512.1	213.5

Source: London Economics' analysis.

The opportunity cost of capital is substantial. For BBLs, this is the second largest cost, after the cost of unrecovered loans (in all estimates). For CBILs the opportunity cost of capital is the largest or second largest cost depending on the assumptions around future unrecovered loans, and for CLBILs it is the largest cost in all scenarios.

The opportunity cost of capital is highest in the first few years of the schemes, when only a small amount of the finance had been repaid, and then decreases over time. The opportunity cost of capital falls slightly faster for CBILs and CLBILs relative to BBLs as loans under these schemes were repaid more quickly than under BBLs.

Lender administration costs

Finance that was made available through the schemes was distributed through lenders that were accredited under the schemes. As a result, there are some administrative costs incurred by these accredited lenders associated with the schemes. In particular, there are costs for lenders to become accredited with the schemes and to provide scheme finance to businesses. We estimate lender administration costs by considering the extra full-time employee (FTE) hours the typical lender requires, in each year, to manage a scheme facility compared to if the same capital had been used for other commercial loans (see Annex 5 for details). The table below presents estimates of the lender administration costs of the schemes.

Table 20: Estimated lender administration costs (£m, discounted, 2020 prices)

Year	BBLs	CBILs	CLBILs
2020/21	0.0	3.0	0.1
2021/22	26.0	1.1	0.1
2022/23	21.0	1.0	0.0
2023/24	14.3	0.6	0.0
2024/25	4.8	0.2	0.0
2025/26	3.1	0.1	0.0
2026/27	1.7	0.0	0.0
2027/28	0.9	0.0	0.0

Year	BBLS	CBILS	CLBILS
2028/29	0.6	0.0	
2029/30	0.4	0.0	
Total	72.6	6.1	0.2

Source: London Economics' analysis.

Lender administration costs are substantially higher for BBLS than for CBILS and CLBILS given the much larger number of BBLS loan facilities. However, in the case of BBLS, we would also expect that the marginal costs of these loans would be zero (and conceivably could be negative) due to the fact that the origination process was streamlined.

One-off application costs

In order to receive finance through the schemes, businesses had to apply for it through an accredited lender. This placed some administrative burden on applicants (both successful and unsuccessful). The time cost for applications is estimated based on data related to the number of facilities provided by the schemes, application success rates, average wages and survey responses to a question about the time it took to apply (see Annex 5 for details). The table below presents the estimates for the one-off application costs of the schemes.

Table 21: Application costs for successful and unsuccessful applicants

BBLS	CBILS	CLBILS
£80 million	£35 million	£0.2 million

Source: London Economics' analysis.

Whilst the total costs are higher for BBLS than CBILS and CLBILS, on a per-application basis they are actually lower (£40) for BBLS than for the other schemes (£177). It should be noted that the estimate for the amount of time taken to apply is the same for CBILS and CLBILS, as the survey sample is not sufficient to have a CLBILS-specific estimate. One might expect that the estimate for CLBILS is therefore an underestimate. However, given the modest magnitude

of the application costs, this limitation would have very little impact on the estimate for the overall cost of CLBILS.

Ongoing costs for borrowers

In addition to the costs of applying to the schemes, borrowers also face some administrative tasks throughout the repayment period of their loan. This may include actually making the repayments or exploring amendments to the payment terms. The table below presents the estimated ongoing administration costs for borrowers throughout the life of the schemes. Details on the estimation methodology can be found in Annex 5.

Table 22: Ongoing costs for borrowers (£m, discounted, 2020 prices)

BBLs	CBILs	CLBILs
1,602.9	65.2	0.3

Source: London Economics' analysis.

The estimated costs are higher on a per-firm basis for BBLs than CBILs and CLBILs. This is in part due to the fact that the average BBLs borrower spends longer repaying their loan than the average CBILs or CLBILs borrower, but also is likely due to the fact that BBLs borrowers had the opportunity to select PAYG options during their loan repayment period, which would have created some administrative burden.

Public sector administration costs

The design and ongoing running of the schemes required and continue to require input from across many parts of the public sector. The public sector staff involved could have undertaken other activities in the absence of the schemes, and so the schemes resulted in an administrative burden for the public sector. For this evaluation, we have only been able to obtain data on estimated administration costs for BBB, and so costs of the administrative burden on other parts of the public sector (e.g. DBT) are not included. The table below highlights the estimated administrative costs for each of the three schemes.

Table 23: Estimated BBB administration costs (£m, discounted, 2020 prices)

Year	BBLs	CBILs	CLBILs
2020/21	19.1	8.9	1.8
2021/22	18.1	8.5	1.7
2022/23	14.2	5.1	1.0
2023/24	11.2	3.1	0.6
2024/25	11.6	2.3	0.6
2025/26	9.3	1.3	0.1
2026/27	7.8	0.3	
2027/28	5.1		
2028/29	3.6		
2029/30	2.3		
Total	102.2	29.5	5.8

Source: London Economics' analysis of BBB data.

In absolute terms, and relative to the amount of finance distributed, the estimated total costs are highest for BBLs. This is in part because BBLs loans can be repaid over a 10-year period (in the case that PAYG is used), which is longer than for CBILs and CLBILs. It may also be due to the fact that there have been (and are expected to be) more payouts under the guarantee for BBLs than for the other schemes.

Total costs

Total costs for the schemes are estimated to be around £20 billion, with the BBLs scheme accounting for the vast majority of this amount. These costs equate to just under £15k per borrower, with costs per borrower increasing in the typical size of loans (smallest for BBLs and largest for CLBILs).

Table 24: Total cost of the Covid-19 Loan Guarantee Schemes (£m, discounted, 2020 prices)

Scheme	Metric	Scenario 1 (Most Pessimistic)	Scenario 2 (Pessimistic)	Scenario 3 (Core)
BBLS	Total costs (£m)	18,551.2	18,551.2	17,188.1
BBLS	Average per borrower (£000s)	12.5	12.5	11.6
BBLS	As a % of borrowers' 2019 turnover	4.82%	4.82%	4.47%
CBILS	Total costs (£m)	3,259.5	3,259.5	2,857.9
CBILS	Average per borrower (£000s)	44.6	44.6	39.1
CBILS	As a % of borrowers' 2019 turnover	1.20%	1.20%	1.05%
CLBILS	Total costs (£m)	317.5	317.5	284.0
CLBILS	Average per borrower (£000s)	615.3	615.3	550.3
CLBILS	As a % of borrowers' 2019 turnover	0.33%	0.33%	0.29%
Overall	Total costs (£m)	22,128.1	22,128.1	20,330.0
Overall	Average per borrower (£000s)	14.2	14.2	13.1
Overall	As a % of borrowers' 2019 turnover	2.94%	2.94%	2.70%

Source: London Economics' analysis.

Value for money

This section compares the benefits and costs of the schemes (discussed above) to assess the value for money of each of the schemes in each of the three scenarios. The tables that follow in this section present the total costs and benefits of each of the schemes in real terms.

Table 25: Benefits and costs of BLS (£m, discounted, 2020 prices)

Item	Scenario 1 (Most Pessimistic)	Scenario 2 (Pessimistic)	Scenario 3 (Core)
Benefits	14,524.9	20,662.8	35,949.2⁴²
Total costs	18,551.2	18,551.2	17,188.1
Unrecovered loans	13,077.4	13,077.4	11,714.3
Opportunity cost of capital	3,616.5	3,616.5	3,616.5
Lender administration costs	72.6	72.6	72.6
One-off costs for applicants	79.7	79.7	79.7
Ongoing costs for borrowers	1,602.9	1,602.9	1,602.9
BBB administration costs	102.2	102.2	102.2
Benefit to cost ratio	0.78	1.11	2.09⁴³

Source: London Economics' analysis.

Across the three scenarios, the benefit to cost ratios for BLS range from 0.78 to 2.09. As discussed above, in the Most Pessimistic scenario it is assumed that there are no benefits of

⁴² We additionally report total benefits figures and corresponding BCRs for each scheme under the Scenario 3 assumptions, but with the alteration that modelling is carried out using the lower (or upper) bound of the confidence interval for our estimated turnover impact, instead of the point estimate. This is done in order to study uncertainty around the benefits and BCR estimates which is of a purely statistical nature (i.e., driven solely by sampling variation in our estimates of the turnover impact of the schemes). The results are reported as below for Scenario 3 benefits and BCRs in Table 25, Table 26, Table 27, and Table 28.

Based on the lower and upper bound of 95% confidence interval of turnover impact: £m 27,445.2 - £m 44,673.5.

⁴³ Based on the lower and upper bound of the 95% confidence interval of turnover impact, the range of BCRs under this scenario are 1.60 - 2.60.

the schemes beyond March 2022. This is an extremely strong assumption, and therefore it is highly likely that the true BCR is above 1.

Table 26: Benefits and costs of CBILS (£m, discounted, 2020 prices)

Item	Scenario 1 (Most Pessimistic)	Scenario 2 (Pessimistic)	Scenario 3 (Core)
Benefits	12,476.4	18,041.4	32,965.4⁴⁴
Total costs	3,259.5	3,259.5	2,857.9
Unrecovered loans	1,611.7	1,611.7	1,210.1
Opportunity cost of capital	1,512.1	1,512.1	1,512.1
Lender administration costs	6.1	6.1	6.1
One-off costs for applicants	34.8	34.8	34.8
Ongoing costs for borrowers	65.2	65.2	65.2
BBB administration costs	29.5	29.5	29.5
Benefit to cost ratio	3.83	5.54	11.53⁴⁵

Source: London Economics' analysis.

The estimated benefit to cost ratios for CBILS is substantially above 1 in all three scenarios. This suggests, with a high degree of confidence, that CBILS provided value for money. Whilst the benefits of the schemes are of a similar magnitude to those of BBLs, the reason why the benefit to cost ratios are so much higher for CBILS than BBLs is the cost of unrecovered loans. Indeed, the cost of unrecovered BBLs loans is almost ten times as large as the cost of unrecovered CBILS loans. As discussed above, this may in part be due to the fact that there is much more suspected fraud under BBLs, the fact that there are higher closure rates among

⁴⁴ Based on the lower and upper bound of the 95% confidence interval of turnover impact: £m 20,231.5 - £m 46,378.7

⁴⁵ Based on the lower and upper bound of the 95% confidence interval of turnover impact, the range of BCRs under this scenario are 7.08 - 16.23.

BBLs borrowers and due to differences in scheme design between BBLs and CBILs and the resulting lower origination quality of BBLs finance.

Table 27: Benefits and costs of CLBILs (£m, discounted, 2020 prices)

Item	Scenario 1 (Most Pessimistic)	Scenario 2 (Pessimistic)	Scenario 3 (Core)
Benefits	404.0	634.5	7,934.8⁴⁶
Total costs	317.5	317.5	284.0
Unrecovered loans	97.5	97.5	64.0
Opportunity cost of capital	213.5	213.5	213.5
Lender administration costs	0.2	0.2	0.2
One-off costs for applicants	0.2	0.2	0.2
Ongoing costs for borrowers	0.3	0.3	0.3
BBB administration costs	5.8	5.8	5.8
Benefit to cost ratio	1.27	2.00	27.94⁴⁷

Source: London Economics' analysis.

The benefit to cost ratios for CLBILs are above 1 in all three scenarios. This suggests that CLBILs provided value for money, albeit on a much smaller scale than for the other schemes. The benefits and costs of CLBILs are substantially smaller than those for BBLs and CBILs. This is perhaps to be expected given finance under CLBILs was extended to large, established businesses which typically repaid their loans quickly and without issue. It is also of note that the range of benefit to cost ratios (1.27 to 27.94) is much larger than for the other schemes. As discussed above, this is due to the greater level of uncertainty in the estimation of the benefits

⁴⁶ Based on the lower and upper bound of the 95% confidence interval of turnover impact: £m 634.5 - £m 16,815.7.

⁴⁷ Based on the lower and upper bound of the 95% confidence interval of turnover impact, the range of BCRs under this scenario are 2.23 - 59.21.

of CLBILS, due to the fact that there are far fewer CLBILS borrowers than borrowers under the other two schemes.

Table 28: Benefits and costs of the Covid-19 Loan Guarantee Schemes (£m, discounted, 2020 prices)

Item	Scenario 1 (Most Pessimistic)	Scenario 2 (Pessimistic)	Scenario 3 (Core)
Benefits	27,405.3	39,338.7	76,849.4⁴⁸
Total costs	22,128.1	22,128.1	20,330.0
Unrecovered loans	14,786.6	14,786.6	12,988.5
Opportunity cost of capital	5,342.1	5,342.1	5,342.1
Lender administration costs	78.8	78.8	78.8
One-off costs for applicants	114.7	114.7	114.7
Ongoing costs for borrowers	1,668.4	1,668.4	1,668.4
BBB administration costs	137.5	137.5	137.5
Benefit to cost ratio	1.24	1.78	3.78⁴⁹

Source: London Economics' analysis.

Looking at the three schemes collectively, the benefit to cost ratios are above 1 in all three scenarios, suggesting that the schemes have proven to represent value for money. Indeed, the evidence suggests that the schemes created £27 billion to £77 billion of benefits for UK businesses. However, the economic costs of the schemes are also very substantial, estimated to be around £20 billion. The fact that loan guarantee schemes can have such large costs and

⁴⁸ Based on the lower and upper bounds of the 95% confidence interval of turnover impact of the schemes: £m 48,311.2 - £m 107,867.9.

⁴⁹ Based on the lower and upper bound of the 95% confidence intervals of turnover impact of the schemes, the range of BCRs under this scenario are 2.38 - 5.31.

benefits highlights the importance of the design and delivery of any similar schemes that might be introduced in the future.

Limitations

Several limitations must be borne in mind when interpreting the findings of the economic evaluation. These limitations make it challenging to estimate the true benefits and costs of the schemes, particularly into the future. As discussed above, reporting results for a variety of scenarios with different assumptions allows our findings to reflect the uncertainty these limitations create around our estimates.

One limitation is that, at the time of this analysis, the necessary data on realised firm outcomes was only available for this evaluation up to the end of the second year of the pandemic (2021/22). This means that our estimates of benefits for future years – even years which have already passed at the time of publication – are forecasts. These forecasts may prove to be incorrect. Similarly, on the cost side, our figures for the value of unrecovered loans beyond 2024/25 are derived from BBB forecasts rather than realised values.

Returning to benefits, we also cannot be sure how much of the GVA borrowers created because of the schemes was genuinely additional, as opposed to having been displaced from other (non-borrowing) firms. In other words, the true extent of product market displacement in each year is unknown. Although we may expect that product market displacement was lower during the pandemic, when the national economy was not at full capacity, we cannot be certain of this. In a similar vein, some of the finance extended under the guarantee schemes may have been extended even in the absence of the schemes. We cannot know exactly what proportion of finance extended under the schemes was truly additional, or which loans would have been provided without the schemes.

Finally – as in any causal evaluation – it is impossible for us to know what is the true counterfactual (i.e. what the world would look like if the Covid-19 Loan Guarantee Schemes had not been introduced). We use data on the performance of non-borrowers to construct the counterfactual. However, this means that we are not capturing potential spillover impacts of the schemes on borrowers and non-borrowers (e.g. supply chain impacts). Indeed, in the Year 2 report, we discuss that it is not feasible to robustly isolate the wider impacts of the schemes

given the wide range of government support schemes that were on offer to business at the time of the Covid-19 Loan Guarantee Schemes. Furthermore, in spite of our PSM and fixed effects empirical approach, there may be other imperfections in the control group. For example, borrowers may have been in a less sound financial state than otherwise similar non-borrowers.

Process evaluation

This section of the report provides findings from the third-year research exploring the processes used to deliver the schemes. In particular, the report focuses on the processes used for repayment and recoveries, enforcement actions (which mainly relate to BBLS due to the enhanced risk of fraud within the scheme compared to CBILS and CLBILS) and governance. The evaluation activity used in this report took place in the summer and autumn of 2024.

Research questions

The key process evaluation questions, set out in the Invitation To Tender (ITT), are presented in the table below. Many of these questions were answered in the Year 1 and Year 2 process evaluations⁵⁰, and the key evaluation questions covered in the Year 3 process evaluation (which focus on repayment, monitoring and enforcement processes) are highlighted in italics.

Table 29: Key process evaluation questions

Scheme design	<ul style="list-style-type: none">– How did government provide strategic direction to deliver the Covid-19 Loan Guarantee Schemes?– How close to optimal was the mix of input from specialty teams as part of the scoping and delivery phases?– How effective was communication and collaboration with (a) lenders and (b) the business community?– How effective was the analysis of lender incentives and resulting behaviour?– To what extent does scheme design complement other business support interventions?– How successfully have the adaptations to the Covid-19 Loan Guarantee Schemes made post-launch (for example for BBLS only, Pay as You Grow and the availability of top-ups) been implemented?
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⁵⁰ The first year process evaluation findings for the Bounce Back Loan Scheme, Coronavirus Business Interruption Loan Scheme, and Coronavirus Large Business Interruption Loan Scheme are available at: https://www.british-business-bank.co.uk/wp-content/uploads/2022/06/Evaluation_of_BBLS_CBILS_and_CLBILS__Yr1_Report_accessible_.pdf. See pages 44-92; and the second year process evaluation findings for the Covid-19 Loan Guarantee Schemes are available at: <https://www.british-business-bank.co.uk/sites/g/files/sovrnj166/files/2023-11/BBLS-CBILS-CLBILS-evaluation-yr2-report.docx?attachment>. See pages 34-65.

- To what extent do the post-launch adaptations complement the other scheme parameters?
- ***To what extent did scheme design strike an appropriate balance between speed of delivery and controls?***

Scheme
delivery

- ***How effective are the processes used by lenders?***
- How high were awareness levels of the Covid-19 Loan Guarantee Schemes among eligible businesses?
- How did eligible business perceive the Covid-19 Loan Guarantee Schemes before deciding whether or not to apply?
- To what extent are borrowers satisfied with the lending process?
- How thorough were risk management practices adopted?
- ***Were the BBB's and other government organisations' infrastructure capable to cope with the Covid-19 Loan Guarantee Schemes?***
- ***To what extent did scheme performance meet objectives and expectations? Which areas of delivery worked well?***
- Which areas of delivery require the most improvement?
- Was the method of delivery used the most appropriate for these interventions?
- What have other governments done with similar schemes?
- Are there international comparisons?

Debt
recovery
processes

- ***Has the design process for the recovery regime learnt any lessons from scheme design? Are the debt recovery processes fit for purpose?***

Variation
in
processes

- ***Are there any significant variations in processes between different lenders on each of the Covid-19 Loan Guarantee Schemes?***
- Is there any evidence that businesses run by management teams or business owners with certain protected characteristics have been disadvantaged by any of the scheme processes?

Methodology

The methodological approach for the Year 3 evaluation was agreed by the BBB in November 2023. The findings for this report are based on the agreed methodology, which included:

- A workshop to form an agreed approach to the evaluation.

- A review of programme documentation and data, provided by the BBB to the research team. Note that some data from the September publication of the Covid-19 Loan Guarantee Schemes performance is included in this report. This is based on data available as at 30th September 2024. We note that more recent performance data may have been published by the time of this evaluation report's publication.
- A review of wider published evidence.
- Depth interviews with 13 stakeholders from BBB, DBT and enforcement agencies.
- Depth interviews with seven accredited lenders.

Processes used

The following figures present the processes used by the schemes in terms of monitoring lenders, repayment, and enforcement processes. The first figure shows the processes used for BBLS, and the second those used for CBILS and CLBILS.

Figure 6: Process map for the Bounce Back Loans Scheme

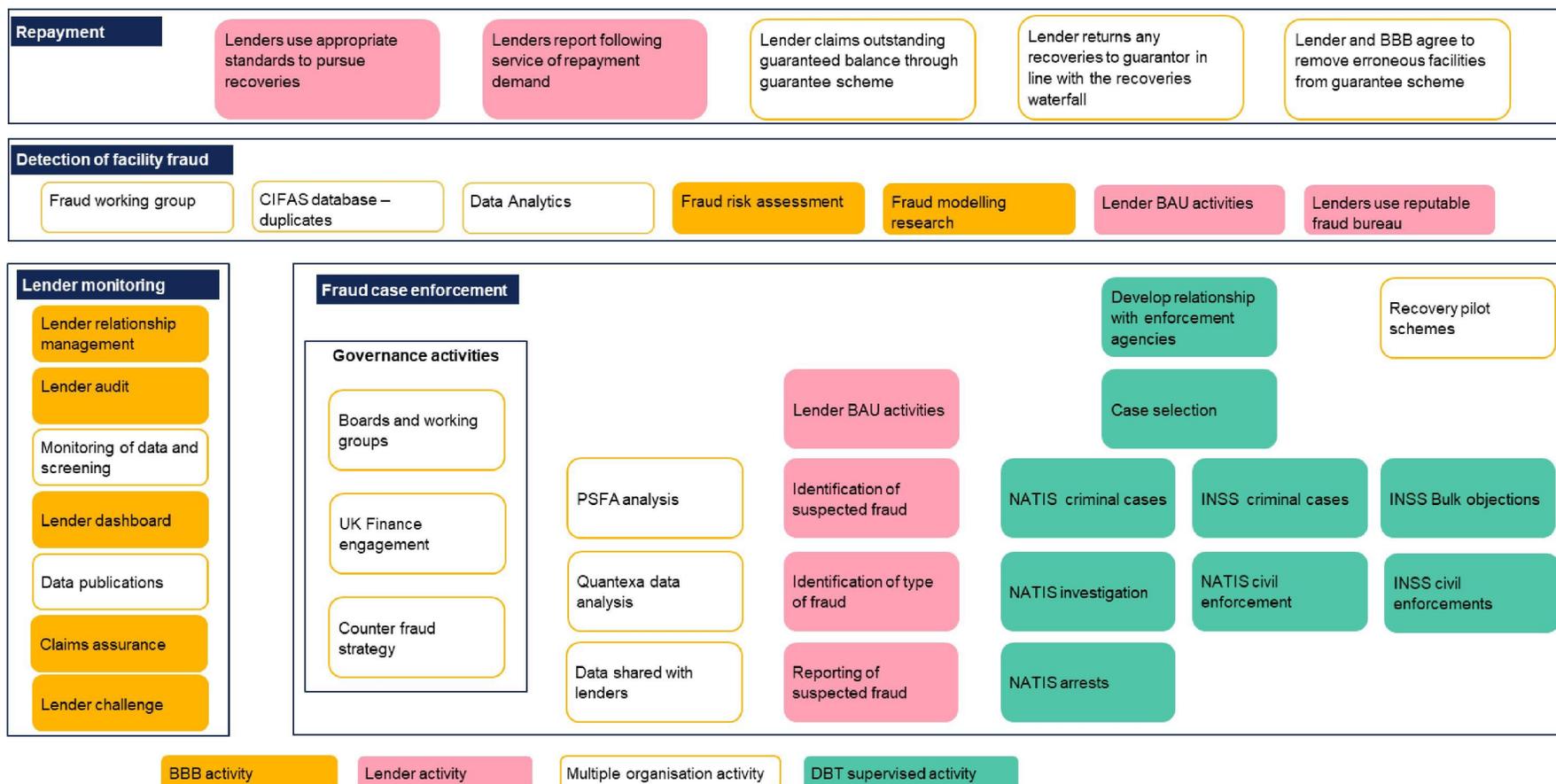
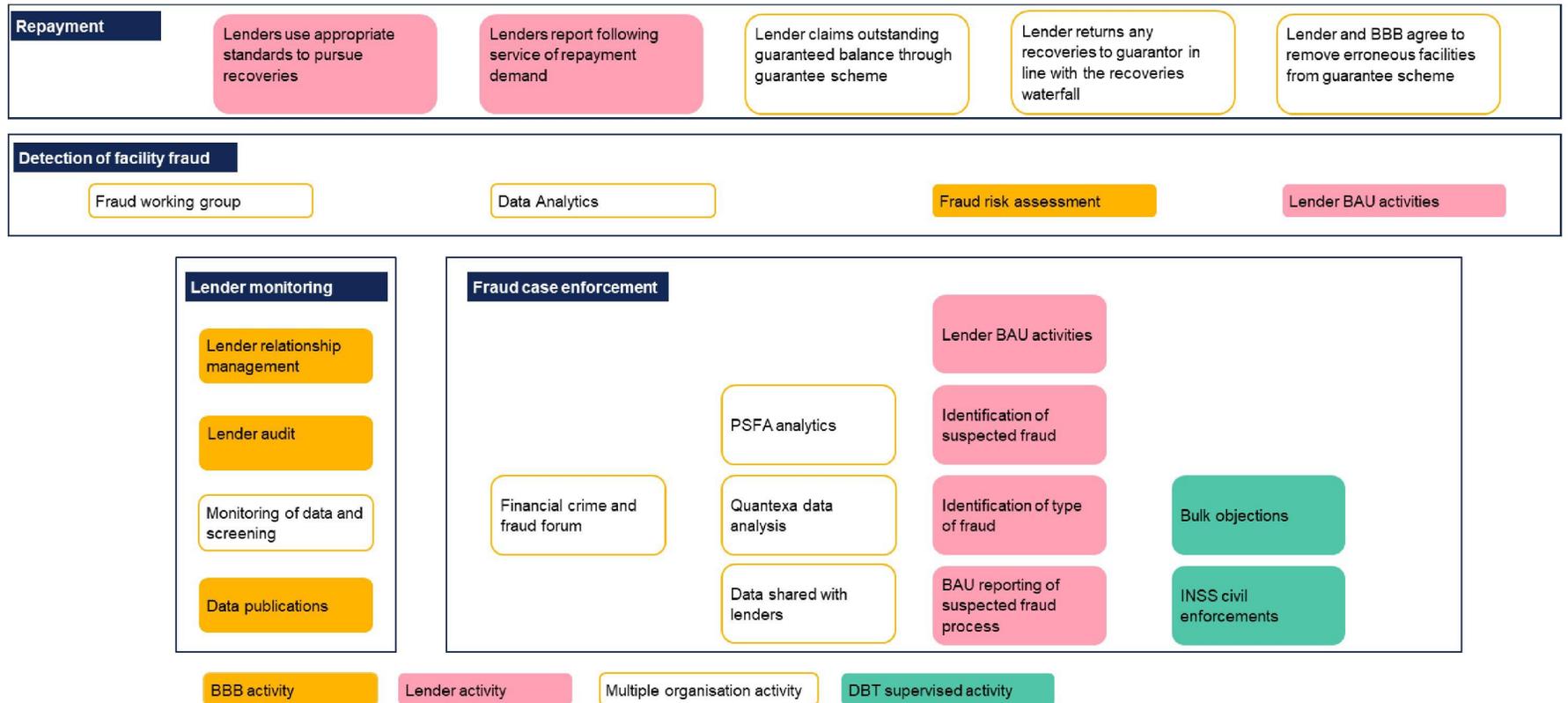


Figure 7: Process map for the Coronavirus Business Interruption Loan Scheme and Coronavirus Large Business Interruption Loan Scheme



Repayments

The key processes used to secure repayments of the Covid-19 Loan Guarantee Schemes facilities are:

- **Lenders utilising appropriate mechanisms to secure repayments on the facilities:**
These mechanisms are not dictated in the scheme rules for CBILS and CLBILS with lenders expected to follow their BAU practices. For BBLs, principles relating to collections and recoveries (including the treatment of fraud) were set out in guidance issued to lenders but these were not binding in the lender agreements.
- **Where lenders cannot secure repayments they report this**, using standard data sharing and reporting approaches, to the BBB.
- **If a lender cannot secure repayments on facilities following a repayment demand, they can “claim” the outstanding value (or 80% of the value) with the BBB** through the Covid-19 Loan Guarantee Schemes, and the BBB will transfer the funds to the lender within 30 days of the invoice for the claim.
- **If the lender is able to secure recovery from a “settled” facility, they will repay the BBB, as appropriate, via the agreed mechanism.**
- **The BBB also analyses the portfolio of lending**, and where facilities have been identified as having been advanced by a lender that are potentially ineligible and/or the BBB determines that the lender has breached the scheme rules, it brings this to the attention of lenders. Where these challenges are validated or commercially agreed between the BBB and lender, the facilities are removed from the Covid-19 Loan Guarantee Schemes, and the BBB will be reimbursed if the facility has already been settled.

Enforcement

The key fraud case enforcement activities are:

- The functioning of **working groups and boards** to oversee the enforcement activities through the schemes. This includes participation from the BBB, DBT, the Cabinet Office, HM Treasury, UK Finance and lenders.

- **The development of a counter fraud strategy:** Due to the timescales under which the schemes were developed and launched, there was not a dedicated counter fraud strategy in place at the start of the schemes (although there were existing counter fraud activities taking place). This has now been formalised by the BBB, DBT and the Cabinet Office to underpin the counter fraud and enforcement activity delivered through the BBLs.
- **Data analytics:** The Cabinet Office and the BBB undertake data analytics to attempt to identify the scale of cases with a higher risk of fraud, by utilising data around duplicate loans, network analysis and using central government data to identify applications with a higher risk of fraud. The results from the data analysis are sent to accredited lenders, showing the cases in their portfolio that have been identified as cases with a higher risk of fraud – and the lenders can review this data / investigate facilities, and use this information to update their higher risk of fraud flags. In addition, the data also provides assurance that lender claims under the guarantee have not been made in error, identifying where there are any claims that should be reviewed. In addition to this, lenders would also undertake their own analysis, utilising reputable databases, to identify cases with a higher risk of fraud.
- **Lender counter fraud activity:** As part of Business As Usual (BAU) lending, accredited lenders undertake counter fraud work, such as initial ‘know your customer’ checks (at origination) and ongoing fraud monitoring throughout the course of the facility (such as detecting fraudulent activity on business accounts). This activity is also undertaken as part of CBILs, CLBILs and BBLs. The BAU counter fraud activity will vary from lender to lender. In addition, lenders were also mandated to undertake a specific exercise using a CIFAS database for BBLs (although not for CBILs or CLBILs) to identify duplicate loan applications – which was important in BBLs due to the reduced credit checks required for the scheme. Where their mechanisms identify cases with a higher risk of fraud, these flags are reported to the BBB and where appropriate the lenders can report to the Insolvency Service (INSS) and National Investigation Service (NATIS). Guidelines on the types of cases to refer are provided by DBT.
- **Enforcement activity with external agencies:** Where appropriate, NATIS / INSS carry out additional enforcement measures including criminal investigations, director misconduct. Both NATIS and INSS pursue civil and criminal investigations and prosecutions, with INSS also pursuing disqualifications for director misconduct. For the cases referred to NATIS that

relate to the schemes, NATIS will feed back on case selection to a governance board from DBT, and will conduct criminal investigations with a view to pursuing criminal prosecutions. The Insolvency Service will investigate reported cases and pursue civil disqualification of directors and criminal cases against suspected fraudulent activity, and will provide feedback on outcomes achieved to DBT.

- **Recovery pilot schemes:** For BBLs, there are a series of recovery pilot schemes that are testing new approaches to securing repayments. These processes have not been fully assessed in this evaluation due to the timing of implementation.

Repayments and recoveries

This section provides an assessment of the repayments and recoveries processes used by the schemes to support the delivery in line with their objectives and the lender agreements between the BBB and accredited lenders. This section draws on information provided by the Bank and findings from the qualitative interviews with accredited lenders and stakeholders.

Repayments made

The figures below present the value of the Covid-19 Loan Guarantee Scheme portfolios (and the proportion of facilities) which have either been fully repaid, or payments are on schedule. They are taken from the Covid-19 Loan Guarantee Schemes performance data published in November 2024. This reflects data as of September 2024, which was the most recently available at the time of writing this evaluation report. However, more recent performance data will be available to readers by the time this report is published.

It should be noted that the percentages presented below show the value in each category divided by the total value of facilities drawn. This differs from the methodology used in the published data, which divides the value in each category by the outstanding portfolio value. Therefore, there are differences between the percentages presented in this report and those in the published data – but the values in each category are consistent.

The data shows that:

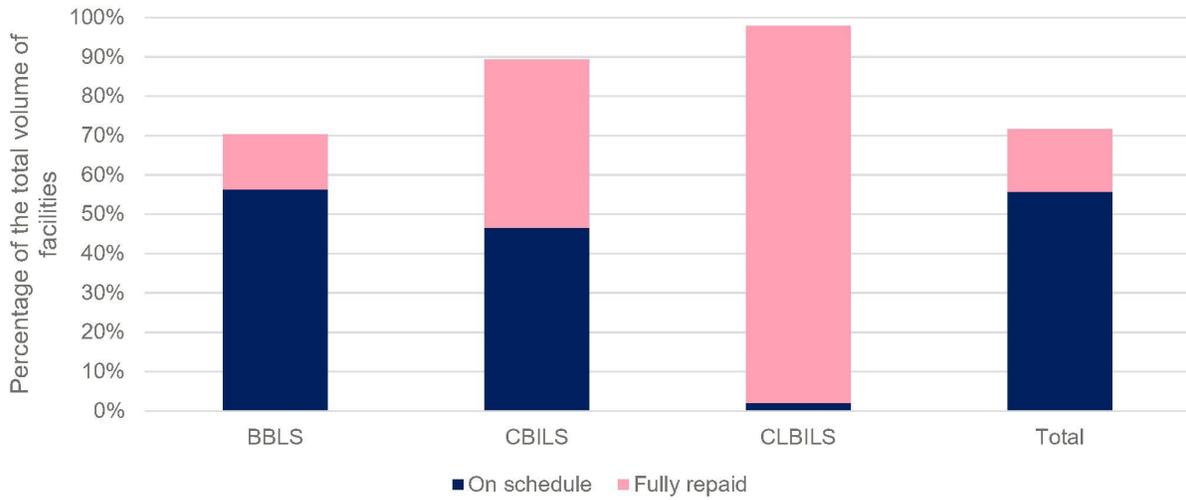
- 61% of the value of facilities drawn are no longer at risk of loss to the public purse across all Covid-19 Loan Guarantee Schemes (£46.9 billion):

- In CBILS, 78% of the value of facilities drawn is no longer at risk to the public purse (48% fully repaid (£12.4 billion), and 30% has been removed from the guarantee portfolio⁵¹ (£7.9 billion)).
- In CLBILS, 97% of the value of facilities drawn is no longer at risk to the public purse (96% fully repaid (£4.4 billion), and 1% has been removed from the guarantee portfolio (£50 million)).
- In BBLS, where the majority of facilities (and value of the portfolio) are, 48% of the value of facilities drawn is no longer at risk to the public purse (14% fully repaid (£6.6 billion), and 34% has been removed from the guarantee portfolio (£15.6 billion)).
- A further 22% of the total value of Covid-19 Loan Guarantee Schemes facilities drawn is currently on schedule to be fully repaid, although the value of these facilities could fall into default in the future (£16.6 billion):
 - In CBILS, 17% of the value of facilities drawn is on schedule (£4.4 billion).
 - In CLBILS, 2% of the value of facilities drawn is on schedule (£78 million).
 - In BBLS, 26% of the value of facilities drawn is on schedule (£12.1 billion).

These figures show that of the £77 billion in drawn facilities as part of the Covid-19 Loan Guarantee Schemes, 61% of this total value is not at risk of a loss to the public purse (£46.9 billion). A further 22% of the total drawn value (£16.6 billion) is on schedule, although this could fall into default in the future. The variation by scheme shows that the value no longer at risk to the public purse for BBLS are below those percentages (at 48%), which accredited lenders and stakeholders attributed to the design of the BBLS (the reduction in verification and credit checks by lenders to provide rapid access to finance). The risk of higher default rates on the BBLS was identified during the scheme design phase and has been accepted at a political level through the ministerial direction agreed for the scheme.

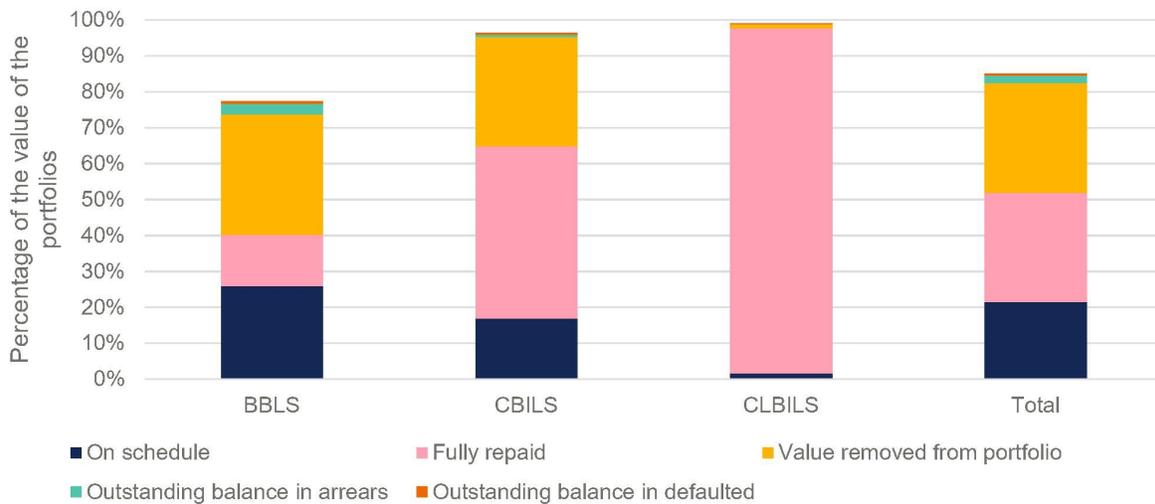
⁵¹ The value of some facilities that were originally drawn through the Covid-19 Loan Guarantee Schemes have been removed from the portfolio. Reasons for this removal include: Standard repayments as per the loan's repayment plan; Recoveries made prior to a claim; One-off lump sum overpayments; Other ad-hoc payments that have reduced the outstanding balance of the loans.

Figure 8: Percentage of facilities fully repaid and on schedule



Source: BBB Management Information, September 2024 (published November 2024)

Figure 9: Percentage of value of fully repaid facilities and outstanding balance for facilities



Source: BBB Management Information, September 2024 (published November 2024)

Although the majority of the portfolio value of the Covid-19 Loan Guarantee Schemes have either been repaid or are on schedule, 3% of the total value of the facilities drawn (or 6% of the total volume of facilities) are currently in arrears or have defaulted but have not progressed to a

claim or being settled by the BBB, with a further 15% of the total value of facilities drawn (or 23% of the total facilities drawn) having progressed to the accredited lender making a claim or the BBB settling a claim. The value of facilities that are in arrears or have defaulted is lower than the proportion of facilities as many of the facilities will have paid off at least some of the facility balance. The total value of defaulted (including the value of facilities that have been settled and claimed) or are in arrears in the Covid-19 Loan Guarantee Schemes are (as of September 2024):

- 26% of the value of BBLs (£12.2 billion)
- 5% of the value of CBILS (£1.2 billion)
- 1% of the value of CLBILS (£53 million)

The average proportion of facilities that fall into arrears or default in commercial lending is around 2%⁵², which has remained fairly steady both before and after the Covid-19 pandemic. Around half of these facilities would be expected to enter default, based on assumptions that lending and default rates continue in the same manner as up to March 2023.

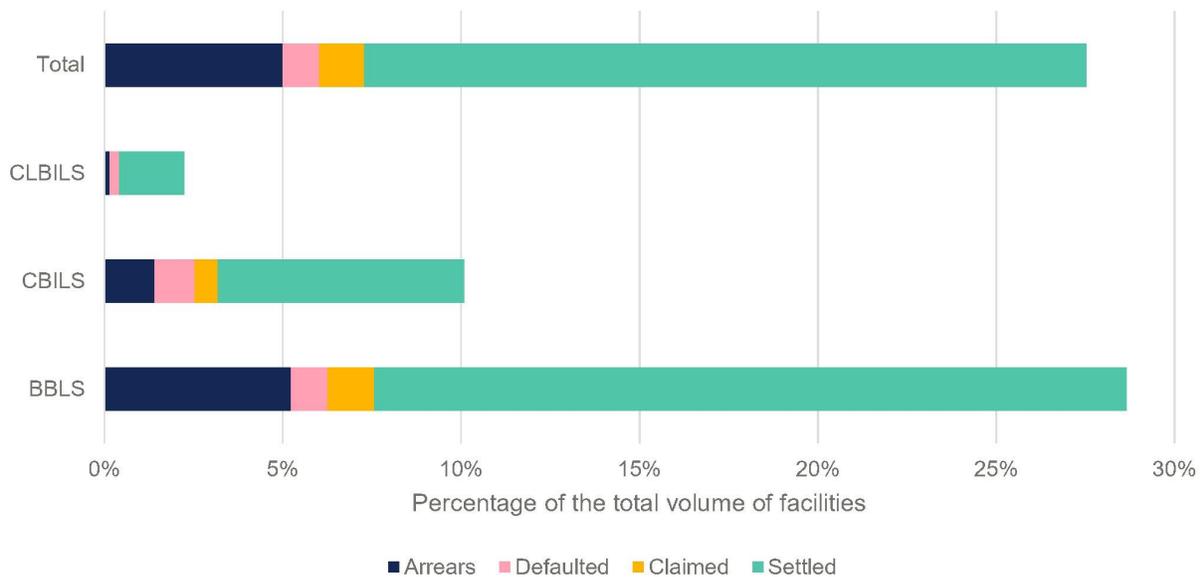
Therefore, the proportion of the total volume of facilities in arrears or defaulted in the Covid-19 Loan Guarantee Schemes is around five times higher than would be expected in commercial SME lending in the UK for CBILS (at 10% of total volume of facilities), and around 15 times higher in BBLs (at 30% of the total volume of facilities) than would be expected for commercial lending to SMEs in the UK. These volumes of default could rise in the future as facilities currently on schedule could fall into arrears and default. However, at the outset of the schemes, the BBB anticipated higher rates of default on the schemes than in commercial lending. As mentioned above, for BBLs the Bank modelled multiple scenarios including a 25% default rate. This indicates that the current 18% of total drawn value (and 28% of total volume of facilities) in arrears and default were not outside the initial expectations for the schemes.

The accredited lenders interviewed suggested that their own arrears and default rates on CBILS and CLBILS were broadly in line with BAU commercial lending, although in some cases slightly higher than their average due to the sectors of businesses that they lent to during the

⁵² Experian (2023) Experian UK SME Credit Trends Index (January to March 2023)

pandemic. This was because the assessment criteria and risks of arrears and default were more in line with commercial lending assessments than those used for BBLs (where the assessment was largely based on borrower self-certification of eligibility)⁵³. They stated that the higher rate of arrears and defaults on the BBLs was expected because the usual credit checks that lenders undertook to ensure businesses could repay the loan were not required as part of the scheme in order to facilitate rapid access to finance for businesses. As mentioned above, this risk was identified at the outset of the scheme and accepted.

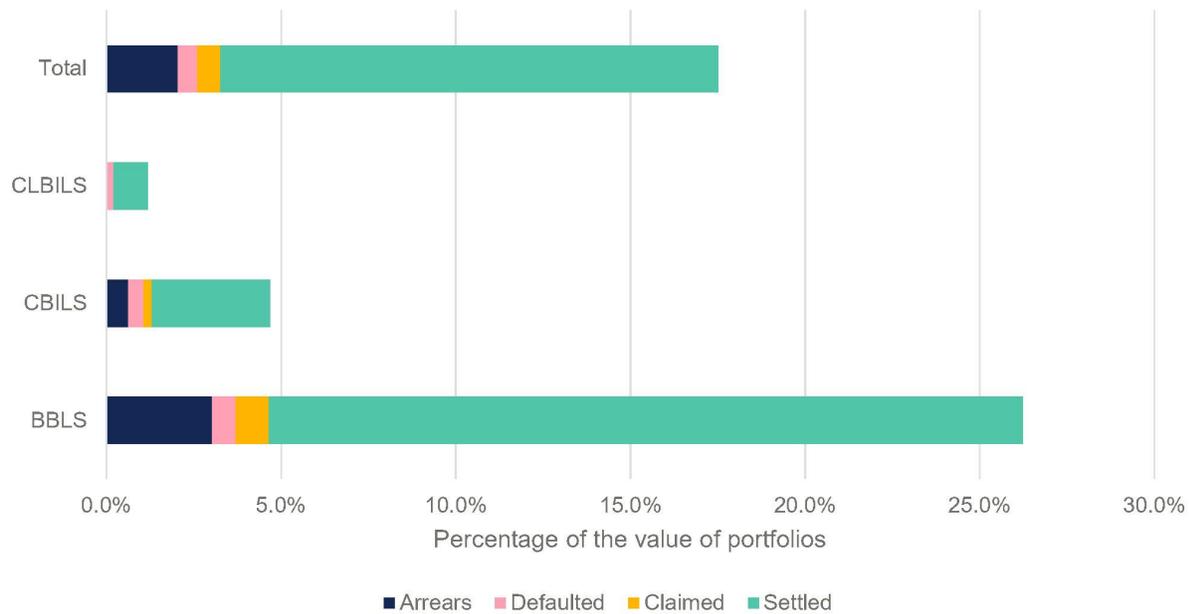
Figure 10: Proportion of total volume of facilities in arrears, defaulted, settled and claimed



Source: BBB Management Information, September 2024 (published November 2024)

Figure 11: Proportion of total drawn value of facilities in arrears, defaulted, settled and claimed facilities

⁵³ Additionally, those lenders that were interviewed had lower than CBILS average arrears and default rates.



Source: BBB Management Information, September 2024 (published November 2024)

Approaches used to secure repayments

Stakeholders and accredited lenders reported that the ability of lenders to secure repayments, particularly for the BBLs, needed to be set in the context of the scheme design. Therefore, lenders were required to reduce their BAU application process and credit checks in order to provide finance rapidly to businesses. More details of the impact of the design of the BBLs is provided below:

- Speed of Delivery:** The government prioritised rapid delivery of funds to struggling businesses. This intense pressure on speed further incentivised lenders (through the BBLs design) to prioritise volume over rigorous checks. BAU SME lending (and the lending through CBILS and CLBILS) operates at a much slower pace, allowing for more thorough risk assessment and due diligence.
- Simplified Application Processes:** The BBLs, in particular, had significantly streamlined application processes, including self-certification of turnover and limited credit checks. This contrasted sharply with BAU SME lending, where lenders typically require extensive documentation and perform in-depth creditworthiness assessments. The simplified process, while intended to speed up access to funds, also increased the risk of fraud and

misrepresentation, with lenders having to manage these risks retrospectively at least in accordance with their lender guarantee agreement.

- **Volume of Applications:** The sheer volume of applications during the pandemic overwhelmed lenders' capacity. This, alongside the scheme design, created pressure to process loans quickly, potentially at the expense of thoroughness. BAU SME lending involves a much lower volume of applications, allowing for more individualised attention and risk assessment.
- **Public and Political Scrutiny:** Lenders faced intense public and political pressure to support businesses during the crisis. This created a reputational risk for lenders perceived as being too slow or restrictive in their lending practices. While BAU SME lending also involves reputational considerations, the level of public and political scrutiny during the pandemic was exceptional.
- **Risk of fraud:** This pressure to lend quickly, combined with simplified application processes, created an environment ripe for fraud and error, which lenders would not typically encounter to the same degree in BAU.

Policy stakeholders and accredited lenders considered that lenders largely adhered to BAU processes for recoveries, as required in the lender agreements.

It was reported by stakeholders and accredited lenders that for CBILS and CLBILS, following BAU processes coupled with the types of businesses that were financed by the schemes, and that the lenders still had a 20% stake in the facility resulted in effective recovery efforts (particularly when compared to BBLs). The higher loan values and existing lender-borrower relationships meant the recovery methods used in BAU were appropriate. However, the varied nature of CBILS loans and lenders makes a direct comparison to BAU challenging.

One accredited lender noted that the CBILS portfolio experienced a higher default rate than their wider SME portfolio. However, this was due to its concentration in the higher-risk sectors during the pandemic (for example leisure and accommodation), not because of the inappropriateness of BAU collection measures. Another lender highlighted the administrative burden of managing the schemes, including reporting requirements, which added extra costs and complexity, even

with a BAU recovery approach (for example reporting requirements and changes, like forbearance measures), making it challenging to introduce further recovery practices.

Accredited lenders' reliance on BAU processes for BBLs recoveries, particularly for smaller loans, presented a mixed picture of effectiveness. While using existing infrastructure and procedures was reported by lenders to be largely efficient and necessary given the unprecedented volume of loans, the BAU approach did not work in all cases.

The capacity needed to pursue recoveries using BAU processes was raised as a concern by some lenders – as there was a large increase in the volume of facilities provided and the risk associated with the facilities meant more recovery resource was required. Some lenders reported having to increase staffing to deal with the increase in recovery activity – although this did not contribute to an increase in recoveries for the lender (due to defaults being covered by the guarantee). Further, another lender noted that given the capacity constraints, prioritising higher-interest BAU debts over lower-interest BBLs debt could theoretically make commercial sense for borrowers, potentially impacting recovery rates on the BBLs.

In addition to BAU processes, some lenders did report increasing recovery efforts beyond BAU for BBLs, for example using debt collection agencies and increased contact attempts.

However, there was a further challenge highlighted in the guarantee agreements for the Covid-19 Loan Guarantee Schemes and operating at a programme level, which was differences in lenders' BAU processes. Lenders have their own BAU practices, which differ from one another. This contributed to inconsistent practices across lenders (although all lenders BAU need to be compliant with industry regulations) and may have made it harder for the government to enforce a consistent standard of accountability.

Removal of guarantees

The BBB introduced a process for removing the guarantee from loans that were ineligible for the guarantee and had been determined to be ineligible for the Covid-19 Loan Guarantee Schemes and/or breached scheme rules, and a mechanism to enable the guarantor to be reimbursed for any settled facilities that had been paid out in error.

The effectiveness of removing erroneous facilities (loans identified as ineligible) from the Covid-19 Loan Guarantee Schemes involved a complex interplay of lender challenge processes,

assurance activities, and lender self-reporting. While the system demonstrated some success in recouping funds and influencing lender behaviour, it also faced challenges due to the nature of the guarantee agreements and the dynamics between lenders and the BBB. The main challenges were:

- **Wording of lender agreements:** The broad language used in the agreements allowed lenders to interpret the terms in different ways to one another and meant that there were inconsistencies in understanding about guarantee removals. The lender agreements were drafted at pace and for a wide variety of lender types – which meant that there was a degree of flexibility of terms used in the lender agreements. This meant that the BBB often had to rely on the goodwill and quality of the relationship with lenders, rather than the contractual wording, to agree to the removal of guarantees.
- **Difficulties with Lender Challenge Process:** The ambiguity made it harder for the BBB to successfully challenge lenders on potentially erroneous or fraudulent claims where errors had been made in the award process. Accredited lenders could dispute the BBB's interpretation of the agreement, leading to long negotiations and settlements. This consumed valuable time and resources and ultimately led to settlements where lenders might not admit fault but agree to partial guarantee removals or repayments, with stakeholders reporting that a reason for this was to avoid reputational damage.

These challenges necessitated documentation, legal review to clarify interpretations and resource to resolve disputes. This added to the administrative burden for both lenders and the BBB.

In the latter stages of delivery of BBLs, a more comprehensive, data-driven post-claim assurance process was introduced for the BBLs. This involved running all claims through a data engine that identified and risk-ranked potentially problematic loans, allowing for more targeted scrutiny. Stakeholders reported that this activity provided crucial oversight and further incentivised lenders to identify and address problematic loans (remove the guarantee) in several ways:

- **Post-Claim Assurance Review of All Claims:** The shift from sample-based audits to the post-claim assurance process, significantly increased the likelihood of detecting errors or

fraud. This comprehensive approach incentivised lenders to be more thorough in their own internal reviews and pre-emptive identification of problematic loans.

- **Financial Penalties and Reputational Risk:** Lenders knew that assurance activities could uncover errors or fraudulent activity due to errors in process or implementation, potentially leading to financial penalties (guarantee removals, demands for repayment) and reputational damage. Stakeholders reported that this motivated them to proactively identify and address problematic loans to avoid these negative consequences.

This process, driven by the BBB, played a crucial role in identifying and challenging lenders on potentially problematic loans. It has been reported by stakeholders and lenders that this process, combined with previous guarantee removal activity, has led to the government guarantee being removed from 13,288 loans to a total value of £1.11 billion assurance activities (to September 2024). This substantial figure indicates a degree of effectiveness in holding lenders accountable and recouping public funds.

Accredited lenders acknowledged that the processes, including the lender challenge process and assurance activities (audits and post-claim assurance), were effective in identifying and removing some erroneous facilities. They recognised that the prospect of scrutiny and potential financial penalties motivated them to proactively identify and address problematic loans.

Debt recovery pilots

The debt recovery pilots were initiatives designed to explore alternative approaches to recovering funds from defaulted BBLs loans. The recovery pilots involved close collaboration between the BBB, lenders, and government departments (DBT and HM Treasury), with input from the PSFA. The pilots had the following characteristics:

- **Focus on BBLs facilities:** The pilots specifically targeted BBLs loans which have defaulted. The emphasis was on exploring new strategies to hold companies who have defaulted on BBLs accountable and maximise recovery, even on smaller loan amounts.
- **Lender-led implementation:** The pilots were implemented by individual lenders, allowing them to tailor the approach to their specific systems and borrower portfolios. This decentralised approach allowed for flexibility and innovation, but also resulted in variations in implementation across different pilots.

- **Aim to influence lender behaviour:** A key objective of the pilots was to establish additional action which could be taken which lies outside of Lender BAU whilst also testing commercial returns.
- **Aim to influence borrower behaviour:** A key objective was also to demonstrate to borrowers that the banks and government would be utilising stronger recovery mechanisms – which will in turn influence borrowers to repay the money owed where feasible (deterrent effect).
- **Monitoring and evaluation:** The pilots were closely monitored and evaluated by the BBB and government to assess their effectiveness and identify lessons learned. This involved tracking key metrics such as the number of cases pursued, the amount of funds recovered, and the cost of implementation. Lenders are taking additional recovery action on 482 borrowers, equating to £15M in loan value.

The debt recovery pilots have demonstrated promising initial results, but their overall effectiveness remains difficult to assess at this stage of implementation. Only a single recovery pilot had been completed at the time of evaluation research. However, some successes and challenges have been identified.

The first pilot was reported by multiple stakeholders to demonstrate the commercial viability of pursuing recoveries through compulsory liquidation, when combined with careful case selection and streamlined processes. Compulsory liquidation is a method previously deemed too expensive for debts the size of individual BBLs. This success stemmed from a combination of factors:

- **Strategic case selection:** Instead of pursuing all defaulted loans, the pilot used different case selection criteria to help support positive outcomes.
- **Streamlined processes:** A lender was reported to have worked to streamline the legal and administrative processes involved in compulsory liquidation, reducing the costs and time required for each case. This efficiency further contributed to the pilot's commercial viability.
- **Positive financial returns:** Given that the pilots were still ongoing at the time of writing, they had not yet generated sufficient data to enable a comprehensive assessment of their

performance on financial returns. Nevertheless, consultations with stakeholders suggested that the pilot generated positive financial returns, recovering a sufficient amount to offset the costs of implementation. This tangible success was a key factor in its positive evaluation.

- **Proof of concept:** The pilot served as a proof of concept, demonstrating that compulsory liquidation could be a viable recovery strategy for BBLs. This challenged existing assumptions and opened up new possibilities for recovering funds from fraudulent or defaulted loans.
- **Lender engagement:** Stakeholders and lenders reported that there were no problems with engaging with lenders or securing their participation in the recovery pilots. This was reported to be due to the strength of the relationship between lenders and the BBB, and some lenders' keenness to explore new avenues for recoveries.

However, there have been challenges in implementing the recovery pilots:

- **Small scale and limited scope:** The pilots were small-scale and focused on specific borrower segments, limiting the generalisation of their findings. For example, it is unclear if the lessons from the first pilot are transferable to different types of lenders with different portfolios. Therefore, it still remains unclear (at the time of the evaluation activity) whether the success achieved in the early pilot can be replicated across the broader BBLs portfolio with its diverse range of borrowers and loan amounts.
- **Lack of clear definition of "success":** The absence of a clear, overarching government definition of "success" for the pilots. Different departments within government had different ideas of what success would look like. This created ambiguity and made it difficult to assess the true effectiveness of the pilots and their contribution to the overall pilot goals.
- **Slow implementation:** The cumbersome approval process for pilots, which required extensive documentation, slowed down implementation.

Counter fraud work and Enforcement

This section provides an assessment of the processes used to identify cases with a higher risk of fraud and enforcement work to secure payments and prosecute individuals who have

committed fraud through the schemes. The section draws on evidence from the BBB's management information, and depth interviews with stakeholders and accredited lenders.

Data analytics

An initial BBB-commissioned assessment of the level of fraud occurrence associated with a sample of loans undertaken in March 2021 had a central estimate that around 11% of BBLs loans were likely to be fraudulent (with an estimated value of £4.9bn, based on facilities drawn down until 31 March 2021). An updated assessment undertaken in October 2021 indicated that the estimate of fraud occurrence may be lower than this (at 7.5%). Further estimates of cases with a higher risk of fraud have been undertaken by BBB and DBT, with the most recent estimate of portfolio lifetime loss (not all occurrences of fraud will result in loss) due to fraud and error being 5.90%.⁵⁴

The BBB has produced more recent data which presents the value of cases that accredited lenders have flagged as higher risk fraud cases on the three Covid-19 Loan Guarantee Schemes. This showed that across the three schemes, around £1.8 billion of lending has been flagged as higher risk cases of fraud. It should be noted that this is higher risk fraud cases as of September 2024 and flags of higher risk of fraud can be added and removed by lenders at any point.⁵⁵ The £1.8 billion represents 2.3% of the total lending through the Covid-19 Loan Guarantee Schemes. The value of facilities that have been flagged as higher risk cases of fraud in the Covid-19 Loan Guarantee Schemes are (as of September 2024):

- 3.7% of the value of BBLs (£1.7 billion)
- 0.2% of the value of CBILs (£57 million)
- 0% of the value of CLBILs (£0 million)

The vast majority of accredited lender flagged higher risk fraud cases are from the BBLs portfolio (around 97% of the total value of higher risk of fraud cases from the three schemes).

⁵⁴ DBT (2023) Annual reports and accounts. Available at: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://assets.publishing.service.gov.uk/media/6532757426b9b1000faf1caa/CCS0123681176-001_PN6763756_BEIS_2022-23_Annual_Report_Hi-Res_Crops.pdf p.298.

⁵⁵ The assessment of suspected cases of fraud is presented here in terms of monetary value, rather than actual cases. This is due to the research team only accessing the value of fraud for the BBLs.

launch of the schemes (it was introduced in the summer of 2020), limiting some of its effectiveness.

- **Increased reporting of higher risk of fraud cases:** The data analytics work was reported by stakeholders and lenders to have contributed to an increase in the reporting of higher risk of fraud cases, particularly for BBLS. However, it's difficult to quantify the precise impact on the Covid-19 Loan Guarantee Schemes, as not all higher risk of fraud cases identified by the data analytics work was ultimately confirmed as fraudulent activity.
- **Improved targeting of investigations:** The data analysis helped to prioritise and target investigations by enforcement agencies like NATIS and the Insolvency Service. Lenders acknowledged that data analytics, particularly the fraud flags provided by the PSFA, helped prioritise and target investigations by their own enforcement teams.
- **Enhanced understanding of fraud risks:** The data analysis was reported by stakeholders to have provided valuable insights into the types and patterns of fraud occurring within the schemes, which helped to inform the development of subsequent guaranteed loan schemes. One lender specifically mentioned the value of learning about sophisticated fraud methods used by borrowers.

However, there were challenges associated with the use of data analytics to support the detection of fraud cases. These were:

- **Volume of flags and lender fatigue:** The sheer volume of high risk flags generated by the PSFA created a significant burden on accredited lenders, which a stakeholder reported led to "lender fatigue". This was confirmed in interviews with accredited lenders. Sifting through numerous flags, many of which might be false positives, consumed valuable time and resources.
- **Legal basis for sharing data:** Accredited lenders expressed concerns about the legal basis for using certain data sets. This uncertainty created hesitancy among some lenders to fully utilise the data.
- **Time lag in data sharing:** Stakeholders reported that there was a significant time lag between the PSFA's data analysis and the sharing of this information with accredited

lenders due to challenges associated with sharing data between parties. This delay made it more difficult for lenders to take prompt action.

- **Inconsistent application of data analytics:** Interviews with accredited lenders suggested that there were inconsistencies in how lenders used and interpreted the data provided by the PSFA. Some lenders were more proactive and thorough in their analysis, while others may have been less diligent, leading to variations in fraud detection rates across lenders. Some of this can be linked to the resource point above.

A further challenge with data sharing was raised by stakeholders, in that there is an ongoing challenge of sharing data between government and lenders, and between lenders themselves, to fully support counter fraud and enforcement activity. These challenges are beyond the scope of the Covid-19 Loan Guarantee Schemes.

Enforcement activities

Insolvency Service

The Insolvency Service (INSS) undertakes both civil and criminal investigations leading to civil director disqualifications and criminal prosecutions for financial misconduct by businesses. INSS generally only consider cases which arise from individual and corporate insolvencies. Stakeholders reported that the INSS utilised existing practices which had worked well in identifying fraudulent cases and securing criminal and civil justice outcomes. It was reported by stakeholders that the type of work being undertaken by the Insolvency Service was similar to that undertaken prior to the Covid-19 Loan Guarantee Schemes, and the INSS already reporting into DBT (as an executive agency reporting into DBT). As a result of these factors, stakeholders reported that the service was able to select which cases to pursue without additional input from DBT.

The outcomes achieved by the Insolvency Service at the time of the evaluation included⁵⁷:

- 830 director disqualifications due to Covid-19 Loan Guarantee Schemes abuse in 2023-24.

⁵⁷ INSS (2024) Insolvency Service Annual Report and Accounts 2023-2024

Available at: <https://www.gov.uk/government/publications/insolvency-service-annual-report-and-accounts-2023-2024/insolvency-service-annual-report-and-accounts-2023-2024>

- Undertook 22 criminal convictions in 2023-24.
- Bankruptcy restrictions imposed on 93 businesses in 2023-24.

However, the INSS reported similar challenges to those highlighted in the Year 2 process evaluation, around a lack of resource and administrative challenges.

Available resources meant that the INSS prioritised certain cases. This prioritisation was intended in the initial plans for INSS involvement, and is standard practice in criminal prosecutions.

Further challenges faced by INSS included:

- **Reliance on Insolvency Practitioner Reports for insolvent director disqualification cases:** The INSS relied heavily on conduct reports from insolvency practitioners (IPs) to identify potential cases of misconduct for insolvent director disqualification cases, which represented a significant proportion of the INSS workload. The INSS also made use of other referral routes for other types of case – such as dissolved companies and a direct referral route from DBT for abuse cases.
- **Time Limits for Disqualification Proceedings:** The three-year time limit for bringing director disqualification proceedings (from the date of first entering insolvency or dissolving the company) was reported to have created a significant constraint on the INSS's ability to pursue cases.

NATIS

The second strand of enforcement activity is led by NATIS, which investigates more serious cases of fraud through the schemes such as organised crime. The NATIS enforcement activity has generated some outcomes (as of 31 March 2024), which include:

- Opening 258 investigations into BBLs fraud as of March 2024. This covers over £80 million of BBLs facilities.
- Collaborating with police forces in their investigation of BBLs-related offending, which resulted in 16 arrests in the financial year 2023-24.

In some places, the performance of NATIS was reported by stakeholders within government and enforcement agencies to be positive. Stakeholders mentioned achievements within the NATIS enforcement work, which was targeted at the most serious and complex cases of fraud (meaning investigations were more challenging to undertake). Intermediate outcomes were achieved rather than the high level, longer-term outcomes highlighted above. These outcomes included developing routes for lenders and the public to report suspected cases of crime, the development of significant evidence and cases prior to prosecution, raising the awareness of financial crime in other law enforcement agencies and raising the awareness of the skills and expertise of NATIS around the UK.

NATIS's case selection criteria evolved significantly throughout the BBLs. Prioritisation considered a broad range of targeting criteria – including for example the value of potential recoveries and the severity of the fraud. These criteria were considered in the context of available resources and the number of potential cases of fraud, and adapted over time as the scale of potential fraud became clearer.

There have been significant challenges that have impeded NATIS in moving towards the long-term outcomes described above. These are:

- **Initially limited resources within NATIS:** As with INSS, stakeholders reported that NATIS were significantly under-resourced at the outset of the schemes. NATIS initially had only 20 staff to handle significant volumes of cases.
- **Volume of referrals:** Multiple routes for reporting suspected fraud, including a Crime Stoppers hotline, lender referrals, and reports from other agencies, created a large volume of potential cases, some of which needed to be verified by NATIS in the first instance. This meant that resources had to be dedicated to verifying cases that were not taken forward.
- **Prioritisation of high-value cases:** Given available resources and large number of cases, NATIS prioritised case selection, considering a broad range of targeting criteria – including for example the value of potential recoveries and the severity of the fraud. Stakeholders reported that this prioritisation could have created a perception that smaller-scale fraudsters would not be investigated, potentially undermining the deterrent effect of enforcement – although this view was countered by the fact that INSS received some additional funding to

take on lower and mid-tier criminal fraud cases within the Covid-19 Loan Guarantee Schemes (which were outside their usual focus for DBT).

- **Delays in the judicial system:** The court backlog, which existed prior to the pandemic, grew due to court closures and social distancing restrictions. Further, industrial action in 2022 among criminal barristers increased the backlog. In June 2023, there was a case backlog of nearly 65,000 cases (with 28% of cases taking more than a year to come to court)⁵⁸. The delays in the judicial system were outside the control of INSS, NATIS and the programme as a whole. The delays in the judicial system added to the backlog of Covid-19 Loan Guarantee Scheme fraud cases and prolonged the time it took to secure convictions and recover funds. Further to this, stakeholders also reported that there were lengthy waits for charging decisions from the Crown Prosecution Service (CPS).

Governance

The governance arrangements for the Covid-19 Loan Guarantee Schemes, while designed to provide oversight and coordination, faced challenges related to decision-making speed, risk aversion, clarity of roles, and the timing of key strategic documents. The key successes of the governance structures were highlighted as:

- **Information sharing and coordination:** The various boards and working groups facilitated information sharing and coordination between lenders, the BBB, government departments, and enforcement agencies. This helped to disseminate best practices, identify emerging fraud trends, and coordinate recovery efforts. Lenders appreciated the forums for information sharing and coordination provided by the various boards and working groups, such as the Fraud and Recovery Working Group. These forums allowed for discussion of fraud trends, sharing of best practices, and some degree of coordination between lenders, the BBB, and government departments. These were reported by stakeholders and lenders as being one of the only times lenders came together to discuss how to address fraud and recoveries beyond utilising their own systems.

⁵⁸ <https://www.instituteforgovernment.org.uk/publication/performance-tracker-2023/criminal-courts>

- **Lender engagement:** The governance structures provided a platform for engaging with lenders and holding them accountable for their performance. The lender challenge process proved particularly effective in ensuring lenders have complied with the scheme rules, holding lenders to account and influencing lender behaviour.
- **Independent oversight:** The inclusion of independent observers on the boards added a layer of scrutiny and helped to ensure impartiality.

However, several challenges with the governance of the Covid-19 Loan Guarantee Schemes were highlighted. These were:

- **Slow and risk-averse decision-making within DBT:** Multiple stakeholders reported that the slow and risk-averse decision-making within DBT created challenges for the Covid-19 Loan Guarantee Schemes. This hampered progress on various fronts, including the approval of recovery pilots, the development of the counter fraud strategy, and the resolution of contractual issues with NATIS. The frequent changes in ministers and senior officials within DBT further exacerbated this problem.
- **Delays responding to lenders:** Multiple lenders also reported issues with getting responses to key questions for the implementation of the schemes. They experienced significant delays in obtaining responses to queries and resolution of contractual issues. This slow decision-making was seen as an impediment to the effective operation of the schemes. An example of this was a lender describing a five-week delay in resolving a dispute over interest calculations, with another example a lender describing the disruptive effect of frequent changes in government personnel slowing down decisions. However, it should be noted that the delays were not reported for all interactions with BBB or at all times during the implementation of the schemes.
- **Lack of enforcement expertise on governance boards:** A number of stakeholders reported that, particularly in the initial stages of the schemes, there was a lack of enforcement expertise on the main oversight boards. This was felt to have contributed to unrealistic expectations of what could be achieved by enforcement agencies and a focus on purely financial metrics rather than the broader impact of enforcement activities.

- **Lack of clarity regarding roles and responsibilities:** The machinery of government changes, which split responsibilities for counter fraud work across multiple departments, created some confusion and ambiguity about roles and responsibilities, was identified as an area that could have contributed to delays and inefficiencies.

Formalisation of the counter fraud strategy

The formalisation of the counter fraud strategy, while a positive step, occurred relatively late in the programme and its impact was limited by several factors.

- **Delayed development and publication:** As noted by multiple stakeholders, the counter fraud strategy was not formalised until well after the BBLs had closed and much of the fraudulent activity had already occurred. This delay meant that the strategy served more as a retrospective documentation of actions taken rather than a proactive plan for preventing fraud. While the strategy did provide a framework for ongoing recovery efforts, its potential to prevent fraud was significantly diminished by its late arrival.
- **Formalisation vs. new initiatives:** The strategy largely formalised existing counter fraud activities rather than introducing fundamentally new approaches. Many of the initiatives outlined in the strategy, such as data analytics work by the PSFA and lender challenge processes, were already underway before the strategy was finalised. This suggests that the strategy's primary contribution was to consolidate and codify existing practices, rather than driving significant changes in approach.
- **Lack of public availability:** The fact that the strategy was not made publicly available limited transparency and accountability. This lack of public scrutiny made it difficult to assess the strategy's effectiveness and hold the government and accredited lenders accountable for its implementation.

Had the counter fraud strategy been developed and implemented earlier in the Covid-19 Loan Guarantee Schemes, it could have had a more significant impact on preventing fraud. A proactive strategy, implemented before the bulk of the loans were disbursed, could have led to stricter eligibility criteria, more robust due diligence processes, and a more coordinated approach to fraud detection and investigation. This could have potentially saved significant public funds and reduced the overall scale of the fraud problem.

Conclusions

The key conclusions from the process evaluation, are:

- **Repayments and recoveries:** BBB's management data (as of September 2024, published in November 2024) suggests that 61% of the Covid-19 Loan Guarantee Schemes portfolio value is no longer at risk of loss to the public purse. A further 22% (£16.6 billion) is on schedule to be repaid (although this could fall into arrears or default). The value of facilities that have defaulted (including facilities that have been settled and claimed) or are in arrears in the Covid-19 Loan Guarantee Schemes are highest in the BBLs, with 26% of the value of BBLs (£12 billion), which is much higher than the arrears and default rate for SMEs in commercial lending both before and after the Covid-19 pandemic (around 2%⁵⁹) – although the volume of defaults could rise in the future. However, the higher rate of arrears observed in the BBLs was anticipated at the scheme design stage, which was accepted by Ministers.

Stakeholders and lenders reported that in general, lenders have utilised Business As Usual (BAU) approaches to secure repayments and recoveries, which is in line with the lender agreements for the Covid-19 Loan Guarantee Schemes. Lenders and Stakeholders reported that it is difficult to definitively assess the overall effectiveness of the recovery approaches compared to BAU practices due to the unique nature of the Covid-19 Loan Guarantee Schemes and the absence of a direct counterfactual. However, findings from the stakeholder interviews combined with the initial success of some recovery pilots, suggest that the approaches taken, including the lender challenge process, assurance activities, enforcement activity and exploration of new recovery strategies, may have been more effective than simply relying on BAU practices in the context of the Covid-19 Loan Guarantee Schemes unique characteristics.

- **Counter fraud work:** Around £1.8 billion of Covid-19 Loan Guarantee Schemes lending has been flagged as higher risk of fraud cases by accredited lenders, or 2.3% of total lending (September 2024). The vast majority of higher risk cases of fraud are in the BBLs portfolio (3.7% of the lending through the BBLs). However, the current estimated level of fraud is lower than previous estimates from BBB (of 11% and 7% for the BBLs).

⁵⁹ Experian (2023) Experian UK SME Credit Trends Index (January to March 2023)

The data analytics used for the Covid-19 Loan Guarantee Schemes was reported by Stakeholders and lenders to have played a vital role in counter fraud efforts. However, its effectiveness was limited by challenges related to data volume, data sharing and time lags, and inconsistent application. Addressing these challenges, particularly by improving data sharing between government and lenders and between individual lenders, could significantly enhance the impact of data analytics in future government programmes.

- **Enforcement activities** undertaken by the Insolvency Service (INSS) and the National Investigation Service (NATIS) have had key successes in punishing and recovering money from individuals committing fraud. These include in 2023/24: 830 director disqualifications, 22 criminal convictions and bankruptcy restrictions imposed on 93 businesses from INSS, and 258 investigations from NATIS into BBLs fraud. There have been further successes such as developing routes for lenders and the public to report suspected cases of crime, the development of significant evidence and cases prior to prosecution, raising the awareness of financial crime in other law enforcement agencies and raising the awareness of the skills and expertise of NATIS around the UK.

However, both NATIS and the INSS faced significant challenges in investigating fraud and misconduct related to the Covid-19 Loan Guarantee Schemes. Initially limited resources, delays in the judicial system and the sheer volume of cases all represented obstacles.

- **Governance:** The governance approaches used as part of the Covid-19 Loan Guarantee Schemes was reported to be largely appropriate and had some key successes around information sharing and coordination, relationships with lenders, and independent oversight. However, there were some challenges with governance, with the main one being the reported slow decision-making within DBT, impacting various aspects of the Covid-19 Loan Guarantee Schemes.

Formalisation of the counter fraud strategy: The formalisation of the counter fraud strategy, while a positive step, occurred too late to have a significant impact on the Covid-19 Loan Guarantee Schemes. Its delayed development, focus on formalising existing practices rather than introducing new initiatives, and ongoing challenges with implementation limited its impact. The experience highlights the importance of developing and implementing a robust counter

fraud and enforcement strategy before launching large-scale government programmes, particularly those involving financial assistance.

Year 3 impact evaluation

Introduction

The aim of the Year 3 impact evaluation is to quantify the impacts of the three Covid-19 Loan Guarantee Schemes on business-level economic outcomes of borrowers in the third year after the onset of the pandemic. More specifically, it consists of two main strands of analysis:

1. Did the Covid-19 Loan Guarantee Schemes have an impact on borrowers' survival prospects?
2. Did the Covid-19 Loan Guarantee Schemes have an impact on borrowers' turnover, employment and labour productivity?

To address these questions, Ipsos undertook a survey of two groups of businesses. The first group received funding through one of the Covid-19 Loan Guarantee Schemes. The second group faced challenges or opportunities as a result of the Covid-19 pandemic (and therefore were likely eligible for one of the Covid-19 Loan Guarantee Schemes) but did not receive a facility under one of the schemes.

The methods used in this evaluation were chosen to try and isolate the impact of the Covid-19 Loan Guarantee Schemes on business outcomes from that of other issues that businesses may have faced during or after the pandemic, as well as any impact of other support schemes they may have accessed. However, the results should be interpreted with the context that the pandemic and other economic shocks (such as the energy crisis) presented unprecedented and varied challenges to businesses and many different support schemes have been available to businesses in the last few years.

In total, 654 businesses completed a mixed mode survey (online and telephone) between March 2024 and May 2024, of which 191 interviews were with BBLB borrowers (one in ~7,700 borrowers), 145 interviews were with CBILS borrowers (one in ~500 borrowers), and seven interviews were with CLBILS borrowers (one in ~100 borrowers). The remaining 311 interviews were with non-borrowers. Of the 654 interviews completed, 531 were with businesses that had

also responded to the survey conducted for the first and/or second year of the evaluation, while 123 had not.

Due to the small number of CLBILS interviews (which is in part due to the limited population size), and the similarity between CBILS and CLBILS (the main difference being that CLBILS served larger businesses, did not include a Business Interruption Payment, and the term was shorter), the CBILS and CLBILS samples were combined for the purposes of the analysis.⁶⁰

The Year 3 impact evaluation relies on a combination of survey-based self-reported impacts, econometric analysis of survey data and structured interviews with borrowers. In particular:

- The impact of the Covid-19 Loan Guarantee Schemes on business survival is estimated based on observed closure rates in BBB Portal Data as well as businesses' self-assessment of their own survival prospects in the absence of the Covid-19 Loan Guarantee Schemes, collected through the survey. The impact of the schemes on business survival was also explored further in structured interviews with borrowers.
- The estimation of the effect of the Covid-19 Loan Guarantee Schemes on borrowers' turnover, employment and labour productivity is based on econometric analysis of survey data that incorporates several business characteristics, the kinds of obstacles they faced because of the pandemic, and the use of other business support schemes.

For increased comparability between the borrower (treatment) group and the non-borrower group, non-borrowers were screened during fieldwork based on whether they faced challenges or opportunities because of the Covid-19 pandemic. In particular, businesses that indicated they did not face challenges or opportunities arising from the Covid-19 pandemic were excluded from consideration for the non-borrower group.⁶¹ This ensures that, like borrowers,⁶² non-borrowers were also impacted by the pandemic and therefore more likely to have faced similar financial or operational issues to borrowers. This is in line with the process followed in the Year 1 and Year 2 evaluations.

⁶⁰ This process was also followed in the Year 1 and Year 2 impact evaluations.

⁶¹ Businesses that did not know if they experienced challenges or opportunities arising from the pandemic were also screened out.

⁶² Being affected by the Covid-19 pandemic was one of the eligibility criteria of the Covid-19 Loan Guarantee Schemes.

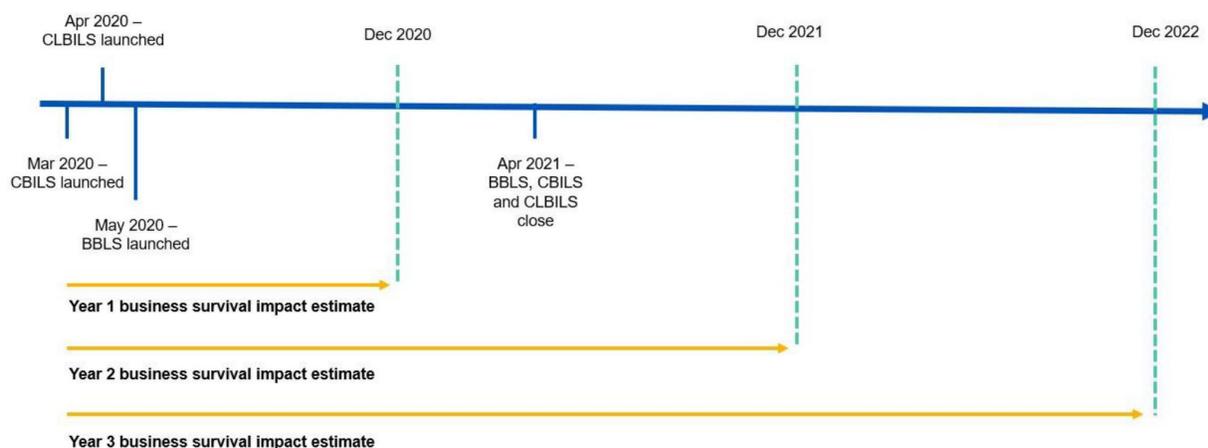
To further increase comparability of the borrower and non-borrower groups considered in the econometric analysis, additional matching between these groups was carried out (based on business characteristics and the kinds of obstacles faced during the pandemic).⁶³

The rest of this chapter outlines the results of each of the strands of analysis listed above in turn, starting with the analysis of business survival. Additional methodological information and results can be found in Annex 3.

Impact on business survival

To assess the Covid-19 Loan Guarantee Schemes' impact on the survival of businesses, this study estimates the proportion of businesses that continue to trade but would have permanently ceased trading without access to finance through the schemes. Figure 13 shows the timeline over which the business survival impacts are estimated in the three years of the evaluation.

Figure 13: Timeline of self-reported business survival analysis



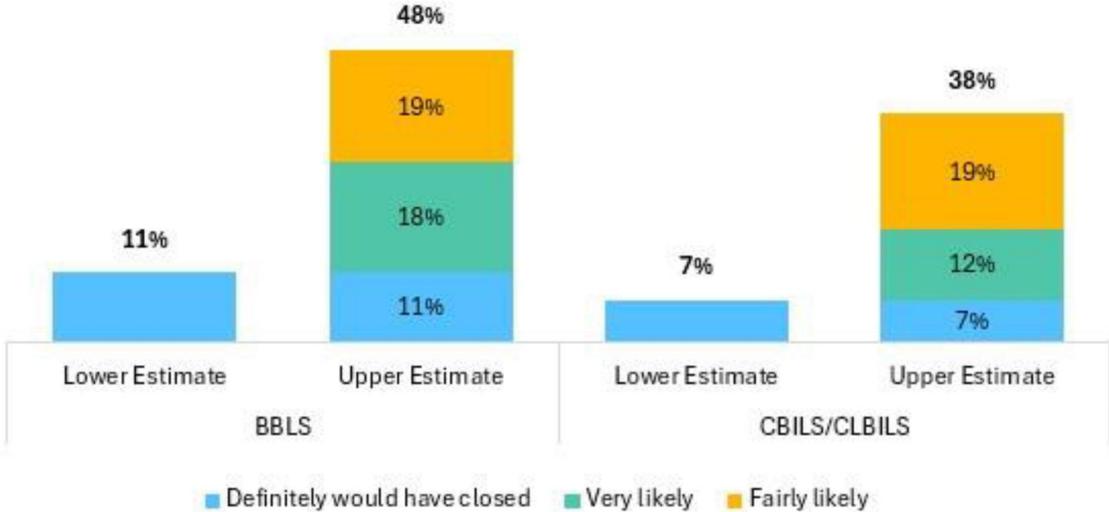
The survey is used to ascertain the proportion of businesses that self-report that they would have closed between March 2020 and December 2022 without finance received through the schemes. This is then combined with data on the proportion of borrowers that did close between March 2020 and December 2022. This is estimated using Portal Data provided by

⁶³ See Annex 3 for details on the variables used for the matching.

BBB (see Annex 3 for more detail on the data and methodology for calculating the impact of the schemes on business survival).

It is estimated that between 11% and 48%⁶⁴ of BBLS borrowers that have not permanently closed would have permanently closed by December 2022 if they had not had access to the Covid-19 Loan Guarantee Schemes, compared to between 7% and 38%⁶⁵ of CBILS/CLBILS borrowers. An estimated range is presented because of the difficulty borrowers face when trying to provide an assessment of their hypothetical survival prospects in the absence of receiving their loan. To answer this question accurately, businesses must be able to anticipate how they may have acted differently if they had not received their loan and whether this behaviour would have been sufficient to guarantee the survival of their business. The lower estimate relates to businesses indicating that they definitely would have permanently closed without their loan, whereas the upper estimate also includes businesses who indicated that they were very likely or fairly likely to have permanently closed without their loan. This is presented graphically, showing the breakdown of responses that are included in the upper estimate, in Figure 14.

Figure 14: Lower and upper estimates of Year 3 self-reported closure rates without access to the Covid-19 Loan Guarantee Schemes



⁶⁴ The 95% confidence interval for the lower bound is 7% to 18% and for the upper bound is 40% to 57%.
⁶⁵ The 95% confidence interval for the lower bound is 4% to 13% and for the upper bound is 30% to 46%.

Source: London Economics' analysis of survey data

Table 30 below compares the results of this analysis to those from the Year 1 and Year 2 reports, which relate to the proportion of borrowers that would have closed by December 2020 (Year 1) and December 2021 (Year 2) respectively if they had not had access to the Covid-19 Loan Guarantee Schemes.

Table 30: Self-reported closure rates without access to the Covid-19 Loan Guarantee Schemes: Year 1, Year 2 and Year 3 survey-based estimates

Scheme	Year 1	Year 2	Year 3
BBLS	10%-34%	12%-43%	11%-48%
CBILS/CLBILS	7%-28%	6%-35%	7%-38%

Source: London Economics' analysis of survey data

Both the lower and upper bound estimates are higher in Year 3 than Year 2, with the exception of the lower bound estimate for BBLS. This likely reflects that businesses believe that the loans they received under the Covid-19 Loan Guarantee Schemes continued to help them survive during 2022. That the BBLS estimate is slightly lower in Year 3 than Year 2 reflects that (marginally) fewer businesses indicated that they definitely would have permanently closed in Year 3 and more businesses indicated that they were very likely to have permanently closed.

The observed closure rates (by the end of December 2022) – calculated based on BBB portal data – are found to be 9.9% for BBLS and 4.0% for CBILS/CLBILS. It should be noted that these have increased substantially from year to year. The table below highlights the observed closure rates (based on portal data) across the three years of the evaluation. This substantial increase across years is likely, at least in part, a result of the fact that early in the life-cycle of the loans borrowers in many cases did not have to bear the cost of loan repayments (e.g. due to the 12 month repayment holiday for CBILS borrowers).

Table 31: Observed closure rates of borrowers: Year 1, Year 2 and Year 3 estimates based on BBB portal data

Scheme	Year 1	Year 2	Year 3
BBLS	0.2%	3.4%	9.9%
CBILS/CLBILS	0.2%	1.0%	4.0%

Source: London Economics' analysis of BBB portal data

To estimate the proportion of borrowers that may have permanently closed without the schemes, one needs to take into account the fact that the counterfactual closure rates presented above are only calculated for businesses that had not already permanently closed. Therefore, the impact of the Covid-19 Loan Guarantee Schemes is estimated by multiplying the share of borrowers that have not permanently closed by December 2022 by the proportion (among borrowers that have not permanently closed by December 2022) of borrowers that thought they would have closed by December 2022 had they not had access to finance through the schemes.

It is estimated that an additional 10%-43% of BBLS borrowers (i.e. 153,000 to 642,000 businesses) and 7%-36% of CBILS/CLBILS borrowers (i.e. 5,000 to 27,000 businesses) may have ceased trading by December 2022 (i.e., in 2020, 2021 or 2022) without access to the Covid-19 Loan Guarantee Schemes. These results are presented in Table 32. Based on the survey results, BBB Portal Data and BBB management information, it is estimated that these borrowers account for approximately 0.6 million⁶⁶ to 3.5 million⁶⁷ pre-pandemic jobs.⁶⁸

Table 32: Estimated increase in proportion and number of business closures by the end of 2022 in absence of the BBLS and CBILS/CLBILS schemes

Scheme	Proportion of borrowers	Number of borrowers
BBLS	10%-43%	153,000-642,000
CBILS/CLBILS	7%-36%	5,000-27,000

⁶⁶ 590k for BBLS and 51k for CBILS/CLBILS.

⁶⁷ 2.8 million for BBLS and 681k for CBILS/CLBILS.

⁶⁸ The calculation is explained in more detail in Annex 3.

Source: London Economics' analysis of survey data, BBB Management Information and BBB portal data

Businesses that suggested they definitely would have closed or would have been very or fairly likely to have closed by the end of 2022 without their loan were also asked what they felt the most significant reason for this was. The vast majority of borrowers suggested it was either lockdown measures and other pandemic related restrictions, cash flow problems or changes in market conditions as a result of the pandemic. It should also be noted that there is likely to be some correlation between these issues, i.e. businesses more impacted by pandemic related restrictions would also be more likely to suffer from cash flow problems. In contrast, very few borrowers cited Brexit, the energy crisis or geopolitical tensions as the primary reason they would have struggled without their loan. This is illustrated in the table below.

Table 33 : Main reason why businesses would definitely not or very likely not or fairly likely not have survived through to the end of 2022 in absence of the BBLs and CBILS/CLBILS schemes⁶⁹

Scheme	BBLs	CBILS/CLBILS
Lockdown measures and other pandemic related restrictions	42%	33%
Cash flow problems	31%	37%
Changes in market conditions as a result of the pandemic	22%	23%
Brexit	4%	0%
The energy crisis has made the goods or services provided by our business too expensive or uncompetitive in the market	2%	3%
The business model we operate under was disrupted	0%	0%

⁶⁹ Note that the totals do not equal 100% due to rounding.

Scheme	BBS	CBILS/CLBILS
by geopolitical tensions (e.g. the war in Ukraine)		
Another reason	0%	3%

Source: London Economics' analysis of survey data

The assessment of the Year 2 business survival analysis using secondary data (presented in the next chapter) suggests a lower impact than the survey-based estimates from the Year 2 analysis. The same pattern was observed when comparing the Year 1 business survival analysis using secondary data and the survey-based estimates from the Year 1 analysis. As a result, as part of the third year of the evaluation follow-up structured interviews were conducted with borrowers to understand further why so many businesses reported that they would have found survival so difficult in the absence of the schemes. The next section discusses the results of these interviews.

Depth interviews related to business survival

In addition to the survey, the impacts of the schemes on business survival were also explored through a series of depth interviews with borrowers. More specifically, 17 interviews were conducted with borrowers who had either said that they definitely would have closed or very likely would have closed or fairly likely would have closed without the finance they received from the scheme, during either the Year 1, Year 2 or Year 3 survey. The primary purpose of these interviews was to understand why the self-reported impacts of the scheme on business survival (outlined in Table 30 above) were so large compared to the corresponding estimates based on secondary data, but also of interest was why businesses felt the schemes were so important.

The first area that was explored in the interviews was the general perception of businesses about business survival during the pandemic. One explanation for the magnitude of the survival estimates from the survey is that respondents overestimate the prevalence of business closure during times of struggle, perhaps due to not fully considering the lengths that businesses can go to in order to survive.

Businesses were asked to provide their estimate for the proportion of UK businesses that permanently closed during 2020. According to ONS business demography statistics, the true closure rate was slightly over 10%.⁷⁰ Only five respondents were able to provide an answer that was relatively accurate (between half and double the true closure rate). Six respondents provided an estimate more than double the true closure rate and two provided an answer less than half of the true closure rate. The remaining four were unable to come up with even an estimate. Businesses were also asked about the closure rates in their specific sector, and the accuracy of answers was no better.⁷¹ The lack of understanding of the prevalence of business closure during the pandemic (and a tendency to overestimate that prevalence) may in part explain why the self-reported impacts of the schemes on business survival are so large.

The interviews then explored whether businesses felt that, even if the pandemic had not happened, they needed the finance provided by the schemes to survive other sources of turbulence such as the war in Ukraine, rising energy prices or Brexit. Some of the interviewees highlighted that they may not have been able to survive these issues without finance provided from the scheme, but most reported that the level of disruption experienced as a result of these other sources of turbulence was less than that caused by the pandemic. This is consistent with the results of a question in the Year 3 survey asking what was the main reason why businesses felt they would have permanently closed without finance provided by the scheme (shown in Table 33 above), which highlights that pandemic related restrictions were considered to be more challenging to deal with than these other disruptions.

After this, the interviews explored how businesses used the finance received through the scheme to meet the challenges that they faced, in order to understand the importance of the finance. This was explored through questions in the Year 1 survey, and the results of the survey suggest that most borrowers used their finance for working capital, day to day expenses (including input materials), financial security and paying staff.⁷² The answers given by respondents to the interviews support this idea. Most respondents highlighted that while they faced massive disruption to their revenues, they still had substantial obligations that they could

⁷⁰ ONS (2021). Business demography, UK: 2020.

⁷¹ This question was only asked to 12 of the 17 interviewees, and only two provided an answer between half and double the true closure rate. Four provided a response more than double the true closure rate, two a response less than half of the true closure rate and the remaining four did not know.

⁷² British Business Bank (2022) *Evaluation of the Bounce Back Loan Scheme, Coronavirus Business Interruption Loan Scheme, and Coronavirus Large Business Interruption Loan Scheme*, June 2022, p117.

not get out of (e.g. rent, salaries, raw materials). Some businesses also used the finance to try to grow the scale of their businesses (e.g. through moving to new premises or developing new technology). There is also evidence that, in practice, some sole traders used the finance to support themselves and their families.

Businesses in the interviews were then asked what they might have done differently had they not received finance through the schemes. Many respondents indicated that they would have explored the possibility of obtaining bank financing at market conditions. However, several interviewees highlighted that (based on their experience of the banks being quite cautious at that time) they might well not have been able to secure such finance.

The majority of those interviewed also highlighted that they would not have had much scope to (further) downsize their operations in order to survive. A technology business highlighted that they had already reduced their headcount and switched to employing contractors to undertake specific tasks and also given up their office in order to survive despite having received finance from BLS. A business that hired out vehicles reported that they needed to scale down the size of their fleet from 10 cars to two or three even though they received finance from the scheme and a grant from the Scottish Government. That being said, there were a few businesses that highlighted they may have been able to make some cost savings by laying off all but essential workers or not topping up furloughed workers salaries.

The evidence collected during the interviews also suggests that borrowers were already taking advantage of other government support to the extent that they could. Many of those surveyed were furloughing as many of their staff as they could, whilst also taking advantage of a range of other types of support including CJRS, VAT deferral, Scottish Government grants and business rates relief. Of those that did not, many thought that obtaining other kinds of government support was not viable. For example, one borrower said that obtaining a grant would have been too expensive due to the need for a business plan to be drawn up by their accountants. This highlights the importance of the Covid-19 Loan Guarantee Schemes as a complement to the other kinds of support available during the pandemic.

For the final question of the interviews, respondents were asked, if they had not been able to access funding through the Covid-19 Loan Guarantee Schemes, how likely or unlikely it is that

their business would have permanently closed.⁷³ The same question had previously been asked to them during the survey. During the depth interviews, borrowers were explicitly asked to consider the previous discussion (i.e., how they used the finance they received and what they might have done differently without it). Only 5 of the 17 respondents gave the same answer in the depth interviews as during the survey. This highlights the difficulty that respondents faced in answering a question which required them to estimate their likelihood of closure in an entirely hypothetical scenario.

It is also of note that almost half (8 out of 17) respondents expressed a more optimistic view about their survival prospects without the schemes during the depth interviews than in the survey. One possible reason for this is that, in the time since the survey (in some cases over two years), these borrowers changed their minds. Alternatively, it may be the case that the memory of borrowers over time has faded. It is also possible that, having had the opportunity to think more carefully about the relevant issues throughout the depth interview, respondents were thinking more clearly about what they might have been able to do to survive without the finance they received from the schemes.

Overall, these depth interviews highlight that the schemes played a vital role in preventing firm closure given the challenging situation many businesses found themselves in during the pandemic. However, they also highlight that some caution is needed when interpreting survey-based estimates for the impact of the schemes on business survival. This explains why (when estimating the value for money of the schemes earlier in this report), the analysis based on secondary data is used as the basis for estimating the benefits of the schemes rather than the self-reported impacts from the survey.

Impact on turnover, employment and productivity

Econometric models are used to estimate the impacts of the Covid-19 Loan Guarantee Schemes on businesses' turnover, employment and productivity in the third year of the pandemic. The econometric approach is based on a comparison of business outcomes

⁷³ The time period was specified to match the time period asked about in the survey, i.e. end of 2020, end of 2021 or end of 2022.

between borrowers and a matched group of non-borrowers before and in the years after the policy intervention (i.e. the Covid-19 Loan Guarantee Schemes).

The group of non-borrowers to which the outcomes of borrowers are compared is constructed to be as similar as possible to the sample of borrowers to ensure that variations in business outcomes are more likely due to the Covid-19 Loan Guarantee Schemes' impacts than the underlying differences between the two groups of businesses. In practice, this has been implemented through a two-step process:

- 1 Non-borrower businesses were screened during fieldwork based on whether they faced challenges or opportunities because of the Covid-19 pandemic. This aimed to ensure that non-borrowers were affected by the pandemic, thereby suggesting eligibility for the scheme and that they potentially may have faced similar financial or operational issues to those experienced by borrowers.
- 2 Among the sample of non-borrowers, a 'control' group has been constructed based on their similarity to borrowers with respect to pre-pandemic characteristics (for example size, region and sector) and the kinds of business obstacles encountered during the pandemic – described in Annex 3. This exercise was implemented through PSM.⁷⁴ A limitation of this method is that it does not allow to match borrowers and non-borrowers based on unobserved characteristics (for example attitudes to risk).

The outcomes of the sample of borrowers and the control group are compared before and in the three years after the introduction of the Covid-19 Loan Guarantee Schemes. This allows for pre-existing differences between the groups that may remain after steps 1 and 2 above to be accounted for. A fixed effects estimation framework is used to estimate the impacts on turnover, employment and productivity. Full details on the data used and econometric approach are provided in Annex 3.

Full results from the econometric analysis are presented in Annex 3 (Table 60, Table 61 and Table 62). The main findings for each outcome of interest and the impact in percentage terms

⁷⁴ Table 52 to Table 57 compare the incidence of various characteristics across the borrower and non-borrower samples both before and after PSM and show that the matching reduces differences across both samples.

are outlined below. Two sets of analysis are performed, one for BBLs and the other for CBILS and CLBILS combined.⁷⁵

To assess the robustness of the results, the econometric model is also run controlling for the possibility that certain businesses may have used other support schemes during the pandemic, such as the Coronavirus Job Retention Scheme (CJRS) or VAT deferral. The inclusion of these control variables in the model is intended to minimise the risk that any impacts of these schemes are incorrectly attributed to the Covid-19 Loan Guarantee Schemes. This analysis only includes businesses that survived through to the end of 2022. Therefore, it does not capture the impact that the schemes have on turnover and employment by preventing the closure of businesses that, without support from the schemes, would have closed.

Turnover

The econometric analysis does not identify a statistically significant⁷⁶ impact of the schemes on borrowers' turnover in the third year of the pandemic (Table 34). This is perhaps unsurprising, given that no robust statistically significant impacts were identified in either the Year 1 or Year 2 survey analysis. The inclusion of variables related to participation in other business support schemes such as the CJRS and VAT deferral does not change the level of statistical significance of the estimated impacts.

Table 34: Percentage difference in turnover associated with borrowers' use of the schemes

Scheme	Without controls for participation in other support schemes	With controls for participation in other support schemes
BBLs	5%	6%
CBILS/CLBILS	12%	13%

⁷⁵ As discussed above, this is because the number of respondents to the survey receiving a loan under CLBILS is insufficient to conduct analysis distinct from CBILS.

⁷⁶ This refers to statistical significance at the 10% significance level, so the hypothesis that the difference in turnover between borrowers and non-borrowers did not change after the introduction of the Covid-19 Loan Guarantee Schemes could not be rejected at the 90% confidence level.

Note: Full results are provided in Table 60 in Annex 3. Source: London Economics' analysis of survey data.

Employment

The econometric analysis does not identify a robust and statistically significant impact of the Covid-19 Loan Guarantee Schemes on the employment of borrowers in the third year of the pandemic (Table 35). The inclusion of variables related to participation in other business support schemes such as the CJRS and VAT slightly increases the estimated coefficient for the impact of BBLS on employment. As a result, the coefficient that is related to the impact of the schemes becomes statistically significant at the 5% level when these variables are included. Overall, this suggests there may well have been a positive employment impact of BBLS on employment in the third year after the onset of the pandemic but the evidence is somewhat inconclusive. The lack of a robust and statistically significant impact is perhaps unsurprising given the lack of statistically significant results from the analysis based on survey data collected in the first two years of the evaluation.

For context, the UK employment rate sat at 76.2% between December 2019 and February 2020 (before the onset of the pandemic), before falling to 74.1% between November 2020 and January 2021 and has since rebounded to 75.3% between January and March 2023 (the end of the third year since the start of the pandemic).⁷⁷

Table 35: Percentage difference in employment associated with borrowers' use of the schemes

Scheme	Without controls for participation in other support schemes	With controls for participation in other support schemes
BBLS	6%	7%*
CBILS/CLBILS	-17%	-15%

Note: * p-value<0.05. Full results are provided in Table 61 in Annex 3. Source: London Economics' analysis of survey data.

⁷⁷ ONS. (2024). *Employment in the UK: July 2024*.

Productivity

The third year of the evaluation also assesses whether there may have been a productivity (as measured by turnover per worker) impact of the Covid-19 Loan Guarantee Schemes. The econometric analysis does not identify a statistically significant impact of the Covid-19 Loan Guarantee Schemes on the productivity of borrowers in the third year of the pandemic (Table 36). The inclusion of variables related to participation in other business support schemes such as the CJRS and VAT deferral does not change the statistical significance of the estimated impacts.

As discussed in the Year 1 report, the lack of an impact of the schemes on productivity is consistent with the way in which borrowers reported that they typically used the funds from the Covid-19 Loan Guarantee Schemes. In particular, the main use of funds for the majority of borrowers (51% for BBLs and 59% for CBILs/CLBILs) was for working capital or to provide financial security rather than activities that are likely to boost productivity in the long run.

Table 36: Percentage difference in productivity associated with borrowers' use of the schemes

Scheme	Without controls for participation in other support schemes	With controls for participation in other support schemes
BBLs	0%	0%
CBILs/CLBILs	38%	36%

Note: Full results are provided in Table 61 in Annex 3. Source: London Economics' analysis of survey data.

Secondary analysis of Year 2 impact evaluation

Introduction

This chapter presents the results of the secondary analysis of the Year 2 impact evaluation. The exercise utilises secondary data sources to explore the impact of the Covid-19 Loan Guarantee Schemes on businesses. This is in contrast to the estimation of these impacts using survey data, which was presented in the Year 2 report. Using secondary data allows for a much larger number of businesses to be included in the analysis relative to the survey analysis.

At various points throughout this chapter, the results of the secondary analysis of the Year 2 impact evaluation are compared to results presented in the Year 2 report. In particular, these include the results of:

- The secondary analysis of the Year 1 impact evaluation. The secondary analysis of the Year 1 impact evaluation used the same data source (the IDBR) as the secondary analysis presented in this chapter but covered the first year of the pandemic rather than the second year of the pandemic.
- The Year 2 impact evaluation based on survey data. The Year 2 impact evaluation based on survey data covered a similar time period to the secondary analysis presented in this chapter but used survey data instead of IDBR data. For context, the findings of the Year 2 impact evaluation are presented in Table 37.

Table 37: Results of the Year 2 Impact Evaluation

Measure assessed	BBLs	CBILs/CLBILs
Business survival	The scheme avoided the closure of 12%-42% of all BBLs borrowers (175k-618k businesses).	The scheme avoided the closure of 6%-35% of all CBILs/CLBILs borrowers (4k-25k businesses).
Jobs in businesses saved by the schemes	0.9 million – 3.4 million jobs	

Measure assessed	BBLs	CBILs/CLBILs
Turnover	No robust statistically significant impact.	No robust statistically significant impact.
Employment	No robust statistically significant impact.	No robust statistically significant impact.

Source: London Economics' analysis of survey data, BBB Management Information and BBB Portal Data

Impact on business survival

The finance that was made available as part of the Covid-19 Loan Guarantee Schemes aimed to provide borrowers with a lifeline enabling them to honour their immediate obligations despite disruption of their business activities. Analysis based on survey data presented in Year 2 of the evaluation suggested that the schemes prevented the permanent closure of 175,000-618,000 BBLs borrowers and 4,000-25,000 CBILs/CLBILs borrowers.

To estimate the Covid-19 Loan Guarantee Schemes' impact on business survival, this secondary exercise estimates the observed closure rate of borrowers (i.e. businesses that received a loan under one of the three Covid-19 Loan Guarantee Schemes) based on a sample from the September 2017 to September 2022 extracts of the IDBR.⁷⁸ This is then compared with an estimate of their counterfactual closure rate, which is estimated as the closure rate among a 'control' group of non-borrowers (i.e. a comparison group) selected based on their similarity to borrowers with respect to pre-pandemic firm characteristics (for example turnover, sector, etc.). This exercise is implemented through PSM.⁷⁹ The difference between these two closure rates is the estimated impact of the Covid-19 Loan Guarantee Schemes on business survival. Hereafter, the groups of non-borrowers matched to BBLs and CBILs/CLBILs borrowers are referred to as 'BBLs non-borrowers' and 'CBILs/CLBILs non-borrowers'.

⁷⁸ The IDBR is a database of around 2.7 million businesses primarily compiled from VAT and PAYE records from HMRC.

⁷⁹ In Annex 4, the incidence of various characteristics across the borrower and non-borrower samples is compared both before and after PSM, showing that the matching reduces differences across both samples.

Whereas the Year 2 survey estimated the counterfactual closure rate as the proportion of borrowers who self-reported that they would have likely permanently closed in the absence of the schemes, this exercise uses data from the IDBR and other data sources including BBB Management Information and Portal Data.⁸⁰

Results of the baseline analysis

Across both BBLs and CBILS/CLBILS, it is found that the estimated counterfactual closure rates (i.e. the closure rates of BBLs and CBILS/CLBILS non-borrowers) broadly decrease with size, i.e. large firms which did not take a loan under the Covid-19 Loan Guarantee Schemes were less likely to experience a business closure than small firms which did not take a loan under the schemes.⁸¹ This could be interpreted as larger businesses being more resilient than smaller businesses, since it suggests that larger businesses would have a higher likelihood of survival even in the absence of the Covid-19 Loan Guarantee Schemes. The average closure rate between March 2020 and March 2022 was 18.1% among BBLs non-borrowers, and 8.8% among CBILS/CLBILS non-borrowers.⁸²

Overall, closure rates among BBLs and CBILS/CLBILS borrowers were 11.2% and 2.5% respectively, in both cases lower than the estimated counterfactual closure rates (i.e. the closure rates of non-borrowers) presented in Table 38. The decline with size of closure rates is also broadly observed among businesses that received finance under the Covid-19 Loan Guarantee Schemes.⁸³ The table below summarises the results of the analysis from the secondary analysis presented in the Year 2 report and that presented in this report.

⁸⁰ See Annex 4 for more methodological detail on the secondary analysis of the survival analysis, and a discussion of the data sources used.

⁸¹ The estimated closure rates by turnover band can be found in Annex 4.

⁸² These averages are weighted, taking into account both the weightings assigned in the PSM, and the weights assigned to firms within each defined turnover band (based on the distribution of borrowers across turnover bands in BBB Management Information data).

⁸³ The estimated closure rates by turnover band can be found in Annex 4.

Table 38: Impact on business survival: Estimated closure rates among borrowers and non-borrowers (BBLs and CBILs/CLBILs)

Scheme	This report (March 2022), non-borrowers	This report (March 2022), borrowers	Year 2 report (March 2021), non-borrowers	Year 2 report (March 2021), borrowers
BBLs	18.1%	11.2%	9.9%	4.2%
CBILs/CLBILs	8.8%	2.5%	4.9%	0.6%

Source: London Economics' analysis of IDBR data, BBB Management Information and BBB Portal Data.

Comparing the counterfactual closure rate with the closure rates among borrowers, it is estimated that an additional 5.9%-8.0%⁸⁴ of BBLs borrowers and 5.8%-6.8%⁸⁵ of CBILs/CLBILs borrowers would have been closed by March 2022 without the Covid-19 Loan Guarantee Schemes. As would perhaps be expected, this is larger than the estimate for the number of additional borrowers that would have closed by March 2021 (5.0%-6.5% of BBLs borrowers and 4.0%-4.7% of CBILs/CLBILs borrowers). Both the observed and counterfactual closure rates are substantially higher. One major reason why the observed closure rate is much higher is that early in the pandemic borrowers benefitted from repayment holidays, and once these ended (which would often have been between March 2021 and March 2022), one would expect that some businesses would be unable to meet their obligations.

The number of borrowers that continued trading but likely would have been closed by March 2022 is estimated to be around 87,000-118,000 businesses^{86 87} for BBLs and around 4,300-

⁸⁴ 6.9% with a 95% confidence interval of 5.9%-8.0%.

⁸⁵ 6.3% with a 95% confidence interval of 5.8%-6.8%.

⁸⁶ 102,939 businesses with a 95% confidence interval of 87,394-118,484

⁸⁷ This is based on a total BBLs borrower population (with 2019 turnover less than £5m) of 1,488,303 businesses.

5,100 businesses^{88 89} for CBILS/CLBILS. It is estimated that these borrowers account for approximately 335,000-438,000 pre-pandemic jobs.^{90 91}

Comparison with Year 2 survey-based results

The Year 2 survey-based analysis estimated that an additional 12%-42% of BBLs borrowers (i.e. 175,000 to 618,000 businesses) and 6%-35% of CBILS/CLBILS borrowers (i.e. 4,000 to 25,000 businesses) could have permanently closed by December 2021 had the Covid-19 Loan Guarantee Schemes not been in place, accounting for 0.9 million to 3.4 million jobs.⁹²

There are a number of reasons why the impacts estimated using secondary data are smaller than those estimated using survey data. The Year 2 survey analysis relied on primary data and borrowers' self-reported likelihood of closing in the absence of Covid-19 Loan Guarantee Schemes. In contrast, the secondary analysis estimates borrowers' counterfactual likelihood of closure in the absence of the Covid-19 Loan Guarantee Schemes based on a matched control group of non-borrowers, and relies on observed, secondary data (i.e. IDBR, BBB Portal data and BBB Management Information).⁹³ Furthermore, the matched sample of IDBR data has a sample size of tens of thousands to hundreds of thousands of businesses, compared to hundreds for the survey analysis.

As discussed in the section outlining the results of the Year 3 impact evaluation, additional qualitative interviews with borrowers were undertaken to understand further why the self-reported impacts of the schemes on business survival may have been so high. The findings of

⁸⁸ 4,702 businesses with a 95% confidence interval of 4,312-5,092

⁸⁹ This is based on a total CBILS/CLBILS borrower population of 74,636 businesses.

⁹⁰ The associated point estimate is 386,000. This range is not a technically defined confidence interval. It represents an estimate of the range of impact of the schemes on jobs based on the schemes' impact on business closure rates. The width of the range (relative to the point estimate) is defined to be the same as that of the 95% confidence interval associated with the impact of the schemes on business closure rates. For instance, the 95% confidence interval in the case of the BBLs is defined as +/- 13% of the point estimate. Therefore, the lower (upper) bound of the range for the impact of the BBLs on jobs is defined to be 13% below (above) the point estimate. The range is calculated in a similar manner for the CBILS/CLBILS schemes. The overall range is obtained by adding the respective lower bounds (upper bounds) of the ranges for the BBLs and CBILS/CLBILS schemes.

⁹¹ This estimate is the sum of the separate estimates for the BBLs scheme (279,000) and the CBILS/CLBILS schemes (107,000). These estimates are calculated by turnover band using average pre-pandemic employment among the sample of borrowers in the IDBR, the total number of borrowers in BBB Management Information data, and the difference between the share of pre-pandemic employment among non-borrowers that permanently closed in by March 2022, and the share of pre-pandemic employment among borrowers that permanently closed by March 2022. This calculation is explained in more detail in Annex 4.

⁹² For more detail, see British Business Bank (2023) *BBLs, CBILs and CLBILs Evaluation Report 2023*, November 2023.

⁹³ See Annex 4 for more methodological detail on the secondary analysis exercise.

these interviews suggest that the secondary analysis is likely to provide more robust estimates of the impact of the schemes, as explained in detail in that section.

Variations in outcomes for BBLB borrowers based on finance need

The analysis also explores whether there were variations in survival outcomes for BBLB borrowers with different levels of finance need. Finance need is not directly observable among BBLB borrowers ex-ante, and so an observable ex-post proxy (based on repayment behaviour) is required. For the purposes of this evaluation, the following three groups of BBLB borrowers are described as having a 'substantial finance need':

- 3 Borrowers that were ever in arrears (borrowers that have missed repayments) by August 2023. These borrowers are more likely to have experienced cashflow issues (even with the finance received under BBLB) and so are likely to have had a substantial finance need during the pandemic. 22% of borrowers are in this group.
- 4 Borrowers that had used PAYG (Pay as you Grow) by August 2023. PAYG was an option offered to BBLB borrowers which gave them greater flexibility to repay their loans. In particular, borrowers could extend the term of their loan from six to 10 years, take a six-month repayment holiday or make interest only payments for six months. These options were available individually or a borrower could use them in combination with each other. Whilst the reasons that borrowers used PAYG may vary across businesses, it is likely that some borrowers which were struggling financially used PAYG to reduce their payments during the pandemic to avoid cashflow issues. Therefore, it is likely that some borrowers using PAYG had a substantial finance need. 29% of borrowers are in this group.
- 5 Borrowers that have both been in arrears and used PAYG by August 2023. 11% of borrowers are in this group.

The analysis compares the closure rates of borrowers in each of the three groups with a substantial finance need described above with a matched group of non-borrowers with similar pre-pandemic characteristics. The matched groups of non-borrowers are constructed using PSM, as noted in the prior discussion on the impact of the schemes on business survival and discussed in detail in Annex 4.

The table below compares the closure rates between March 2020 and March 2022 of each of the groups of borrowers with a substantial finance need and their matched control groups. The corresponding closure rates are also provided for BBLs borrowers that are not in any of the subgroups (i.e. those that have never been in arrears and did not use PAYG).

Table 39: Estimated closure rates among different groups of BBLs borrowers and a matched control group of non-borrowers

	Have been in arrears	Used PAYG	Have been in arrears and used PAYG	Have neither been in arrears nor used PAYG
Borrower group	19.2%	8.0%	14.0%	4.0%
Matched control group of non-borrowers	17.6%	15.2%	19.2%	11.2%

Source: London Economics' analysis of IDBR data and BBB Portal Data.

The closure rates among all three groups of borrowers with a substantial finance need are substantially higher than the closure rate of other BBLs borrowers. That this is true even for borrowers using PAYG suggests that conditions were extremely challenging for businesses with a substantial finance need, even with the increased flexibility brought about by PAYG. BBLs borrowers in arrears are more likely to have permanently closed than the matched control group of non-borrowers, which is perhaps unsurprising given that falling into arrears would be the first step to default for many borrowers. The results of this analysis provide further evidence that, for the many businesses that faced extreme challenges and financial pressures due to the pandemic, the schemes played an important role in promoting survival.

It should be noted that the estimates of the difference in closure rates between borrowers and the matched groups of non-borrowers should not be interpreted as causal for the subgroups of borrowers with a substantial finance need (i.e. it should not be assumed that participation in BBLs had a negative impact on survival for borrowers that ended up in arrears). These results are simply presented to illustrate the association between business closure and different indicators of finance need. The reason that these results should not be interpreted causally is

that membership of these subgroups will be somewhat driven by the performance of businesses after the onset of the pandemic. For example, a business that is struggling would be more likely to end up in the arrears group. However, the comparatively (to the closure rate of the matched control group) low closure rate for borrowers using PAYG suggests that PAYG may have played a role in promoting business survival, although a formal analysis of the impact of PAYG on survival is beyond the scope of this evaluation. The fact that take-up of PAYG has been relatively low despite its potential to help borrowers (less than one third of BBLS borrowers)⁹⁴ is perhaps a result of a reluctance of some borrowers to take on debt finance unless it is absolutely necessary, as suggested by the depth interviews.

The reason why the closure rates of the matched control groups are different (higher) for the borrowers with a substantial finance need is that the underlying pre-pandemic characteristics of businesses in these groups (and therefore their matched control groups) are different. In particular, businesses that did not use PAYG or ever end up in arrears were typically slightly larger and also more likely to have been growing prior to the onset of the pandemic. For further information on the characteristics of these samples, see Table 75 in Annex 4.

Impact on turnover and employment

The Year 2 survey analysis used econometric models to quantify the impacts of the Covid-19 Loan Guarantee Schemes on businesses' turnover and employment. A similar approach is used in the secondary analysis in the sense that it is also based on the comparison of business outcomes of borrowers and a group of non-borrowers before and after the introduction of the Covid-19 Loan Guarantee Schemes. The main difference between both analyses is the use of distinct data sources – namely, primary survey data in the case of the Year 2 survey analysis, and data from the IDBR in the case of the present secondary analysis.

To maximise the likelihood that any differences in outcomes between the samples of borrowers and non-borrowers are due to the Covid-19 Loan Guarantee Schemes rather than other factors, a control group of non-borrowers (i.e. a comparison group) is constructed based on their similarity to borrowers with respect to their pre-pandemic characteristics. This exercise is implemented through PSM. While this approach is similar to that adopted in the Year 2 survey

⁹⁴ Department for Business & Trade (2023). Covid-19 loan guarantee schemes performance data as at 31 March 2023.

analysis, it should be noted that non-borrowing businesses could not be screened based on whether they faced challenges or opportunities because of the Covid-19 pandemic as done in the survey, because that information was not available in the secondary data. Furthermore, the set of variables used to assess the similarity between borrowers and non-borrowers as part of the PSM differs between the Year 2 survey analysis and secondary analysis due to data availability (see Annex 4 for details on the variables included in the secondary analysis).

As in the Year 2 survey analysis, outcomes within the sample of borrowers and the control group of non-borrowers are compared against one another both before and in the two years after the introduction of the Covid-19 Loan Guarantee Schemes as part of a fixed effects estimation framework. Comparing both groups before and after the introduction of the Covid-19 Loan Guarantee Schemes rather than only afterwards allows one to account for any pre-existing differences between the two groups that may remain after the PSM has been implemented. Full details of the data used and econometric approach are also provided in Annex 4.

Results of the baseline analysis

The main findings and the interpretation in percentage terms of the coefficients of interest are described below, in turn, for each outcome variable of interest (turnover and employment). Full results from the econometric analysis are presented in Annex 4 (Table 69 and Table 70). Estimates of the impact of the Covid-19 Loan Guarantee Schemes on the outcomes of interest are presented separately for the BBLs, and for the CBILS and CLBILS combined.⁹⁵

The first variable 'Post-intervention (Year 2)' in the model takes the value of one in the second year of the pandemic and its coefficient measures the change in turnover (or employment) among non-borrowers between the year prior to the pandemic and the second year after the pandemic (this is assumed to be the change in turnover or employment that borrowers would have experienced in the absence of the policy intervention). The second variable 'Borrower, post-intervention (Year 2)' in the model takes the value of one in the second year of the pandemic for the borrowing business sample only. It is the coefficient of interest as it isolates the impact of receiving a BBLs (or CBILS/ CLBILS) loan on turnover (or employment).

⁹⁵ This is to allow for comparability with the Year 2 survey analysis.

To assess the robustness of results, the econometric model is re-run controlling for the possibility that certain businesses may have used other support during the pandemic, in the form of the Coronavirus Job Retention Scheme (CJRS). The inclusion of this variable in the model is intended to minimise the risk that any impact of the CJRS – the most prevalent other support scheme used by borrowers according to the survey analysis⁹⁶ – is incorrectly attributed to the Covid-19 Loan Guarantee Schemes. Secondary data is not available on the use of VAT deferral or the use of other support (as there was when performing the survey analysis) apart from participation in the CJRS.⁹⁷ This analysis only includes businesses that survived through to March 2022. Therefore, it does not capture the impact that the schemes had on turnover and employment by preventing the closure of businesses that, without support from the schemes, would have closed.

Turnover

The econometric analysis finds a positive and statistically significant impact of the BLS and CBILS/CLBILS schemes on borrowers' turnover.⁹⁸ This suggests that, on average, BLS and CBILS/CLBILS borrowers' turnover was 7% higher in the second year of the pandemic than it would have been in the absence of the Covid-19 Loan Guarantee Schemes.

The variable 'Post-intervention (Year 2)' (which captures the change in turnover between the last year before the pandemic and the second year of the pandemic for the matched control group) is negative and statistically significant in both models. On average, the matched group of non-borrowers experienced a drop in post-pandemic turnover compared to the pre-pandemic period of 14% in the case of the BLS and 19% in the case of the CBILS/CLBILS.

⁹⁶ British Business Bank (2022) *Evaluation of the Bounce Back Loan Scheme, Coronavirus Business Interruption Loan Scheme, and Coronavirus Large Business Interruption Loan Scheme*, June 2022.

⁹⁷ Other support could have included business grants funded by the UK or any devolved government, business rates holidays, or HMRC Time to Pay (among others).

⁹⁸ The only model which does not yield a statistically significant result is the model related to the impact of CBILS/CLBILS without controls for use of CJRS.

Table 40: Econometric results – impact of the schemes on turnover

Model	Post-intervention (Year 2)	Borrower, post-intervention (Year 2)
BBLS with CJRS control	-14.1%***	6.8%***
CBILS/CLBILS with CJRS control	-18.9%***	6.8%*

Note: *** p-value<0.001, * p-value<0.05. Full results are presented in Table 69 in Annex 4.

Source: London Economics' analysis of IDBR data, BBB Portal Data and HMRC Coronavirus Job Retention Scheme (CJRS) data.

The analysis of the impact of the schemes on turnover in the second year of the pandemic based on survey data (presented in the Year 2 report) did not find that the schemes had a robust and statistically significant impact on turnover. In contrast, the secondary analysis of the impact of the schemes in the first year of the pandemic did find that there was a statistically significant impact of the schemes. The table below compares the results of the Year 1 secondary analysis and Year 2 secondary analysis.

Table 41: Percentage change in turnover – comparison of Year 1 and Year 2 secondary analysis

Model	First year of the pandemic	Second year of the pandemic
BBLS with CJRS control	9.7%***	6.8%***
CBILS/CLBILS with CJRS control	11.5%***	6.8%*

Note: *** p-value<0.001 * p-value<0.05. Full results are presented in Table 69 in Annex 4.

Source: London Economics' analysis of IDBR data, BBB Portal Data and HMRC Coronavirus Job Retention Scheme (CJRS) data.

The estimated impacts are both still statistically significant, but the magnitudes of these impacts are smaller in the second year of the pandemic. This suggests that the finance received under

the scheme played a larger role in allowing businesses to continue their operations in the first year of the pandemic than the second. This might be because the finance provided by BBLs, CBILs and CLBILs was particularly important during the first year of the pandemic, when there were substantial restrictions on business activity. If this is the case, it would suggest that the economic impacts of the schemes might decline fairly quickly after the pandemic period.

Employment

The econometric analysis finds a positive and statistically significant impact of the BBLs scheme and the CBILs/CLBILs schemes on borrowers' employment levels. This suggests that, on average, BBLs and CBILs/CLBILs borrowers' employment was respectively 8% and 12% higher than it would have been in the absence of the Covid-19 Loan Guarantee Schemes.

The variable 'Post-intervention (Year 2)' is negative and statistically significant in both models, and suggests that, on average, the matched group of non-borrowers experienced a drop in employment post-pandemic compared to the pre-pandemic period of 4% in the case of BBLs and 6% in the case of CBILs/CLBILs.

Table 42: Econometric results – impact of the schemes on employment

Model	Post-intervention	Borrower, post-intervention (impact estimate)
BBLs with CJRS control	-3.5%***	7.9%***
CBILs/CLBILs with CJRS control	-5.6%***	12.0%***

Note: *** p-value<0.001. Full results are presented in Table 70 in Annex 4. Source: London Economics' analysis of IDBR data, BBB Portal Data and HMRC Coronavirus Job Retention Scheme (CJRS) data.

The analysis of the impact of the schemes on employment in the second year of the pandemic based on survey data (presented in the Year 2 report) did not find that the schemes had a statistically significant impact on employment in the second year of the pandemic. On the other hand, the secondary analysis of the impact of the schemes in the first year of the pandemic did

find that there was a statistically significant impact of the schemes on employment. The table below compares the results of the Year 1 secondary analysis and Year 2 secondary analysis.

Table 43: Percentage change in employment – comparison of Year 1 and Year 2 secondary analysis

Model	First year of the pandemic	Second year of the pandemic
BBLS with CJRS control	5.7%***	7.9%***
CBILS/CLBILS with CJRS control	9.0%***	12.0%***

Note: *** p-value<0.001. Full results are presented in Table 70 in Annex 4. Source: London Economics' analysis of IDBR data, BBB Portal Data and HMRC Coronavirus Job Retention Scheme (CJRS) data.

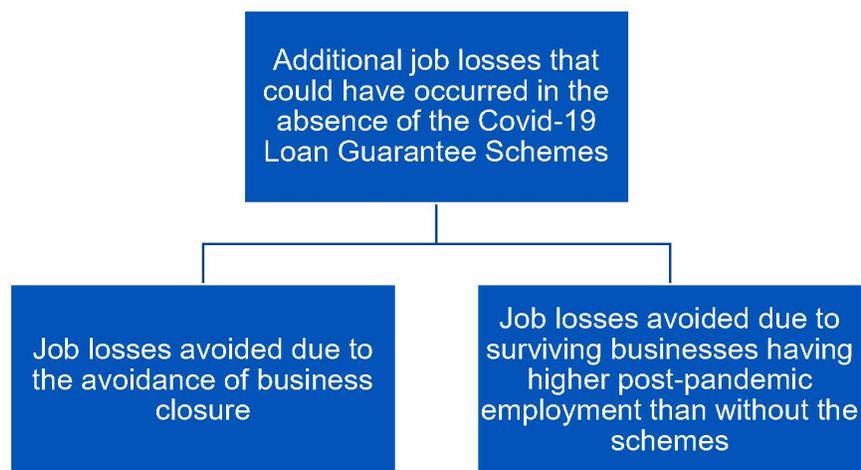
The estimated impacts of the schemes on employment are larger for the second year of the pandemic than for the first year of the pandemic. One possible reason for this is that the furlough scheme closed in September 2021 (i.e. during the second year of the pandemic). The furlough scheme enabled many businesses to maintain their employment levels while it was in operation, however it may be the case that finance from the Covid-19 Loan Guarantee Schemes enabled borrowers to maintain their employment levels beyond the closure of the furlough scheme.

Calculating the additional potential job losses in the absence of the Covid-19 Loan Guarantee Schemes

In order to estimate the total number of additional job losses that could have occurred in the first two years of the pandemic in the absence of the Covid-19 Loan Guarantee Schemes, additional econometric analysis of employment is undertaken. This analysis replicates the approach adopted in the econometric analysis of employment described above, but differs in one key respect – it includes businesses that permanently closed in the first two years of the

pandemic in the econometric analysis.⁹⁹ By including these firms, the analysis intends to capture both job losses avoided due to the avoidance of business closure among borrowers,¹⁰⁰ and job losses avoided due to borrowers having higher post-pandemic employment than would otherwise have been expected in the absence of the Covid-19 Loan Guarantee schemes (see Figure 15).

Figure 15: The nature of potential job losses in the absence of the Covid-19 Loan Guarantee Schemes



The revised econometric approach finds a positive and statistically significant impact of the BBLS scheme and the CBILS/CLBILS schemes on borrowers’ employment levels. The results suggest that, on average, BBLS and CBILS/CLBILS borrowers’ employment was respectively 8.8% and 15.7% higher than it would have been in the absence of the Covid-19 Loan Guarantee Schemes.¹⁰¹

⁹⁹ For further details of the methodology, see Annex 4.

¹⁰⁰ It should be noted that, due to the way that employment is reported in the IDBR (for example when based on PAYE, employment is usually the average of the latest four quarters of returns), a business that permanently closed in the first two years of the pandemic may show positive employment. Therefore, the impact of avoided business closure on jobs as captured in this econometric analysis is unlikely to be fully captured (as control businesses that permanently closed in the first two years of the pandemic – against which treated businesses are compared – may show positive employment in the first two year of the pandemic).

¹⁰¹ Given that the dependent variable is expressed in logarithmic form, the percentage change in turnover associated with the variable ‘Borrower, post-intervention (Year 2)’ taking the value of 1 is approximately equal to $(e^\lambda - 1) \times 100$, where λ is the regression coefficient of that variable.

Based on estimates of the average post-pandemic employment levels of borrowers, the number of borrowers, and estimates from the fixed effects analysis, it is estimated that 998,000 additional jobs could potentially have been lost during the first two years of the pandemic among all firms in the absence of the Covid-19 Loan Guarantee Schemes.¹⁰² This estimate is made up of 588,000 job losses avoided due to the BBLs scheme, and 410,000 job losses avoided due to the CBILS/CLBILS schemes (Table 44). This highlights the likely social impact of the schemes in terms of preventing very high unemployment.

Table 44 : Additional potential job losses in the absence of the Covid-19 Loan Guarantee Schemes, by scheme

Scheme	Total
BBLs	588,000
CBILS/CLBILS	410,000
Total	998,000

Source: London Economics' analysis of IDBR data, BBB Portal Data, BBB Management Information and HMRC Coronavirus Job Retention Scheme (CJRS) data. Figures are rounded to the nearest thousand.

Differences with Year 2 survey results

The Year 2 econometric analysis of survey data did not find a statistically significant impact of the BBLs or CBILS/CLBILS schemes on borrowers' turnover or employment, whereas the secondary analysis does.

There could be a number of reasons that these findings differ. First, there are differences in the set of variables included in the PSM and fixed effects specifications due to data availability (see Annex 3 of the Year 2 report, and Annex 4 of this report for additional details).

Second, the findings are based on completely different data sets. In the Year 2 survey, primary data was used in the form of businesses' self-reported turnover and employment in a sample of several hundreds of businesses. An advantage of this dataset was that it contained information

¹⁰² This estimate must be considered as separate to, rather than additional to the estimated 291,000 pre-pandemic jobs among borrowers that would have permanently closed by March 2021 in the absence of the Covid-19 Loan Guarantee Schemes. This calculation is explained in more detail in Annex 4.

on business obstacles faced by respondents (for example supply chain disruptions), which could be used in the PSM (though this information was also self-reported).

In contrast, the econometric models in this exercise are run on samples of tens to hundreds of thousands of businesses. Turnover data is based on a range of sources including the ONS's Annual Business Survey (ABS), VAT returns from HMRC, and imputation from HMRC's PAYE data. The employment data is also based on a range of sources, including the Business Register and Employment Survey (BRES), the Short Term Employment Survey (STES), HMRC's PAYE data, and imputation from VAT returns. The table below summarises the main differences between the two sets of analyses.

Table 45 : Main differences between the datasets used in the Year 2 analysis and secondary analysis exercise

	Year 2 analysis	Secondary analysis
Main data source	Primary data (survey)	Secondary data (IDBR)
Approximate number of businesses in econometrics	Several hundreds	Tens to hundreds of thousands
Main variables available in raw data for use in the PSM	Basic firmographics (for example turnover, employment, sector) between 2019 and 2022, firms' perception of business obstacles caused by the pandemic, information on businesses' use of several types of Government support measures (i.e. CJRS, deferral of VAT payments, other support).	Basic firmographics (for example turnover, employment, sector) between 2017 and 2022, use of CJRS

Variations in outcomes for BBLB borrowers based on 'finance need'

The analysis also explores whether there were variations in turnover and employment outcomes for BBLB borrowers with different levels of finance need. As was the case with the

survival analysis, the following three groups of BBLs borrowers are described as having a ‘substantial finance need’ (see the section above on business survival for further details):

6 Borrowers that have ever been in arrears

7 Borrowers that used PAYG (Pay as you Grow).

8 Borrowers that have both been in arrears and used PAYG.

The analysis uses a similar methodology to the analysis of turnover and employment related to all BBLs and CBILS/CLBILS borrowers (PSM followed by fixed effects analysis). As is the case with the corresponding analysis of business survival, these estimates should not be interpreted causally (i.e. they do not reflect the impact of BBLs on borrowers). The principal reason for this is that the way the subgroups are constructed (e.g. falling into arrears) is likely to be driven by the performance of the business (as measured by turnover and employment). This is known as reverse causality. Instead, the coefficients reflect the association between the various indicators of finance need and turnover and employment. The tables below summarise the results of the analysis. As above, the coefficients ‘post-intervention’ reflect the change in turnover or employment between the last year before the onset of the pandemic and the second year of the pandemic, and the coefficients ‘borrower, post-intervention’ reflect the additional change in turnover or employment experienced by borrowers.

Table 46: Coefficients related to the analysis of turnover among different subgroups of BBLs borrowers

Coefficient	Have been in arrears	Used PAYG	Have been in arrears and used PAYG	Have neither been in arrears nor used PAYG
Borrower, post-intervention (Y2)	-4.6%*	-2.0%	-9.2%	9.3%***
Post-intervention (Y2)	-8.8%***	-11.1%***	-5.1%*	-13.8%***

Note: *** p-value<0.001, * p-value<0.05. Full results are presented in Table 80 in Annex 4.

Source: London Economics' analysis of IDBR data, BBB Portal Data and HMRC Coronavirus Job Retention Scheme (CJRS) data.

The coefficients 'post-intervention' are less negative among the three subgroups of borrowers than among the population of borrowers. This is due to differences in the pre-pandemic characteristics of the different subgroups of borrowers (and therefore their matched control groups). For example, businesses that did not use PAYG or fell into arrears were typically larger and more likely to be growing prior to the pandemic (see Table 75 in Annex 4 for details). Additionally, the coefficient 'borrower, post-intervention' is positive and significant for borrowers that did not use PAYG or become in arrears. This suggests that the finance made available through the scheme may have had a positive impact on businesses even when it may not have been strictly necessary for business survival. When considering businesses that have been in arrears this coefficient is negative and statistically significant. This is perhaps unsurprising given that one would expect that many businesses that fell into in arrears likely did so because of having insufficient turnover to cover all their expenses and debt servicing costs.

Table 47: Coefficients related to the analysis of employment among different subgroups of BLS borrowers

Coefficient	Have been in arrears	Used PAYG	Have been in arrears and used PAYG	Have neither been in arrears nor used PAYG
Borrower, post-intervention (Y2)	0.0%	3.5%	-0.6%	9.2%***
Post-intervention (Y2)	-3.7%***	-1.8%*	-1.5%	-3.1%***

Note: *** p-value<0.001, ** p-value<0.01, * p-value<0.05. Full results are presented in Table 81 in Annex 4. Source: London Economics' analysis of IDBR data, BBB Portal Data and HMRC Coronavirus Job Retention Scheme (CJRS) data.

The 'post-intervention' coefficients are all negative and fairly small in magnitude across the different subgroups, which suggests that the differences in pre-pandemic characteristics between the groups did not have a major bearing on how the employment levels of these businesses changed during the pandemic. None of the estimates for the difference in employment between the various subgroups of borrowers and similar groups of non-borrowers are statistically significant. However, it is noteworthy that the estimates are all far smaller than that for BBLs borrowers that have never been in arrears and not used PAYG (which is positive and statistically significant). This suggests that borrowers that have been in arrears and/or used PAYG did not outperform similar non-borrowers with respect to employment during the second year of the pandemic in terms of maintaining and growing employment in the same way that other borrowers did. This may be because businesses that felt the need to use PAYG or could not keep up with their debt repayments and so became in arrears needed to cut their employment costs in order to remain financially viable.

Conclusion

The overarching aims of the Covid-19 Loan Guarantee Schemes were to offer support to businesses experiencing disruptions to their cashflow and losses in revenue due to the Covid-19 outbreak (CBILS and CLBILS) and allow rapid access to finance during the outbreak (BBLs). The schemes facilitated almost £77 billion of finance for UK businesses and did so at a rate not seen before from a government support scheme.

Evidence collected for the impact evaluation suggests that the vast majority of the finance extended through the schemes was additional (i.e. would not have been provided in sufficient speed or quantity in the absence of the schemes). The evidence also suggests that this finance had a substantial impact on the survival, turnover and employment of participating businesses. In particular, analysis of secondary data suggests that approximately 100,000 businesses and 1 million jobs were saved by preventing business closures. This also highlights the likely social impact of the schemes in terms of preventing very high unemployment.

The results of the economic evaluation suggest that the schemes collectively represented good value for money, but also highlight that the costs associated with schemes of this nature can be very substantial. In particular, while the estimates for the benefit to cost ratios of the schemes are above 1 (ranging from 1.24 in the Most Pessimistic scenario to 3.78 in the Core scenario), the economic costs of the schemes are estimated to be in excess of £20 billion. This emphasises the importance of the processes involved in the design and delivery of future schemes. The fact that the estimated costs of CBILS are so much lower than the corresponding estimates for BBLs highlights the importance of scheme design, and a consideration of the trade-off between the speed of finance provision and robustness of credit checks. However, as the full scale of the benefits and costs of the schemes is yet to materialise, further evaluation of the schemes may be needed in the next few years.

With respect to process, the approaches taken for repayments and recoveries, including the lender challenge process, assurance activities, enforcement activity and exploration of new recovery strategies, may have been more effective than simply relying on BAU practices in the context of the Covid-19 Loan Guarantee Schemes unique characteristics.

Improving data sharing between government and lenders and between individual lenders, could significantly enhance the impact of data analytics in future government programmes.

Enforcement activities were hampered by capacity constraints and lack of investigatory powers, which would need to be addressed for future schemes to ensure enforcement can take place rapidly and reduce risks of non-prosecution associated with delays in judicial proceedings.

The speed at which the schemes were designed and implemented (particularly BBLs) has had long lasting implications on the effectiveness of the schemes. These are understandable given the time pressures under which the schemes were designed and implemented, but demonstrate the impact that the speed of design and implementation have had on delivery.

These include:

- Lenders having to deal with a large volume of application for facilities (far in excess of BAU), meaning that some lenders had to design new processes to deal with this volume.
- Additional resources required to ensure facilities were provided to eligible businesses, and that duplicate facilities were not provided, after facilities had been originated.
- Additional resources required from lenders to recover monies from businesses that would not have received support without the schemes.
- Developing systems and procedures at the same time as the schemes were live, alongside different requests from the BBB and other areas of Government which led to additional resource requirements for lenders.

However, the design of the schemes, particularly BBLs, did achieve their objective of providing rapid access to finance for businesses during the pandemic. This was achieved due to the design of BBLs and the reduction in the credit checks required. It is also unclear how lenders could have realistically handled the volumes of loan applications in a timely fashion without removing many BAU checks. BBLs issued 270,000 loans in the first week, and close to 800,000 in the first month. Lenders conducting BAU checks on such a volume of applications would have created an extensive backlog with businesses waiting significantly longer for a loan during which period the survival of the business may have been at risk.

Enforcement activities have not been as effective as they could have been due to challenges within the programme's control (e.g. contractual, investigatory powers and management of

external enforcement partners), although these have improved over time, and factors outside the control of the programme (e.g. delays in the judicial system).

The value of losses due to fraud appear to be lower, or at least in line with initial estimates. Reasons suggested for this include repayments of fraudulently claimed facilities, enforcement work and an initial over-estimate of the expected losses due to fraud.

BBB appear to have developed a strong working relationship with a wide range of lenders, many of which did not have existing relations with the BBB.

Table 48 outlines the key objectives of the schemes and presents a brief summary of the evidence collected across the whole of this evaluation to assess the success of the schemes against each objective.

Table 48: Performance of the schemes against the key objectives

	Objective	Key supporting evidence	Objective met
Short-term objectives	To unlock finance at a scale and pace such that businesses disrupted as a result of the Covid-19 pandemic still have access to finance	<ul style="list-style-type: none"> 74% of BBLs borrowers and 69% of CBILs/CLBILs borrowers would not have obtained any external finance or sufficient external finance for their cash flow needs without finance obtained under the Covid-19 Loan Guarantee Schemes. 7% of BBLs borrowers and 8% of CBILs/CLBILs borrowers could have obtained a sufficient level of external finance without the Covid-19 Loan Guarantee Schemes but not in a timely manner. The British Business Bank, BEIS, and HM Treasury were able to establish CBILs within twelve days of its announcement, and then introduced BBLs in order to more rapidly provide cashflow support to businesses with smaller credit requirements, which prioritised the aim of increasing the speed of lending. 	Yes, the schemes provided businesses with finance at a scale and pace that could not have been otherwise achieved
	To offer businesses access to finance schemes complementing other government support and incentives	<ul style="list-style-type: none"> There is econometric evidence of a positive impact of the schemes on turnover and employment, including when controlling for use of the CJRS. Borrowers in many cases took advantage of several other kinds of government support but indicated during depth interviews that the schemes were still very important for their survival. 	Yes, the schemes provided support that was complementary to other support schemes such as the CJRS.
Medium-term objectives	To give businesses maximum opportunity to maintain liquidity until lockdown measures are lifted	<ul style="list-style-type: none"> 60% of BBLs borrowers and 68% of CBILs/CLBILs borrowers used their scheme finance for working capital, cash flow or day to day costs or expenses. 81% of BBLs loans and 77% of CBILs/CLBILs loans were estimated to be 'additional'. 	Yes, the schemes provided finance that in most cases otherwise would not have been obtained and was used by most borrowers to continue daily operations.
	To incentivise appropriate risk taking by lenders	<ul style="list-style-type: none"> Arrears rates for SMEs are higher than would be expected in commercial lending (2%), at around 27% for BBLs and 7% for CBILs. The design of BBLs is reported to have driven the arrears and default rate. 	Yes, the design of the BBLs has driven an increase in lending which would not have been provided in the absence of the scheme.
Long-term objectives	To offer a debt structure that considers long-term business survival	<ul style="list-style-type: none"> Analysis of secondary data suggests that an additional 5.9%-8.0% of BBLs borrowers and 5.8%-6.8% of CBILs/CLBILs borrowers would have permanently closed in the second year of the pandemic in the absence of the schemes. Surveyed borrowers report that the finance provided by the schemes has been very important in ensuring that they continue to trade. 	The finance provided by the schemes has played an important role in ensuring survival up to this point, but the extent to which the schemes ensure long-run survival cannot yet be assessed.
	To offer a debt structure that allows businesses with long-term growth potential to continue growing	<ul style="list-style-type: none"> Analysis of secondary data suggests that the turnover of borrowers was 6.8% higher than it would have been in the absence of the schemes during the second year of the pandemic. 	The finance provided by the schemes has boosted the turnover of participating businesses, but the extent to which this continues in the long run cannot yet be assessed.
	To realise long-term economic benefits (from the previous two bullet points) that exhibit value for money against any HMG incurred losses	<ul style="list-style-type: none"> Evidence from the economic evaluation suggests that the benefit to cost ratio of the schemes as a collective is above 1 (1.24 to 3.78). 	Yes, even if there are no further benefits of the schemes beyond the evaluation period the schemes still represent good value for money.

Annex 1 – Process Evaluation Framework

The table below provides the process evaluation framework of the Year 2 and Year 3 process evaluation of the Covid-19 Loan Guarantee Schemes. This shows the key evaluation questions for each process, and the data sources which are used to provide evidence to answer the questions. The process evaluation framework was developed following a review of the Covid-19 Loan Guarantee Scheme documentation, wider published information, and workshops with key stakeholders including BBB, DBT and HM Treasury. The process evaluation framework was developed alongside the process maps presented in the Process Evaluation section of the main report process map, which detailed all the mechanisms and processes used to deliver the schemes.

Table 49: Process evaluation framework

Evaluation question	Metrics	Source of data				
		Monitoring data	Document / literature review	BBB / DBT / HMT interview	Lender interview	Wider stakeholder interview
	Monitoring					
Was all relevant data included in the data dashboards to monitor the performance of a lender's portfolio?		X		X	X	
Was data provided in a timely manner to and from Lenders to inform counter fraud actions?	Frequency of data from lenders	X		X	X	
In what ways did the publication of data impact upon lender behaviour?						
How effective was the lender challenge process in influencing lender behaviour?	# of lender challenges # of guarantees removed			X	X	
Is the external audit exercise proportionate to the value of the Covid-19 Loan Guarantee Schemes?				X	X	X
How effective is the audit exercise in monitoring lenders compliance with the rules of the Covid-19 Loan Guarantee Schemes?	Proportion of lender portfolios with a "green" or "amber" fraud rating	X	X	X	X	
In what ways has the external audit process altered lenders' internal processes?					X	

Evaluation question	Metrics	Source of data				
		Monitoring data	Document / literature review	BBB / DBT / HMT interview	Lender interview	Wider stakeholder interview
How effective have the relationship management processes been in encouraging lender cooperation with the schemes?				X	X	
How has the post event assurance plan supported a reduction in future financial crime risk?				X	X	
How effective has the portfolio screening process been in supporting lenders to identify potentially fraudulent facilities?	# flags identified	X		X	X	X
Repayments						
How effective have the approaches used by lenders been in securing repayment from businesses in difficulty when compared to BAU portfolio of SME lending?	Value of repayments made Incidence of arrears Value of arrears	X	X	X	X	
How effective have the processes to identify and remove erroneous facilities from the guarantee scheme?	Incidence of facilities removed from guarantee schemes	X		X	X	
How effective have the debt recovery pilots been in securing repayments? (To be assessed in Y3)	Value of repayments from pilots	X		X	X	

Evaluation question	Metrics	Source of data				
		Monitoring data	Document / literature review	BBB / DBT / HMT interview	Lender interview	Wider stakeholder interview
How appropriate are the debt recovery pilots to different types of lenders? (To be assessed in Y3)			X	X	X	X
What type of learning have the debt recovery pilots generated for lender, BBB and the Government? (To be assessed in Y3)				X	X	X
What was the burden for lenders to participate in the debt recovery pilots? (To be assessed in Y3)	Resources devoted to pilots (above BAU) for pilots			X	X	
Counter fraud work and enforcement						
Have all relevant organisations relating to fraud detection been involved in the working groups / boards for fraud detection activities?			X	X	X	X
Have sufficient resources been devoted to lenders customers' fraud detection?	Value of fraud detection work	X		X	X	X
How effective is the data collected (CIFAS) in detecting duplicate cases?	Number of duplicate cases detected through CIFAS			X	X	
How effective were other reputable fraud bureaus to identify potential cases of fraud?				X	X	X
Were appropriate data sources and variables used for the data analytics work?			X	X	X	X

Evaluation question	Metrics	Source of data				
		Monitoring data	Document / literature review	BBB / DBT / HMT interview	Lender interview	Wider stakeholder interview
How effective has the data analytics work been in identifying potential cases of fraud, error or misstatement?	Number/value of potential fraud / error / misstatement cases identified	X	X	X	X	
In what ways have lenders used the data analytics work in identifying potential cases of fraud?		X			X	
Did the initial fraud research and fraud risk assessments set appropriate parameters for the schemes to be assessed against?			X	X	X	
How effective were the different governance structures in promoting coordinated fraud enforcement activity?			X	X		X
Were all relevant organisations involved in the working groups / boards used for fraud enforcement activity?			X	X		X
Did the working groups / boards work together to coordinate the required actions?				X		X
How did the processes used to recover monies from suspected fraud cases compare to business-as-usual activities for suspected fraud cases from commercial lending?				X	X	X

Evaluation question	Metrics	Source of data				
		Monitoring data	Document / literature review	BBB / DBT / HMT interview	Lender interview	Wider stakeholder interview
How appropriate is the process for identifying which fraud cases would be investigated by NATIS and INSS?	# of cases referred to NATIS / INSS			X		X
How effective were the processes used by lenders to report suspected criminal fraud cases to NATIS / INSS?					X	
How effective have NATIS criminal investigations been in securing arrests for fraudulent activity?	# investigations / arrests	X	X	X		X
How effective have INSS civil investigations been in securing disqualifications for directors?	# investigations / disqualifications	X	X	X		X
How effective have the civil bulk objections been in influencing lender behaviour towards customers?				X		X
How effective have civil bulk objections been in securing recoveries?	#/£ objections submitted and successful recoveries	X		X	X	X
How effective have the processes been in recovering monies that were suspected of being fraudulently obtained?	#/£ of monies recovered from firms with different characteristics	X	X	X	X	X

Evaluation question	Metrics	Source of data				
		Monitoring data	Document / literature review	BBB / DBT / HMT interview	Lender interview	Wider stakeholder interview
How effective were the different governance structures in promoting coordinated fraud enforcement activity?			X	X	X	X

Annex 2 – Quantitative survey

This annex provides technical details of the survey of Covid-19 Loan Guarantee Scheme borrowers and non-borrowers undertaken in the third year of the evaluation. It covers the sampling, fieldwork, and approach to weighting and provides a copy of the questionnaire to aid the interpretation of the findings.

Summary of methodology

To support the impact, process and economic evaluation, Ipsos undertook a quantitative survey (with telephone interviews as the primary data collection method, and an online link to complete the survey provided as an option to participants) of 343 borrowers and 311 non-borrowers from 21st March to 24th May 2024. The data have been weighted to be statistically representative of the loan populations (under the Covid-19 Loan Guarantee Schemes). Businesses that reported that they did not experience any challenges (positive or negative) caused by the pandemic and public-sector organisations were outside the scope of the survey.

Survey and questionnaire development

Ipsos, with input from London Economics, developed the questionnaire and all other survey instruments (e.g., the interview script, reassurance email and interviewer briefing materials). BBB and DBT had final approval of the questionnaire. The questionnaire for Year 3 of the study was based on the Year 1 and Year 2 questionnaires, with some questions removed in order to reduce the average length of the survey interviews. The Year 3 questionnaire also included four new questions. The new questions focused on how much time borrowers spend on loan applications and administrative tasks related to the loans, as well as asking borrowers who believed they would have permanently closed their business without the scheme to provide the most significant reasons for this.

The initial development of the survey for the first year of the evaluation took place in several stages from April to September 2021, including:

- Stakeholder engagement, including a virtual workshop with the project steering group

- A pilot survey, consisting of 143 interviews (105 Covid-19 Loan Guarantee Scheme borrowers, 38 non-borrowers)
- A number of iterations pre and post pilot to reflect initial findings and further input from stakeholders and the group

In the Year 1 survey 2,149 interviews were achieved, and 961 interviews were achieved in Year 2. A copy of the final questionnaire used for the Year 3 study is included below.

Sampling

The sample frame used in Year 3 of the study consisted of:

- Recontact sample: participants in Year 1 and/or Year 2 of the study, who consented to being contacted to take part in Year 2 or Year 3.
- Fresh sample: new sample leads invited to take part in the study for the first time

Both of these sample frames contained a mixture of borrowers and non-borrowers. The borrower sample, for both the recontact and fresh contacts, was primarily provided by BBB, who shared a random sample of businesses who had taken out loans, as well as contacts from a previous Ipsos study who had been identified as being borrowers.

For the control group of non-borrowers, the sample was selected from three sources:

- For the BBLS and CBILS non-borrowers sample frames, the Dun & Bradstreet (D&B) business database was used.
- For the CLBILS non-borrower sample frame, the IDBR was used for businesses with a turnover threshold over £45 million – though only a small number of these respondents were used as part of the CBILS control group in the Year 2 study (see below).
- For non-borrowers from any of the three Covid-19 Loan Guarantee Schemes, the recontact sample from the 2020 BBB Business Finance Surveys was also used.

Non-borrowers were selected to be representative of the overall population of businesses that were eligible for the three Covid-19 Loan Guarantee Schemes. They were similar to borrowers in that they have all faced challenges or opportunities because of the Covid-19 pandemic,

thereby increasing the likelihood that both groups of businesses have faced similar financial and operational issues during the reference period of the evaluation.

Ipsos carried out telephone tracing (matching the sample frame data to the Dun & Bradstreet database and to any publicly available data sourced from LinkedIn) to fill in the gaps where possible. The sample was also cleaned to remove any duplicate telephone numbers.

Given the small population of CLBILS borrowers and non-borrowers, extensive manual sample improvement was also carried out for these groups. This involved looking up relevant contact names and numbers online and on LinkedIn (on publicly available pages) wherever possible.

The sample was proportionately stratified by region and disproportionately stratified by size and sector. An entirely proportionately stratified sample would not have allowed sufficient subgroup analysis by size and sector in previous waves of the evaluation. For example, it would effectively exclude all medium and large businesses from the selected sample, as they make up a very small proportion of BBLs and CBILs borrowers. Therefore, disproportionate sample targets were set for micro (1 to 9 employees), small (10 to 49 employees), medium (50 to 249 employees) and large (250 or more employees) businesses. Specific sectors and regions were also boosted to ensure findings for all sector groupings could be reported.

Post-survey weighting corrected for the disproportionate stratification (see section on weighting).

Year 3 fieldwork

Ipsos carried out the fieldwork from 21st March to 24th May 2024. In total, interviews were completed with:

- BBLs borrowers: 191 (one in ~7,700 borrowers)
- CBILs borrowers: 145 (one in ~500 borrowers)
- CLBILs borrowers: 7 (one in ~100 borrowers)
- Non-borrowers: 311

Under the algorithm used to assign businesses as BBLs and CBILs non-borrowers it is possible for a business to be assigned to both. Of the 311 control participants, 264 were

assigned to the BBLs control group, whilst 149 were assigned to the CBILs/CLBILs control group.

The average interview length was 18 minutes for the fresh sample and 11 minutes for the recontact sample from Year 1 and/or Year 2. This was due to some survey information being carried over from the previous survey for those participating last year (for example, confirming use of loans, sector, financial reporting, etc.).

Screening of respondents

In Year 1 and Year 2, interviewers screened all sampled organisations at the beginning of the call to identify the right individual to take part and ensure the business was eligible for the survey. At this point, the following organisations would have been removed as ineligible:

- Organisations that identified themselves as part of the public sector.
- Non-borrowers who said they did not face any challenges or opportunities as a result of the pandemic.

Interviewers specifically asked for the senior individual with the most responsibility for financial decisions in the organisation. The interviewer briefing included guidance on likely job roles and job titles for these individuals, which would differ based on the type and size of the organisation.

For UK businesses that were part of a multinational group, interviewers requested to speak to the relevant person in the UK who dealt with financial decisions at the company level.

For respondents from the fresh sample, all of the above steps would have been taken again as part of the Year 3 study. For recontact respondents, the same person from each organisation was contacted again, with a suitable replacement found if they had left their post.

Maximising participation

For the Year 3 survey, several steps were undertaken to maximise participation in the survey and reduce non-response bias:

- Each organisation loaded in the main survey sample was called multiple times, or until an interview was achieved, a refusal given, or information obtained to make a judgment on the eligibility of that contact.

- Each piece of sample was called at different times of the day, throughout the working week, to make every possible attempt to achieve an interview. Evening and weekend interviews were also offered if the respondent preferred these times.
- An option to complete the survey online was included for businesses who preferred to take part in this way. Some of the borrowers with a direct email address were emailed a link to the survey. All businesses who started the online survey but did not complete it also received a follow up phone call encouraging them to finish the survey. A total of 8 respondents completed the survey entirely online as part of the Year 2 study.
- Year 1 and Year 2 participants were sent an advanced email about the study.
- Interviewers could send a reassurance email to prospective respondents if the respondent requested this, which also included an online link to the survey.
- Ipsos set up an email inbox and free **I&S** phone number for respondents to be able to contact to set up appointments or, in the case of the phone number, take part there and then in interviews.
- Where email addresses were available for the sample for businesses, reminder emails were also sent to the hardest to reach groups across the course of fieldwork to let businesses know that an Ipsos interviewer would attempt to call them. Where possible, manual searches for personal email addresses and direct contact names were also undertaken.

Fieldwork monitoring

Ipsos is a member of the interviewer Quality Control Scheme recognised by the Market Research Society. In accordance with this scheme, at least 10 per cent of the interviews were listened to and the data entry checked on screen for these interviews.

Fieldwork outcomes and response rate

Fieldwork outcomes and co-operation rates were monitored throughout fieldwork, and interviewers were given regular guidance on how to avoid common reasons for refusal. Table 50 shows the final outcomes and the adjusted response rate calculations.

Table 50 : Sample outcomes for borrowers and non-borrowers

Outcome	Borrowers	Non-borrowers
Completed interviews	343	311
Refused	225	341
Unusable numbers ¹⁰³	274	468
Unusable leads with working numbers ¹⁰⁴	98	149
Working numbers with unknown eligibility ¹⁰⁵	299	339
Screened out ¹⁰⁶	0	18
Total	1,239	1,626

Table 51 below shows the sample outcomes for the recontact and fresh samples.

Table 51 : Sample outcomes for recontact and fresh samples

Outcome	Recontact	Fresh
Completed interviews	531	123
Refused	170	396
Unusable numbers ¹⁰⁷	151	591

¹⁰³ This is sample where the number was in a valid format, but which turned out to be wrong numbers, fax numbers or disconnected.

¹⁰⁴ This includes sample where there was communication difficulty making it impossible to carry out the survey (either a bad line, or language difficulty), as well as numbers called multiple times over fieldwork without ever being picked up.

¹⁰⁵ This includes sample that had a working telephone number but where the respondent was unreachable or unavailable for an interview during the fieldwork period, so eligibility could not be assessed.

¹⁰⁶ This includes non-borrowers who did not face any financial challenges or those who obtained finance through one of the schemes/multiple schemes or non-borrowers with a turnover under £8,000.

¹⁰⁷ This is sample where the number was in a valid format, but which turned out to be wrong numbers, fax numbers or disconnected.

Outcome	Recontact	Fresh
Unusable leads with working numbers ¹⁰⁸	100	147
Working numbers with unknown eligibility ¹⁰⁹	158	480
Screened out ¹¹⁰	0	18
Total	1,110	1,755

The cooperation rate¹¹¹ was 59% for Borrowers and 48% for Non-borrowers. The cooperation rate amongst the recontact sample was 76%, compared to 23% for the fresh sample.

Data processing and weighting

There were a number of logic checks in the script, which checked the consistency and likely accuracy of answers. If respondents gave unusually high or low numeric answers (such as turnover or value of external finance sought) relative to the size of their organisation, the interviewer would read out the response they had just recorded and double-check this is what the respondent meant to say.

Coding

The verbatim responses to unprompted questions could be coded as ‘other’ by interviewers when they did not appear to fit into the predefined code frame. These ‘other’ responses were coded manually by Ipsos’ coding team, and where possible, were assigned to codes in the existing code frame. It was also possible for new codes to be added where enough

¹⁰⁸ This includes sample where there was communication difficulty making it impossible to carry out the survey (either a bad line, or language difficulty), as well as numbers called multiple times over fieldwork without ever being picked up.

¹⁰⁹ This includes sample that had a working telephone number but where the respondent was unreachable or unavailable for an interview during the fieldwork period, so eligibility could not be assessed.

¹¹⁰ This includes non-borrowers who did not face any financial challenges or those who obtained finance through one of the schemes/multiple schemes or non-borrowers with a turnover under £8,000.

¹¹¹ The cooperation rate has been calculated as: (completed interviews + incomplete interviews) / (completed interviews + incomplete interviews + refusals). This is the proportion who took part in the survey, among those who were reached and screened.

respondents had given a similar answer outside of the existing code frame. The Ipsos research team verified the accuracy of the coding, by checking and approving each new code proposed.

Weighting

Weights are required for comparisons between BBLs and CBILs loan recipients and their respective control samples. Both the loan recipients and their corresponding controls were weighted to the loan recipient profile by sector, region, and turnover.

Identifying BBLs and CBILs controls

The first step was to identify control sample members for each of the BBLs and CBILs (the CBILs control group includes a small number of CLBILs controls but for brevity these will be referred to as CBILs throughout the weighting section of this annex). The BBLs and CBILs controls had been drawn as a single sample and needed to be allocated to control samples. This was based on turnover.

The fresh Year 3 control sample was allocated to groups based on the definitions used in Year 1 and Year 2. BBLs controls were defined as businesses not in receipt of a loan with a turnover less than £5 million. This cut off was suggested in Year 1 and Year 2 by the population data – 99% of BBLs recipients had a turnover less than £5 million. Whilst BBLs should also have a lower bound turnover cut-off (their turnover should be greater than £8,000), there were a small number of BBLs recipients and a small number of businesses available as controls that reported a turnover less than this amount. For this reason, businesses with turnover less than £8,000 were retained and allocated as BBLs controls to make the BBLs control sample cover the same turnover range as observed among BBLs borrowers.

CBILs controls were defined as businesses not in receipt of a loan that had a turnover greater than £175,000 but less than £45 million. As with the BBLs, population data had been previously used to identify a sensible cut-off. This resulted in all potential BBLs and CBILs controls being used.

The groups weights were run using rimb weighting. This uses an iterative procedure to adjust the sample to ensure the weighted profile of the sample matches the population for a set of weighting targets. The weighting was run separately for recipients and controls. The weighting targets were sector, region, and turnover. Both the recipients and their controls were weighted

to the same set of targets meaning, once the weights are applied, the recipients and their controls have the same profile for sector, region, and turnover.

The same set of weighting totals was used for Year 3 as for Year 1 and Year 2. The population figures for region, sector and turnover profile of loan recipients had not been updated and so these were the most up-to-date population counts available.

Different turnover bands were used for BBLs and CBILs to reflect the range of turnovers in the previous financial year covered by each group. The BBLs weighting used the following four grouped bands: <£50,000; £50,000-<£100,000; £100,000-<£250,000; £250,000+, whilst the CBILs weighting used three grouped bands (fewer bands were used because the CBILs sample size was smaller): <£1 million; £1 million-<£5 million; £5 million+. The previous financial year was used as this would be the most accurate measure of turnover – this was consistent with the weighting approach used for Year 2.

The grouping of turnover bands means weighted frequencies of controls that use a finer breakdown of turnover (i.e., turnover for BBLs that includes categories that split out the £250,000+ band into £250,000-<£500,000 and £500,000+ for example) may not exactly match the weighted frequencies of the recipients.

Weighting scheme for all respondents

A further set of weights was needed to adjust the combined BBLs and CBILs population (both borrowers and non-borrowers) into a single sample. This sample should be representative of the overall population of businesses that were eligible for BBLs and CBILs.

The first step was to generate starter weights for BBLs recipients, CBILs recipients, and the combined BBLs and CBILs controls. For the BBLs and CBILs recipients this starter weight was the weight generated for the group analysis (see above) which weighted the recipient samples to their respective populations by sector, region, and turnover.

The combined BBLs and CBILs control population was weighted together in a single step to population estimates of non-recipient businesses.

DBT had previously provided a set of population estimates for businesses from the IDBR. These were used to identify the number of businesses by region, sector, and turnover.

The number of loan recipients was taken from BBB figures.¹¹² The number of non-loan businesses was then calculated as the number of businesses minus the number of loan recipients. The combined BBLs and CBILs controls were weighted to these figures. These weights were the control sample starter weights.

The three starter weights (BBLs borrowers, CBILs borrowers, and joint BBLs/CBILs controls) were then each scaled to their corresponding populations. The recipient population sizes were each taken from BBB figures (based on facilities, rather than businesses, but the best estimate available). The control population size was the estimated size of the non-borrower population calculated by subtracting the BBB figures from the DBT figures.¹¹³ In addition, the DBT figures are taken from the IDBR, and as such they include VAT-registered businesses only. The sample contains a small number of non-VAT registered businesses. This means the DBT population figures under-estimate the number of businesses with lower turnover (since these businesses are less likely to be VAT registered). Despite that, these figures remain the best estimate available of the population and are appropriate as weighting targets.

The three scaled starter weights were then combined into a single weight. The scaling step means each of the three groups (BBLs borrowers, CBILs borrowers, and joint BBLs/CBILs controls) are in their correct population proportions when the weights are combined. These weights were then re-scaled to give a mean weight of one and ensure that the weighted sample size matches the unweighted sample size. A small amount of trimming was carried out to remove a small number of outliers that had high weights. The trimming helps to reduce the variability of the weights which reduces the impact of weighting on the design effects.

¹¹² Figures on total number of loans taken from government figures here: <https://www.gov.uk/government/collections/hm-treasury-coronavirus-covid-19-business-loan-scheme-statistics#Coronavirus-Business-Interruption-Loan-Scheme> Figures on sector and turnover of loan recipients are only available from Jan 2021 and taken from here: <https://www.british-business-bank.co.uk/press-release/coronavirus-loan-schemes-continue-to-support-businesses-evenly-across-the-uk-new-analysis-shows/> The weighting uses the new totals and assumes that the population turnover / region / sector distribution did not change much between Jan 2021 and March 2021. We feel this is a reasonable assumption as the bulk of the loans were agreed earlier in the scheme.

¹¹³ There may be some discrepancies due to the BBB figures being the number of facilities.

Questionnaire

Evaluation of the BBLs, CBILs and CLBILs Loan Beneficiary and Non-Beneficiary Survey

Key

- **QUESTION/NEW SCREEN LABELS IN BOLD CAPS**
- Anything that appears static on the interviewer screen in black
- Any scripting instructions and text substitutions in red
- Any interviewer instructions / text that should be removed for web survey in green

FOR WORD INSERTS USE THROUGHOUT:

IF S_SCHEME= CLBIL: Coronavirus Large Business Interruption Loan Scheme

IF S_SCHEME= CBIL: Coronavirus Business Interruption Loan Scheme

IF S_SCHEME= BBL Bounce Back Loan Scheme

IF NO EMPLOYEES OR MICRO BUSINESS INDICATED: ASK TO SPEAK TO OWNER/
MANAGING DIRECTOR

IF SMALL/MEDIUM SIZED OR LARGE BUSINESS: ASK TO SPEAK TO FINANCE
DIRECTOR

ADD IF NECESSARY: This may be [INSERT S_CONTACT FROM SAMPLE]

[SCREEN 1]

SHOW ALL

[CATI: It's XX calling from Ipsos an independent research organisation. I'm calling about taking part in] [WEB: We are conducting] a survey on behalf of the UK Government's British Business Bank. The survey should take around [IF TYPE = LONGITUDINAL '12'] [IF TYPE = FRESH '25'] minutes to complete, asking about your business, the impact of Covid-19 and general business factors.

[SCREEN 2]

As part of the study, we are working with research consultancy, London Economics, who are undertaking an economic impact analysis of the Coronavirus pandemic on businesses. We will be sharing your survey answers with London Economics for statistical analysis purposes. All analysed data will be aggregated and anonymised and not shared with anyone outside of Ipsos or London Economics. Your responses will remain confidential and data we pass on to the British Business Bank will not be attributed to you unless you give explicit permission to do so.

Anonymised findings from the survey will be published on the British Business Bank website in 2024 or 2025.

ADD IF NECESSARY/INFO BUTTON FOR ONLINE SURVEY

The British Business Bank is the UK government's economic development bank. Established in November 2014, its mission is to improve finance markets for smaller businesses. Its remit is to design, deliver and efficiently manage UK-wide smaller businesses' access to finance programmes for the UK government.

The British Business Bank has supported up to 600,000 businesses in the UK since its inception, with £78bn in finance through its programmes as of 2023.

This survey will inform how the Bank can help businesses learn about and access finance more easily.

REASSURANCES IF NECESSARY

- **SHOW IF LONGITUDINAL:** Your business has been selected because you previously participated in the first and/or second wave of this survey for the British Business Bank and agreed to be contacted about future research.
- **SHOW IF FRESH AND S_GROUP = LOAN:** Your business has been selected at random from the list of [INSERT S_SCHEME FROM SAMPLE Bounce Back Loan Scheme/Coronavirus Business Interruption Loan Scheme/Coronavirus Large Business Interruption Loan Scheme] customers. Your details were provided by your lender to the British Business Bank who manage the government-backed guarantee.
- **SHOW S_GROUP = CONTROL (LONGITUDINAL CONTROL OR FRESH CONTROL):** Your business has been selected at random from [IF S_SCHEME = CLBIL Dun and Bradstreet, a commercial business database] [IF S_SCHEME = CONTROL, CBIL OR BBL the Office for National Statistics Inter-Departmental Business Register].
- **SHOW FOR ALL:** We work strictly within the Market Research Society Code of Conduct.

- **SHOW FOR ALL:** British Business Bank is interested in the views of all different types of businesses.
- **SHOW FOR ALL:** We need to survey a wide range of businesses in this survey and you will not be asked irrelevant questions.
- **SHOW FOR ALL:** The survey is not technical, and you do not need any specific finance-related knowledge to take part.
- **SHOW FOR ALL:** We can share some of the questions with you by email, to help you find the right person to take part.
- **SHOW FOR ALL:** Should you wish to get verification on the survey, please contact Ipsos on [REDACTED] or uk-pa-covidloans@ipsosresearch.com, and the contact at British Business Bank is [REDACTED] on [REDACTED].
- **SHOW FOR ALL:** Further information on British Business Bank evaluations can be accessed online at <https://www.british-business-bank.co.uk/about-our-evaluations/>
- **SHOW FOR ALL:** Last year's report for this research can be found online at: BBLs, CBILs, and CLBILs Evaluation Report 2023 - British Business Bank (<https://www.british-business-bank.co.uk/wp-content/uploads/2022/06/evaluation-of-BBLs-CBILs-CLBILs-process-evaluation-early-impact-assessment.pdf>)

SHOW IF LONGITUDINAL

READ OUT IF CATI ONLY

You may remember that we spoke to you previously and you kindly said that you would be willing to participate in future research. We are conducting the survey on behalf of the UK Government's British Business Bank.

SHOW IF FRESH AND S_GROUP = LOAN

READ OUT IF CATI ONLY

Your business has been selected to take part in a survey because you applied for external finance from the [INSERT S_SCHEME FROM SAMPLE: Bounce Back Loan Scheme/Coronavirus Business Interruption Loan Scheme/Coronavirus Large Business Interruption Loan Scheme] last year. We are conducting the survey on behalf of the UK Government's British Business Bank.

SHOW IF FRESH AND S_GROUP = CONTROL

READ OUT IF CATI ONLY

Your business has been selected to take part in a survey we are conducting on behalf of the UK Government's British Business Bank.

[SCREEN 3]

As part of the study, we are working with research consultancy, London Economics. We will be sharing your survey answers with London Economics for statistical analysis purposes.

[CATI: I] [WEB: We] can reassure you that your answers and other information you provide will be treated in the strictest confidence and answers will not be attributed to you or your business in the data we pass on to the British Business Bank unless you give explicit permission to do so.

Anonymised findings from the survey will be published on the British Business Bank website in 2024 or 2025.

ADD IF NECESSARY/INFO BUTTON FOR ONLINE SURVEY

The British Business Bank is the UK government's economic development bank. Established in November 2014, its mission is to make finance markets for smaller businesses work more effectively, enabling those businesses to prosper, grow and build UK economic activity. Its remit is to design, deliver and efficiently manage UK-wide smaller businesses' access to finance programmes for the UK government.

The British Business Bank's core programmes supported nearly £8bn of finance to almost 95,000 smaller businesses by end of January 2021. Since March 2020, the British Business Bank has also launched four new Coronavirus business loan schemes, delivering more than £72bn of finance to over 1.5m businesses.

This survey will inform how the Bank can help businesses learn about and access finance more easily.

REASSURANCES IF NECESSARY

- **SHOW IF LONGITUDINAL:** Your business has been selected because you previously participated in the first and/or second wave of this survey for the British Business Bank and agreed to be contacted about future research.

- **SHOW IF FRESH AND S_GROUP = LOAN:** Your business has been selected at random from the list of [INSERT S_SCHEME FROM SAMPLE Bounce Back Loan Scheme/Coronavirus Business Interruption Loan Scheme/Coronavirus Large Business Interruption Loan Scheme] customers. Your details were provided by your lender to the British Business Bank who manage the government-backed guarantee.
- **SHOW S_GROUP = CONTROL (LONGITUDINAL CONTROL OR FRESH CONTROL):** Your business has been selected at random from [IF S_SCHEME = CLBIL Dun and Bradstreet, a commercial business database] [IF S_SCHEME = CONTROL, CBIL OR BBL the Office for National Statistics Inter-Departmental Business Register].
- **SHOW FOR ALL:** We work strictly within the Market Research Society Code of Conduct.
- **SHOW FOR ALL:** British Business Bank is interested in the views of all different types of businesses.
- **SHOW FOR ALL:** We need to survey a wide range of businesses in this survey and you will not be asked irrelevant questions.
- **SHOW FOR ALL:** The survey is not technical, and you do not need any specific finance-related knowledge to take part.
- **SHOW FOR ALL:** We can share some of the questions with you by email, to help you find the right person to take part.
- **SHOW FOR ALL:** Should you wish to get verification on the survey, please contact Ipsos on [REDACTED] or uk-pa-covidloans@ipsosresearch.com, and the contact at British Business Bank is [REDACTED] on [REDACTED].
- **SHOW FOR ALL:** Further information on British Business Bank evaluations can be accessed online at <https://www.british-business-bank.co.uk/about-our-evaluations/>
- **SHOW FOR ALL:** Last year's report for this research can be found online at: BBLs, CBILs, and CLBILs Evaluation Report 2023 - British Business Bank (<https://www.british-business-bank.co.uk/wp-content/uploads/2022/06/evaluation-of-BBLs-CBILs-CLBILs-process-evaluation-early-impact-assessment.pdf>)

NOTE FOR DP: IF RESPONDENT REQUESTS SEND ADVANCE EMAIL WITH FURTHER INFORMATION

PLEASE LOG HOW MANY PEOPLE REQUEST AND ADVANCE EMAIL IN THE OUTCOME FILE

IF REFUSED Are you happy for us to let the British Business Bank know that you do not want to participate in this survey? The British Business Bank would like to use this information to ensure that other government departments know you do not wish to participate in this research and do not contact you further. The only information we will pass on to British Business Bank is your business' name and company registration number.

Yes	1
No	2

[SCREEN 4]

Q_VOLUNTARY

ASK ALL

Before we start, I want to clarify that participation in the survey is voluntary and you can change your mind at any time. Please note that there are questions which ask you to describe your ethnic origin, age, health condition and gender identity, however you are free to not answer. Are you happy to proceed with the survey? **ADD IF NECESSARY / WEB INFO BUTTON:** If you would like to read the Privacy Notice beforehand you can access it online at <https://ipsos.uk/LoanScheme>

ASK IF CATI

S1. Can I just check the business name that we have for you is [INSERT S_CONAME], is this correct? **IF NO:** Can you please tell me the correct business name?

ASK IF WEB

S1. The business name that we have for you is [INSERT S_CONAME], is this correct? **IF NO:** Please can you provide us with the correct business name?

INTERVIEWER NOTE FOR LOAN RECIPIENTS: IF THE RESPONDENT SAYS THEY HAVE MORE THAN ONE BUSINESS, AND THAT IT DOESN'T INCLUDE THE ONE NAMED HERE, SAY THAT FOR THE PURPOSE OF THIS SURVEY WE ARE INTERESTED IN ONE OF THEIR BUSINESSES FOR WHICH THEY SOUGHT EXTERNAL FINANCE THROUGH THE [INSERT S_SCHEME: Bounce Back Loan Scheme /Coronavirus Business Interruption Loan Scheme/Coronavirus Large Business Interruption Loan Scheme].

INTERVIEWER NOTE FOR CONTROL GROUP: IF THE RESPONDENT SAYS THEY HAVE MORE THAN ONE BUSINESS, AND THAT IT DOESN'T INCLUDE THE ONE NAMED HERE, SAY THAT FOR THE PURPOSE OF THIS SURVEY WE ARE INTERESTED IN ONE OF

THEIR BUSINESSES WITH TURNOVER IN LAST FINANCIAL YEAR WITH AT LEAST £30,000

Yes	1
No – WRITE IN CORRECT NAME - WEB ONLY: Please write in correct name	2
Don't know	98

ASK ALL

We will be focussing on [INSERT S_CONAME FROM SAMPLE IF CODE 1 AT S1 OR FROM SCRIPT IF CODE 2 AT S1] throughout this survey.

ASK ALL

S2. [CATI: Can I just check, are] [WEB: Are] you able to answer questions about the business's financial performance and its finance needs?

Yes	1	CONTINUE
No – transfer	2	TRANSFER AND RETURN TO INTRO FOR CATI SCREEN OUT FOR WEB
No – they are unavailable	3	ASK FOR NAME OF CORRECT RESPONDENT TO CALL. THANK AND CLOSE

ASK IF FRESH AND S_GROUP = CONTROL

S3. Did your business face any challenges or opportunities as a result of the Covid-19 pandemic?

INTERVIEWER ADD IF NECESSARY / INFO BUTTON FOR ONLINE SURVEY: By this we mean putting staff on furlough, accessing a government or local authority grant, experiencing a fall in demand, facing any operational challenges, increase in costs or unexpected business expenses, and/or business constraints resulting from social

distancing and/or lockdowns. This could also include an unexpected rise in demand as a result of the pandemic.

MULTICODE ONLY

INTERVIEWER IF ANSWER IS NO: PLEASE PROBE FULLY AND EXPLORE ANY ISSUES BUSINESSES MIGHT HAVE FACED. EVEN IF THEY DID NOT NEED FINANCIAL HELP, PUTTING STAFF ON FURLOUGH COUNTS AS AN ISSUE

Yes – major challenge(s)	1	CONTINUE
Yes – major opportunity(ies)	2	CONTINUE
Yes – minor challenge(s)	3	CONTINUE
Yes – minor opportunity(ies)	4	CONTINUE
No	5	THANK AND CLOSE IF CONTROL GROUP
Don't know	98	THANK AND CLOSE IF CONTROL GROUP

ASK ALL

S4. What was the approximate turnover of your business in the 2022-2023 financial year?

INTERVIEWER ADD IF NECESSARY / INFO BUTTON ON ONLINE SURVEY: Turnover is the total income received by the business from all sales of goods and services charged to third parties.

INTERVIEWER ADD IF NECESSARY / INFO BUTTON ON ONLINE SURVEY: Just to remind you, all your answers to this survey are confidential and anonymous, including any information on your business finances.

ENTER NUMBER. ALLOW ZERO, DK AND REFUSED DATASHEET

TYPE IN AMOUNT IN £

ALLOWED RANGE 0-999,999,999

INTERVIEWER NOTE: PLEASE READ BACK FIGURE TO RESPONDENT AND DOUBLE CHECK CORRECT NUMBER OF ZEROS

IF RESPONDENT IS UNSURE ASK THEM TO GIVE A BEST ESTIMATE

£

Don't know 98

Refused 99

IF S_GROUP = CONTROL (LONGITUDINAL OR FRESH): THANK AND CLOSE IF
TURNOVER IS UNDER £8,000

ASK IF DON'T KNOW TURNOVER (98) AT S4

S5AA. Would it have been...? READ OUT UNTIL GET AN ANSWER. SINGLE CODE ONLY

	SCREEN OUT IF CONTROL GROUP, CONTINUE IF RECIPIENT
Less than £8,000	1
£8,000 or more, but below £50,000	2
£50,000 or more, but below £100,000	4
£100,000 or more, but below £250,000	5
£250,000 or more, but below £500,000	6
£500,000 or more, but below £1 million	7
£1 million or more, but below £5 million	8
£5 million or more, but below £10 million	9
£10 million or more, but below £25 million	10
£25 million or more, but below £45 million	11

£45 million or more, but below £100 million	12
£100 million or more, not more than £500m	13
More than £500 million	14
Don't know	98
Refused – WEB ONLY: Prefer not to say	99

ASK IF DON'T KNOW (CODE 98) AT S5AA

S6AA. [CATI: Could you tell me] [WEB: Do you know] if your business' turnover in the 2022-2023 financial year was? IF DON'T KNOW PROMPT FROM SAMPLE

Less than £1 million	1
More than £1 million but not more than £45 million	2
More than £45 million, but not more than £500 million	3
More than £500 million	4
Don't know	98
Refused – WEB ONLY: Prefer not to say	99

ASK IF FRESH OR S_YEARS = YEAR 1 ONLY – REPEAT S4-S6

S5S6BB. And, what was the approximate turnover of your business in the 2021-2022 financial year?

ASK IF FRESH – REPEAT S4-S6AA

S5S6CC. And, what was the approximate turnover of your business in the 2020-2021 financial year?

ASK IF FRESH REPEAT S4-S6AA

S5S6DD. Finally, what was the approximate turnover of your business in the last completed financial year ending prior to the Covid-19 pandemic (i.e. before 23 March 2020) ...?

ASK IF FRESH AND S_GROUP = CONTROL

S8 Did you apply for external finance from any of these Government schemes available to business during the Covid-19 pandemic...?

ROTATE ORDER 1 TO 3. MULTICODE OK

1. the Bounce Back Loan Scheme (BBLs)
2. the Coronavirus Business Interruption Loan Scheme (CBILs)
3. the Coronavirus Large Business Interruption Loan Scheme (CLBILs)

INTERVIEWER NOTE: AT THIS POINT, WE WOULD LIKE TO SCREEN OUT:

- **BUSINESSES THAT WERE ALLOCATED TO THE CONTROL GROUP FOR A GIVEN SCHEME AND WERE UNSUCCESSFUL WITH THEIR APPLICATION FOR THAT SCHEME. FOR EXAMPLE, IF A BUSINESS IS ALLOCATED TO THE CONTROL GROUP FOR CBILs AND WAS UNSUCCESSFUL WITH THE APPLICATION, THEY WOULD BE SCREENED OUT.**
- **BUSINESSES THAT WERE ALLOCATED TO THE CONTROL GROUP FOR A GIVEN SCHEME AND WERE SUCCESSFUL WITH THEIR APPLICATION FOR TWO LOANS (I.E. BOTH CODE 4 FOR BBLs AND CBILs).**

SINGLE CODE ONLY. READ OUT FOR EACH OPTION.

SCRIPTING INSTRUCTION: PLEASE SCREEN OUT CONTROL WHO WERE SUCCESSFUL (CODE 4) WITH THEIR APPLICATION FOR TWO DIFFERENT LOANS (I.E. BBLs & CBILs) OR TWO LOANS OF THE SAME TYPE (I.E. BOTH CBILs)

No, did not apply	1	CONTINUE IF CONTROL GROUP (S6DV=1-3)
Yes, applied but later withdrew my application	2	CONTINUE IF CONTROL GROUP (S6DV=1-3)
Yes, application was not successful	3	IF CONTROL GROUP CLOSE

Yes, and my application was successful	4	IF CONTROL GROUP ALLOW TO CONTINUE BASED ON THE SCHEME THEY SELECTED ONLY IF S_CRN IS AVAILABLE IN THE SAMPLE
Don't know	98	CLOSE IF CONTROL GROUP
Refused – WEB ONLY: Prefer not to say	99	CLOSE IF CONTROL GROUP

CONTROL WITH S_CRN IN THE SAMPLE WILL CONTINUE AS ONE OF THE RECIPIENT GROUPS. FOR THE REMAINING SURVEY, THEY NEED TO BE TREATED AS RECIPIENTS AND BE SHOWN ALL OF THE RELEVANT QUESTIONS. FOR TEXT SUBS, WORDING WILL BE BASED ON THE SCHEME SELECTED AT S8

FOR LOAN RECIPIENTS SCHEME INFO IS TAKEN FROM THE SAMPLE

ASK ALL

S9. What is the current trading status of your business?

MULTICODE OK 1-2 AND 6. CATI: READ OUT EXCEPT DK AND REFUSED.

Continuing to trade in the same goods, services and/or markets as before the start of the Covid-19 pandemic	1
Continuing to trade but in new goods, services and/or markets as before the start of the Covid-19 pandemic	2
Has temporarily closed or temporarily paused trading [EXCLUSIVE]	3
In the process of closing down permanently [EXCLUSIVE]	4
Permanently closed [EXCLUSIVE]	5
Other [PLEASE TYPE IN]	6
Don't know	98

Refused – WEB ONLY: Prefer not to say	99
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ASK IF TEMPORARILY OR PERMANENTLY CLOSED (CODE 3 TO 5) AT S9

S10. To what extent do you feel the decision to close your business is attributable to the Covid-19 pandemic?

REVERSE SCALE 1-5. SINGLE CODE ONLY. CATI: READ OUT EXCEPT DK AND REFUSED.

Completely	1
A great deal	2
A fair amount	3
Not very much	4
Not at all	5
Don't know	98
Refused – WEB ONLY: Prefer not to say	99

ASK IF FRESH SAMPLE

S11. Is your business ... IF CLOSED (S9=5): Was your business...

SINGLE CODE ONLY. READ OUT EXCEPT DK AND REFUSED

A. A private sector business	1	CONTINUE
B. A public sector organisation	2	CLOSE
C. A social enterprise or profit with purpose enterprise (run primarily for social objectives or with any surpluses being used to further these objectives)	3	CONTINUE
D. A voluntary sector/non-profit-making organisation	4	CONTINUE

E. Other type of organisation [PLEASE TYPE IN]	5	CONTINUE
Don't know	98	CONTINUE
Refused – WEB ONLY: Prefer not to say	99	CONTINUE

NOTE S12-S14 REMOVED IN W3

SHOWSCREEN_EMPLOYLEVEL

SHOW ALL / READ OUT

The next questions will be asking you about the number of employees in your business over the past few years.

INTERVIEWERS TO MONITOR RECALL ISSUES FOR THIS SECTION AND REPORT ANY ISSUES NOTED DURING PILOT PHASE

ASK ALL

S15AA. How many people did your business employ across all sites in the UK, either full or part time, including yourself at the end of the 2022-23 financial year? Please include working directors, partners, managers, people who work away from the site. Do not include outside contractors, agency staff or self-employed contractors.

INTERVIEWER ADD IF NECESSARY / INFO BUTTON ON ONLINE SURVEY: Just to remind you, all your answers to this survey are confidential and anonymous, including any information on your employees.

WRITE IN EXACT NUMBER OR ACCEPT BANDED REPLY IF NOT SURE. [RANGE = 1-99,999]

DATASHEET

Don't know

98

Refused – **WEB ONLY:** Prefer not to say

99

ASK IF DON'T KNOW (CODE 98) AT S15AA

S16AA. Which of the following best describes the total number of people employed at the end of the 2022-2023 financial year, including yourself? Again, please include working directors, partners, managers, people who work away from the site. Do not include outside contractors, agency staff or self-employed contractors.

READ OUT EXCEPT DK AND REFUSED. SINGLE CODE ONLY

SHOW TO BBLs/CBILs (from S_SCHEME) OR CONTROL S_GROUP: Just yourself	1
SHOW TO BBLs/CBILs SAMPLE (from S_SCHEME) OR CONTROL S_GROUP : 2-4	2
SHOW TO BBLs/CBILs SAMPLE (from S_SCHEME) OR CONTROL S_GROUP: 5-9	3
SHOW TO BBLs/CBILs SAMPLE (from S_SCHEME) OR CONTROL S_GROUP: 10-24	4
SHOW TO BBLs/CBILs SAMPLE (from S_SCHEME) OR CONTROL S_GROUP: 25-49	5
SHOW TO CLBILs SAMPLE (from S_SCHEME) OR CONTROL S_GROUP: 1-49	6
50-249	7
SHOW TO BBLs/CBILs (from S_SCHEME) OR CONTROL S_GROUP: 250 or more	8
SHOW TO CLBILs SAMPLE ONLY (from S_SCHEME) OR CONTROL S_GROUP: 250-999	0

SHOW TO CLBILS SAMPLE ONLY (from S_SCHEME) OR CONTROL S_GROUP: 1,000-2,499	10
SHOW TO CLBILS SAMPLE ONLY (from S_SCHEME) OR CONTROL S_GROUP: 2,500-4,999	11
SHOW TO CLBILS SAMPLE ONLY (from S_SCHEME) OR CONTROL S_GROUP: 5,000 or more	12
Don't know	98
Refused – WEB ONLY: Prefer not to say	99

ASK IF FRESH SAMPLE OR S_YEARS = YEAR 1 ONLY - REPEAT S15-16AA

S1516BB. How many people did you employ at the end of the financial year of 2021-2022? ADD IF NECESSARY / INFO BUTTON FOR ONLINE SURVEY Please include working directors, partners, managers, people who work away from the site. Do not include outside contractors, agency staff or self-employed contractors.

REPEAT ALL OPTIONS AT S15AA AND S16AA

DATASHEET

ASK IF FRESH SAMPLE - REPEAT S15-16AA

S1516CC. How many people did you employ at the end of the financial year of 2020-2021 (i.e. the end of the first year of the pandemic)? ADD IF NECESSARY / INFO BUTTON FOR ONLINE SURVEY Please include working directors, partners, managers, people who work away from the site. Do not include outside contractors, agency staff or self-employed contractors.

REPEAT ALL OPTIONS AT S15AA AND S16AA

DATASHEET

ASK IF FRESH SAMPLE - REPEAT S15-16AA

S1516DD. Finally, how many people did you employ at the end of your latest completed financial year ending prior to the Covid-19 pandemic (i.e. 23 March 2020)?

REPEAT ALL OPTIONS AT S15AA AND S16AA

DATASHEET

ASK IF FRESH

S17. What is the legal status of your business? IF CLOSED (S9=5): What was the legal status of your business?

SINGLE CODE ONLY

IF SOLE PROPRIETORSHIP/TRADER (CODE 1) THEN ASK: Can [CATI: I] [WEB: you] just confirm that there are [IF CLOSED (S9=5): were] no other owners involved in running the business except yourself? IF THERE ARE OTHER OWNERS THEN PLEASE RE-CODE AS A PARTNERSHIP (CODE 4). IF SOLE PROPRIETORSHIP/TRADER (CODE 1) AS WELL AS SAID THEY HAD TWO OR MORE EMPLOYEES AT S15/16_AA (CODE 2-12) THEN PLEASE CHECK WITH THE RESPONDENT THAT BOTH ANSWERS ARE CORRECT AND RE-CODE AS NECESSARY

Sole Proprietorship/sole trader	1
Private limited company, limited by shares (LTD.)	2
Public Ltd Company (PLC)	3
Partnership	4
Limited liability partnership	5
Private company limited by guarantee	6
Friendly Society or a co-operative	8
Other [PLEASE TYPE IN]	11
Don't know	98

Refused – WEB ONLY : Prefer not to say	99
---	----

ASK IF FRESH SAMPLE IF S_SECTOR DOES NOT = #N/A OR OTHER

S18. We have [DESCRIPTION OF BUSINESS ACTIVITY FROM S_SECTOR IN SAMPLE] as a broad description of your company’s activity. Does this sound about right to you?

SINGLE CODE ONLY

Yes	1
No	2
Don’t know	98
Refused – WEB ONLY : Prefer not to say	99

ASK IF NOT CORRECT OR DON’T KNOW (CODE 2) AT S18 OR IF FRESH SAMPLE IF S_SECTOR = #N/A OR OTHER

S19. What is your main business activity? IF CLOSED (S9=5): What was your main business activity? PROBE AS NECESSARY

WEB ONLY: You might want to think about...

- What is [IF CLOSED S9=5): was] the main product or service of the business?
- What exactly is [IF CLOSED S9=5): was] made or done in the business?
- What material or machinery does [IF CLOSED S9=5): did] this involve using?

INTERVIEWER NOTE: SEE SECTOR CRIB SHEET. WRITE IN FULL DETAILS (2 DIGIT SIC CODING).

--

ASK IF FRESH

S20. How many years has your business been [IF CLOSED S9=5): was your business] trading? This includes all ownerships and all legal statuses.

INTERVIEWER ADD IF NECESSARY/ SHOW AS INFO BUTTON FOR ONLINE SURVEY In the case of a past acquisition, refer to when the acquiring enterprise was registered. In the case of a merger, please consider the largest enterprise in terms of employment.

SINGLE CODE ONLY

Less than one year	1
1 year	2
2 years	3
3 years	4
4 years	5
5 years	6
6-9 years	7
10-15 years	8
16-20 years	9
More than 20 years	10
Don't know	98
Refused – WEB ONLY: Prefer not to say	99

SECTION A EXPERIENCE OF USING FINANCE

SECTION A INTRO REMOVED AT W3 POST PILOT

A2 DELETED AT W3 POST PILOT

A3 DELETED AT W3 POST PILOT

A7 DELETED AT W3 POST PILOT

A8 DELETED AT W3 POST PILOT

A8b DELETED AT W3 POST PILOT

A18 DELETED AT W3

A19 DELETED AT W3

ASK IF FRESH

A24. Between 23 March 2020 and March 2021, did your business use any of the following Government support for businesses and organisations?

READ OUT 1 TO 8.

ROTATE ORDER 1 TO 8. MULTICODE OK. FOR ONLINE, SHOW AS YES/NO QUESTION.

Furloughing staff through the Coronavirus Job Retention Scheme [INTERVIEWER ADD IF REQUIRED / SHOW AS INFO BUTTON FOR ONLINE SURVEY: Under this scheme, the Government paid part of the wages of any workers temporarily asked to stop working and placed on leave due to the impact of Covid-19 on their employer. Furloughed workers are those whose employers could not cover staff costs due to Covid-19, and as such they had been asked to stop working, but had not been made redundant]	1
Deferral of VAT payments	2
Deferral of Self-Assessment payments	3
HMRC Time to Pay [INTERVIEWER ADD IF REQUIRED / SHOW AS INFO BUTTON FOR ONLINE SURVEY: This allowed payments for some taxes to be deferred]	4
Self-employed Income Support Scheme [INTERVIEWER ADD IF REQUIRED / SHOW AS INFO BUTTON FOR ONLINE SURVEY: This supported those who lost some or all of their income due to Covid-19]	5
12-month business rates holiday for hospitality, leisure, retail businesses	6
Cash grants for small businesses, loans directly funded by Government or types of support – related to the Covid-19 pandemic	7
Cash grants for small businesses, loans directly funded by Government or types of support – unrelated to the Covid-19 pandemic	8
None of these	97
Don't know	98
Refused – WEB ONLY: Prefer not to say	99

ASK IF FRESH

A25. Now thinking about the business environment at the start of the pandemic more generally. To what extent do you think that each of the following presented an obstacle to the running of your business as usual?

READ OUT A TO F.

SCALE: Major obstacle, minor obstacle and no obstacle at all

ROTATE ORDER.

A Changes in market demand	1
B Supply chain disruptions	2
C Issues with late payment	3
D Access to external finance	4
E Availability of staff	5
F Changes [IF CATI: you] [IF ONLINE: I] need to make to my business to make it 'Covid-19 compliant' e.g. forced closure or adhering to social distancing/public health restrictions	6

Major obstacle	1
Minor obstacle	2
No obstacle at all	3
Don't know	4
Refused – WEB ONLY: Prefer not to say	5

ASK IF S_GROUP = LOAN

INTERVIEWERS TO MONITOR RECALL ISSUES AT A26 AND REPORT ANY ISSUES NOTED DURING PILOT PHASE

A26. Think about the application made by your business for external finance under the [INSERT FROM S_SCHEME IN SAMPLE: Bounce Back Loan Scheme/Coronavirus Business Interruption Loan Scheme/Coronavirus Large Business Interruption Loan Scheme]. How much time would you say was spent by people employed in your organization (including yourself) on this application? SINGLE CODE

Less than an hour	1
An hour to less than two hours	2
Two hours to less than three hours	3
Three hours to less than a day	4
A day to less than 1 week	5
1 week or more	6
Don't know	98
Refused – WEB ONLY: Prefer not to say	99

ASK IF S_GROUP = LOAN

A27. Has your business repaid the finance it received under the [INSERT FROM S_SCHEME IN SAMPLE: Bounce Back Loan Scheme/Coronavirus Business Interruption Loan Scheme/Coronavirus Large Business Interruption Loan Scheme]? SINGLE CODE

Yes	1
No	2
Don't know	98
Refused – WEB ONLY: Prefer not to say	99

ASK IF HAVE NOT YET REPAID FINANCE (CODE 2 AT) A27

INTERVIEWERS TO MONITOR RECALL ISSUES AT A28 AND REPORT ANY ISSUES NOTED DURING PILOT PHASE

A28. Thinking about the finance received under [INSERT FROM S_SCHEME IN SAMPLE: Bounce Back Loan Scheme/Coronavirus Business Interruption Loan Scheme/Coronavirus Large Business Interruption Loan Scheme], how much staff time (including yourself) is typically spent each month on administrative or operational tasks due to receiving this finance? SINGLE CODE

Less than an hour	1
An hour to less than two hours	2
Two hours to less than three hours	3
Three hours to less than a day	4
A day to less than 1 week	5
1 week or more	6
Don't know	98
Refused – WEB ONLY: Prefer not to say	99

SECTION C SELF REPORTED IMPACTS OF THE COVID-19 LOAN GUARANTEE SCHEME

ASK IF S_GROUP = LOAN

C2. If you had not been able to access funding from the [INSERT FROM S_SCHEME IN SAMPLE: Coronavirus Bounce Back Loan Scheme/Coronavirus Business Interruption Loan Scheme/Coronavirus Large Business Interruption Loan Scheme], how likely or unlikely is it that your business would have permanently closed before the end of 2022? Please consider only up until the end of 2022.

READ OUT CODES.

SINGLE CODE ONLY

Definitely would have closed before the end of 2022	1
Very likely	2
Fairly likely	3
Fairly unlikely	4
Very unlikely	5
Definitely would not have closed before the end of 2022	6
Don't know	98
Refused – WEB ONLY: Prefer not to say	99

ASK IF DEFINITELY OR LIKELY TO HAVE CLOSED (CODE 1, 2 OR 3) AT C2

C6. You mentioned that your business would [INSERT FROM C2: definitely/have been very likely to have/have been fairly likely to have] permanently closed before the end of 2022 without your funding from the [INSERT FROM S_SCHEME IN SAMPLE: Coronavirus Bounce Back Loan Scheme/Coronavirus Business Interruption Loan Scheme/Coronavirus Large Business Interruption Loan Scheme]. Which of these do you think would have been the most significant reason that your business would have permanently closed?

READ OUT CODES 1 TO 6.

SINGLE CODE ONLY, ROTATE ORDER 1 TO 5

Lockdown measures and other pandemic related restrictions	1
Cash flow problems	2
Changes in market conditions as a result of the pandemic	3
The business model we operate under was disrupted by geopolitical tensions (e.g. the war in Ukraine)	4
The energy crisis has made the goods or services provided by our business too expensive or uncompetitive in the market	5
Another reason [OPEN RESPONSE]	6
Don't know	98
Refused – WEB ONLY: Prefer not to say	99

NOTE D2 TO D7 DELETED IN W3

SECTION E RECONTACT AND DATA LINKING

READ OUT TO ALL / SHOW SCREEN FOR ONLINE SURVEY

These final questions will help us understand the different types of people who are running or managing a business, how different businesses have been impacted by the Covid-19 pandemic and how they made use of different external finances types available.

Individual details will be kept strictly confidential by Ipsos and London Economics. It will not be possible to identify an individual from the results and personal information will not be passed on to the British Business Bank.

SOLE TRADERS ONLY (S17 CODE 1 OR S_LEGALSTATUS = _1): Please note that there is a question which asks you to describe your ethnic origin, age, health condition and gender identity, however you are free to not answer.

ASK IF FRESH SOLE TRADERS (CODE 1) AT S17 OR MISSING INFORMATION FOR LONGITUDINAL SOLE TRADERS (S_LEGALSTATUS = _1 AND S_SEX = #N/A)

E1. What is your sex? SINGLE CODE ONLY

Female	1
Male	2
Other	3
Prefer not to say	4

ASK IF FRESH SOLE TRADERS (CODE 1) AT S17 OR MISSING INFORMATION FOR LONGITUDINAL SOLE TRADERS (S_LEGALSTATUS = _1 AND S_ETHNICGROUP = #N/A)

E2. What is your ethnic group? SINGLE CODE ONLY

White	1
Multiple/ethnic groups	2
Asian/Asian British	3
Black/ African/Caribbean/Black British	4
Other ethnic group	5
Don't know	98
Prefer not to say	99

NOTE E3 DELETED IN W3

ASK IF FRESH SOLE TRADERS (CODE 1) AT S17 OR MISSING INFORMATION FOR LONGITUDINAL SOLE TRADERS (S_LEGALSTATUS = _1 AND S_AGE = #N/A)

E4. How old were you on your last birthday? SINGLE CODE ONLY

Under 24	1
----------	---

25-29	2
30-34	3
35-39	4
40-49	5
50-59	6
60-69	7
70+	8
Prefer not to say	99
Don't know	98

ASK IF FRESH SOLE TRADERS (CODE 1) AT S17 OR MISSING INFORMATION FOR LONGITUDINAL SOLE TRADERS (S_LEGALSTATUS = _1 AND S_HEALTH = #N/A)

E5. Do you have any physical or mental health conditions or illnesses lasting or expected to last 12 months or more? SINGLE CODE ONLY

Yes	1
No	2
Don't know	98
Prefer not to say	99

ASK IF TURNOVER UNDER £45 MILLION (S4= LESS THAN £45 MILLION OR S5_AA= 1-11 OR S6_AA= 1-2) EXCEPT SOLE TRADERS (CODE 1 AT S17) OR IF PREFER NOT TO SAY / REFUSED AT S4

E6. Thinking about the ownership of your business, approximately what percentage of your business would you say is owned by:

- a) Women?
- b) People who identify as being Asian/Black/Multiple ethnic groups/another ethnic group other than White?
- c) Institutions (e.g. Venture Capital Funds)?

RECORD % AND CODE TO LIST BELOW FOR EACH. ALLOW OPTION FOR REFUSED. IF RESPONDENT SAYS THEY DON'T KNOW PLEASE PROMPT TO CODE

DATASHEET

	Women	People who identify as being Asian/Black/Multiple ethnic groups/another ethnic group other than White	Institutions (e.g. Venture Capital Funds)
None	1	1	1
More than one percent but less than 50%	2	2	2
50% or more but less than 100%	3	3	3
100%	4	4	4
Don't know	98	98	98

Refused – WEB ONLY: Prefer not to say	99	99	99
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ASK TURNOVER OVER £45 MILLION (S4= MORE THAN £45 MILLION OR S5= 12-14 OR S6= 3-4) EXCEPT SOLE TRADERS (CODE 1 AT S17)

E7. Thinking about the senior leadership team in your business, approximately what percentage of the senior leadership team would you say...

- a) Are women?
- b) Identify as being Asian/Black/Multiple ethnic groups/another ethnic group other than White?

RECORD % AND CODE TO LIST BELOW FOR EACH. ALLOW OPTION FOR REFUSED. IF RESPONDENT SAYS THEY DON'T KNOW PLEASE PROMPT TO CODE

	Women	People who identify as being Asian/Black/Multiple ethnic groups/another ethnic group other than White
None	1	1
More than one percent but less than 50%	2	2
50% or more but less than 100%	3	3
100%	4	4
Don't know	98	98
Refused – WEB ONLY: Prefer not to say	99	99

ASK ALL

E8. On behalf of Ipsos, London Economics and the British Business Bank, we would like to thank you very much for your time.

The British Business Bank may want to do some follow up research on this subject within the next few months. This would involve an in-depth interview lasting c. 45-60 minutes with one of our researchers. Would you be happy to take part in the follow up interviews? You do not have to commit to anything now, just indicate a willingness to be contacted again. MULTICODE OK FOR CODES 1 OR 2

We can assure you that everything you say will be treated in the strictest confidence. We would combine your responses with those from the other participating businesses in a way which will ensure that the British Business Bank won't be able to identify you from our report.

Yes – Ipsos can contact me	1
Yes – London Economics can contact me	2
No EXCLUSIVE	3

ASK ALL

E9. The British Business Bank may also want to do some follow up research on this or other subjects within the next three years. Would you be happy to take part in further research within the next three years? MULTI CODE OK FOR CODES 1 TO 3

REPEAT IF NECESSARY

We can assure you that everything you say will be treated in the strictest confidence and we'll combine your responses with those from the other participating businesses in a way which will ensure that the British Business Bank won't be able to identify you from our report.

Yes – Ipsos can contact me	1
----------------------------	---

Yes – Another research agency can contact me	2
Yes – British Business Bank can contact me	3
No EXCLUSIVE	4

ASK IF AGREE TO RECONTACT (CODE 1, 2 AND/OR 3) AT E8 AND/OR E9

E10. You may be contacted via telephone or email. Please could you confirm your email address and/or your preferred telephone number?

Yes [COLLECT EMAIL]	1
Yes [COLLECT TELEPHONE NO]	3
Refused – WEB ONLY: Prefer not to say	99

ASK ALL

E11. We would like to check your postcode as this allows us to classify your business by region or nation. We have your business postcode as **[S_PCODE FROM SAMPLE]. Is this correct?**

Yes	1
No	2

ASK IF POSTCODE IS INCORRECT (CODE 2) AT E11

E12. What is your postcode? **PROBE, AS NECESSARY. WRITE IN TWICE TO VERIFY**

--

ASK ALL

E13. The British Business Bank or London Economics may want to undertake further analysis of the survey results by linking your answers to other available data. Are you happy for your responses to be used in this way?

SINGLE CODE ONLY

READ OUT IF NECESSARY IF FRESH / SHOW AS INFO BUTTON FOR ONLINE SURVEY IF FRESH: This may include analysing the data by local authority, information to categorise your business and other information about your loan held by the British Business Bank or held by commercial sources such as your turnover, size or other types of finance or support accessed by your business in previous years.

READ OUT IF NECESSARY IF FRESH/ SHOW AS INFO BUTTON FOR ONLINE SURVEY IF FRESH: The British Business Bank commissioned another research organisation, London Economics to undertake an economic impact analysis of the Coronavirus loans the Bank provided to businesses. The extra information would only be used for aggregate level analysis. At no point would your business be identified in any reporting of this analysis.

Yes - British Business Bank can undertake the analysis using other available data	1
Yes – London Economics can undertake the analysis and other available data	2
No [EXCLUSIVE]	3

ASK ALL

E15. Finally, with your consent we would like to email you a summary of the research findings once published. Please confirm whether you would like to receive this report?

Yes (same email address) [FEED IN EMAIL ADDRESS FROM INTRODUCTION/ REASSURANCES/ DATA SHEET]	1
Yes (different email address) [OPEN BOX FOR EMAIL ADDRESS]	2
No	3

Thank you for taking the time to participate in this study. You can access the privacy notice here: [<link>](#). This explains the purposes for processing your personal data as well as your rights under data protection regulations to access your personal data, withdraw consent, object to processing of your personal data and other required information.

If you do have any further comments or queries relating to this project, please contact [REDACTED] on [REDACTED] or [REDACTED]

THANK AND CLOSE

Annex 3 – Impact Evaluation Methodology

Analysis of business survival

This annex section describes the approach used to quantify the impact of the Covid-19 Loan Guarantee Schemes on the survival of supported businesses.

Calculating the observed closure rate of businesses

As discussed in the section on the Covid-19 Loan Guarantee Schemes' impact on business survival, the observed closure rate of businesses is estimated using BBB Portal Data. This exercise is based on estimating closures resulting from liquidations due to insolvency, so it does not include all business closures (for example voluntary liquidations for reasons other than insolvency).

The estimated closure rate from liquidations is computed in two steps:

1. The first step consists of estimating the share of borrowers that have defaulted on obligations. A business is defined as having defaulted if one or more of its facilities under the Covid-19 Loan Guarantee Schemes had a default date on or before 31st December 2022.

Although it is possible for a business to have multiple facilities which may not all be in default, for the purpose of the analysis of closure rates, the default state needs to be assigned at the level of the company rather than the facility. Therefore, a business is assumed to be in default if at least one of its facilities had been in default by 31st December 2022.

Not all these businesses in default will cease trading. For instance, some may re-structure their debt or enter administration without ceasing to trade. Therefore, to approximate the share of businesses that ceased trading, it is necessary to estimate the likelihood with which defaulting businesses enter liquidation.

2. The second step consists in estimating the probability with which businesses enter liquidation, conditional on them being in default. The following loan states are assumed to indicate that liquidation proceedings have taken place for the purposes of the analysis:

- Demanded – the lender is claiming on the guarantee entered with HM Government. It is assumed that lenders would only claim on the guarantee after liquidation proceedings have taken place.
- Settled – the claim has been settled.

Liquidation proceedings are assumed to have taken place for a business if it had one or more facilities in either the ‘demanded’ or ‘settled’ states, given that these facilities had a default date on or before 31st December 2022.

The probability with which businesses enter liquidation (the liquidation rate) is then calculated by dividing the number of liquidated businesses by the number of defaulting businesses.

It should be noted that, if the outstanding balance of a loan was recovered following a liquidation, then the loan state would be marked as ‘repaid’ in the management information data. These businesses are not included in the analysis as they cannot be distinguished from businesses that have fully repaid their loan. The estimated closure rate is computed by multiplying the estimated default and liquidation rates.

Assigning companies to one of the Covid-19 Loan Guarantee Schemes

When a company took out just one facility, it is assigned to the scheme of the facility. However, for borrowers that took out a facility in more than one Covid-19 Loan Guarantee Scheme, businesses are assigned based on the following rules:

- When the date drawn is available for each facility, a business is assigned to the scheme of the facility that was drawn first.
- If the date drawn is missing for at least one facility, a business is assigned to the scheme in which it had a repaid facility, assuming that there were not repaid facilities in both schemes. If there were repaid facilities in both schemes, a business is assigned to the scheme in which all its facilities were repaid, assuming all facilities had only been repaid in one scheme.

- If no loan has been repaid, some but not all loans under both schemes were repaid, or all loans under both schemes were repaid, a business is assigned to BBLs if the total CBILS loan amount was greater than the total BBLs amount. This assumes that these businesses are likely to have refinanced a BBLs loan to obtain a larger amount of funds through the CBILS scheme. For these businesses, the loan that was used to meet their immediate financial needs was the first loan they received, i.e. the BBLs loan.
- If no loan has been repaid, some but not all loans under both schemes were repaid, or all loans under both schemes were repaid, a business is assigned to the CBILS if the total CBILS loan amount was less than or equal to the total BBLs amount. This assumes that these businesses are likely to have refinanced a CBILS loan using a BBLs loan to obtain better terms and conditions. For these businesses, the loan that was used to meet their immediate financial needs was the CBILS loan.

Estimating the number of pre-pandemic jobs among borrowers that would have permanently closed in the absence of the Covid-19 Loan Guarantee Schemes

First, the proportion of pre-pandemic jobs among borrowers that would have permanently closed in the absence of the Covid-19 Loan Guarantee Schemes is estimated in two ways. The first component is calculated as the total pre-pandemic employment of borrowers that report that they would have permanently closed before the end of December 2022 if they had not been able to access funding from the Covid-19 Loan Guarantee Schemes. This is then divided by total pre-pandemic employment of surveyed businesses. As for the estimates of counterfactual business closure rates, a lower- and upper-bound is calculated. The lower bound includes only businesses reporting they definitely would have closed without their funding, and the upper bound also includes those who said they would have been very or fairly likely to have closed without their funding.

Second, an estimate of total pre-pandemic employment among BBLs and CBILS/CLBILS borrowers is calculated as the product of the total number of BBLs or CBILS/CLBILS borrowers and the average pre-pandemic employment per BBLs or CBILS/CLBILS borrower. Average pre-pandemic employment is taken per borrower and is estimated based on the survey. This number is used to scale the proportion of pre-pandemic jobs among businesses that would have permanently closed in the absence of the Covid-19 Loan Guarantee Schemes.

Third, the observed proportion of pre-pandemic jobs among businesses that permanently closed is assumed to be equal to the observed closure rate of businesses that used the Covid-19 Loan Guarantee Schemes (as described above). This approach implicitly assumes that businesses that permanently closed during the period had average employment levels among all businesses. However, this assumption is unlikely to substantially affect estimates, given the small magnitude of the estimate for the closure rate. This estimate is needed in order to exclude jobs among borrowers that have permanently closed since the onset of the pandemic as the Covid-19 Loan Guarantee Schemes did not enable these businesses to survive.

Based on the above quantities, the formula for estimating the number of pre-pandemic jobs among borrowers that would have permanently closed in the absence of the Covid-19 Loan Guarantee Schemes is as follows:

Number of pre – pandemic jobs among borrowers that would have permanently closed =
*(1 – Observed proportion of jobs lost) **
*Counterfactual proportion of jobs lost **
Estimated total employment by borrowers

Econometrics methodology and results

This section describes the econometric approaches used to quantify the impacts of the Covid-19 Loan Guarantee Schemes on business turnover, employment and productivity in the third year of the pandemic. Firstly, it describes the econometric approach used to estimate impacts in each case. Secondly, it discusses the data used in each part of the analysis. Finally, it provides supplementary econometric results.

Methodological Approach

The key challenge in identifying the effect of the Covid-19 Loan Guarantee Schemes on businesses is that there may be differences between businesses that participated in the Covid-19 Loan Guarantee Schemes (borrowers, or the ‘treatment group’) and businesses that did not participate in the Covid-19 Loan Guarantee Schemes or non-borrowers other than simply whether or not they participated in the Covid-19 Loan Guarantee Schemes.

For example, one may expect that businesses heavily disrupted by the pandemic (for example many businesses in the hospitality sector that were forced to halt most of their operations due to lockdown restrictions) would be more likely to access the Covid-19 Loan Guarantee Schemes than businesses whose activities were less affected by the pandemic.

These differences have the potential to impact business performance (measured by turnover, employment and productivity). Therefore, a simple comparison between the treatment and non-borrower groups of turnover and employment before and after the pandemic could result in incorrectly estimating the effect of the Covid-19 Loan Guarantee Schemes.

To tackle this problem, PSM¹¹⁴ is implemented to identify a set of ‘control’ businesses that did not participate in the Covid-19 Loan Guarantee Schemes, but as closely as possible resemble the treated businesses. Then, a comparison is made between this set of control businesses and the treated businesses using a fixed effects analysis. These models are estimated using STATA. Further detail on these two parts of the methodology is presented in the text that follows.

¹¹⁴ An introduction to PSM can be found in Caliendo, M., & Kopeinig, S. (2008). Some practical guidance for the implementation of propensity score matching. *Journal of economic surveys*, 22(1), 31-72.

PSM

PSM involves matching the treatment businesses to similar businesses in the non-borrower group on the basis of a 'propensity score' in order to construct a 'control' group of non-borrowers that is more comparable to borrowers than the initial, unmatched sample of non-borrowers. The propensity score is the probability of a business being in the treatment group, estimated based on its characteristics. The propensity scores are calculated using a logit model. The logit model is a standard economic model used when the outcome of interest is binary (whether a business received a loan under the Covid-19 Loan Guarantee Schemes or not). This model is represented by the following equation for business i :

$$\Pr(T_i = 1) = F(\beta C_i)$$

- T_i is a dummy variable that takes the value 1 if the business is in the treatment group and 0 otherwise.
- F is the cumulative standard logistic distribution, which is defined such that $F(x) = \frac{1}{1+e^{-x}}$.
- C_i is a vector of characteristics of the business, and β are the associated coefficients for these characteristics. These characteristics must be unaffected by the business' decision of whether to participate in the Covid-19 Loan Guarantee Schemes. Details on the characteristics included in the PSM can be found in the discussion of the data.

Once the propensity scores have been calculated, each borrowing business is matched to the non-borrower with the closest propensity score (i.e. the 'nearest neighbour') subject to two additional restrictions.

Firstly, treatment businesses with a propensity score outside the range of propensity scores observed among non-borrowers are excluded. For example, if a business in the treatment group has a propensity score above the largest propensity score among non-borrowers, then it is excluded. This is important as, for these borrowing businesses, there is no suitably similar non-borrower with which to match. Secondly, treatment businesses are only matched to non-borrowers which have turnover (or employment) data populated in the same years. This helps

to ensure that the similarity of the treatment and control group (measured by pre-pandemic characteristics) is maintained across the four years of the analysis.¹¹⁵

The matching algorithm also specifies a maximum allowable discrepancy in the propensity score between the treatment business and its matched non-borrower (referred to as a calliper). This ensures a minimum quality of match between the borrower and non-borrower groups but means that borrowing businesses that are not similar enough in propensity score to any non-borrowers would be excluded. The calliper is equal to one fifth of a standard deviation of the propensity scores. The algorithm also allows for replacement, i.e. one non-borrower can be matched to multiple different businesses in the treatment group.

The underlying goal of PSM is to identify a set of treatment and control businesses such that the only significant differences between the two is that one group received the treatment, and the other did not. The PSM substantially reduces the differences between the borrower and non-borrower samples, by approximately 80% for the BBL models and 67% for the CBILS/CLBILS models. The tables that follow show the differences in prevalence of characteristics included in the PSM for the borrower and non-borrower groups, before and after the PSM, for each of the econometric models.

Table 52: Balance table Year 3 impact evaluation – BBL turnover

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Business Interruption	Changes for Covid-19 compliance	2.1%	1.0%
	Access to External Finance	2.7%	0.5%

¹¹⁵ The combined effect of the calliper and the restrictions on the propensity scores of the borrowers and the extent to which the data is populated is to exclude 19, 13 and 22 borrowers for the turnover, employment and productivity BBL models respectively and 11, 10 and 11 borrowers from the turnover, employment and productivity CBILS/CLBILS models respectively.

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Issues with Late Payment	9.7%	2.1%
	Changes in Market Demand	12.9%	2.2%
	Availability of Staff	10.3%	3.7%
	Supply Chain Disruption	12.8%	0.3%
Turnover	less than 50,000	23.3%	0.8%
	50,000 or more, but below 100,000	2.8%	2.2%
	100,000 or more, but below 250,000	6.7%	2.9%
	250,000 or more, but below 500,000	10.8%	1.6%
	500,000 or more, but below 1 million	9.4%	1.4%
	1 million or more, but below 5 million	1.3%	0.8%
	5 million or more, but below 45 million	0.5%	0.8%
Staff	1	20.8%	0.3%
	2 to 4	9.0%	0.5%
	5 to 9	10.3%	2.1%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	10 to 24	1.8%	2.7%
	25 to 99	0.9%	0.3%
	100 to 249	0.6%	0.3%
	250 or more	0.5%	0.2%
Region	East / Midlands	2.3%	0.2%
	London	1.5%	1.9%
	North / Yorkshire	1.8%	1.6%
	Northern Ireland	3.1%	0.6%
	Scotland	0.5%	0.5%
	South	0.5%	0.2%
	Wales	2.4%	0.8%
Sector	Business services	4.1%	0.5%
	Construction	3.9%	1.4%
	Distribution	3.6%	0.6%
	Other Services	3.8%	0.5%
	Production	0.5%	0.2%
Age	5 years or less	7.5%	0.6%
	6 to 9 years	1.9%	0.8%
	10 to 15 years	6.1%	0.0%
	16 to 20 years	1.4%	1.6%
	More than 20 years	16.9%	1.4%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Average		5.7%	1.1%

Source: London Economics' analysis of Year 1, Year 2 and Year 3 survey data

Table 53: Balance table Year 3 impact evaluation – BBLs employment

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Business Interruption	Changes for Covid-19 compliance	2.1%	1.4%
	Access to External Finance	2.7%	0.3%
	Issues with Late Payment	9.7%	2.1%
	Changes in Market Demand	12.9%	2.8%
	Availability of Staff	10.3%	4.4%
	Supply Chain Disruption	12.8%	0.2%
	Turnover	less than 50,000	23.3%
50,000 or more, but below 100,000		2.8%	2.7%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	100,000 or more, but below 250,000	6.7%	3.0%
	250,000 or more, but below 500,000	10.8%	2.1%
	500,000 or more, but below 1 million	9.4%	1.7%
	1 million or more, but below 5 million	1.3%	0.3%
	5 million or more, but below 45 million	0.5%	0.9%
Staff	1	20.8%	0.2%
	2 to 4	9.0%	0.9%
	5 to 9	10.3%	1.7%
	10 to 24	1.8%	3.0%
	25 to 99	0.9%	0.3%
	100 to 249	0.6%	0.3%
	250 or more	0.5%	0.2%
Region	East / Midlands	2.3%	0.2%
	London	1.5%	2.2%
	North / Yorkshire	1.8%	0.9%
	Northern Ireland	3.1%	0.5%
	Scotland	0.5%	0.6%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	South	0.5%	0.9%
	Wales	2.4%	0.9%
Sector	Business services	4.1%	0.8%
	Construction	3.9%	1.9%
	Distribution	3.6%	0.8%
	Other Services	3.8%	0.6%
	Production	0.5%	0.3%
	Age	5 years or less	7.5%
	6 to 9 years	1.9%	0.8%
	10 to 15 years	6.1%	0.3%
	16 to 20 years	1.4%	1.9%
	More than 20 years	16.9%	1.3%
Average		5.7%	1.2%

Source: London Economics' analysis of Year 1, Year 2 and Year 3 survey data

Table 54: Balance table Year 3 impact evaluation – BBLs productivity

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Business Interruption	Changes for Covid-19 compliance	2.1%	1.0%
	Access to External Finance	2.7%	0.5%
	Issues with Late Payment	9.7%	2.1%
	Changes in Market Demand	12.9%	2.2%
	Availability of Staff	10.3%	3.7%
	Supply Chain Disruption	12.8%	0.3%
	Turnover	less than 50,000	23.3%
50,000 or more, but below 100,000		2.8%	2.6%
100,000 or more, but below 250,000		6.7%	2.7%
250,000 or more, but below 500,000		10.8%	1.8%
500,000 or more, but below 1 million		9.4%	1.0%
1 million or more, but below 5 million		1.3%	0.8%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	5 million or more, but below 45 million	0.5%	0.8%
Staff	1	20.8%	0.0%
	2 to 4	9.0%	0.3%
	5 to 9	10.3%	2.2%
	10 to 24	1.8%	2.7%
	25 to 99	0.9%	0.0%
	100 to 249	0.6%	0.3%
	250 or more	0.5%	0.2%
Region	East / Midlands	2.3%	0.2%
	London	1.5%	1.8%
	North / Yorkshire	1.8%	1.3%
	Northern Ireland	3.1%	0.6%
	Scotland	0.5%	0.6%
	South	0.5%	0.2%
	Wales	2.4%	0.8%
Sector	Business services	4.1%	0.8%
	Construction	3.9%	1.8%
	Distribution	3.6%	0.6%
	Other Services	3.8%	0.6%
	Production	0.5%	0.3%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Age	5 years or less	7.5%	0.5%
	6 to 9 years	1.9%	1.3%
	10 to 15 years	6.1%	0.2%
	16 to 20 years	1.4%	1.8%
	More than 20 years	16.9%	1.1%
Average		5.7%	1.1%

Source: London Economics' analysis of Year 1, Year 2 and Year 3 survey data

Table 55: Balance table Year 3 impact evaluation – CBILS/CLBILS turnover

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Business Interruption	Changes for Covid-19 compliance	4.7%	0.6%
	Access to External Finance	4.4%	1.9%
	Issues with Late Payment	9.0%	3.9%
	Changes in Market Demand	11.7%	1.7%
	Availability of Staff	0.7%	0.6%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Supply Chain Disruption	8.3%	1.9%
Turnover	less than 50,000	0.8%	0.0%
	50,000 or more, but below 100,000	1.0%	1.7%
	100,000 or more, but below 250,000	8.3%	0.2%
	250,000 or more, but below 500,000	2.6%	0.6%
	500,000 or more, but below 1 million	6.6%	1.3%
	1 million or more, but below 5 million	9.2%	1.3%
	5 million or more, but below 45 million	2.7%	5.6%
	45 million or more	9.4%	2.1%
Staff	1	3.2%	0.0%
	2 to 4	0.2%	1.5%
	5 to 9	7.7%	0.6%
	10 to 24	3.1%	1.1%
	25 to 99	3.0%	0.2%
	100 to 249	3.0%	0.6%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	250 or more	7.3%	0.2%
Region	East / Midlands	0.5%	2.8%
	London	0.6%	1.9%
	North / Yorkshire	2.0%	1.7%
	Northern Ireland	4.1%	0.4%
	Scotland	1.5%	1.5%
	South	2.2%	1.7%
	Wales	1.4%	0.2%
	Average		4.3%
Sector	Business services	9.3%	0.6%
	Construction	1.9%	0.2%
	Distribution	2.3%	0.9%
	Other Services	5.9%	2.6%
	Production	0.7%	3.9%
Age	5 years or less	1.5%	0.6%
	6 to 9 years	0.0%	1.9%
	10 to 15 years	8.5%	0.4%
	16 to 20 years	4.1%	0.9%
	More than 20 years	11.1%	3.9%
Average		4.3%	1.4%

Source: London Economics' analysis of Year 1, Year 2 and Year 3 survey data.

Table 56: Balance table Year 3 impact evaluation – CBILS/CLBILS employment

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Business Interruption	Changes for Covid-19 compliance	4.7%	0.4%
	Access to External Finance	4.4%	1.9%
	Issues with Late Payment	9.0%	4.1%
	Changes in Market Demand	11.7%	0.9%
	Availability of Staff	0.7%	0.2%
	Supply Chain Disruption	8.3%	3.2%
	Turnover	less than 50,000	0.8%
50,000 or more, but below 100,000		1.0%	1.7%
100,000 or more, but below 250,000		8.3%	0.2%
250,000 or more, but below 500,000		2.6%	0.0%
500,000 or more, but below 1 million		6.6%	1.1%
1 million or more, but below 5 million		9.2%	1.3%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	5 million or more, but below 45 million	2.7%	6.0%
	45 million or more	9.4%	2.1%
Staff	1	3.2%	0.0%
	2 to 4	0.2%	0.9%
	5 to 9	7.7%	0.6%
	10 to 24	3.1%	0.9%
	25 to 99	3.0%	0.0%
	100 to 249	3.0%	0.9%
	250 or more	7.3%	0.2%
Region	East / Midlands	0.5%	3.4%
	London	0.6%	1.7%
	North / Yorkshire	2.0%	2.1%
	Northern Ireland	4.1%	0.4%
	Scotland	1.5%	1.5%
	South	2.2%	1.9%
	Wales	1.4%	0.0%
Sector	Business services	9.3%	0.2%
	Construction	1.9%	0.0%
	Distribution	2.3%	0.9%
	Other Services	5.9%	3.2%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Production	0.7%	4.3%
Age	5 years or less	1.5%	0.6%
	6 to 9 years	0.0%	2.1%
	10 to 15 years	8.5%	0.6%
	16 to 20 years	4.1%	0.0%
	More than 20 years	11.1%	3.4%
Average		4.3%	1.4%

Source: London Economics' analysis of Year 1, Year 2 and Year 3 survey data.

Table 57: Balance table Year 3 impact evaluation – CBILS/CLBILS productivity

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Business Interruption	Changes for Covid-19 compliance	4.7%	0.4%
	Access to External Finance	4.4%	1.9%
	Issues with Late Payment	9.0%	3.9%
	Changes in Market Demand	11.7%	1.5%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Availability of Staff	0.7%	0.9%
	Supply Chain Disruption	8.3%	1.9%
Turnover	less than 50,000	0.8%	0.0%
	50,000 or more, but below 100,000	1.0%	1.7%
	100,000 or more, but below 250,000	8.3%	0.2%
	250,000 or more, but below 500,000	2.6%	0.6%
	500,000 or more, but below 1 million	6.6%	1.3%
	1 million or more, but below 5 million	9.2%	1.5%
	5 million or more, but below 45 million	2.7%	5.8%
	45 million or more	9.4%	2.1%
	Staff	1	3.2%
2 to 4		0.2%	1.5%
5 to 9		7.7%	0.6%
10 to 24		3.1%	1.3%
25 to 99		3.0%	0.0%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	100 to 249	3.0%	0.6%
	250 or more	7.3%	0.2%
Region	East / Midlands	0.5%	3.0%
	London	0.6%	1.7%
	North / Yorkshire	2.0%	1.7%
	Northern Ireland	4.1%	0.4%
	Scotland	1.5%	1.5%
	South	2.2%	1.7%
	Wales	1.4%	0.2%
Sector	Business services	9.3%	0.6%
	Construction	1.9%	0.4%
	Distribution	2.3%	1.1%
	Other Services	5.9%	2.8%
	Production	0.7%	4.1%
Age	5 years or less	1.5%	0.6%
	6 to 9 years	0.0%	1.9%
	10 to 15 years	8.5%	0.6%
	16 to 20 years	4.1%	0.6%
	More than 20 years	11.1%	3.9%
Average		4.3%	1.5%

Source: London Economics' analysis of Year 1, Year 2 and Year 3 survey data.

Fixed effects estimation

Under the fixed effects approach, outcomes are compared before and in the three years after the Covid-19 Loan Guarantee Schemes were introduced to account for pre-existing differences in performance (as measured by turnover, employment and productivity) between the treatment and control groups that may not have been eliminated by the PSM process.^{116 117}

The difference between outcomes before the pandemic and in the third year of the pandemic for control businesses is captured by the coefficient for the variable 'Post-intervention (Year 3)'. The difference between outcomes before the pandemic and in the third year of the pandemic for treatment businesses is captured by the variables 'Post-intervention (Year 3)' and 'Borrower, post-intervention (Year 3)'. More specifically, the net effect is obtained by adding together the two coefficients.¹¹⁸ Therefore, the impact of the scheme in the third year of the pandemic is captured by the variable 'Borrower, post-intervention (Year 3)'.

The core specification for the fixed effects model is described by the following equation:

$$y_{it} = \beta_0 + \varphi I_t + \lambda(T_i * I_t) + \mu P_{it} + f_i + \varepsilon_{it}$$

- y_{it} denotes the outcome variable (i.e. the log of turnover, employment or productivity).¹¹⁹ The years included in the analysis are the last financial year before the pandemic and the latest three financial years.
- β_0 is a constant term.

¹¹⁶ Ideally, the treated and control samples would have been identical before the pandemic. However, given that is not possible to observe all potentially relevant characteristics and incorporate these into the PSM process and because the analysis is based on a fairly limited sample size, it is possible that differences between the samples remain after the PSM.

¹¹⁷ To investigate whether the fixed effects model is the most appropriate to model the impact of the schemes on the various outcome variables, we implement a series of Hausman tests. A random effects model would produce more efficient coefficient estimates than our fixed effects model but would require the more restrictive assumption for consistency that, after PSM, firms' treatment status is uncorrelated with firm-specific time invariant determinants of the outcome. The null hypothesis of the Hausman test is that the coefficient estimates from a random effects model are consistent for the same values as the coefficient estimates from the fixed effects model. In our case, this null hypothesis is rejected for five of the six outcome-sample models (the exception being the productivity model in the CBILS/CLBILS sample). These results imply that the fixed effects model is the correct choice, and that random effects models would not have been an appropriate alternative.

¹¹⁸ From this net effect, and as when considering a single coefficient, the percentage change is calculated by taking the exponential of the coefficient and subtracting 1.

¹¹⁹ The log transformation is widely used in the literature when studying these types of variables as the transformed distributions of these variables are better behaved (for example when the maxima have less extreme values).

- T_i is a dummy variable indicating whether the firm is in the treatment group.
- I_t are time dummies for the different years in the analysis. These capture general variations in business outcomes across the period of study that are common to all businesses.
- P_{it} are a set of dummies controlling for participation in other support schemes.
- f_i are firm-level fixed effects.
- ε_{it} is the idiosyncratic error term. This captures factors which are not observed, and which change both across businesses and across time. Standard errors are clustered at the sector level to account for potential correlation in error terms across businesses in the same industry.
- φ, λ and μ are individual vectors of coefficients. λ consists of the estimates for the effect of the Covid-19 Loan Guarantee Schemes.

Data

The quantification of the impacts of the Covid-19 Loan Guarantee Schemes is primarily informed by data collected from participants and non-participants in the Covid-19 Loan Guarantee Schemes through the business survey. This section describes the variables used in each stage of the analysis.

Table 58: Variables used in the PSM

Variable	Explanation	Source
Scheme	Indicates under which Covid-19 Loan Guarantee Scheme borrowers received the loan, and which Covid-19 Loan Guarantee Scheme(s) control businesses were assigned to	BBB management information and survey data
Treatment	Indicates whether a business was a borrower of one of the Covid-19 Loan Guarantee Schemes	BBB management information and survey data

Variable	Explanation	Source
Region	Businesses operating in the same part of the UK will be more likely to be similar and experience similar local economic conditions to each other than businesses in different parts of the UK. As a result, it may be expected that the region a business is based in may influence its decision to participate in the Covid-19 Loan Guarantee Schemes.	Survey data
Sector	Businesses operating in the same sector are more likely to face similar challenges and trading conditions. ¹²⁰	Survey data
Size prior to the pandemic	Businesses of different sizes will face different kinds of challenges and may have different considerations in their response to the pandemic. Two different measures of size were used (number of staff and turnover), measured at the end of the last financial year before the pandemic. ¹²¹	Survey data
Age	More established businesses are likely to be impacted differently than nascent businesses and similarly are likely to have different responses to the challenges of the pandemic. As part of the survey businesses were asked how many years ¹²² their business had been trading. ¹²³ For the PSM, the first 6	Survey data

¹²⁰ The possible values for this variable were Primary/Manufacturing (SIC section A, B, C, D and E), Construction (SIC section F), Distribution (SIC section G, H, and I), Business Services (J, K, L, M, N) and Other Services (P, Q, R, S).

¹²¹ To allow for the possibility that the relationship between the Treatment and size is not strictly increasing or decreasing, these variables are coded into bands for the PSM. For the number of staff, the bands are 1, 2-4, 5-9, 10-24, 25-49, 50-249 and 250 or more. For turnover, the bands are less than £50,000, at least £50,000 but less than £100,000, at least £100,000 but less than £250,000, at least £250,000 but less than £500,000, at least £500,000 but less than £1 million, at least £1 million but less than £5 million, at least £5 million but less than £45 million and £45 million or more.

¹²² It was specified that this referred to all ownerships and legal statuses, the acquiring enterprise in the case of acquisition and the largest enterprise as measured by employment in the case of a merger.

¹²³ Responses are recorded in bands of Less than 1 year, 1 year, 2 years, 3 years, 4 years, 5 years, 6-9 years, 10-15 years, 16-20 years, and more than 20 years.

Variable	Explanation	Source
	bands (i.e. up to and including five years) were combined in order to boost the sample size for this category.	
Business obstacles (interruptions)	<p>The different kinds of obstacles faced by businesses because of the pandemic are likely to have affected their response strategy and business performance (as measured by turnover, employment and productivity). As a result, it is useful to include these obstacles in the PSM to help increase the likelihood that the trajectory of the treatment and control groups absent the intervention is the same (common trends).¹²⁴ The obstacles included are market demand, supply chain disruption, late payment, access to external finance, availability of staff and changes needed for Covid-19 compliance.</p> <p>This data was collected as part of the survey, in which each business was asked whether each of the obstacles was a major obstacle, a minor obstacle or no obstacle at all.</p> <p>These responses were then converted into a series of dummy variables indicating whether each obstacle was identified as major.</p>	Survey data

Table 59: Variables used in the fixed effects regression

Variable	Explanation	Source
Business outcomes	These were collected related to the last financial year before the pandemic and the three financial years following the onset of	Survey data

¹²⁴ The time series of data is not sufficient to conduct a formal common trends analysis.

Variable	Explanation	Source
(turnover ¹²⁵ , employment and productivity)	the pandemic. ¹²⁶ A log transformation was then applied to these for the fixed effects regression.	
Treatment	See Table 58 above	Survey data
Use of the CJRS	Respondents were asked whether they furloughed staff using the CJRS between 23 rd March 2020 and March 2021.	Survey data
	Information on use of other support schemes was collected as part of the survey. Businesses were asked whether they used several different support schemes for businesses between 23 rd March 2020 and the end of March 2021.	
Use of other support schemes	The support schemes asked about were deferral of VAT payments, deferral of Self-Assessment payments, HMRC Time to Pay, SEISS, 12-month business rates holiday for hospitality, leisure, retail businesses, Statutory Sick Pay relief packages and Cash grants for small businesses, loans directly funded by government or types of support (separately related and unrelated to the Covid-19 pandemic).	Survey data
	In the fixed effects model these variables are combined into two dummy variables, one indicating whether deferral of VAT payments was used and another indicating whether any of the other support schemes were used.	

¹²⁵ In order to reduce the likelihood of outliers and possible misreported values influencing the results, some observations are excluded from the analysis. In the BBL model, businesses reporting at least 10 million in turnover in any year were not included in the analysis (such businesses accounted for approximately 2 percent of the BBL model sample). Businesses were also excluded from the CBILS and CLBILS analysis on the basis of turnover. Based on BBB management information, CBILS borrowers or controls with pre-pandemic turnover more than 50 million were excluded and CLBILS borrowers or controls with pre-pandemic turnover of less than 25 million were excluded. Additionally, CBILS borrowers or controls with over 200 million in turnover after the onset of the pandemic and CLBILS borrowers or controls with less than 1 million in turnover in their latest financial year were excluded. Such businesses accounted for approximately 5 percent of the CBILS/CLBILS model sample.

¹²⁶ Number of employees were provided for the end of the relevant years.

Main econometric results (Year 3 impact evaluation)

The 'Post-intervention' variables in the model measure the change in the outcome variable at hand among non-borrowers in each year of the pandemic relative to the last year before the pandemic. The 'Borrower, post-intervention' variables reflect the additional change in that outcome variable experienced by the borrowing business sample only. These are the coefficients of interest as they isolate the impact of receiving a BBLs (or CBILs/CLBILs) loan on turnover, employment or productivity.

The variables 'Used CJRS', 'Used VAT Deferral' and 'Used Other Support' are included in some of the models to assess the robustness of results. These variables are intended to minimise the risk that impacts of these business support measures are incorrectly attributed to the Covid-19 Loan Guarantee Schemes.

Turnover

As discussed in the main report, the econometric analysis does not identify a statistically significant impact of the schemes on borrowers' turnover in the third year of the pandemic. Indeed, the coefficient on the variable 'Borrower, post-intervention (Year 3)' is not statistically significant irrespective of whether participation in other support schemes is included as a control.

The estimated coefficient for the variable 'Post-intervention (Year 3)' is negative (albeit insignificant) across all models. For context, DBT business population statistics suggest that total business turnover increased from 4.35 trillion at the start of 2020 to 4.48 trillion at the start of 2023.¹²⁷

The CJRS, designed to protect jobs during the pandemic, enabled employers to reclaim up to 80% of the wage costs of employees they could not afford to pay during the pandemic, up to

¹²⁷ <https://www.gov.uk/government/statistics/business-population-estimates-2023/business-population-estimates-for-the-uk-and-regions-2023-statistical-release>

£2,500 per month per employee.¹²⁸ The coefficients related to CJRS use and the use of other support schemes are statistically insignificant in both the BBLs and CBILS/CLBILS models.¹²⁹

Table 60: Estimated impact of the Covid-19 Loan Guarantee Schemes on turnover

Variable	BBLs	BBLs	CBILS/CLBILS	CBILS/CLBILS
Post-intervention (Y3)	-0.037	-0.012	-0.108	-0.068
	(0.050)	(0.061)	(0.075)	(0.160)
Borrower, post-intervention (Y3)	0.052	0.062	0.111	0.118
	(0.076)	(0.070)	(0.100)	(0.085)
Post-intervention (Y2)	-0.088**	-0.061**	-0.106	-0.068
	(0.024)	(0.016)	(0.087)	(0.157)
Borrower, post-intervention (Y2)	-0.013	-0.003	0.057	0.065
	(0.020)	(0.028)	(0.106)	(0.092)
Post-intervention (Y1)	-0.259***	-0.233**	-0.162***	-0.123
	(0.053)	(0.059)	(0.032)	(0.080)
Borrower, post-intervention (Y1)	0.017	0.027	-0.048	-0.040
	(0.030)	(0.026)	(0.059)	(0.060)
Used CJRS		-0.033		-0.030
		(0.085)		(0.121)
Used VAT Deferral		-0.027		-0.008
		(0.054)		(0.057)
Used Other Support		-0.008		-0.032
		(0.055)		(0.063)
Constant	12.575***	12.574***	14.600***	14.600***

¹²⁸ <https://www.gov.uk/guidance/claim-for-wage-costs-through-the-coronavirus-job-retention-scheme>

¹²⁹ PSM is implemented to ensure that the characteristics of borrowers and non-borrowers in the sample are similar, but this is not done for CJRS users and businesses that did not use CJRS. As a result, the CJRS coefficient should not be interpreted causally.

Variable	BLS	BLS	CBLS/CLBLS	CBLS/CLBLS
	(0.018)	(0.018)	(0.012)	(0.013)
Observations	2,722	2,722	1,984	1,984
R-squared	0.074	0.075	0.028	0.029

Note: Standard errors clustered at the sector level in parentheses. *** p-value<0.001, ** p-value<0.01, * p-value<0.05. Source: London Economics' analysis of survey data.

Employment

As discussed in the main report, the econometric analysis does not identify a robust and statistically significant impact of the schemes on borrowers' employment in the third year of the pandemic. The coefficient on the variable 'Borrower, post-intervention (Year 3)' is not statistically significant in the baseline model.

However, after the inclusion of variables related to participation in other business support schemes such as the CJRS and VAT deferral the coefficient on the variable 'Borrower, post-intervention (Year 3) becomes significant at the 5% level in the BLS model. Given the fairly low level of statistical significance of this estimate, and the fact that the estimate is only significant with the inclusion of these control variables, the evidence of an employment impact of BLS in the third year of the pandemic based on survey data is fairly weak.

The coefficient 'Post-intervention (Y3)' is negative and significant in the BLS model but not in the CBLS/CLBLS model. This suggests that, in the third year of the pandemic, employment amongst non-borrowers with similar characteristics to BLS borrowers was lower than it was prior to the onset of the pandemic.

Table 61: Estimated impact of the Covid-19 Loan Guarantee Schemes on employment

Variable	BLS	BLS	CBLS/CLBLS	CBLS/CLBLS
Post-intervention (Y3)	-0.076*	-0.042*	0.146	0.276
	(0.034)	(0.020)	(0.209)	(0.325)
Borrower, post-intervention (Y3)	0.056	0.064*	-0.184	-0.161

Variable	BBLs	BBLs	CBILs/CLBILs	CBILs/CLBILs
	(0.032)	(0.029)	(0.196)	(0.187)
Post-intervention (Y2)	-0.078	-0.044	0.092	0.220
	(0.042)	(0.027)	(0.128)	(0.244)
Borrower, post-intervention (Y2)	0.068	0.075	-0.153	-0.128
	(0.049)	(0.048)	(0.119)	(0.108)
Post-intervention (Y1)	-0.071**	-0.038	-0.050**	0.078
	(0.019)	(0.018)	(0.013)	(0.126)
Borrower, post-intervention (Y1)	0.001	0.009	-0.018	0.008
	(0.010)	(0.010)	(0.012)	(0.013)
Used CJRS		-0.030		-0.129
		(0.021)		(0.125)
Used VAT Deferral		-0.008		-0.026*
		(0.020)		(0.011)
Used Other Support		-0.034		-0.057
		(0.037)		(0.044)
Constant	1.512***	1.512***	2.759***	2.760***
	(0.009)	(0.008)	(0.027)	(0.030)
Observations	2,763	2,763	1,993	1,993
R-squared	0.024	0.026	0.015	0.022

Note: Standard errors clustered at the sector level in parentheses. *** p-value<0.001, ** p-value<0.01, * p-value<0.05. Source: London Economics' analysis of survey data.

Productivity

The impact of the schemes on productivity was not assessed in the first two years of the evaluation but is explored for the first time as part of this third evaluation report. The reason for this is that estimates of productivity (as measured by turnover per employee) during the first two

years of the pandemic may have been substantially affected by the CJRS. For example, businesses which furloughed a large proportion of employees may have maintained their pre-pandemic level of employment but had substantially reduced output.¹³⁰ Given the CJRS closed before the start of the third year of the pandemic (April 2022 to March 2023) this issue is unlikely to have impacted the estimates related to the third year of the pandemic.

As discussed in the main report, the econometric analysis does not identify a statistically significant impact of the schemes on borrowers' productivity in the third year of the pandemic. Indeed, the coefficient on the variable 'Borrower, post-intervention (Year 3)' is not statistically significant for either scheme, either with or without controls for participation in other support schemes. The inclusion of variables related to participation in other business support schemes such as the CJRS and VAT deferral does not have any impact on the statistical significance of the estimated impacts (i.e. the coefficient on the variable 'Borrower, post-intervention (Year 3)').

Table 62: Estimated impact of the Covid-19 Loan Guarantee Schemes on productivity

Variable	BLS	BLS	CBLS/CLBLS	CBLS/CLBLS
Post-intervention (Y3)	0.030 (0.044)	0.016 (0.069)	-0.274 (0.273)	-0.366 (0.460)
Borrower, post-intervention (Y3)	-0.003 (0.073)	-0.001 (0.070)	0.323 (0.263)	0.306 (0.240)
Post-intervention (Y2)	-0.019 (0.045)	-0.033 (0.035)	-0.205 (0.170)	-0.295 (0.355)
Borrower, post-intervention (Y2)	-0.071* (0.031)	-0.070** (0.024)	0.214 (0.180)	0.196 (0.158)
Post-intervention (Y1)	-0.195** (0.052)	-0.208** (0.051)	-0.115** (0.038)	-0.206 (0.185)
Borrower, post-intervention (Y1)	0.018	0.019	-0.027	-0.046

¹³⁰ Indeed, the 'Borrower, post-intervention (Year 2)' coefficient (i.e., what would be the estimate for the impact of the schemes in the second year of the pandemic) is negative and statistically significant.

Variable	BLS	BLS	CBILS/CLBILS	CBILS/CLBILS
	(0.036)	(0.030)	(0.065)	(0.071)
Used CJRS		0.001		0.096
		(0.087)		(0.222)
Used VAT Deferral		-0.021		0.023
		(0.068)		(0.066)
Used Other Support		0.034		0.030
		(0.047)		(0.078)
Constant	11.063***	11.062***	11.830***	11.830***
	(0.020)	(0.020)	(0.026)	(0.028)
Observations	2,708	2,708	1,984	1,984
R-squared	0.044	0.045	0.018	0.019

Note: Standard errors clustered at the sector level in parentheses. *** p-value<0.001, ** p-value<0.01, * p-value<0.05. Source: London Economics' analysis of survey data.

Annex 4 – Secondary Analysis Methodology

Analysis of business survival

This annex section describes the approach used to quantify the impact of the Covid-19 Loan Guarantee Schemes on business survival using secondary data. As this analysis is intended as an assessment of the Year 2 survey-based analysis, any key differences are highlighted between both exercises.

Overview

The key difficulty in identifying the effect of the Covid-19 Loan Guarantee Schemes on business survival is estimating the likelihood with which borrowers would have permanently closed in the absence of the schemes.

The approach taken in the Year 2 survey-based analysis was to ask borrowers to self-assess their likelihood of closing in the absence of the Covid-19 Loan Guarantee Schemes. An alternative approach – implemented in this secondary analysis – is to estimate that likelihood as the closure rate among a group of selected non-borrowers.

The key challenge with the alternative approach is that there are likely to be differences between borrowers (the ‘treatment group’) and non-borrowers other than simply whether they participated in the Covid-19 Loan Guarantee Schemes.

For example, one might expect that firms with a business model heavily disrupted by the pandemic – for example in the hospitality sector – would be more likely to access the Covid-19 Loan Guarantee Schemes than businesses whose activities were less affected by pandemic restrictions.

Yet, the same factors affecting businesses’ likelihood of accessing the Covid-19 Loan Guarantee Schemes may have also influenced their chances of survival during the pandemic (for example, cash flow issues as a result of pandemic restrictions). Therefore, simply estimating the counterfactual closure rate as the closure rate among the overall population of businesses that did not access the BBLs and CBLS/CLBLS (or a representative sample

thereof) and comparing this to the observed closure rate among borrowers would incorrectly attribute the impact of such other factors to the Covid-19 Loan Guarantee Schemes. It is therefore important that the analysis accounts, to the degree that is possible, for factors influencing both the likelihood of being a borrower and that of surviving.

Calculating the counterfactual closure rate of borrowers

To tackle this problem, PSM¹³¹ is implemented to identify a set of non-borrowers that closely resemble the treatment businesses, based on a 'propensity score'. The propensity score is the probability of a business being in the treatment group (i.e. being a borrower), estimated based on its characteristics (for example turnover, sector etc.). The underlying goal of PSM is to identify a group of borrowers and some matched non-borrowers such that the only major (observable) difference between the two groups is that one group accessed one of the Covid-19 Loan Guarantee Schemes, and the other did not.

The counterfactual closure rate is estimated based on the closure rate among the 'control' group of non-borrowers matched to the borrower sample (also referred to as treatment group) via PSM. For the purpose of this analysis, a closure between 1st April 2020 and 31st March 2022 is identified based on the IDBR 'deathdate' variable (note, this variable indicates a business's 'death' or closure and is not in any way related to public health or human death).¹³²

The impact on business survival is then quantified as the difference between the closure rate in the borrower sample and that in the matched non-borrower sample. In line with the Year 2 survey analysis, this secondary analysis is conducted separately for the BBLs and CBILs/CLBILs. Additional detail on the methodology is presented in the rest of this annex.

PSM

¹³¹ An introduction to PSM can be found in Caliendo, M., & Kopeinig, S. (2008). Some practical guidance for the implementation of propensity score matching. *Journal of economic surveys*, 22(1), 31-72.

¹³² Specifically, if any September extract of the IDBR from 2017 to 2023 (inclusive) recorded a deathdate associated with a given enterprise between 1st April 2020 and 31st March 2022, this is recorded as a company closure for the purposes of this analysis. A business is removed from the IDBR if information from HMRC, ONS business surveys, Companies House or the Insolvency Service indicates that the business is no longer active. The date that a business is removed from the IDBR is recorded in the 'deathdate' variable. If a company is removed from the Companies House active register, the IDBR uses that as the closure date. In other cases, a year of no VAT or PAYE activity will have a business marked as dead. Sometime a business recorded as active at Companies House may be assigned a 'deathdate' on the IDBR if other sources of information indicate a lack of recent activity.

PSM involves matching borrowers to similar non-borrowers on the basis of a ‘propensity score’. The propensity score is the probability of a business being a borrower (i.e. in the treatment group), given its set of characteristics (for example turnover, sector etc.). Propensity scores are estimated using a logit model. The logit model is a standard econometric model used when the outcome of interest is binary (for example whether a business received a loan under the Covid-19 Loan Guarantee Schemes or not). This model is characterised by the following equation for business i :

$$\Pr(T_i = 1 | C_i) = F(\beta C_i)$$

- T_i is a dummy variable that takes the value 1 if the business is a borrower (i.e. in the treatment group) and 0 otherwise.
- F is the cumulative standard logistic distribution, which is defined such that $F(x) = \frac{1}{1+e^{-x}}$.
- C_i is a vector of business characteristics, and β are the associated coefficients for these characteristics. These characteristics must be unaffected by the business’ decision of whether to participate in the Covid-19 Loan Guarantee Schemes. Details on the business characteristics included in the PSM can be found in the discussion of the data.

Once the propensity scores have been calculated, each borrower is matched to the non-borrower(s) with the closest propensity score (i.e. the ‘nearest neighbour’).

The matching algorithm also specifies a maximum allowable discrepancy in the propensity score between a borrower and its matched non-borrower (referred to as a calliper). The calliper ensures a minimum quality of match between the borrower and non-borrower groups but leads to the exclusion of borrowers that are not similar enough in propensity score to any non-borrowers. In line with the year 2 survey analysis, the calliper in this secondary analysis is equal to one fifth of the standard deviation of the propensity scores.

The algorithm also allows for replacement, i.e. one non-borrower can be matched to multiple different borrowers. The advantage of this is that the closest match is always used (thereby reducing bias of estimates).

A number of other restrictions are placed on the set of businesses used in the analysis.

- First, borrowers with a propensity score outside the range of propensity scores observed among non-borrowers are excluded.¹³³ For example, if a borrower has a propensity score above the largest propensity score among non-borrowers, it will be excluded as there is no sufficiently similar non-borrower with which to match it.
- Second, borrowers are only matched to businesses that are active in the first year of the pandemic. This is to ensure that only active borrowers and non-borrowers are matched to one another and retained for the analysis. In this way, business closure rates are correctly defined with reference only to active firms.¹³⁴
- Third, both the BBLs and CBILs/CLBILs non-borrower groups exclude businesses in receipt of any of the Covid-19 Loan Guarantee Schemes (i.e. the control group used in the analysis of the BBLs will not include any businesses that borrowed under the CBILs/CLBILs, and vice versa).
- Finally, businesses with turnover greater than £5 million are excluded from both the BBLs borrower and non-borrower samples (99% of the BBLs borrower population had turnover under £5 million). Businesses with turnover of less than £25 million are excluded from the CLBILs borrower and non-borrower samples and businesses with turnover greater than £50 million were excluded from the CBILs borrower and non-borrower samples. According to BBB MI data, there are no CBILs (CLBILs) borrowers with turnover above (below) these respective thresholds.

The PSM substantially reduces the observable differences between the borrower and non-borrower groups, which suggests good matching quality. Indeed, the average difference in the prevalence of various characteristics included in the PSM fell by approximately 95% in the case of the BBLs (a fall of 5.5 percentage points from 5.8% to 0.3%) and 97% in the case of the CBILs/CLBILs (a fall of 8.0 percentage points from 8.3% to 0.3%). The tables that follow

¹³³ Strictly speaking, the range of propensity scores is slightly larger than the range between the lowest and highest propensity scores of non-borrowers. The range is extended by allowing borrowers with a propensity score of within a small constant (0.00001) below the lowest propensity score of non-borrowers or above the largest propensity score of non-borrowers to be matched. This constant is chosen to be arbitrarily small. This approach avoids the exclusion of businesses that are equal in propensity score with the lowest/highest non-borrower.

¹³⁴ The combined effect of the calliper, the restriction on the propensity scores of the borrowers, and the matching to only active firms is to exclude one borrower from the main BBLs sample and one borrower from the main CBILs/CLBILs sample.

provide more detail on the differences in the prevalence of the various characteristics included in the PSM across the borrower and non-borrower groups, before and after the PSM.

Table 63: Balance table Year 2 secondary analysis of survival - BBLS

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Turnover	Less than 25,000	6.4%	0.1%
	Between 25,000 and 50,000	5.3%	0.1%
	Between 50,000 and 75,000	10.7%	0.1%
	Between 75,000 and 100,000	6.5%	0.1%
	Between 100,000 and 125,000	5.5%	0.2%
	Between 125,000 and 150,000	3.2%	0.0%
	Between 150,000 and 175,000	1.1%	0.2%
	Between 175,000 and 200,000	0.2%	0.0%
	Between 200,000 and 250,000	0.2%	0.1%
	Between 250,000 and 350,000	1.9%	0.4%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Between 350,000 and 500,000	3.7%	0.4%
	Between 500,000 and 1 million	14.5%	0.1%
	Between 1 million and 5 million	18.7%	0.9%
Employment	1 employee	33.2%	0.5%
	2-3 employees	0.7%	0.4%
	4-5 employees	5.3%	0.1%
	6-7 employees	5.1%	0.1%
	8-9 employees	4.8%	0.3%
	10-14 employees	6.7%	0.2%
	15-24 employees	6.3%	0.1%
	25-49 employees	4.4%	0.1%
	50-249 employees	1.3%	0.1%
	More than 250 employees	0.0%	0.0%
Region	East / Midlands	0.3%	0.3%
	London	4.3%	1.0%
	North / Yorkshire	1.9%	0.1%
	Northern Ireland	0.9%	0.1%
	Scotland	0.1%	0.3%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	South	0.7%	0.2%
	Wales	0.3%	0.1%
Sector	Business Services	17.9%	0.4%
	Construction	7.1%	0.4%
	Distribution	7.9%	0.1%
	Other Services	0.3%	0.4%
	Primary/Manufacturing	3.4%	0.2%
Turnover growth 2017/2018	Decrease of more than 50%	2.4%	0.1%
	Decrease of between 25% and 50%	0.7%	0.1%
	Decrease of between 10% and 25%	2.0%	0.1%
	Decrease of less than 10%	3.4%	0.2%
	Increase of less than 5%	20.3%	0.7%
	Increase of between 5% and 25%	8.7%	0.3%
	Increase of between 25% and 50%	4.4%	0.2%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Increase of more than 50%	4.8%	0.1%
Turnover growth 2018/2019	Decrease of more than 50%	1.4%	0.3%
	Decrease of between 25% and 50%	0.8%	0.1%
	Decrease of between 10% and 25%	3.3%	0.1%
	Decrease of less than 10%	5.2%	0.1%
	Increase of less than 5%	26.9%	0.1%
	Increase of between 5% and 25%	7.4%	0.1%
	Increase of between 25% and 50%	4.9%	0.3%
	Increase of more than 50%	6.7%	0.1%
Employment growth 2017/2018	Decrease of more than 50%	0.8%	0.2%
	Decrease of less than 50%	3.4%	1.0%
	No change	17.5%	1.9%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Increase of less than 50%	10.7%	0.2%
	Increase of more than 50%	4.1%	0.6%
Employment growth 2018/2019	Decrease of more than 50%	0.6%	0.2%
	Decrease of less than 50%	4.9%	0.7%
	No change	20.0%	1.3%
	Increase of less than 50%	11.2%	0.1%
	Increase of more than 50%	4.6%	0.3%
Age	2 Years or less	4.8%	0.3%
	3-5 Years	7.4%	0.9%
	6-10 Years	2.3%	0.0%
	11-15 Years	2.6%	0.5%
	16-20 Years	2.3%	0.4%
	21-40 Years	3.8%	0.9%
	More than 40 Years	1.2%	0.4%
Average		5.8%	0.3%

Source: London Economics' analysis of IDBR data and BBB Portal Data.

Table 64: Balance table Year 2 secondary analysis of survival – CBILS/CLBILS

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Turnover	Less than 25,000	6.9%	0.0%
	Between 25,000 and 50,000	7.0%	0.0%
	Between 50,000 and 75,000	13.8%	0.1%
	Between 75,000 and 100,000	10.0%	0.2%
	Between 100,000 and 125,000	9.5%	0.1%
	Between 125,000 and 150,000	5.7%	0.1%
	Between 150,000 and 175,000	3.1%	0.1%
	Between 175,000 and 200,000	1.4%	0.0%
	Between 200,000 and 250,000	1.3%	0.0%
	Between 250,000 and 350,000	0.1%	0.0%
	Between 350,000 and 500,000	3.1%	0.1%
	Between 500,000 and 1 million	6.8%	0.3%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Between 1 million and 5 million	21.5%	0.1%
	Between 5 million and 25 million	22.9%	0.1%
	Between 25 million and 100 million	4.1%	0.2%
	More than 100 million	0.2%	0.0%
Employment	1 employee	46.2%	0.0%
	2-3 employees	11.0%	0.2%
	4-5 employees	2.0%	0.1%
	6-7 employees	3.3%	0.2%
	8-9 employees	3.6%	0.2%
	10-14 employees	7.0%	0.1%
	15-24 employees	9.8%	0.5%
	25-49 employees	12.6%	0.2%
	50-249 employees	16.4%	0.0%
	More than 250 employees	2.5%	0.2%
Region	East / Midlands	1.2%	0.8%
	London	5.8%	0.0%
	North / Yorkshire	1.9%	0.2%
	Northern Ireland	0.5%	0.1%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Scotland	0.1%	0.3%
	South	2.5%	0.7%
	Wales	0.1%	0.1%
Sector	Business Services	16.3%	0.5%
	Construction	1.6%	0.3%
	Distribution	7.0%	0.2%
	Other Services	0.1%	0.1%
	Primary/Manufacturing	7.8%	0.4%
Turnover growth 2017/2018	Decrease of more than 50%	3.9%	0.3%
	Decrease of between 25% and 50%	2.1%	0.1%
	Decrease of between 10% and 25%	0.9%	0.2%
	Decrease of less than 10%	4.7%	0.2%
	Increase of less than 5%	25.8%	0.6%
	Increase of between 5% and 25%	16.4%	0.8%
	Increase of between 25% and 50%	6.5%	0.2%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Increase of more than 50%	3.3%	0.0%
Turnover growth 2018/2019	Decrease of more than 50%	2.7%	0.2%
	Decrease of between 25% and 50%	1.1%	0.1%
	Decrease of between 10% and 25%	2.9%	0.4%
	Decrease of less than 10%	7.6%	0.1%
	Increase of less than 5%	31.7%	0.7%
	Increase of between 5% and 25%	13.6%	0.6%
	Increase of between 25% and 50%	6.9%	0.0%
	Increase of more than 50%	4.4%	0.1%
Employment growth 2017/2018	Decrease of more than 50%	1.1%	0.1%
	Decrease of less than 50%	5.1%	0.6%
	No change	27.0%	0.9%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Increase of less than 50%	19.6%	0.2%
	Increase of more than 50%	3.4%	0.4%
Employment growth 2018/2019	Decrease of more than 50%	1.0%	0.1%
	Decrease of less than 50%	6.5%	0.1%
	No change	29.3%	0.4%
	Increase of less than 50%	20.2%	0.3%
	Increase of more than 50%	3.6%	0.1%
Age	2 Years or less	15.9%	0.0%
	3-5 Years	14.0%	0.5%
	6-10 Years	0.1%	0.8%
	11-15 Years	4.2%	0.5%
	16-20 Years	4.9%	0.6%
	21-40 Years	13.7%	1.0%
	More than 40 Years	7.2%	0.2%
Average		8.3%	0.3%

Source: London Economics' analysis of IDBR data and BBB Portal Data.

Calculating the weighted average closure rates

The impact of the BBLs or CBILs/CLBILs on business survival is estimated as the difference between the closure rate in the borrower sample and the closure rate in the matched non-borrower sample. Closure rates are calculated based on closures recorded in the IDBR between 1st April 2020 and 31st March 2022 among firms that were active in 2020.

The sample of borrowers was matched to the IDBR using their company registration number (CRN). Therefore, ordinary partnerships and sole proprietors – which do not have CRNs and are smaller on average¹³⁵ – are not included in that sample. In order for the overall impact estimates to be as representative as possible of these smaller businesses, closure rates are computed in two steps. First, closure rates are calculated separately within each turnover band (a proxy for size), based on the weighting assigned to each business by the PSM. Then, the overall weighted average closure rate is calculated by weighting the closure rates within each turnover band according to the share of businesses in each turnover band among the population of borrowers.¹³⁶ Thus, the contribution of smaller businesses to the estimated closure rates is based on their weight within the population rather than the sample.

Table 65 : Closure rates among BBLs borrowers and non-borrowers, by turnover band

Turnover Band	Closure rate among BBLs non-borrowers	Closure rate among BBLs borrowers	Difference between borrowers and non-borrowers
Less than 50K	23.3%	15.0%	8.3%
50,001 to 100K	22.1%	16.0%	6.1%
100,001 to 250K	17.7%	10.6%	7.1%
250,001 to 500K	11.9%	4.9%	7.0%
500,001 to 1m	10.0%	3.9%	6.1%

¹³⁵ Indeed, based on private sector Business Population Estimates, companies had an average turnover of £2.0m at the start of 2020 whereas ordinary partnerships and sole proprietorships respectively had average turnover of £0.2m and £0.1m. BEIS (2020) *Business Population Estimates for the UK and Regions 2020*. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/922793/BPE__2020_detailed_tables.xlsx.

¹³⁶ The number of firms in each turnover band was obtained from BBB Management Information data.

Turnover Band	Closure rate among BBLS non-borrowers	Closure rate among BBLS borrowers	Difference between borrowers and non-borrowers
1m to 5m	7.8%	3.5%	4.3%
Weighted average	18.1%	11.2%	6.9%¹³⁷

Source: London Economics' analysis of IDBR data, BBB Management Information and BBB Portal Data.

Table 66 : Closure rates among CBILS/CLBILS borrowers and non-borrowers, by turnover band

Turnover Band	Closure rate among CBILS/CLBILS non-borrowers	Closure rate among CBILS/CLBILS borrowers	Difference between borrowers and non-borrowers
Less than 50K	25.6%	12.5%	13.1%
50,001 to 100K	19.7%	8.9%	10.8%
100,001 to 250K	15.6%	6.3%	9.3%
250,001 to 500K	10.5%	3.1%	7.4%
500,001 to 1m	9.7%	2.5%	7.2%
1m to 5m	7.8%	1.6%	6.2%
5m to 25m	4.0%	1.1%	2.9%
25m to 50m	2.4%	1.0%	1.4%
50m to 200m	2.7%	0.0%	2.7%
>200m	2.2%	3.4%	-1.3%
Weighted average	8.8%	2.5%	6.3%¹³⁸

¹³⁷ With a 95% confidence interval of 5.9%-8.0%.

¹³⁸ With a 95% confidence interval of 5.8%-6.8%.

Source: London Economics' analysis of IDBR data, BBB Management Information and BBB Portal Data.

Estimating the number of pre-pandemic jobs among borrowers that would have permanently closed in the absence of the Covid-19 Loan Guarantee Schemes

This sub-section outlines the approach used to estimate the number of pre-pandemic jobs among borrowers that would have permanently closed between April 2020 and March 2022 in the absence of the Covid-19 Loan Guarantee Schemes.

First, the proportion of pre-pandemic jobs among borrowers that would have permanently closed in the absence of the schemes is estimated by calculating the difference between the share of total pre-pandemic employment among non-borrowers (in the matched control group constructed by PSM) that permanently closed and the corresponding share among borrowers that permanently closed. This is similar to the method used to estimate the impact of the BBLs and CBILs/CLBILs on business closure rates (discussed above), except that closure rates are replaced with the share of pre-pandemic employment within firms that permanently closed between 1st April 2020 and 31st March 2022, as a proportion of total pre-pandemic employment.

Second, this proportion is scaled by an estimate of total pre-pandemic employment among borrowers. This is estimated as the average employment of borrowers within the sample multiplied by the total number of borrowers, based on BBB management information.

By way of an example, if there were 100,000 borrowers with an average of 10 employees each, then total pre-pandemic employment among borrowers would be 1.0 million. Then, if 25% of total pre-pandemic non-borrower employment was among non-borrowers that permanently closed and 15% of total pre-pandemic borrower employment was among borrowers that permanently closed, then it is assumed that additional borrowers that would have closed in the absence of the schemes accounted for 10% (25% minus 15%) of total pre-pandemic borrower employment. Therefore, the number of pre-pandemic jobs among borrowers that would have permanently closed is estimated to be 1.0 million multiplied by 10%, which is 100,000.

As with the estimation of business closure rates, this calculation is undertaken separately within individual turnover bands b , before being aggregated across all B turnover bands. The calculation – undertaken separately for BBLs and CBILs/CLBILs – is as follows:

- *average pre – pandemic employment* refers to the average employment of borrowers within each turnover band *b*, calculated using the IDBR;
- *number of businesses* refers to the number of businesses within each turnover band *b* as provided in BBB Management Information;
- *share of pre – pandemic employment among firms that died* refers to the share of pre-pandemic employment in firms that permanently closed between 1st April 2020 and 31st March 2022, as a proportion of total employment of firms active in the first year of the pandemic. This is also calculated within each turnover band *b*, using the IDBR. The proportion of total pre-pandemic borrower employment among borrowers that would have closed in absence of the Covid-19 Loan Guarantee Schemes is estimated by subtracting the share of total pre-pandemic borrower employment among firms that permanently closed from the corresponding share for matched non-borrowers.

The total number of pre-pandemic jobs among borrowers that would have permanently closed in the absence of the Covid-19 Loan Guarantee Schemes is estimated at 237,000-322,000¹³⁹ jobs in the case of BBLs; and 98,000-116,000¹⁴⁰ in the case of CBILs/CLBILs.

Analysis of turnover and employment

This section details the econometric approach used to quantify the impacts of the Covid-19 Loan Guarantee Schemes on business turnover and employment in the second year of the pandemic based on analysis of secondary data sources. This includes a discussion of the methodology, a presentation of the full econometric results and details on the data used.

¹³⁹ A point estimate of 279,352 within a range of 237,167-321,537. Due to the complexity of the estimation method, this range is not a confidence interval but reflects the uncertainty around the schemes' impact on business closure rates. More specifically, the width of the range (relative to the point estimate) is defined to be the same as that of the 95% confidence interval associated with the impact of the schemes on business closure rates. For instance, the 95% confidence interval in the case of the BBLs is defined as +/- 13% of the point estimate. Therefore, the lower (upper) bound of the range for the impact of the BBLs on jobs is defined to be 13% below (above) the point estimate. The range is calculated in a similar manner for the CBILs/CLBILs schemes.

¹⁴⁰ A point estimate of 107,123 within a range of 98,228-116,017

Methodological Approach

As was the case in the analysis of business survival, PSM¹⁴¹ is implemented to identify a set of non-borrowers that closely resemble borrowers. Then, a comparison is made between borrowers and matched non-borrowers (i.e. the ‘treated’ and ‘control’ groups) both pre- and post-pandemic using fixed effects estimation. Both PSM and fixed effects estimation are performed using Stata. Further detail on these two components of the methodology follows below.

PSM

PSM is implemented in the same manner as described above, with two key differences. First, businesses which permanently closed in between 1st April 2020 and 31st March 2022 are excluded from the PSM prior to the difference-in-difference analysis. This is to avoid double counting the impact of the schemes on businesses that ceased trading by including them in both the business survival and econometric analyses.

Secondly, in the case of the PSM used in the business survival analysis, a restriction was applied so that only businesses active in the first year of the pandemic were matched to one another. This was to ensure that the business closure rates are correctly defined with reference only to active firms. However, in the case of the econometric analysis of the Covid-19 Loan Guarantee Schemes’ impact on turnover and employment, this condition is unnecessarily restrictive because it would remove firms that may have been inactive in the first or second year of the pandemic but were not recorded as a business closure. Instead, to feature in the econometric analysis, businesses are required to have non-missing turnover and employment data in the first or second year of the pandemic.

Because of differences in data sources, the set of covariates available for use in the PSM differs across the survey and secondary analyses. Specifically, two years of one-year pre-pandemic growth rates are available for the secondary analysis but not the survey analysis, and information on business obstacles (for example whether businesses experienced changes in market demand, supply chain disruptions etc.) is available for the survey analysis but not this exercise.

¹⁴¹ An introduction to PSM can be found in Caliendo, M., & Kopeinig, S. (2008). Some practical guidance for the implementation of propensity score matching. *Journal of economic surveys*, 22(1), 31-72.

Once again, the PSM substantially reduces the differences between the borrower and non-borrower samples. Indeed, the average difference in the prevalence of various characteristics included in the PSM fell by approximately 93% in the case of the BBLs (a fall of 5.6 percentage points from 6.0% to 0.4%) and 97% in the case of the CBILs/CLBILs (a fall of 7.9 percentage points from 8.2% to 0.3%). The tables that follow provide more detail on the differences in the prevalence of the various characteristics included in the PSM across the borrower and non-borrower groups, before and after the PSM.

Table 67: Balance table Year 2 secondary analysis of turnover/employment - BBLs

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Turnover	Less than 25,000	6.5%	0.0%
	Between 25,000 and 50,000	5.5%	0.2%
	Between 50,000 and 75,000	10.4%	0.2%
	Between 75,000 and 100,000	6.5%	0.3%
	Between 100,000 and 125,000	5.5%	0.2%
	Between 125,000 and 150,000	3.4%	0.0%
	Between 150,000 and 175,000	1.2%	0.1%
	Between 175,000 and 200,000	0.3%	0.1%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Between 200,000 and 250,000	0.1%	0.1%
	Between 250,000 and 350,000	1.6%	0.0%
	Between 350,000 and 500,000	3.7%	0.4%
	Between 500,000 and 1 million	15.0%	0.3%
	Between 1 million and 5 million	19.2%	1.0%
Employment	1 employee	32.9%	0.2%
	2-3 employees	1.5%	0.4%
	4-5 employees	5.2%	0.6%
	6-7 employees	5.2%	0.7%
	8-9 employees	4.9%	0.1%
	10-14 employees	6.9%	0.0%
	15-24 employees	6.3%	0.8%
	25-49 employees	4.5%	0.5%
	50-249 employees	1.3%	0.1%
	More than 250 employees	0.0%	0.0%
Region	East / Midlands	0.8%	0.7%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	London	5.0%	0.9%
	North / Yorkshire	1.7%	0.3%
	Northern Ireland	1.0%	0.1%
	Scotland	0.3%	0.2%
	South	0.9%	0.5%
	Wales	0.3%	0.1%
Sector	Business Services	17.1%	0.8%
	Construction	6.5%	0.2%
	Distribution	8.1%	0.4%
	Other Services	0.8%	0.9%
	Primary/Manufacturing	3.4%	0.1%
Turnover growth 2017/2018	Decrease of more than 50%	2.3%	0.2%
	Decrease of between 25% and 50%	0.5%	0.1%
	Decrease of between 10% and 25%	2.3%	0.6%
	Decrease of less than 10%	3.7%	0.1%
	Increase of less than 5%	22.4%	0.7%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Increase of between 5% and 25%	9.4%	1.2%
	Increase of between 25% and 50%	4.7%	0.3%
	Increase of more than 50%	5.1%	0.4%
Turnover growth 2018/2019	Decrease of more than 50%	0.8%	0.0%
	Decrease of between 25% and 50%	1.2%	0.1%
	Decrease of between 10% and 25%	3.6%	0.3%
	Decrease of less than 10%	5.6%	0.4%
	Increase of less than 5%	30.4%	0.4%
	Increase of between 5% and 25%	8.5%	0.3%
	Increase of between 25% and 50%	5.2%	0.2%
	Increase of more than 50%	7.1%	0.2%
Employment growth 2017/2018	Decrease of more than 50%	0.9%	0.1%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Decrease of less than 50%	3.2%	1.3%
	No change	17.3%	2.3%
	Increase of less than 50%	10.9%	0.3%
	Increase of more than 50%	4.2%	0.6%
Employment growth 2018/2019	Decrease of more than 50%	0.7%	0.0%
	Decrease of less than 50%	5.0%	0.8%
	No change	20.4%	1.2%
	Increase of less than 50%	11.4%	0.2%
	Increase of more than 50%	4.7%	0.2%
Age	2 Years or less	3.2%	0.4%
	3-5 Years	8.7%	1.0%
	6-10 Years	2.3%	0.4%
	11-15 Years	2.7%	0.4%
	16-20 Years	2.2%	0.6%
	21-40 Years	3.6%	0.9%
	More than 40 Years	1.1%	0.6%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Average		6.0%	0.4%

Source: London Economics' analysis of IDBR data and BBB Portal Data.

Table 68: Balance table Year 2 secondary analysis of turnover/employment – CBILS/CLBILS

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Turnover	Less than 25,000	6.7%	0.0%
	Between 25,000 and 50,000	7.0%	0.1%
	Between 50,000 and 75,000	12.9%	0.0%
	Between 75,000 and 100,000	9.5%	0.1%
	Between 100,000 and 125,000	9.1%	0.0%
	Between 125,000 and 150,000	5.8%	0.1%
	Between 150,000 and 175,000	3.2%	0.2%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Between 175,000 and 200,000	1.4%	0.1%
	Between 200,000 and 250,000	1.6%	0.1%
	Between 250,000 and 350,000	0.4%	0.1%
	Between 350,000 and 500,000	2.8%	0.2%
	Between 500,000 and 1 million	6.3%	0.4%
	Between 1 million and 5 million	21.0%	0.5%
	Between 5 million and 25 million	23.1%	0.6%
	Between 25 million and 100 million	4.0%	0.1%
	More than 100 million	0.2%	0.0%
Employment	1 employee	44.3%	0.1%
	2-3 employees	11.7%	0.2%
	4-5 employees	1.5%	0.2%
	6-7 employees	3.0%	0.2%
	8-9 employees	3.4%	0.3%
	10-14 employees	6.8%	0.4%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	15-24 employees	9.6%	0.1%
	25-49 employees	12.6%	0.2%
	50-249 employees	16.5%	0.2%
	More than 250 employees	2.5%	0.1%
Region	East / Midlands	1.4%	0.5%
	London	5.9%	0.1%
	North / Yorkshire	1.7%	0.2%
	Northern Ireland	0.5%	0.0%
	Scotland	0.1%	0.1%
	South	2.5%	0.8%
	Wales	0.1%	0.1%
Sector	Business Services	15.0%	0.1%
	Construction	1.0%	0.2%
	Distribution	7.2%	0.2%
	Other Services	0.7%	0.1%
	Primary/Manufacturing	7.8%	0.3%
Turnover growth 2017/2018	Decrease of more than 50%	3.6%	0.1%
	Decrease of between 25% and 50%	1.9%	0.2%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Decrease of between 10% and 25%	1.1%	0.0%
	Decrease of less than 10%	4.9%	0.1%
	Increase of less than 5%	27.1%	1.1%
	Increase of between 5% and 25%	16.6%	1.5%
	Increase of between 25% and 50%	6.5%	0.5%
	Increase of more than 50%	3.6%	0.3%
Turnover growth 2018/2019	Decrease of more than 50%	2.1%	0.1%
	Decrease of between 25% and 50%	0.8%	0.1%
	Decrease of between 10% and 25%	3.1%	0.2%
	Decrease of less than 10%	7.9%	0.1%
	Increase of less than 5%	34.1%	0.3%
	Increase of between 5% and 25%	14.4%	0.5%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Increase of between 25% and 50%	7.0%	0.3%
	Increase of more than 50%	4.7%	0.1%
Employment growth 2017/2018	Decrease of more than 50%	1.2%	0.1%
	Decrease of less than 50%	4.7%	0.7%
	No change	26.2%	1.3%
	Increase of less than 50%	19.3%	0.0%
	Increase of more than 50%	3.4%	0.5%
Employment growth 2018/2019	Decrease of more than 50%	1.0%	0.1%
	Decrease of less than 50%	6.4%	0.1%
	No change	29.1%	0.4%
	Increase of less than 50%	19.9%	0.1%
	Increase of more than 50%	3.8%	0.3%
Age	2 Years or less	13.0%	0.1%

- y_{it} denotes the outcome variable (i.e. either log employment or log turnover).¹⁴⁴ The three periods included in the analysis are the last period available from the IDBR that was entirely before the pandemic¹⁴⁵ (this is referred to as the ‘pre-pandemic’ or ‘pre-intervention’ period), and the first two periods predominantly after the onset of the pandemic.¹⁴⁶ This allows a comparison before and after the Covid-19 Loan Guarantee Schemes were introduced;
- β_0 is a constant term;
- T_i is a dummy variable indicating whether a given business was a borrower or a non-borrower (i.e. whether it received the ‘treatment’);
- I_t is a dummy indicating whether the observation is pre- or post-treatment;
- $CJRS_{it}$ are dummies controlling for whether in a given year the firm had already used the CJRS;
- f_i denotes unobserved time invariant factors which may influence the outcome variable. The use of the fixed effects estimator accounts for this unobserved heterogeneity;
- ε_{it} is the idiosyncratic error term. This captures factors which are not observed, and which change both across businesses and across time. Standard errors are clustered at the sector level to account for potential correlation in error terms across businesses in the same industry;

¹⁴⁴ To deal with the problem of zeros in the dependent variable, the $\log(y+1)$ transformation was implemented. This is required because $\log(0)$ is undefined. The choice of the constant 1 is discretionary and may arbitrarily bias the estimates and their standard errors. However, the $\log(y+1)$ transformation is considered to be the most popular solution to the problem of zeros in the academic literature. For a discussion of this issue, see Bellégo, Benatia and Pape (2022). Dealing with Logs and Zeros in Regression Models, Working Papers 2022-08, Center for Research in Economics and Statistics.

¹⁴⁵ Given that pre-pandemic turnover and employment are used in the PSM, these must not be influenced by the treatment (i.e. participation in the Covid-19 Loan Guarantee Schemes). Therefore pre-pandemic turnover and employment must refer to a period entirely before the pandemic.

¹⁴⁶ Specifically, given the lags between the time at which the IDBR is updated and the reference period of the data, the September 2020 extract is used for pre-pandemic turnover data, while the September 2019 extract is used for pre-pandemic employment data. The September 2021 and September 2022 extracts are used for post-pandemic turnover and employment data. Different extracts are used for pre-pandemic turnover and employment data because of the need to cover a period entirely before the pandemic, and the fact that turnover and employment data in a given extract refer to different periods due to differences in data sources. The post-pandemic period is chosen as the first period that primarily refers to post pandemic data. Information on the data sources and reference periods of turnover and employment data in the IDBR was gathered from internal BEIS documentation, discussions with BEIS and the ONS, as well as documentation available online (see, for instance, ONS (2006) *Business Structure Database User Guide*, available at http://doc.ukdataservice.ac.uk/doc/6697/mrdoc/pdf/6697_user_guide.pdf).

- γ , φ , λ and μ are individual coefficients. λ is the estimate for the effect of the Covid-19 Loan Guarantee Schemes.

Testing for differences in pre-treatment trends

As mentioned in the main report, a key assumption underlying the approach is the common (or parallel) trends assumption: in the absence of the intervention (i.e. the Covid-19 Loan Guarantee Schemes), the turnover and employment of the treatment group should have followed a similar trend to that within the chosen control group. This sub-section explains why this assumption is likely to hold, and presents the outcome of statistical tests which offer further support for the choice of the control group against which borrowers are compared.

It is likely that the common trends assumption is satisfied because the PSM takes into account a number of variables likely to affect the trajectory of employment and turnover during the pandemic in the absence of the Covid-19 Loan Guarantee Schemes. For instance, matching on businesses' sector (one of the variables included in the PSM) is likely to account for the influence of sector-specific factors on trends (for example sector-specific business models more or less likely to be disrupted by the pandemic). Moreover, businesses' age provides information on their experience (for example older businesses may have had more experience weathering previous crises). Furthermore, growth in pre-pandemic turnover or employment could be indicative of a number of other factors potentially influencing trends in businesses' turnover and employment.¹⁴⁷ As shown in the balance tables presented earlier in this annex, the PSM substantially reduces differences between the treatment and control groups with respect to these characteristics.

Though logical reasoning suggests that the common trends assumption is likely to hold, statistical tests are conducted to further assess the choice of the control group against which borrowers are compared. While it is not technically possible to test the common trends assumption after the intervention (given that the counterfactual outcome of the treated group cannot be observed), the absence of significant differences between the trends of treatment and control group outcomes before the intervention is the standard sign that the common trends assumption holds.

¹⁴⁷ It should be noted that the magnitude of growth rates is also likely to be associated with size, though the PSM also controls for size.

The tests consist of estimating the time trend in the outcome variables (i.e. turnover and employment) within the control group prior to the intervention using a set of time dummies, and testing whether this time trend is statistically different among the treated group using a set of interaction terms between the time dummies and the treatment indicator. If the interaction terms are statistically significant, this would suggest that pre-treatment trends may have been different across the treated and control groups.¹⁴⁸

This test is run separately for turnover and employment, and on both the BBLs and combined CBILs/CLBILs samples. Standard errors are robust to clustering at the sector level to account for the possibility that unobservable factors (captured in the error term of the regression) may be correlated across firms operating in the same sector. None of the interactions between the pre-treatment time dummies and treatment indicator are statistically significant at conventional levels, implying failure to reject the hypothesis of similar pre-treatment trends. This provides support for the choice of the control group against which borrowers are compared.

Econometric Results

This section provides the full econometric results underlying the estimates discussed in the main body of the report. As outlined there, the coefficients ‘Borrower, post-intervention (Y2)’ reflect the impacts of the schemes.

Table 69: Estimated impact of the Covid-19 Loan Guarantee Schemes on turnover – Secondary analysis of Year 2 impacts

Variable	BBLs	BBLs	CBILs/ CLBILs	CBILs/ CLBILs
Post-intervention (Y2)	-0.175*** (0.012)	-0.152*** (0.017)	-0.228*** (0.018)	-0.209*** (0.023)
Borrower, post-intervention (Y2)	0.048**	0.066***	0.055	0.066*

¹⁴⁸ In addition, the variables included in the main regressions were included – namely a time dummy for the first and second years of the pandemic, interactions between those dummies and the treatment indicator, and an indicator for CJRS use. Firm fixed effects were also used.

Variable	BBS	BBS	CBILS/ CLBILS	CBILS/ CLBILS
	(0.016)	(0.012)	(0.034)	(0.031)
Post-intervention (Y1)	-0.070***	-0.046**	-0.060***	-0.042*
	(0.012)	(0.017)	(0.009)	(0.015)
Borrower, post-intervention (Y1)	0.088***	0.107***	0.092***	0.104***
	(0.009)	(0.006)	(0.013)	(0.011)
Used CJRS		-0.070***		-0.043*
		(0.014)		(0.016)
Constant	13.091***	13.091***	14.470***	14.470***
	(0.005)	(0.005)	(0.005)	(0.005)
Observations	357,093	357,093	211,457	211,457
R-squared	0.023	0.024	0.033	0.033

Note: *** p-value<0.001, ** p-value<0.01, * p-value<0.05. Source: London Economics' analysis of IDBR data, BBB Portal Data and HMRC Coronavirus Job Retention Scheme (CJRS) data.

Table 70: Estimated impact of the Covid-19 Loan Guarantee Schemes on employment – Secondary analysis of Year 2 impacts

Variable	BBS	BBS	CBILS/ CLBILS	CBILS/ CLBILS
Post-intervention (Y2)	-0.036***	-0.036***	-0.060***	-0.058***
	(0.007)	(0.007)	(0.006)	(0.004)
Borrower, post-intervention (Y2)	0.076***	0.076***	0.112***	0.113***
	(0.006)	(0.006)	(0.015)	(0.016)

Variable	BBLs	BBLs	CBILs/ CLBILs	CBILs/ CLBILs
Post-intervention (Y1)	-0.024*** (0.003)	-0.025*** (0.004)	-0.035*** (0.003)	-0.034*** (0.002)
Borrower, post-intervention (Y1)	0.054*** (0.005)	0.053*** (0.005)	0.075*** (0.012)	0.075*** (0.013)
Used CJRS		0.001 (0.005)		-0.003 (0.004)
Constant	1.882*** (0.004)	1.882*** (0.004)	2.884*** (0.003)	2.884*** (0.003)
Observations	357,093	357,093	211,457	211,457
R-squared	0.005	0.005	0.009	0.009

Note: *** p-value<0.001. Source: London Economics' analysis of IDBR data, BBB Portal Data and HMRC Coronavirus Job Retention Scheme (CJRS) data.

The number of pre-pandemic jobs among borrowers that would have permanently closed in the first or second years of the pandemic in the absence of the Covid-19 Loan Guarantee Schemes was estimated as part of the business survival analysis. However, the Covid-19 Loan Guarantee Schemes may have also had an impact on employment among borrowers that would have survived even in the absence of the BBLs and CBILs/CLBILs. In order to calculate the number of potential additional job losses among all businesses in the absence of the Covid-19 Loan Guarantee Schemes, a separate econometric analysis of employment data is undertaken.

This analysis is separate to the analysis of business survival in the sense that it includes all borrowers, including both those that permanently closed in the first or second year of the pandemic and those that did not permanently close. The analysis in this section is therefore entirely separate to the estimate of the number of pre-pandemic jobs among borrowers that would have permanently closed in the first year of the pandemic in the absence of the Covid-19 Loan Guarantee Schemes (estimated as part of the business survival analysis).

This analysis is based on four components. First, total employment among borrowers is estimated based on average post-pandemic employment within the sample, and the total number of borrowers, based on BBB Management Information.

Second, employment under the counterfactual scenario must be estimated for the borrower firms. This is done by dividing total estimated employment of borrowers in the second year of the pandemic by e^λ .¹⁴⁹

Third, the fixed estimate is applied to obtain the uplift in employment among the population of businesses as a result of the Covid-19 Loan Guarantee Schemes.

As in the case of the business survival analysis, this calculation is undertaken separately within individual turnover bands b , before being aggregated across all B turnover bands. The calculation – undertaken separately for BBLs and CBILS/CLBILS – is as follows:

Additional job losses avoided

$$= \sum_{b=1}^B \text{average post – pandemic employment}_b * \text{number of businesses}_b * \frac{(e^\lambda - 1)}{e^\lambda}$$

- *average post – pandemic employment* refers to average employment of borrowers within each turnover band b , calculated using the IDBR;
- *number of businesses* refers to the number of businesses within each turnover band b as provided in BBB Management Information;
- λ refers to the coefficient within the difference-in-difference regression, which is the estimate for the effect of the Covid-19 Loan Guarantee Scheme on employment;

The total number of jobs that could potentially have been lost in the absence of the Covid-19 Loan Guarantee Schemes is estimated at 588,000 jobs in the case of the BBLs; and 410,000 in the case of the CBILS/CLBILS. The estimates from the econometric analysis that includes

¹⁴⁹ Actual post-pandemic employment is equal to potential post-pandemic employment in the absence of the Covid-19 Loan Guarantee Schemes plus any changes in employment that occurred as a result of the Covid-19 Loan Guarantee Schemes. As the change in employment due to the Loan Guarantee Schemes is equal to potential employment multiplied by $(e^\lambda - 1)$, actual post-pandemic employment is equal to potential post-pandemic employment multiplied by $1 + (e^\lambda - 1)$, or multiplied by (e^λ) . Therefore, potential post-pandemic employment in the absence of the Covid-19 Loan Guarantee Schemes is obtained by dividing estimated actual post-pandemic employment by e^λ .

businesses that permanently closed in the first or second year of the pandemic are also provided below. The coefficient on 'Borrower, post-intervention (Y2)' in the case of both BBLS and CBILS/CLBILS reflects the impact of the schemes.

Table 71: Estimated impact of the Covid-19 Loan Guarantee Schemes on employment (including firms that permanently closed in the first or second year of the pandemic)

Variable	BBLs	CBILS/CLBILS
Post-intervention (Y2)	-0.066*** (0.011)	-0.111*** (0.014)
Borrower, post-intervention (Y2)	0.084*** (0.009)	0.137*** (0.012)
Post-intervention (Y1)	-0.050*** (0.009)	-0.078*** (0.011)
Borrower, post-intervention (Y1)	0.063*** (0.006)	0.094*** (0.013)
Used CJRS	0.016** (0.004)	0.030* (0.011)
Constant	1.840*** (0.005)	2.861*** (0.006)
Observations	449,352	245,006
R-squared	0.008	0.014

Note: *** p-value<0.001, ** p-value<0.01, * p-value<0.05. Source: London Economics' analysis of IDBR data, BBB Portal Data and HMRC Coronavirus Job Retention Scheme (CJRS) data.

Data

This section outlines the data sources as well as the processing and PSM exercises used to construct the datasets as part of this analysis. In particular, the discussion covers the following datasets:

- IDBR
- BBB Portal and Management Information data
- HMRC CJRS data

The rest of this section describes these datasets in more detail and discusses the processing and PSM exercises leading to the datasets used for the analysis.

Inter-Departmental Business Register (IDBR)

The analysis for this exercise is conducted at the enterprise level based on the IDBR, which contains data on enterprises' region, sector, turnover, employment, birth date, and closure date, amongst other variables. London Economics was provided with an extract from the IDBR taken in September in each of the years between 2017 and 2022 inclusive. A sample of borrowers is included alongside all businesses within the IDBR that did not borrow under the Covid-19 Loan Guarantee Schemes.

A separate file was provided to London Economics that linked CRNs – used to identify businesses in the BBB portal data and the HMRC CJRS data – to enterprise identifiers ('ENTREF') – used to identify businesses in the IDBR. This is used to link IDBR data to other data sources at the level of the CRN. In total, there were 43,772 unique enterprises in the borrower dataset and 2,390,240 unique enterprises in the dataset of non-borrowers.

BBB portal data

The portal data contains data that links facility reference numbers to company registration numbers (CRNs) and the associated Covid-19 Loan Guarantee Scheme (BBLs, CBILs or CLBILs). This data is described in more detail below.

The BBB portal data consists of 55,312 unique CRNs of borrowers. Borrowers are assigned a unique scheme¹⁵⁰ on the following basis:

- Firstly, when a CRN is associated with just a single facility, that facility's scheme is assigned to that CRN;

¹⁵⁰ Some businesses had facilities under both BBLs and CBILs. Indeed, it was possible for businesses to use a BBLs facility to refinance a CBILs facility in full, or to take out a CBILs facility having previously repaid a BBLs facility.

- Secondly, where a CRN is associated with multiple facilities, but where all of those facilities are associated with the same scheme, then that scheme is assigned to that CRN;
- Thirdly, where a CRN is associated with multiple facilities associated with different schemes, the scheme is assigned based on the following criteria:
 - If the drawn week is available for each facility associated with a CRN, the scheme of the facility that was drawn first is assigned to that CRN;
 - If not, and the number of facilities that were repaid for a given scheme was equal to the total number of facilities that were repaid for that CRN (and there is at least one repaid facility) then the CRN is assigned to the scheme that had been repaid;
 - If not, and more than one scheme has a repaid facility, but only one has all facilities repaid, then the CRN is assigned to that scheme;
 - For all remaining unassigned facilities (i.e. for CRNs where facilities were either repaid under both BBLs and CBILs or were repaid under neither), loan amounts are compared. If the total BBLs loan amount associated with that CRN was less than or equal to the total CBILs loan amount associated with that CRN, then the CRN is assigned to BBLs. The underlying assumption is that these businesses are likely to have refinanced a BBLs loan to obtain a larger amount of funds through the CBILs scheme. For these businesses, the loan that was used to meet their immediate financial needs was the first loan they received (the BBLs loan). If the total BBLs loan amount associated with that CRN was larger than the total CBILs loan amount associated with that CRN, then the CRN is assigned to CBILs. This assumes that these businesses are likely to have refinanced a CBILs loan using a BBLs loan to obtain better terms and conditions. For these businesses, the loan that was used to meet their immediate financial needs was the CBILs loan.

Based on these assignment rules, there are 34,478 CRNs associated with BBLs, 20,305 CRNs associated with CBILs, and 529 CRNs associated with CLBILs.

BBB Management Information

This analysis also drew on BBB Management Information which provides information on the breakdown of the number of businesses that borrowed under each of the three schemes

(BBLs, CBILs and CLBILs) by firms' turnover (in bands). This aggregate data is provided at the level of the turnover band within each scheme.

HMRC Coronavirus Job Retention Scheme (CJRS) data

The CJRS data from HMRC contains monthly data on whether businesses participated in the Coronavirus Job Retention Scheme (CJRS) in a given month, at the level of the CRN. This dataset is used to create a dummy variable indicating whether companies received CJRS support. This data is then linked to the IDBR dataset based on CRN and the file linking CRNs to enterprise identifiers described above.

Further data processing

After cleaning and merging of the datasets, the complete dataset contains 2,433,012 unique enterprises, of which 42,772 are unique enterprises associated with one of the Covid-19 Loan Guarantee Schemes. This dataset is used to create two sub-datasets:

- A dataset comprising of BBLs borrowers and enterprises that were considered appropriate potential matches for an enterprise that borrowed under BBLs. Enterprises that are considered appropriate potential matches for a BBLs borrower are all those enterprises that satisfy the following two conditions:
 - The enterprise's turnover in the last year before the pandemic was less than £5m.
 - The enterprise did not borrow under any of the Covid-19 Loan Guarantee schemes (i.e. CBILs/CLBILs borrowers were also excluded from this dataset).
- A sub-dataset comprising of CBILs and CLBILs borrowers and enterprises that are considered appropriate potential matches for an enterprise that borrowed under CBILs or CLBILs. Enterprises that are considered appropriate potential matches if they satisfy the following two conditions:
 - The enterprise did not borrow under BBLs.
 - The turnover of the business in the last year of the pandemic was compatible with the scheme that it was indicated to have participated in. In particular, that turnover was

below £50 million if the business was assigned to CBILS and above £25 million if the business was assigned to CLBILS.¹⁵¹

The BBLs sub-sample contains 2,361,882 unique enterprises, of which 22,856 are unique treated enterprises (all were treated under BBLs). The combined CBILS/CLBILS sub-sample contains 2,408,540, unique enterprises, of which 18,300 are unique treated enterprises (18,011 under CBILS and 289 under CLBILS).

Creating a dataset of matched borrowers and non-borrowers

Three similar but distinct PSM exercises are undertaken, namely for

- the survival analysis
- the econometric analysis of turnover and employment
- the analysis to estimate the number of jobs saved by the schemes.

In each case, the PSM is undertaken for both the BBLs sub-sample and the combined CBILS/CLBILS sub-sample. The PSM uses a different condition in the matching compared to the PSM implemented for the business survival analysis (i.e., requiring matched businesses to have non missing turnover and employment data in the first or second year of the pandemic, rather than for the firm to be active in the first or second year of the pandemic). This ensures that only businesses for which the outcome variables are non-missing are included in the matched sample.

The PSM used in the analysis of the potential (additional) job losses in the absence of the Covid-19 Loan Guarantee Schemes uses a third set of conditions by requiring matched businesses to have non-missing turnover and employment data in the first or second year of the pandemic (rather than for the firm to be active in the first or second year of the pandemic) but also includes businesses that may have permanently closed in the first or second year of the pandemic in the analysis. This aims to ensure that this estimate covers both job losses avoided due to business survival, and job losses avoided due to surviving borrower businesses

¹⁵¹ In reality, CBILS borrowers should have had turnover below £45 million and CLBILS borrowers above £45 million, however these thresholds were chosen as in the MI data all borrowers were indicated to be in these turnover ranges.

having higher employment than they would have in the absence of the Covid-19 Loan Guarantee Schemes.

Variables used in the PSM

In the case of turnover, employment, age and growth rates, these variables are coded into bands for the PSM. The bands differ from the bands used in the survey analysis because the sample size of the secondary data sets is much larger than the survey data set. This allows a more disaggregated set of bands for each variable, which is intended to improve the quality of matches between borrowers and non-borrowers.

The variables used in the PSM for the secondary analysis differ from the variables used in the PSM for the survey analysis in two further key respects:

- The PSM for the secondary analysis includes data from two consecutive years of one-year pre-pandemic turnover and employment growth rates (which were not available in the survey data);
- The PSM for the secondary analysis excludes variables related to business' experience of various obstacles (e.g. supply chain disruptions, changes for Covid-19 compliance) that were included in the survey analysis but for which no appropriate secondary data was identified.

Table 72 : Variables used in the PSM

Variable	Explanation	Source
Scheme	Indicates which Covid-19 Loan Guarantee Scheme borrowers participated in, and which Covid-19 Loan Guarantee Scheme control businesses were assigned to.	BBB portal data
Treatment	Indicates whether a business was a borrower or non-borrower under one of the Covid-19 Loan Guarantee Schemes	IDBR
Region	Businesses operating in the same part of the UK will be more likely to be similar and experience similar economic conditions to each other than businesses in	IDBR

Variable	Explanation	Source
	different parts of the UK. As a result, it might be expected that the region a business is based in may influence its decision to participate in the Covid-19 Loan Guarantee Schemes. ¹⁵²	
Sector	Businesses operating in the same sector will be more likely to face similar trading conditions. ¹⁵³	IDBR
Size prior to the pandemic	Businesses of different sizes will have different considerations in terms of the kinds of challenges they face and their response to the pandemic. Two different measures of size were used (number of employees and turnover), measured in the September extract of the IDBR that referred to the last period available that was entirely before the pandemic respectively for each of turnover and employment. ¹⁵⁴	IDBR

¹⁵² The regions used for the PSM in the secondary analysis are East Midlands, East of England, West Midlands, North East, North West, Yorkshire and The Humber, South East, South West, London, Northern Ireland, Scotland, and Wales.

¹⁵³ The values for this variable used in the PSM are each of the SIC sections A through to U separately.

¹⁵⁴ To allow for the possibility that the relationship between the Treatment and size is not strictly increasing or decreasing, these variables are coded into bands for the PSM. For employment, the bands are 1, 2-3, 4-5, 6-7, 8-9, 10-14, 15-24, 25-49, 50-249 and 250 or more. For turnover, the bands are less than £25,000, at least £25,000 but less than £50,000, at least £50,000 but less than £75,000, at least £75,000 but less than £100,000, at least £100,000 but less than £125,000, at least £125,000 but less than £150,000, at least £150,000 but less than £175,000, at least £175,000 but less than £200,000, at least £200,000 but less than £250,000, at least £250,000 but less than £350,000, at least £350,000 but less than £500,000, at least £500,000 but less than £1 million, at least £1 million but less than £5 million, at least £5 million but less than £25 million, at least £25 million but less than £100 million, and more than £100 million. Turnover data in the IDBR is based on a set of priority rules, prioritising (in order) data from the Annual Business Survey (ABS), VAT returns and then imputation from PAYE data. In the majority of cases, ABS and VAT data refers to the preceding calendar year and is typically uploaded annually in September of each year. The September extract of the IDBR should therefore refer to turnover in the previous calendar year for the majority of records based on the ABS or VAT returns (the bulk of turnover data is based on the ABS or VAT returns). Employment data in the IDBR is based on a set of priority rules, prioritising (in order) data from the Business Registers Employment Survey (BRES), the Short Term Employment Survey (STES), PAYE data, imputation from VAT, and imputation from other sources. BRES data is brought onto the IDBR on a monthly basis and refers to mid-September, with other sources updated quarterly, annually and at other intervals (for example PAYE employment is usually the average of the latest four quarters of returns). In many cases, the September extract of the IDBR should therefore refer to employment in September of the previous year (in the case of records based on the BRES) or the four quarters from July of the previous year to June of the extract year (assuming a one-quarter lag).

Variable	Explanation	Source
Age	More established businesses are likely to be impacted differently than newer businesses and similarly are likely to have different responses to the adversity of the pandemic. The IDBR includes data on the birthdate of businesses, which was used to calculate business age in 2019. ¹⁵⁵	LE calculation based on the IDBR
Growth rates prior to the pandemic	Businesses growing at different rates may have different considerations in terms of the kinds of challenges they face and their response to the pandemic. For example, a business experiencing rapid growth prior to the pandemic may be impacted differently than a business that was shrinking prior to the pandemic. For each of the two different measures of business size that were used (employment and turnover), one-year growth rates were calculated for each of the two years immediately preceding the last pre-pandemic year. ¹⁵⁶	LE calculation based on the IDBR

Source: London Economics' analysis

Variables used in the fixed effects analysis

Compared to the survey analysis, secondary data sources are not available on the use of VAT deferral or the use of other support apart from participation in the CJRS.¹⁵⁷ Use of other support

¹⁵⁵ Similar to the employment and turnover variables, the age variable is coded into bands for the PSM. The bands are less than 2 years old, 3-5 years old, 6-10 years old, 11-15 years old, 16-20 years old, 21-40 years old, and more than 40 years old.

¹⁵⁶ For example, if the last period that was entirely before the pandemic (and for which data was available) was the calendar year 2019 (for example in the case of turnover based on VAT returns provided by September 2020), then growth rates are calculated for both turnover and employment for the periods 2017-2018 and 2018-2019. Similar to the age, employment, and turnover variables, these growth rates are then coded into bands for the PSM. For turnover growth rates in both periods, the bands are a decrease of more than 50%, a decrease of between 25% and 50%, a decrease of between 10% and 25%, a decrease of less than 10%, no growth or an increase of less than 5%, an increase of between 5% and 25%, an increase of between 25% and 50%, and an increase of more than 50%. For employment growth rates in both periods, the bands are a decrease of more than 50%, a decrease of less than 50%, no change, an increase of less than 50%, and an increase of more than 50%.

¹⁵⁷ Other types of support include business grants funded by the UK or any devolved government, business rates holidays, or HMRC Time to Pay (among others).

(apart from CJRS) has therefore not been included as a control variable in the secondary analysis. The table below provides the full set of variables used in the analysis.

Table 73 : Variables used in the fixed effects regression

Variable	Explanation	Source
Business outcomes (turnover and employment)	These are based on September extracts from the IDBR. The data used relate to the last period available to London Economics from the IDBR that was entirely before the pandemic and the first two periods predominantly after the onset of the pandemic. ¹⁵⁸	IDBR
Treatment	See Table 72 above.	IDBR
Region	See Table 72 above.	IDBR
Sector	See Table 72 above.	IDBR
Use of the CJRS	Data is included on whether a company took part in the CJRS.	HMRC CJRS data

Source: London Economics' analysis

Classification of BBLs borrowers by indicators of finance need

As well as assessing the impacts of the schemes on business survival, turnover and employment for the population of BBLs borrowers, the evaluation also explores how these business outcomes vary for different subgroups of BBLs borrowers. To conduct this analysis, BBB provided LE with data from its portal indicating the number of facilities with PAYG and the number of facilities that have ever been in arrears for the same sample of borrowers that was provided in the IDBR extract. The data covered up until August 2023. Using this data, three subgroups of borrowers that are likely to have had a substantial finance need are constructed. The table below summarises these three subgroups and outlines how they were constructed.

¹⁵⁸ The September 2020 extract is used for pre-pandemic turnover data. The September 2019 extract is used for pre-pandemic employment data. The September 2021 and September 2022 extracts are used for post-pandemic turnover and employment data.

Table 74 : Subgroups of borrowers with a substantial finance need

Subgroup	Explanation	Method
Used PAYG	Borrowers that used PAYG (Pay as you Grow). This was an option offered to BBLs borrowers which gave them greater flexibility to repay their loans. In particular, borrowers could extend the term of their loan from six to 10 years, take a six-month repayment holiday or make interest only payments for six months. These options were available individually or a borrower could use them in combination with each other. Whilst the reasons that borrowers used PAYG may vary on an individual basis, it is likely that some borrowers who were in a particular period of struggle used PAYG to reduce their payments during the pandemic to avoid cashflow issues. Therefore, it is likely that some borrowers using PAYG had a substantial finance need.	Number of facilities with PAYG is greater than or equal to one.
Ever been in arrears	Borrowers that have ever been in arrears (borrowers that have missed repayments). These borrowers are more likely to have experienced cashflow issues (even with the finance received under BBLs) and so are likely to have had a substantial finance need during the pandemic.	Number of facilities that have ever been in arrears is greater than or equal to one.
Used PAYG and been in arrears	The intersection of the two subgroups above.	The intersection of the two subgroups above.

Source: London Economics' analysis

A fourth subset is also constructed, consisting of BBLs borrowers that were not a part of any of the subgroups outlined above, to put the results into context. The table below illustrates the characteristics of each of these four subgroups of borrower in the IDBR sample provided.

Table 75: Comparison of characteristics of different subgroups of borrowers in the IDBR sample

Characteristic	Feature	Used PAYG ¹⁵⁹	Ever been in arrears ¹⁶⁰	Used PAYG and been in arrears ¹⁶¹	Neither used PAYG nor been in arrears ¹⁶²
Turnover	Less than 25,000	3.8%	4.4%	4.8%	1.6%
	Between 25,000 and 50,000	4.0%	4.9%	5.7%	2.3%
	Between 50,000 and 75,000	6.9%	8.5%	9.1%	4.1%
	Between 75,000 and 100,000	8.1%	9.3%	9.9%	4.7%
	Between 100,000 and 125,000	10.3%	10.9%	11.8%	5.4%
	Between 125,000 and 150,000	6.1%	6.7%	7.1%	3.8%
	Between 150,000 and 175,000	5.1%	5.5%	5.6%	3.3%
	Between 175,000 and 200,000	3.7%	3.1%	3.5%	2.3%

¹⁵⁹ This subgroup was made up of 6,647 borrowers.

¹⁶⁰ This subgroup was made up of 5,043 borrowers.

¹⁶¹ This subgroup was made up of 2,629 borrowers.

¹⁶² This subgroup was made up of 15,193 borrowers.

Characteristic	Feature	Used PAYG ¹⁵⁹	Ever been in arrears ¹⁶⁰	Used PAYG and been in arrears ¹⁶¹	Neither used PAYG nor been in arrears ¹⁶²
	Between 200,000 and 250,000	5.5%	5.0%	4.7%	4.0%
	Between 250,000 and 350,000	8.6%	8.8%	8.9%	7.1%
	Between 350,000 and 500,000	7.7%	5.8%	5.6%	7.9%
	Between 500,000 and 1 million	16.7%	14.0%	12.9%	22.6%
	Between 1 million and 5 million	13.4%	13.1%	10.4%	31.1%
Employment	1 employee	32.5%	38.4%	41.3%	18.8%
	2-3 employees	25.8%	24.6%	25.6%	21.2%
	4-5 employees	12.1%	10.2%	10.1%	12.6%
	6-7 employees	8.0%	7.4%	6.5%	9.1%
	8-9 employees	4.9%	4.2%	3.3%	8.1%
	10-14 employees	6.6%	5.9%	5.4%	10.9%
	15-24 employees	5.5%	5.1%	4.4%	10.0%
	25-49 employees	3.5%	3.1%	2.5%	7.0%
	50-249 employees	1.2%	1.1%	0.8%	2.3%
	More than 250 employees	0.1%	0.0%	0.0%	0.1%

Characteristic	Feature	Used PAYG ¹⁵⁹	Ever been in arrears ¹⁶⁰	Used PAYG and been in arrears ¹⁶¹	Neither used PAYG nor been in arrears ¹⁶²
Region	East / Midlands	24.6%	24.1%	23.5%	26.0%
	London	22.6%	25.3%	27.2%	16.9%
	North / Yorkshire	21.0%	21.1%	20.8%	20.7%
	Northern Ireland	1.5%	1.5%	1.0%	2.6%
	Scotland	4.7%	5.2%	4.4%	6.4%
	South	22.6%	19.6%	20.2%	23.9%
	Wales	3.0%	3.0%	2.9%	3.6%
Sector	Business Services	32.2%	29.8%	32.1%	29.8%
	Construction	17.8%	21.2%	19.6%	18.9%
	Distribution	32.7%	33.8%	32.9%	31.3%
	Other Services	10.0%	8.0%	8.7%	9.4%
	Primary/Manufacturing	7.2%	7.3%	6.7%	10.5%
Turnover growth 2017/2018	Decrease of more than 50%	4.7%	5.7%	5.9%	3.2%
	Decrease of between 25% and 50%	5.3%	5.9%	5.3%	5.3%
	Decrease of between 10% and 25%	8.8%	9.1%	9.6%	9.3%
	Decrease of less than 10%	11.0%	8.8%	8.3%	13.3%

Characteristic	Feature	Used PAYG ¹⁵⁹	Ever been in arrears ¹⁶⁰	Used PAYG and been in arrears ¹⁶¹	Neither used PAYG nor been in arrears ¹⁶²
	Increase of less than 5%	32.2%	36.7%	37.2%	23.7%
	Increase of between 5% and 25%	14.9%	11.3%	11.2%	21.9%
	Increase of between 25% and 50%	8.2%	7.0%	6.7%	9.8%
	Increase of more than 50%	14.9%	15.5%	15.7%	13.5%
Turnover growth 2018/2019	Decrease of more than 50%	5.0%	5.5%	6.5%	2.9%
	Decrease of between 25% and 50%	6.2%	6.9%	6.9%	5.7%
	Decrease of between 10% and 25%	9.0%	8.8%	9.1%	9.9%
	Decrease of less than 10%	9.4%	7.8%	6.8%	12.6%
	Increase of less than 5%	29.3%	34.0%	34.8%	21.0%
	Increase of between 5% and 25%	18.8%	14.9%	14.5%	24.0%
	Increase of between 25% and 50%	7.6%	7.1%	6.5%	9.6%

Characteristic	Feature	Used PAYG ¹⁵⁹	Ever been in arrears ¹⁶⁰	Used PAYG and been in arrears ¹⁶¹	Neither used PAYG nor been in arrears ¹⁶²
	Increase of more than 50%	14.8%	15.1%	15.0%	14.3%
Employee nt growth 2017/2018	Decrease of more than 50%	1.8%	2.1%	2.4%	1.2%
	Decrease of less than 50%	12.3%	12.6%	11.6%	12.0%
	No change	62.2%	61.7%	64.5%	61.3%
	Increase of less than 50%	13.6%	12.4%	10.6%	16.5%
	Increase of more than 50%	10.0%	11.3%	10.9%	9.0%
Employee nt growth 2018/2019	Decrease of more than 50%	1.8%	1.8%	2.1%	1.1%
	Decrease of less than 50%	12.7%	14.0%	14.0%	11.8%
	No change	62.1%	62.2%	62.9%	62.7%
	Increase of less than 50%	13.5%	11.4%	10.6%	16.3%
	Increase of more than 50%	9.9%	10.5%	10.4%	8.1%
Age	2 Years or less	29.2%	35.3%	36.4%	15.4%

Characteristic	Feature	Used PAYG ¹⁵⁹	Ever been in arrears ¹⁶⁰	Used PAYG and been in arrears ¹⁶¹	Neither used PAYG nor been in arrears ¹⁶²
	3-5 Years	23.7%	27.2%	28.1%	17.9%
	6-10 Years	21.2%	19.4%	18.9%	21.6%
	11-15 Years	10.7%	7.5%	7.9%	14.1%
	16-20 Years	6.0%	4.0%	3.0%	10.3%
	21-40 Years	7.8%	5.6%	4.9%	16.3%
	More than 40 Years	1.3%	1.0%	0.8%	4.4%

Source: London Economics' analysis of IDBR data and BBB Portal Data.

Analysis of business survival

The methodology used to estimate the closure rates among the different subgroups of borrowers (and the matched control groups) very closely aligns with that described above for the population of BBLs borrowers, with one key difference. The control groups are constructed using PSM with the same set of variables described in Table 72. However, once the closure rates in each turnover band are calculated, the weighted average closure rates are not calculated by weighting the closure rates in each turnover band by the proportion of the borrower population that resides within each turnover band. The reason for this is that the underlying distribution (by turnover band) of each of the subgroups of borrowers is not known. For example, whilst it is known what proportion of BBLs borrowers had a turnover of less than 50K in the last year before the pandemic, it is not known what proportion of BBLs borrowers using PAYG had turnover under 50K in the last year of the pandemic. Instead, the weighted average closure rates are calculated based on the proportion of borrowers of each subgroup that are in each turnover band in the sample of the IDBR data used for the analysis. The tables below provide details of the closure rates and weighted average closure rates for each of the subgroups of BBLs borrowers considered and their matched control groups.

Table 76 : Closure rates among BLS borrowers using PAYG and the matched group of non-borrowers, by turnover band

Turnover Band	Closure rate among non-borrowers	Closure rate among borrowers	Difference between borrowers and non-borrowers
Less than 50K	24.5%	12.5%	12.0%
50,001 to 100K	21.9%	17.2%	4.6%
100,001 to 250K	20.0%	10.8%	9.2%
250,001 to 500K	13.6%	4.4%	9.1%
500,001 to 1m	9.6%	3.5%	6.1%
1m to 5m	8.6%	4.7%	3.9%
Weighted average	15.2%	8.0%	7.3%

Source: London Economics' analysis of IDBR data and BBB Portal Data.

Table 77 : Closure rates among BLS borrowers that have been in arrears and the matched group of non-borrowers, by turnover band

Turnover Band	Closure rate among non-borrowers	Closure rate among borrowers	Difference between borrowers and non-borrowers
Less than 50K	23.3%	17.6%	5.7%
50,001 to 100K	23.6%	28.2%	-4.6%
100,001 to 250K	20.4%	22.0%	-1.6%
250,001 to 500K	15.5%	15.5%	-0.1%
500,001 to 1m	14.8%	15.3%	-0.5%
1m to 5m	9.9%	15.9%	-5.9%
Weighted average	17.6%	19.2%	-1.6%

Source: London Economics' analysis of IDBR data and BBB Portal Data.

Table 78 : Closure rates among BLS borrowers using PAYG and that have been in arrears and the matched group of non-borrowers, by turnover band

Turnover Band	Closure rate among non-borrowers	Closure rate among borrowers	Difference between borrowers and non-borrowers
Less than 50K	27.3%	12.6%	14.7%
50,001 to 100K	22.8%	23.2%	-0.4%
100,001 to 250K	23.4%	16.5%	6.9%
250,001 to 500K	18.7%	10.0%	8.7%
500,001 to 1m	14.0%	8.2%	5.8%
1m to 5m	8.3%	11.7%	-3.4%
Weighted average	19.2%	14.0%	5.1%

Source: London Economics' analysis of IDBR data and BBB Portal Data.

Table 79 : Closure rates among BLS borrowers neither using PAYG nor that have been in arrears and the matched group of non-borrowers, by turnover band

Turnover Band	Closure rate among non-borrowers	Closure rate among borrowers	Difference between borrowers and non-borrowers
Less than 50K	24.4%	14.2%	10.2%
50,001 to 100K	21.6%	10.8%	10.8%
100,001 to 250K	17.1%	7.1%	10.0%
250,001 to 500K	11.7%	3.1%	8.5%
500,001 to 1m	8.8%	2.4%	6.4%

Turnover Band	Closure rate among non-borrowers	Closure rate among borrowers	Difference between borrowers and non-borrowers
1m to 5m	7.3%	2.2%	5.2%
Weighted average	11.2%	4.0%	7.2%

Source: London Economics' analysis of IDBR data and BBB Portal Data.

Analysis of turnover and employment

The methodology used to assess the turnover and employment outcomes of the subgroups of borrowers with a substantial finance need is very closely aligned with that used to assess the turnover and employment impacts of the schemes for the population of BBLs borrowers (described earlier in this annex). The matched control groups for each of the subgroups of borrowers are constructed using PSM, and then a fixed effects analysis compares the turnover and employment of both groups before and after the pandemic. The results of the fixed effects analyses are presented in the tables below.

Table 80: Fixed effects analysis of turnover changes for subgroups of BBLs borrowers

Variable	Used PAYG	Been in arrears	Used PAYG and been in arrears	Neither used PAYG nor been in arrears
Post-intervention (Y2)	-0.118*** (0.018)	-0.093*** (0.019)	-0.052* (0.022)	-0.148*** (0.010)
Borrower, post-intervention (Y2)	-0.020 (0.012)	-0.047* (0.020)	-0.096 (0.045)	0.089*** (0.015)
Post-intervention (Y1)	-0.024	-0.010	0.028	-0.038**

Variable	Used PAYG	Been in arrears	Used PAYG and been in arrears	Neither used PAYG nor been in arrears
	(0.023)	(0.008)	(0.013)	(0.011)
Borrower, post-intervention (Y1)	0.092***	0.076**	0.067**	0.101***
	(0.003)	(0.019)	(0.017)	(0.008)
Used CJRS	-0.095***	-0.093***	-0.119**	-0.067***
	(0.015)	(0.018)	(0.032)	(0.009)
Constant	12.634***	12.510***	12.341***	13.282***
	(0.009)	(0.009)	(0.012)	(0.002)
Observations	167,584	140,693	102,503	224,409
R-squared	0.028	0.024	0.028	0.022

Note: *** p-value<0.001, ** p-value<0.01, * p-value<0.05. Source: London Economics' analysis of IDBR data, BBB Portal Data and HMRC Coronavirus Job Retention Scheme (CJRS) data.

Table 81: Fixed effects analysis of employment changes for subgroups of BBLs borrowers

Variable	Used PAYG	Been in arrears	Used PAYG and been in arrears	Neither used PAYG nor been in arrears
Post-intervention (Y2)	-0.018*	-0.038***	-0.015	-0.031***
	(0.007)	(0.007)	(0.012)	(0.003)
Borrower, post-intervention (Y2)	0.034**	0.001	-0.006	0.088***
	(0.010)	(0.007)	(0.013)	(0.007)

Variable	Used PAYG	Been in arrears	Used PAYG and been in arrears	Neither used PAYG nor been in arrears
Post-intervention (Y1)	-0.018* (0.006)	-0.042*** (0.006)	-0.010 (0.010)	-0.019** (0.004)
Borrower, post-intervention (Y1)	0.031*** (0.005)	0.034** (0.009)	0.020* (0.009)	0.059*** (0.004)
Used CJRS	0.003 (0.009)	0.027** (0.009)	-0.009 (0.014)	-0.007* (0.003)
Constant	1.632*** (0.003)	1.551*** (0.004)	1.459*** (0.006)	1.974*** (0.004)
Observations	167,584	140,693	102,503	224,409
R-squared	0.001	0.004	0.003	0.008

Note: *** p-value<0.001, ** p-value<0.01, * p-value<0.05. Source: London Economics' analysis of IDBR data, BBB Portal Data and HMRC Coronavirus Job Retention Scheme (CJRS) data.

Annex 5 – Economic Evaluation Methodology

The Economic Evaluation provides an assessment of the (monetized) costs and benefits of the schemes. This Annex provides an overview of the methodology and data sources used for quantifying the various costs and benefits.

Benefits

The benefit of the schemes arises from the economic activity they helped to preserve during the pandemic. More specifically, the evaluation seeks to estimate the GVA of businesses that either would have closed in the absence of the schemes or would have continued to trade but producing less output than in the absence of the schemes. It is also likely that there may be some ‘wider’ benefits of the schemes (e.g. that they had a positive impact on non-borrowers due to the avoidance of supply chain disruption). However, due to the wide range of economic support available during the onset of the pandemic it is not possible to robustly identify or estimate these impacts. Therefore, such impacts are not considered in the economic evaluation.

The impact evaluation has produced results for two distinct sets of analysis (the analysis based on survey data and the analysis based on IDBR data). The latter is considered to be the most robust as it is based on a larger sample size and does not rely on self-reported data. Therefore, the IDBR analysis forms the basis of the ‘core’ benefits estimation methodology discussed in the main body of the report. Indeed, during depth interviews with borrowers who had previously been surveyed for their views on their likelihood of survival without access to the scheme (crucial to the survey-based approach to estimating benefits) the majority provided different answers. Despite this information, results based on survey data are also presented in this Annex as a point of comparison. The estimates for the GVA preserved by the schemes are derived from estimates for the share of borrowers’ turnover saved by the schemes. The estimation of the share of borrowers’ turnover saved by the schemes (using the IDBR and survey data respectively) is detailed below.

IDBR data

The methodology used very closely mirrors that used for the impact evaluation. A group of non-borrowers with similar pre-pandemic characteristics to borrowers under each of the schemes is constructed using PSM and then the impact is estimated using a fixed effects analysis (further detail on this approach can be found in Annex 4). However, it differs from that presented in the impact evaluation in that firms that permanently closed in the two years after the onset of the pandemic are included in the analysis. This means that the results reflect both the turnover impact of the schemes experienced by businesses that would have survived without the schemes but have higher turnover as a result of the scheme, and the turnover of those that would not have survived at all without the schemes.

Table 82: Estimated share of borrowers' turnover that would be lost without the schemes

Scheme	Year 1	Year 2
BBLS	13.4%***	8.8%***
CBILS	16.7%***	13.8%***
CLBILS	24.0%*	21.0%

Note: *** p-value<0.001, * p-value<0.05. Source: London Economics' analysis of IDBR data and BBB Portal Data.

The economic evaluation model accounts for the fact that the true impact may be lower or higher than that suggested by the point estimate from the econometric analysis. The table below summarises how the results of the econometric analysis are used to derive low, central and high estimates of benefits.¹⁶³

¹⁶³ The high estimate of benefits is not used in any of the three scenarios discussed in this evaluation report.

Table 83: Deriving the low, central and high impact estimates based on the econometric results

Statistical significance	Low impact	Central impact	High impact
Estimate is statistically significant at the 5% level	The lower of 75% of the point estimate and the lower bound of the 95% confidence interval	Point estimate	The higher of 125% of the point estimate and the upper bound of the 95% confidence interval
Estimate is not statistically significant at the 5% level	0%	0%	0%

For the central estimate, the point estimate is taken for statistically significant estimates and the impact is assumed to be 0 where the estimate is not statistically significant. As a sensitivity, the benefits of the scheme are calculated using higher and lower turnover impacts. In particular, the lower estimate is 0 (for statistically insignificant estimates) or otherwise the smaller of 75% of the point estimate and the lower bound of the 95% confidence interval. The full results of this econometric analysis can be found later in this Annex. This approach is preferred to the use of conventional confidence intervals around the point estimate of the impact. The reason for this is that, while confidence intervals provide an indication of the statistical uncertainty around the point estimate that arises from the fact that the analysis is performed on a finite sample, confidence intervals do not account for the underlying methodological challenge and uncertainty that arises from using data on the turnover of non-borrowers to estimate what the turnover of borrowers would have been in the absence of the schemes.

Survey data

As discussed above, we do not rely on survey data in order to estimate the aggregate turnover impact of the schemes. However, this section illustrates how that impact would be estimated if the survey data were to be used for this purpose. The survey analysis does not identify a statistically significant impact of the schemes on the turnover of surviving businesses. Therefore, the turnover impact of the schemes arises completely from the fact that some

businesses would have ceased trading in the absence of the schemes. Based on the responses of businesses to a question asking them whether or not they would have survived without receiving finance through the schemes, the following assumptions are made about the likelihood that the businesses would have closed. These assumptions, informed in part by the depth interviews with borrowers that highlight that survey respondents are quite conservative about their survival prospects in the absence of the schemes, are presented in the table below. As a result of the uncertainty around self-reported estimates, three different sets of assumptions are used in the economic evaluation model.

Table 84: Assumed likelihood of closure in the absence of the schemes in the economic evaluation model

Response	Likelihood of closure (Scenario 1 - Most Pessimistic)	Likelihood of closure (Scenario 2 - Pessimistic)	Likelihood of closure (Scenario 3 - Core)
Definitely would have closed	80%	90%	100%
Very likely to have closed	50%	65%	80%
Fairly likely to have closed	20%	40%	60%
Other ¹⁶⁴	0%	0%	0%

These estimates are lower than what might be expected. However, this is a result of the fact that the qualitative interviews with borrowers highlighted the challenges that they face in ascribing a probability to their survival likelihood in an entirely hypothetical scenario. As in the analysis of business survival (the methodology for which is described in Annex 3), the calculation also adjusts for the fact that some borrowers did close even though they received

¹⁶⁴ Respondents who indicated they did not know whether they would have survived in the absence of the schemes are excluded entirely.

finance through the schemes.¹⁶⁵ Based on this approach, the shares of borrowers' turnover saved in each year and for each of BBLS and CBILS/CLBILS are presented in the table below.

Table 85: Share of borrowers' turnover among businesses that survived but would have permanently closed in the absence of the scheme

Scheme, Year	Share of turnover (Scenario 1 - Most Pessimistic)	Share of turnover (Scenario 2 - Pessimistic)	Share of turnover (Scenario 3 - Core)
BBLS, Year 1	4.9%	6.8%	8.7%
CBILS/CLBILS, Year 1	6.0%	8.3%	10.7%
BBLS, Year 2	7.4%	10.1%	12.9%
CBILS/CLBILS, Year 2	7.9%	11.3%	14.7%
BBLS, Year 3	8.0%	11.1%	14.2%
CBILS/CLBILS, Year 3	9.3%	13.9%	18.5%

Source: London Economics' analysis of survey data and BBB Portal Data.

Estimating the GVA impact

Having estimated the share of borrowers' turnover that was saved by the schemes, the next step is to multiply this by the total turnover of all borrowers to estimate the value of turnover saved by the schemes. The total turnover of all borrowers is not known, but can be estimated using a combination of BBB MI data and the IDBR. BBB MI data indicates how many borrowers are in each of a series of turnover bands (Less than 50K, 50,001 to 100K etc). Also, from the

¹⁶⁵ In particular, the estimated share of turnover saved among borrowers that did survive is multiplied by one minus the share of borrowers that did permanently close.

IDBR it can be calculated what the average turnover is within each of these turnover bands. By multiplying these two figures together and summing up across bands, it is possible to estimate the total turnover saved by the scheme in each year. In order to calculate the turnover saved in each sector, this total turnover saved is multiplied by the turnover share of borrowers in each sector. Using the Input-Output tables published by the ONS, this turnover saved can be converted into GVA saved for each scheme at the sector level. Adding up across sectors then gives the total GVA impact of the schemes in each year.

Projecting future benefits

The secondary analysis performed as part of this evaluation covers the first two years after the onset of the pandemic, and the survey analysis covers the first three years after the onset of the pandemic. As outlined above, the evidence suggests that the schemes provided substantial benefits during the period covered by the evaluation, however what is not known is the extent to which these benefits may persist beyond the end of the period covered by this evaluation. At one extreme, the benefits may entirely drop off after the end of the evaluation period (the end of Year 2 for the secondary analysis and the end of Year 3 for the survey analysis). At the other extreme, the benefits persist at the level they are at the end of the evaluation period. In reality, it is likely that the benefits decline over time. The economic evaluation model allows for multiple different rates of benefit decay, as discussed in the results section later in this Annex. For the purposes of this evaluation, benefits are projected over a 10-year period (up to 2029/2030).

There is a lack of empirical evidence about what may happen to the GVA impact of the schemes after the second year of the pandemic. However, it is worth noting that there was a decline in the estimated turnover impact of the first and second year of the pandemic for all three schemes (see Table 91). Preceding BBB evaluations have taken a variety of approaches to projecting future benefits, depending on the nature of the schemes being evaluated. For example in the evaluations of the Enterprise Capital Funds¹⁶⁶ and the Midlands Engine Investment Fund Evaluation¹⁶⁷ it is assumed that benefits either decline slightly or maintain constant throughout the evaluation period. However, given the Covid-19 Loan Guarantee Schemes were more targeted towards meeting firms' immediate finance need rather than long term growth, we use steeper rates of benefits decline in the modelling for this evaluation.

¹⁶⁶ Ipsos MORI and George Barrett (2021). *Enterprise Capital Funds. Interim Evaluation.*

¹⁶⁷ SQW (2023). *Midlands Engine Investment Fund – Interim Evaluation Report.*

Adjusting for additionality and product market displacement

The estimation of benefits described in this annex relates to the additional GVA created by all borrowers under the schemes. However, as discussed in the Year 1 report it is likely that some of the finance made available through the schemes would have been made available even had the schemes not been in place (i.e. some of the finance was not 'additional'). In particular, based on the survey it was estimated that 81% of finance extended under BBLS and 77% of finance extended under CBILS/CLBILS was additional.¹⁶⁸ To account for this, the benefits of the schemes are scaled by their respective additionality rates.

It also needs to be noted that some of the borrower GVA that was created by the schemes could have been provided by other businesses. These could be non-borrowers or new businesses set up during or after the pandemic. In this sense, some of the estimated benefits of the scheme may be 'displaced' from other firms. Estimates for product market displacement come again from the Year 1 survey. Borrowers' survey responses indicate that approximately 43% of output of BBLS borrowers and 46% of output of CBILS/CLBILS borrowers could have been produced by other UK firms. In order to account for this displacement, benefits are multiplied by 1 minus the displacement rate. During the pandemic period, the economy was operating well below its capacity.¹⁶⁹ As a result, there could be a case to be made that additional GVA during the pandemic was not displaced from other firms to the same degree that it would normally. In particular, it might be expected that displacement was only really occurring in the parts of the economy in which competition is working normally. According to published data by the Industrial Injuries Advisory Council approximately one third of workers were working in key industries, a proxy for the share of the economy that was operating with normal competition during the pandemic.¹⁷⁰ Therefore, one may expect that during the pandemic period displacement might only be one third of what it would normally be. The table below summarises the way displacement is accounted for in each of the three scenarios.

¹⁶⁸ British Business Bank (2022) *Evaluation of the Bounce Back Loan Scheme, Coronavirus Business Interruption Loan Scheme, and Coronavirus Large Business Interruption Loan Scheme*, June 2022, p106.

¹⁶⁹ See for example, Nabarro, B. (2021) UK economic outlook: the future isn't what it used to be. IFS Green Budget Chapter 2. Available at: <https://ifs.org.uk/books/uk-economic-outlook-future-isnt-what-it-used-be>.

¹⁷⁰ Covid-19 and Occupational Impacts. (2022). Industrial Injuries Advisory Council. Available on the gov.uk website.

Table 86: Accounting for product market displacement in the economic evaluation

Year	Scenario 1 (Most Pessimistic)	Scenario 2 (Pessimistic)	Scenario 3 (Core)
1	Benefits multiplied by 1 minus the estimated displacement rate from the survey	Benefits multiplied by 1 minus 33% of the estimated displacement rate from the survey	Benefits multiplied by 1 minus 33% of the estimated displacement rate from the survey
2	Benefits multiplied by 1 minus the estimated displacement rate from the survey	Benefits multiplied by 1 minus the estimated displacement rate from the survey	Benefits multiplied by 1 minus 33% of the estimated displacement rate from the survey
3 onwards	Benefits multiplied by 1 minus the estimated displacement rate from the survey	Benefits multiplied by 1 minus the estimated displacement rate from the survey	Benefits multiplied by 1 minus the estimated displacement rate from the survey

Costs

The economic evaluation considers five distinct costs of the schemes. A description for the estimation method of each of these is provided below.

Unrecovered loans

The most significant economic cost of the schemes relates to the losses arising from the businesses that could not or will not be able to pay back their loans. In effect, for these businesses the schemes were unsuccessful in preserving economic output. BBB provided data on the claims made by lenders under the government guarantee as well as any recoveries that may be made, for the period 2020/21 to 2023/24. They also provided high, medium and low

projections for these through to 2032/33.¹⁷¹ Even though the government guarantee was 80% rather than 100% for CBILS and CLBILS, the economic cost (rather than the exchequer cost) is the full value of the losses rather than 80% of the losses.

Opportunity cost of capital

This evaluation also considers the opportunity cost of the funds that were tied up as a result of the schemes. This opportunity cost reflects the value of potential alternative investments that lenders could have made in the absence of the schemes. Given that BBLs loans offered lenders a risk-free 2.5% interest rate, we reason by a revealed preference argument that alternative lending options could not have offered lenders a risk-free interest rate greater than 2.5%. If a risk-free interest rate greater than 2.5% was available as an alternative, no lender would have chosen to participate in the BBLs scheme.

We calculate an estimate for the opportunity cost of capital for each scheme in each year by first multiplying the outstanding exposure for each scheme in each year (estimated by BBB) by the (highest plausible) alternative interest rate of 2.5%. The resulting figure was then multiplied by the additionality of the schemes to account for the fact that, even in the absence of the schemes, some of the capital committed under the schemes would have been lent to the same borrowers.

Lender administration costs

Finance that was made available through the schemes was distributed through lenders that were accredited under the schemes. As a result, there are some administrative costs incurred by these accredited lenders associated with the schemes. In particular, there are costs for lenders to become accredited with the schemes and providing the finance to businesses. We estimate lender administrations costs by considering the extra full-time employee (FTE) hours the typical lender requires, in each year, to manage a scheme facility compared to if the capital had been used for non-scheme loans.

The process evaluation has identified that the lender accreditation process was 'streamlined' and 'straightforward and proportionate' and was particularly simple for lenders that had

¹⁷¹ There is a small value of losses projected beyond 2029/30 by BBB. These are accounted for in 2029/30 in the model.

previously been accredited under the EFG scheme.¹⁷² So, the requirement of marginal FTE hours per scheme facility is estimated to be relatively low – initially one hour for BBLs and CBILs and eight hours for CLBILs (given the relatively large loan sizes), and falling over time. This approach to modelling lender administration costs is supported by evidence from submissions that formed part of the guarantee agreements between lenders and the Secretary of State. With respect to CBILs and CLBILs, when the schemes were introduced lenders suggested that the marginal costs of delivery would be fairly minimal. Indeed, one lender reported that there would be ‘no impact’ on marginal costs. Also informative are the submissions as part the guarantee agreements for RLS 1.0. When lenders prepared these submissions, they already had insight into the operational costs of CBILs. While estimates of the costs of administering loans relative to non-guaranteed SME lending varied slightly across lenders, the weight of opinion of lenders is that the additional costs of providing finance through CBILs and CLBILs were de minimis.

There is less evidence around the marginal costs of delivering BBLs, however the design and outcomes of the scheme (relative to CBILs and CLBILs) provide some insight into how the costs may be different across the schemes. Given the origination process for BBLs was extremely simple for lenders (e.g. waived credit checks), it is likely that the marginal costs of BBLs (per facility) were extremely low (and quite possibly negative relative to other forms of finance that lenders may provide) in the first year of the pandemic. On the other hand, due to the higher level of fraud and losses associated with BBLs it would also be expected that the ongoing costs for lenders would be higher for BBLs than for the other schemes.

Modelling administration costs for lenders using a fixed time cost per facility has precedent in previous evaluations of loan guarantee schemes. For example, in the EFG evaluation it was assumed that there was a half-hour wage cost per facility.¹⁷³

One-off cost for applicants

In order to access finance from the scheme, (potential) borrowers needed to go through the application process. The time taken to apply for the scheme (whether successfully or

¹⁷² British Business Bank (2022) *Evaluation of the Bounce Back Loan Scheme, Coronavirus Business Interruption Loan Scheme, and Coronavirus Large Business Interruption Loan Scheme*, June 2022, p59, 62.

¹⁷³ British Business Bank (2017). *Economic impact evaluation of the Enterprise Finance Guarantee (EFG) Scheme*.

unsuccessfully) constitutes an economic cost. In order to estimate this cost, we multiply the number of applications by the time cost per application.

No data are available on the total number of applications received through the schemes. However, HMT have published some incomplete data on applications and facility approvals.¹⁷⁴ Using this data, it is possible to estimate the success rate of applications. It is estimated that application success rates were approximately 74% for BBLS, 44% for CBILS and 65% for CLBILS. BBB have provided data on the total number of facilities approved under the scheme, and so it is possible to estimate the total number of applications by dividing the total number of facilities approved by the application success rates.

An estimate for the time cost of applying to the schemes is obtained based on responses to the survey and data on average wages. Borrowers were asked how long they spent on their application, and the average time was slightly over 2 hours for BBLS and slightly over 10 hours for CBILS/CLBILS. Data on average wages is drawn from ASHE.¹⁷⁵ By multiplying the average economy wide hourly wage (in 2020) by the number of hours spent per application, it is possible to estimate the average time cost per application. The main assumption in this approach is that the people applying for finance are paid average wages. However, given the small magnitude of borrower administration costs in comparison to the cost of unrecovered loans and lender administration costs, even if this assumption were not accurate it would have almost no bearing on the total cost estimates for the schemes.

Ongoing costs for borrowers

Borrowers under the schemes also incur some ongoing operational and administrative costs associated with finance provided through the scheme. These costs are calculated by taking the product of the number of borrowers, average time spent on operational and administrative activities per year and average wages.

These costs apply throughout the time that borrowers are repaying their loan. There is no data on the average amount of time that borrowers spend repaying their loan, but for the purposes of this evaluation it is assumed (conservatively) that BBLS borrowers spend an average of six

¹⁷⁴ HM Treasury coronavirus (COVID-19) business loan scheme statistics. Published 27 May 2020.

¹⁷⁵ Earnings and hours worked, all employees: ASHE Table 1. Available on the ONS website.

years, CBILS borrowers an average of five years and CLBILS borrowers an average of three years.

Data on the number of borrowers is obtained from BBB MI data. As in the case of the one-off application costs, average wages are drawn on from ASHE.¹⁷⁶ Average wage estimates are available for 2020, 2021, 2022 and 2023. Forecasts of average wage growth published by the OBR are then used to project average wages beyond this point.¹⁷⁷

Estimates for the amount of time spent by borrowers on administrative and operational activities associated with the finance they received through the schemes is obtained from the survey. The survey results suggest that borrowers under BLS and under CBILS/CLBILS spend on average slightly less than 1 hour per month on these administrative and operational activities.

The first caveat of this approach is, as was the case with the one-off application costs, that the operational and administrative tasks are not undertaken by people on average wages. The second relates to the assumption about the average number of years that borrowers spend repaying their loan. The effect of an inaccuracy in either the assumed wages of those undertaking operational and administrative tasks arising from the finance received through the schemes or the assumed number of years that borrowers spend repaying their loan would be minimal in the context of the overall costs of the schemes (given the costs of unrecovered loans and lender administration are of a larger order of magnitude).

BBB administration costs

There are also administration costs borne by BBB associated with the schemes. These include the set-up costs and the ongoing running costs of the schemes. BBB provided estimates for the annual administration costs of each of the schemes from 2020/21 to 2029/30, which are used in this evaluation. BBB highlighted that many of the costs between the schemes are shared (e.g. because there was only one operations platform, a single set of credit loss models and one assurance function) but provided an estimate of how these could be apportioned across schemes.

¹⁷⁶ Earnings and hours worked, all employees: ASHE Table 1. Available on the ONS website.

¹⁷⁷ OBR economy forecast. Available on the OBR website.

Value for money

To assess the overall value for money (from an economic perspective) benefit to cost ratios are calculated for each of the three schemes. The costs and benefits of the schemes are expressed in 2020 prices. Costs and benefits are converted into 2020 prices using GDP Deflator data published by HM Treasury.¹⁷⁸ The costs and benefits are also discounted using the standard Green Book discount rate of 3.5%.

The estimation of the benefits presented in the main body of this report is based on econometric analysis of IDBR data. As part of this evaluation, benefits are also estimated using survey data, based on a methodology presented in the ‘benefits’ section of this annex. The table below compares the benefit to cost ratios based on benefits estimated using IDBR data to the estimates that would be obtained if we were to use survey data instead.

Table 87: BCRs – benefits estimated using IDBR data and using survey data

Scheme	Benefit estimation method	BCR (Scenario 1 – Most Pessimistic)	BCR (Scenario 2 – Pessimistic)	BCR (Scenario 3 – Core)
BBLS	IDBR	0.78	1.11	2.09
BBLS	Survey	0.92	1.14	2.24
CBILS	IDBR	3.83	5.54	11.53
CBILS	Survey	3.75	4.76	10.42
CLBILS	IDBR	1.27	2.00	27.94
CLBILS	Survey	14.44	18.31	39.28
Overall	IDBR	1.24	1.78	3.78
Overall	Survey	1.78	1.92	3.91

Source: London Economics’ analysis.

¹⁷⁸ GDP deflators at market prices, and money GDP October 2024 (Autumn Budget 2024). Available on the gov.uk website.

Irrespective of whether benefits are estimated using IDBR data or survey data, the estimated benefit to cost ratios are similar for BBLs and CBILs under all three scenarios. As discussed earlier in this report, this should not be taken to mean that the results of the impact analysis based on IDBR data and survey data are consistent. Indeed, as discussed in the impact evaluation chapter whilst both the results of the survey analysis and IDBR analysis suggest that the schemes reduced the rates of business closures among borrowers, only the IDBR analysis suggests that there is an additional impact on turnover other than through the channel of business survival.

In the case of CLBILs, the estimated benefit to cost ratios are higher when benefits are estimated using survey data across all three scenarios. As discussed in the main body of this report, the small sample size of CLBILs borrowers (in the IDBR data but even more so in the survey data) means that estimating the benefits of CLBILs is more challenging than for BBLs or CBILs. Indeed, the size of the CLBILs sample in the survey is not sufficient to conduct an analysis specifically focused on the impact of CLBILs. Therefore, the BCRs for CLBILs should be considered less robust than those for BBLs and CBILs.

Supporting econometric analysis

This section provides the results of the econometric analysis (PSM and fixed effects analysis) used to estimate the GVA impact of the schemes using IDBR data. As discussed in the previous section of this annex, the methodology is the same¹⁷⁹ as that presented in Annex 4 related to the impact of the schemes on turnover so the estimating equations are not repeated here.

The PSM constructs a group of non-borrowers that are much more similar to borrowers than the general population. For BBLs, the differences between the groups were reduced by around 95% for BBLs and CBILs and 80% for CLBILs.

¹⁷⁹ With the exception that businesses that permanently closed are included in the analysis.

Table 88: Balance table turnover saved - BBLs

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Turnover	Less than 25,000	6.4%	0.1%
	Between 25,000 and 50,000	5.3%	0.1%
	Between 50,000 and 75,000	10.7%	0.1%
	Between 75,000 and 100,000	6.5%	0.1%
	Between 100,000 and 125,000	5.5%	0.2%
	Between 125,000 and 150,000	3.2%	0.0%
	Between 150,000 and 175,000	1.1%	0.2%
	Between 175,000 and 200,000	0.2%	0.0%
	Between 200,000 and 250,000	0.2%	0.0%
	Between 250,000 and 350,000	1.9%	0.4%
	Between 350,000 and 500,000	3.7%	0.4%
	Between 500,000 and 1 million	14.5%	0.1%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Between 1 million and 5 million	18.7%	0.9%
Employment	1 employee	33.2%	0.5%
	2-3 employees	0.7%	0.4%
	4-5 employees	5.3%	0.1%
	6-7 employees	5.1%	0.1%
	8-9 employees	4.8%	0.3%
	10-14 employees	6.7%	0.2%
	15-24 employees	6.3%	0.2%
	25-49 employees	4.4%	0.1%
	50-249 employees	1.3%	0.1%
	More than 250 employees	0.0%	0.0%
Region	East / Midlands	0.3%	0.3%
	London	4.3%	1.0%
	North / Yorkshire	1.9%	0.1%
	Northern Ireland	0.9%	0.1%
	Scotland	0.1%	0.3%
	South	0.7%	0.2%
	Wales	0.3%	0.1%
Sector	Sector Business Services	17.9%	0.3%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Sector Construction	7.1%	0.3%
	Sector Distribution	7.9%	0.2%
	Sector Other Services	0.3%	0.4%
	Sector Primary/Manufacturing	3.4%	0.3%
Turnover growth 2017/2018	Decrease of more than 50%	2.4%	0.1%
	Decrease of between 25% and 50%	0.7%	0.1%
	Decrease of between 10% and 25%	2.0%	0.1%
	Decrease of less than 10%	3.4%	0.1%
	Increase of less than 5%	20.3%	0.7%
	Increase of between 5% and 25%	8.7%	0.3%
	Increase of between 25% and 50%	4.4%	0.2%
	Increase of more than 50%	4.8%	0.1%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Turnover growth 2018/2019	Decrease of more than 50%	1.4%	0.2%
	Decrease of between 25% and 50%	0.8%	0.1%
	Decrease of between 10% and 25%	3.3%	0.1%
	Decrease of less than 10%	5.2%	0.1%
	Increase of less than 5%	26.9%	0.1%
	Increase of between 5% and 25%	7.4%	0.1%
	Increase of between 25% and 50%	4.9%	0.3%
	Increase of more than 50%	6.7%	0.1%
	Employment growth 2017/2018	Decrease of more than 50%	0.8%
Decrease of less than 50%		3.4%	1.0%
No change		17.5%	1.9%
Increase of less than 50%		10.7%	0.2%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Increase of more than 50%	4.1%	0.6%
Employment growth 2018/2019	Decrease of more than 50%	0.6%	0.2%
	Decrease of less than 50%	4.9%	0.7%
	No change	20.0%	1.3%
	Increase of less than 50%	11.2%	0.1%
	Increase of more than 50%	4.6%	0.3%
Age	2 Years or less	4.8%	0.3%
	3-5 Years	7.4%	0.9%
	6-10 Years	2.3%	0.0%
	11-15 Years	2.6%	0.5%
	16-20 Years	2.3%	0.4%
	21-40 Years	3.8%	0.9%
	More than 40 Years	1.2%	0.4%
Average		5.8%	0.3%

Source: London Economics' analysis of IDBR data and BBB Portal Data.

Table 89: Balance table turnover saved - CBILS

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Turnover	Less than 25,000	6.9%	0.1%
	Between 25,000 and 50,000	7.0%	0.0%
	Between 50,000 and 75,000	13.8%	0.1%
	Between 75,000 and 100,000	10.0%	0.0%
	Between 100,000 and 125,000	9.5%	0.0%
	Between 125,000 and 150,000	5.7%	0.1%
	Between 150,000 and 175,000	3.1%	0.2%
	Between 175,000 and 200,000	1.4%	0.0%
	Between 200,000 and 250,000	1.3%	0.2%
	Between 250,000 and 350,000	0.1%	0.1%
	Between 350,000 and 500,000	3.2%	0.1%
	Between 500,000 and 1 million	7.0%	0.1%
	Between 1 million and 5 million	21.9%	0.9%
	Between 5 million and 25 million	23.3%	0.0%
	Between 25 million and 100 million	3.2%	0.3%
Employment	1 employee	46.3%	0.1%
	2-3 employees	10.9%	0.1%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	4-5 employees	2.1%	0.3%
	6-7 employees	3.4%	0.0%
	8-9 employees	3.7%	0.1%
	10-14 employees	7.1%	0.1%
	15-24 employees	9.9%	0.2%
	25-49 employees	12.7%	0.5%
	50-249 employees	16.1%	0.2%
	More than 250 employees	2.1%	0.2%
Region	East / Midlands	1.2%	0.2%
	London	5.9%	0.1%
	North / Yorkshire	1.9%	0.1%
	Northern Ireland	0.5%	0.1%
	Scotland	0.1%	0.2%
	South	2.6%	0.0%
	Wales	0.2%	0.3%
Sector	Sector Business Services	16.0%	0.9%
	Sector Construction	1.6%	0.5%
	Sector Distribution	6.7%	0.5%
	Sector Other Services	0.1%	1.0%
	Sector Primary/Manufacturing	7.8%	0.8%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Turnover growth 2017/2018	Decrease of more than 50%	3.9%	0.1%
	Decrease of between 25% and 50%	2.0%	0.0%
	Decrease of between 10% and 25%	0.9%	0.6%
	Decrease of less than 10%	4.9%	0.2%
	Increase of less than 5%	25.9%	0.7%
	Increase of between 5% and 25%	16.2%	1.1%
	Increase of between 25% and 50%	6.4%	0.1%
	Increase of more than 50%	3.4%	0.2%
Turnover growth 2018/2019	Decrease of more than 50%	2.7%	0.1%
	Decrease of between 25% and 50%	1.1%	0.2%
	Decrease of between 10% and 25%	3.0%	0.4%
	Decrease of less than 10%	7.6%	0.1%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Increase of less than 5%	31.8%	0.5%
	Increase of between 5% and 25%	13.5%	0.5%
	Increase of between 25% and 50%	6.9%	0.2%
	Increase of more than 50%	4.5%	0.4%
Employment growth 2017/2018	Decrease of more than 50%	1.1%	0.1%
	Decrease of less than 50%	5.1%	1.1%
	No change	26.9%	1.7%
	Increase of less than 50%	19.4%	0.2%
	Increase of more than 50%	3.5%	0.3%
Employment growth 2018/2019	Decrease of more than 50%	1.0%	0.1%
	Decrease of less than 50%	6.5%	0.3%
	No change	29.1%	1.2%
	Increase of less than 50%	20.0%	0.8%
	Increase of more than 50%	3.7%	0.3%
Age	2 Years or less	15.8%	0.1%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	3-5 Years	14.0%	0.4%
	6-10 Years	0.1%	0.9%
	11-15 Years	4.3%	0.6%
	16-20 Years	5.0%	0.5%
	21-40 Years	13.5%	1.1%
	More than 40 Years	7.0%	0.3%
Average		8.4%	0.3%

Source: London Economics' analysis of IDBR data and BBB Portal Data.

Table 90: Balance table turnover saved - CLBILS

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
Turnover	Between 25 million and 100 million	2.5%	0.7%
	More than 100 million	2.5%	0.7%
Employment	1 employee	13.7%	0.4%
	2-3 employees	6.5%	0.0%
	4-5 employees	1.9%	0.4%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	6-7 employees	1.1%	0.7%
	8-9 employees	1.0%	0.0%
	10-14 employees	0.9%	0.0%
	15-24 employees	0.2%	0.7%
	25-49 employees	0.3%	1.8%
	50-249 employees	12.6%	1.4%
	More than 250 employees	13.1%	1.1%
Region	East / Midlands	2.4%	0.0%
	London	1.0%	2.1%
	North / Yorkshire	0.4%	0.7%
	Northern Ireland	0.3%	1.1%
	Scotland	1.1%	1.4%
	South	0.3%	2.1%
	Wales	1.8%	2.5%
Sector	Sector Business Services	22.4%	1.1%
	Sector Construction	2.9%	1.8%
	Sector Distribution	18.0%	2.1%
	Sector Other Services	1.8%	0.4%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Sector		
	Primary/Manufacturing	9.3%	2.5%
Turnover growth 2017/2018	Decrease of more than 50%	3.5%	1.1%
	Decrease of between 25% and 50%	3.2%	0.0%
	Decrease of between 10% and 25%	0.2%	2.5%
	Decrease of less than 10%	3.9%	0.0%
	Increase of less than 5%	3.8%	0.4%
	Increase of between 5% and 25%	13.0%	5.6%
	Increase of between 25% and 50%	5.5%	1.4%
	Increase of more than 50%	3.8%	0.4%
Turnover growth 2018/2019	Decrease of more than 50%	0.6%	0.7%
	Decrease of between 25% and 50%	1.6%	1.1%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Decrease of between 10% and 25%	0.0%	1.4%
	Decrease of less than 10%	1.6%	1.4%
	Increase of less than 5%	3.2%	3.5%
	Increase of between 5% and 25%	5.5%	0.4%
	Increase of between 25% and 50%	1.7%	2.1%
	Increase of more than 50%	4.5%	3.5%
Employment growth 2017/2018	Decrease of more than 50%	5.2%	0.0%
	Decrease of less than 50%	1.4%	2.5%
	No change	11.0%	2.8%
	Increase of less than 50%	16.3%	2.1%
	Increase of more than 50%	1.5%	1.8%
Employment growth 2018/2019	Decrease of more than 50%	4.1%	0.4%

Characteristic	Feature	Difference in prevalence between borrower and non-borrower groups (Full Sample)	Difference in prevalence between borrower and non-borrower groups (After PSM)
	Decrease of less than 50%	0.9%	0.0%
	No change	11.2%	2.1%
	Increase of less than 50%	16.0%	1.4%
	Increase of more than 50%	0.3%	1.1%
Age	2 Years or less	30.7%	0.0%
	3-5 Years	14.8%	0.7%
	6-10 Years	4.9%	1.1%
	11-15 Years	0.7%	0.4%
	16-20 Years	2.0%	1.4%
	21-40 Years	27.8%	3.2%
	More than 40 Years	19.9%	0.4%
Average		6.0%	1.3%

Source: London Economics' analysis of IDBR data and BBB Portal Data.

The table below provides the results of the fixed effects analysis used for the economic evaluation. Statistically significant estimates for the impacts of the schemes (the coefficients 'Borrower, post-intervention') are obtained for all schemes and years with the exception of CLBILS in Year 2.

Table 91: Fixed effects analysis of turnover

Variable	BBL5	CBIL5	CLBIL5
Post-intervention (Y2)	-0.201*** (0.021)	-0.322*** (0.014)	-0.848** (0.249)
Borrower, post-intervention (Y2)	0.084*** (0.015)	0.130*** (0.028)	0.191 (0.183)
Post-intervention (Y1)	-0.088*** (0.012)	-0.141*** (0.017)	-0.486** (0.166)
Borrower, post-intervention (Y1)	0.126*** (0.007)	0.154*** (0.024)	0.215* (0.100)
Used CJRS	-0.041** (0.012)	0.026** (0.007)	0.384* (0.145)
Constant	13.035*** (0.005)	14.367*** (0.008)	18.136*** (0.041)
Observations	449,352	243,116	1,809
R-squared	0.025	0.032	0.050

Note: *** p-value<0.001, ** p-value<0.01, * p-value<0.05. Source: London Economics' analysis of IDBR data, BBB Portal Data and HMRC Coronavirus Job Retention Scheme (CJRS) data.

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