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Abstract

We use novel company-level data to study wage subsidy utilisation during the COVID-19 pandemic and measure the exposure of the financial sector to subsidy claimants. We show that there were three claimaint cohorts: those that claimed in 2020 only, those that transitioned off the subsidy during 2021, and those that were persistent claimants throughout the pandemic. A large share of companies in the Accommodation & Food and Other Services sectors were persistent claimants, implying a large and persistent decline in turnover prior to the 2022 recovery. Persistent claimants of the subsidy had higher leverage and lower liquidity prior to the pandemic, indicating greater vulnerability coming into the crisis period. We further estimate that 9 per cent of Irish company loan balances at Irish retail banks are owed by borrowers who were still claiming the wage subsidy in 2022Q1, while 24 per cent of balances are owed by borrowers who were claiming the subsidy in mid-2020. The equivalent figures for non-bank lenders are 7 per cent and 32 per cent, respectively.

1 Introduction

The COVID-19 pandemic generated a severe economic shock which resulted in turnover and profitability levels falling sharply in affected business sectors (Kren et al., 2020). The government responded by introducing a number of extraordinary policy measures. The most significant financial support to businesses during this period was an extensive wage subsidy scheme.[2] Businesses were eligible to receive substantial non-repayable grants to subsidise their labour costs if they experienced a reduction in their turnover of approximately 25 to 30 per cent over more due to the pandemic. The scheme ran until April 2022 for most businesses and until May 2022 for those in the Accommodation & Food sector.

Approximately 20,000 businesses were still in receipt of the wage subsidy in late April 2022. The continued utilisation of the subsidy by these businesses is a clear signal of depressed turnover up until the full re-opening of the economy in spring 2022. Companies suffering turnover declines of over 25 to 30 per cent would, in general, require significant cost cutting measures to remain profitable and may have built up considerable liabilities during the pandemic period in order to remain liquid and continue trading.[3] Understanding the characteristics of these companies and the exposure of the financial sector to them is thus an important topic for financial stability research.

[1] We thank David Byrne, Edward Gaffney, Vasileios Madouros, Fergal McCann, Fang Yao, and seminar participants for helpful comments. The views expressed in this Note are those of the authors and do not necessarily represent the views of the Central Bank of Ireland. Eoghan O'Brien (Financial Conduct Authority) is formerly of the Central Bank of Ireland.
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[2] See the details of the initial Temporary Wage Subsidy Scheme (TWSS) and the Employment Wage Subsidy Scheme (EWSS) which replaced it. Durante and McGeever (2022) also discuss the relative scale of pandemic supports to Irish businesses.
[3] McCann et al. (2021) report profit margin data and micro-simulation evidence that government supports (including the wage subsidy) reduced loss-making and financial distress rates among Irish small businesses.

In this *Note*, we use novel company-level data to study wage subsidy utilisation by Irish companies during the pandemic, determine the characteristics of those companies that were still claiming the subsidy in 2022Q1, and measure the exposure of the financial sector to wage subsidy claimants. We do this by linking company-level subsidy utilisation data sourced from Ireland's national tax authority – the Revenue Commissioners – to a range of sources including company financial account and credit registry data.

We estimate that 10 per cent of active companies in Ireland were still claiming the wage subsidy in 2022Q1, down from 30 per cent in mid-2020. There were three main claimant cohorts: companies that claimed in 2020 and never again, those that claimed in 2020 and transitioned off the subsidy in 2021, and those that remained on the subsidy throughout the pandemic. Utilisation varies substantially across sectors, with Accommodation & Food and Other Services having the highest share of persistent claimants. The share of companies in these two sectors still on the subsidy in 2022Q1 were 37 per cent and 35 per cent, respectively.

Our company-level data allows us to link wage subsidy utilisation to various company characteristics. We find that companies that were persistent claimants tended to have higher *pre-pandemic* leverage and lower liquidty at the median and on average, indicating that they were already more vulnerable to a shock coming into the pandemic relative to other claimants. Company size, as measure by Total Assets, is not a key determinant of subsidy utilisation among claimants. Similarly, the age profile of claimant companies is very similar for one-off and persistent claimants.

A key financial stability concern thoughout the pandemic has been the potential transmission of the economic shock to the financial sector through loan defaults. We estimate for the first time the exposure of the financial sector in Ireland to wage subsidy claimants. We find that 24 per cent of Irish non-real estate non-financial corporate (NFC) balances at Irish retail banks in March 2022 were owed by companies that were claiming the wage subsidy in mid-2020. The equivalent figure for non-bank lenders is higher still at 32 per cent. These two shares fell significantly over time and stood at 9 and 7 per cent in 2022Q1, respectively. Accommodation & Food borrowers were far more likely to still be claiming the subsidy in 2022 compared with borrowers in other sectors.

The withdrawal of the wage subsidy scheme, as well as the withdrawal of tax warehousing and the COVID-19 Credit Guarantee Scheme and the resumption of repayment demands on loans and other liabilities, will test the resilience of SMEs with poor pre-pandemic profitability and pandemic-related balance sheet damage. Inflation is likely also adding to the difficulties facing vulnerable firms.[4] McCann and McGeever (2022) discuss the choices facing policymakers in the present environment and as latent firm distress comes to the fore.

The remainder of this Note is structured as follows. In Section 2, we describe how we source the data and our methodology. In Section 3, we examine wage subsidy utilisation patterns. In Section 4, we describe the characteristics of wage subsidy claimant companies. In Sections 5, we quantify the exposure of the financial sector to wage subsidy companies. We conclude in Section 6.

2 Methodology

The Revenue Commissioners have published the names of employers that received wage subsidies.[5] These data were released in seven waves relating firstly to the period April-September 2020 and then to each quarter from 2020Q4 to 2022Q1. There were two criteria for publication.

[4] See the Central Bank of Ireland's Financial Stability Review 2022-I.
[5] See the data release from the Revenue Commissioners.

First, the employer was in receipt of the subsidy at some point during the period in question. Second, the employer had not repaid the subsidy by the end of the period.

We match the list of company names published by the Revenue Commissioners to a comprehensive database of all companies registered under the Companies' Acts that we source from the Companies Registration Office (CRO). This latter database contains a CRO identifier number for each company, as well as details about their sector, age, and legal status. Our matching procedure entails four steps. First, a direct comparison of names in the two datasets. Second, a very light adjustment of company type descriptions (e.g., "ABC LTD" to "ABC Limited", "ABC DAC" to "ABC Designated Activity Company"). Third, more intrusive adjustments to deal with formatting issues (e.g., "&" to "and", "café" to "cafe", " ABC" to "ABC"). Fourth, a manual review of company names that match due to our more intrusive adjustments and any remaining non-matching claimants. This last step yielded a small number of matches due to spelling errors, names being listed in Irish, and former names being listed instead of current official names.

We use the CRO number generated from our matching procedure to identify companies in a database of financial accounts produced by Dun & Bradstreet. This provides us with information on the balance sheet size and leverage of each claimant company. We further link our dataset to the Central Credit Register (CCR) to study the loan balances wage subsidy recipients owe to Irish banks and non-bank lenders. We are thus able to describe the firm-level financial characteristics of claimants, as well as the size of the exposure the financial sector have to these companies.

Note that our analysis relates only to companies registered under general company law in Ireland (i.e., "the Companies' Acts"). We are thus not considering sole traders, partnerships, alternative corporation types (e.g., friendly societies or industrial and provident societies), or foreign-registered entities that may have claimed the subsidy. We estimate that 72 per cent of wage subsidy claimants were Irish companies registered under the Companies' Acts, while sole traders make up the overwhelming bulk of the remaining 28 per cent. Given the likely differences in enterprise size across legal forms, we expect that our matched companies are responsible for a very large majority of aggregate employment, investment, and loan balances associated with wage subsidy claimants.

3 Utilisation patterns

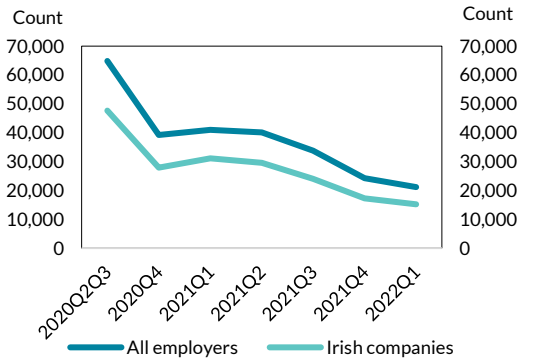
In this section, we study aggregate trends in wage subsidy utilisation and present novel findings on utilisation patterns.

Over 20,000 employers are identified in the Revenue Commissioners data as having claimed the wage subsidy in 2022Q1 (Chart 1). We estimate that approximately 15,000 (72 per cent) of these claimants were companies registered under the Companies' Acts. The number of claimants in the first six months of the scheme (2020Q2Q3) was almost 65,000, plateaued at around 40,000, and then declined steadily starting in the second half of 2021.[6]

A tenth of all active public and private limited companies remained on the wage subsidy scheme in 2022Q1 (Chart 2). This compares with a high of 30 per cent in mid-2020. We make these calculations by taking our estimate of the number of claimant companies in a given period and dividing it by the Central Statistics Office (CSO) estimate of the number of *active* companies operating in Ireland. The latter is an aggregate figure for the year 2019 and is based on a mix of corporate registry and administrative tax data.[7]

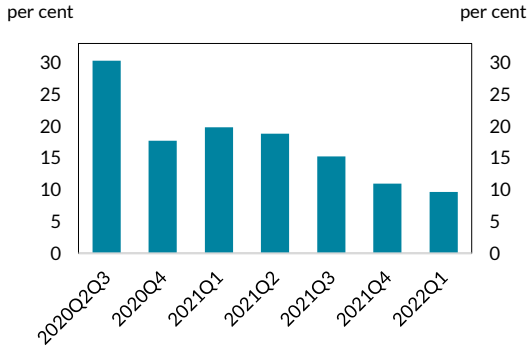
[6] See also the statistical releases of the CSO describing wage subsidy utilisation across other dimensions.
[7] See the 2019 CSO Business Demography release. These data show that there are a large number of registered companies in Ireland that are inactive or 'dormant'. Failing to account for this fact would result in a strong downward bias in any estimate of the share of companies claiming the subsidy.

Chart 1: Over 20,000 employers claimed the wage subsidy in 2022Q1



Source: Revenue Commissioners
Notes: The number of employers (of all legal forms) and Irish companies listed as having claimed the wage subsidy.

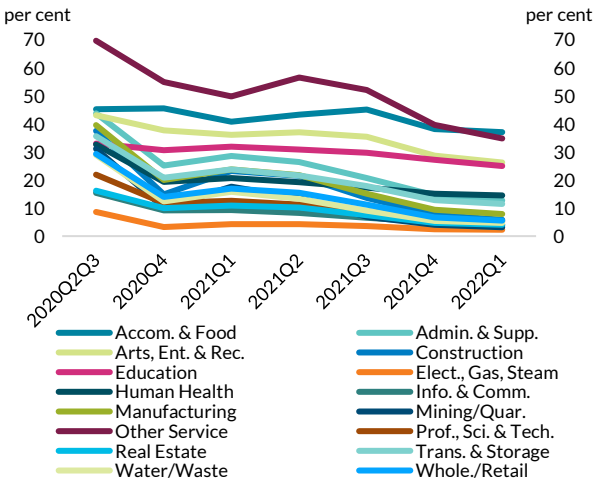
Chart 2: A tenth of active companies claimed the wage subsidy in 2022Q1



Source: CRO; CSO; Revenue Commissioners
Notes: The share of active public and private limited companies in receipt of the wage subsidy based on the CSO Business Demography 2019 statistical release.

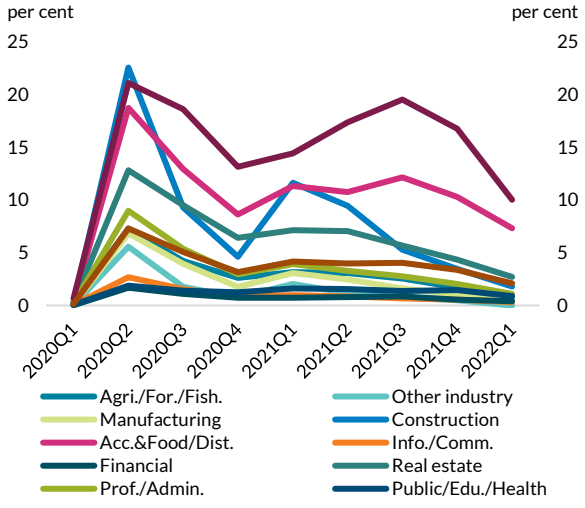
The level of wage subsidy utilisation varied considerably by sector. Accommodation & Food and Other Services companies had the highest share of active companies on the wage subsidy in 2022Q1 at 37 per cent and 35 per cent, respectively (Chart 3). These two sectors were heavy claimants of the subsidy throughout the pandemic. Arts, Enterainment & Recreation and Education are the next two sectors in terms of claimant share. All other sectors had 12 per cent or fewer of active companies on the subsidy in 2022Q1.

Chart 3: The share of active companies on the wage subsidy varied a lot across sectors



Source: CRO; CSO; Revenue Commissioners
Notes: The share of active public and private limited companies in receipt of the wage subsidy by sector based on the CSO Business Demography 2019 statistical release.

Chart 4: The wage subsidy contributed significantly to wage costs in some sectors



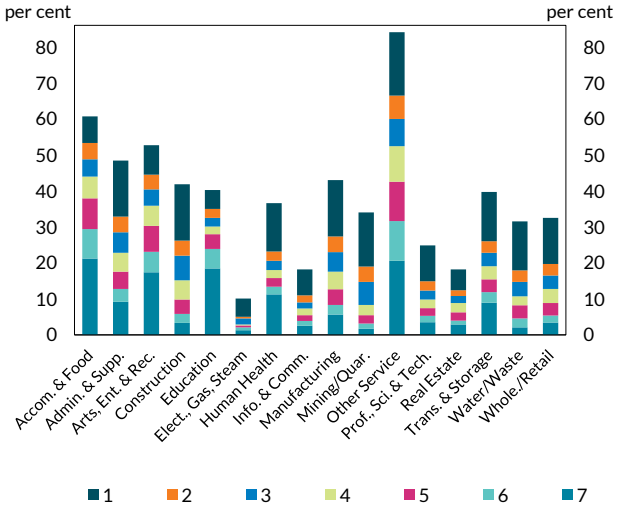
Source: CSO
Notes: The share of employee compensation contributed by the wage subsidy scheme by sector groups from Table 7.4 of the 2022Q1 Quarterly National Accounts.

The share of wage costs met by the subsidy is another way of demonstrating reliance on the subsidy across sectors. Chart 4 shows this indicator using quarterly data published by the CSO for

aggregated sector groups. The Accommodation & Food / Transportation & Storage and Arts, Entertainment & Recreation / Other Services groups had 10 per cent and 17 per cent of their wage costs met by the subsidy in 2021Q4, respectively. In January 2022, the government began tapering subsidy payment amounts and this coincided with a decline in subsidy contribution to wage costs in 2022Q1. The peak of utilisation in other sectors was in mid-2020, though some sectors saw a renewed reliance on the subsidy during the Alpha wave in 2021Q1. The contribution of the subsidy to wage costs was less than 3 per cent for most sector groups in 2022Q1.

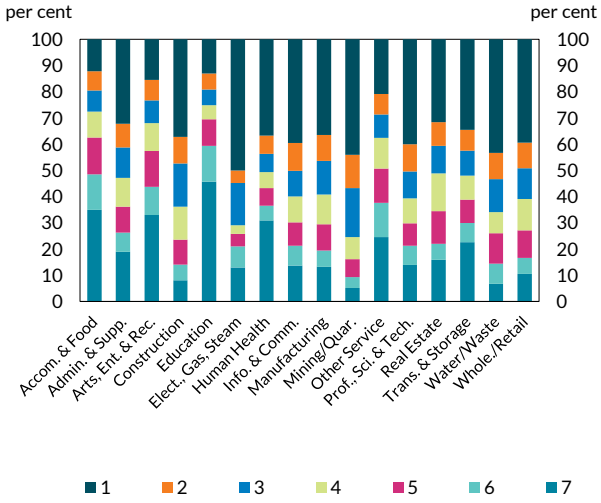
We next consider the share of companies in each sector that have ever claimed the subsidy. This estimate will be higher than any point-in-time estimate due to some companies moving onto and off of the scheme over time. Chart 5 shows the share of active companies that claimed the subsidy by sector and the number of periods in which they claimed the subsidy. For example, approximately 60 per cent of Accommodation & Food companies claimed the subsidy at some point and approximately 20 per cent of companies in this sector are listed as having claimed the subsidy in all seven reporting periods. Other Services is another sector with a very high share of claimants. Other large sectors, such as Wholesale & Retail and Manufacturing, had relatively few long-term claimants of the subsidy. Chart 6 presents an equivalent as a share of claimant companies only. For example, 35 per cent of Accommodation & Food claimant companies received the subsidy in all seven reporting periods.

Chart 5: Wage subsidy utilisation by sector and number of claiming periods



Source: CRO; CSO; Revenue Commissioners
Notes: The share of active companies that claimed the subsidy in any period by the number of periods in which they claimed the subsidy.

Chart 6: Share of wage subsidy claimants by number of claiming periods and sector

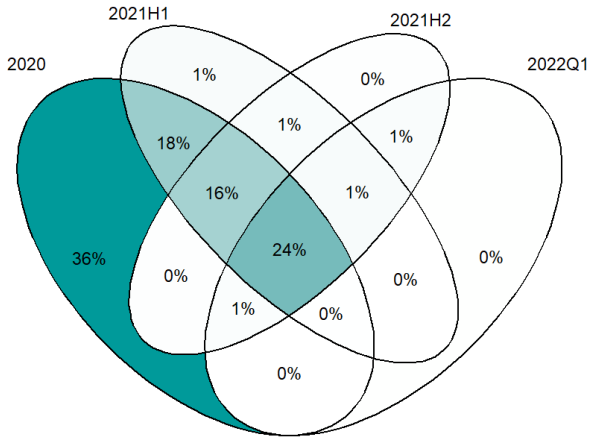


Source: CRO; CSO; Revenue Commissioners
Notes: The share of companies that claimed the subsidy by the number of periods they claimed the subsidy.

Our company-level data also allow us to examine utilisation patterns through time in more detail. Chart 7 is a Venn diagram showing the share of claimant companies that received the subsidy at least once in each of four periods (2020, 2021H1, 2021H2, 2022Q1). The structure in these data is remarkably clear. 36 per cent of claimants took the subsidy in 2020 only, 34 per cent gradually left the subsidy in 2021, and 24 per cent claimed in all four periods. The first group recovered from the pandemic shock quite quickly, the second more gradually, and the third group were dependent on the subsidy for a much longer time period and may be more vulnerable in a post-supports environment.

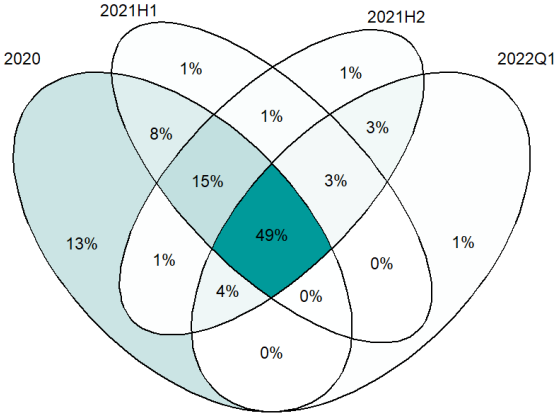
We break this temporal analysis down further looking at individual sectors separately. Chart 8 to 10 present noteworthy patterns for the Accommodation & Food, Wholesale & Retail, and Other Services sectors. The Wholesale & Retail sector, initially considered a vulnerable sector to the pandemic shock, experienced a relatively quick recovery. 63 per cent of claimant companies in this sector received subsidy payments up to 2021H1 and no further. In contrast, Accommodation & Food companies were much less likely to transition off of the scheme in 2020 or 2021 and half of companies in this sector claimed in each of the four periods. Other Services also had a large cohort of persistent claimants, with 36 per cent receiving payments in each of the four periods.

Chart 7: Companies mostly received the subsidy in 2020 only, transitioned off the scheme in 2021, or were persistent claimants



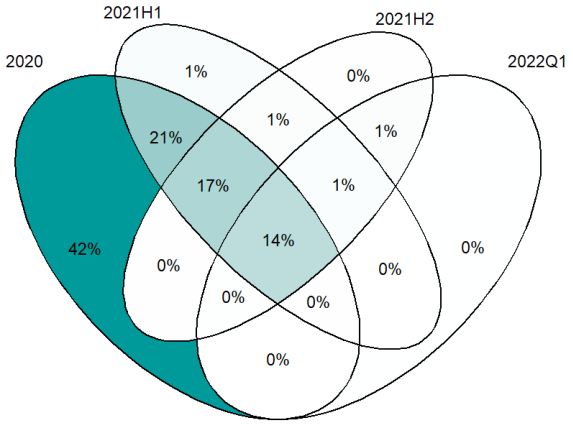
Source: CRO; Revenue Commissioners
Notes: The share of claimant companies by receipt of subsidy in each of four time periods.

Chart 8: Accommodation & Food companies were more likely to be persistent claimants



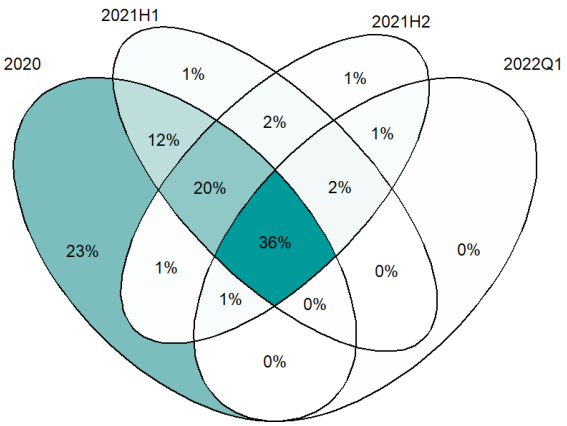
Source: CRO; Revenue Commissioners
Notes: The share of Accommodation & Food claimant companies by receipt of subsidy in each of four time periods.

Chart 9: Wholesale & Retail companies were more likely to claim in 2020 only or leave the scheme in 2021



Source: CRO; Revenue Commissioners
Notes: The share of Wholesale & Retail claimant companies by receipt of subsidy in each of four time periods.

Chart 10: Other Services companies also hada significant share of persistent claimants



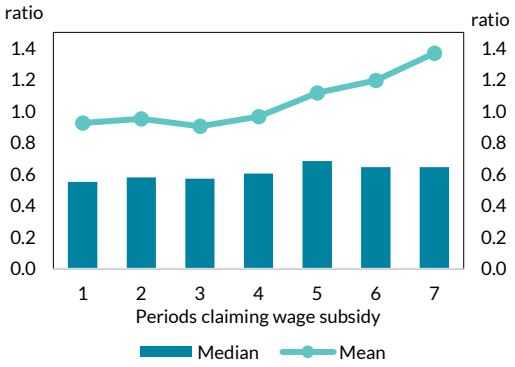
Source: CRO; Revenue Commissioners
Notes: The share of Other Services claimant companies by receipt of subsidy in each of four time periods.

4 Which companies claimed the subsidy?

We next examine the characteristics of wage subsidy claimants. We do this by drawing on company financial accounts data from Dun & Bradstreet, other company filings with the CRO, and loan exposure data from the CCR. In cases where company accounts are demoninated in a foreign currency, we covert values to euro using exchange rates on the relevant balance sheet date.[8]

We first look at company leverage as measured by Total Liabilities to Total Assets. This is a key indicator of financial resilience and gives us insight into the capacity of companies to weather adverse shocks. Chart 11 shows the median and mean *pre-pandemic* leverage for wage subsidy claimants by the number of periods in which they received the subsidy. Pre-pandemic leverage was higher for frequent claimants of the wage subsidy, indicating higher vulnerability for this cohort even before the onset of the pandemic.[9] One-off claimants having median leverage ratios of 0.55, with more persistent claimants having ratios of 0.65 to 0.68. In addition, the mean leverage ratio for one-off claimants was 0.93 and 1.37 for those that claimed in all seven periods. The gap between these median and mean estimates reflects the fact that the leverage distributions for persistent claimants have significantly longer right tails. That is, a larger share of companies have very high leverage. Of those companies that claimed the subsidy in all seven periods, 10 per cent of companies had leverage ratios of 1.9 or greater. Such high leverage is likely indicative of past loss-making and certainly key to the decision-making of creditors or investors in future in assessing viability.

Chart 11: Persistent wage subsidy claimants had higher pre-pandemic leverage



Source: CRO; Dun and Bradstreet; Revenue Commissioners
Notes: The median and mean pre-March 2020 total liabilities to total assets of wage subsidy claimant companies by number of claiming periods.

Chart 12: Persistent wage subsidy claimants had lower pre-pandemic liquidity

Source: CRO; Dun and Bradstreet; Revenue Commissioners
Notes: The median and mean pre-March 2020 Current Assets to Current Liabilities ratio of wage subsidy claimant companies by number of claiming periods.

We also look at another key vulnerability indicator – company liquidity as measured by Current Assets to Current Liabilities. This measure tells us if companies have reasonably liquid current assets – including things like cash, stock, and trade debts – with which they can fund upcoming payment demands from creditors. Chart 12 shows that persistent wage subsidy claimants had lower pre-pandemic liquidity than less frequent claimants. The median liquidity ratio for one-off

[8] See the exchange rate data published by the Central Bank of Ireland.
[9] Duignan and McGeever (2020), in contrast, find that payment break utilisation in the early months of the pandemic was mainly determined by enterprise sector, rather than measures of ex ante vulnerability.

claimants was 1.55 compared to 1.14 for those that claimed in all seven periods. The equivalent mean ratios are 2.08 and 1.68, respectively.

Our findings about pre-pandemic leverage and liquidity make clear that persistent reliance on the wage subsidy was not randomly determined and was not purely the result of an exogenous pandemic shock to the economy. Persistent claimants were relatively vulnerable entering the crisis, irrespective of the scale of the shock they received. Our findings are suggestive that viability assessment will be necessary for some persistence claimants going forward. See McCann and McGeever (2022) for further discussion of policy options at this point in the recovery.

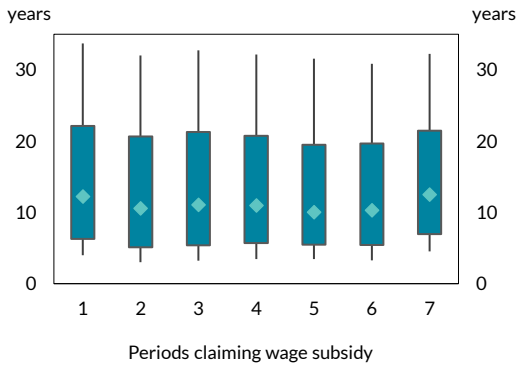
We next look at company size and age. Our interest in these characteristics stems from the disproporation role small and young companies play in employment growth (Lawless, 2013) and the greater difficulties they face in accessing restructuring options in the event of financial distress (Greenwood et al., 2020). Chart 13 shows the distribution of balance sheet size across wage subsidy groups, as measured by Total Assets. We present the data with a log scale to counteract the very large level of skewness present in the data.[10] There is no clear pattern between the level of wage subsidy utilisation and company size. Companies claiming the subsidy for one period or seven periods have a similar median size of approximately €260,000. Companies claiming for two to six periods range in size from €173,000 to €228,000 at the median. The spread of the distributions also follow similar patterns.

Company age is also not a major determinant of wage subsidy utilisation. Chart 14 shows that the median company age of wage subsidy recipients is 11 years, while the median ranges from 10 to 12 years across utilisation groups.

Chart 13: Company size is quite similar across infrequent and persistent claimants

Source: CRO; Dun and Bradstreet; Revenue Commissioners
Notes: The distribution of Total Assets of wage subsidy claimants by number of claiming periods. The vertical axis is stated in a log scale.

Chart 14: Company age is also similar across infrequent and persistent claimants



Source: CRO; Revenue Commissioners
Notes: The age distribution of wage subsidy claimant companies in years by number of claiming periods.

One possibility is that the separate analyses we present above linking wage subsidy utilisation to company characteristics may be complicated by interdepencies between the characteristics. For instance, it could be the case that certain sectors happen to have higher leverage or lower liquidity due to structural reasons and they could have been impacted relatively more by the pandemic than other sectors. To address this concern, we examine the joint impact of these company characteristics on wage subsidy claiming frequency in a multivariate regression setting and present our results in the Appendix. We find that are univariate results regarding leverage and liquidity are

[10] See Cabral and Mata (2003) for a discussion of heavy right skewness in firm size distributions.

robust to the inclusion of age, size, and sector controls.[11] Persistent claimants were indeed relatively more vulnerable coming into the pandemic.

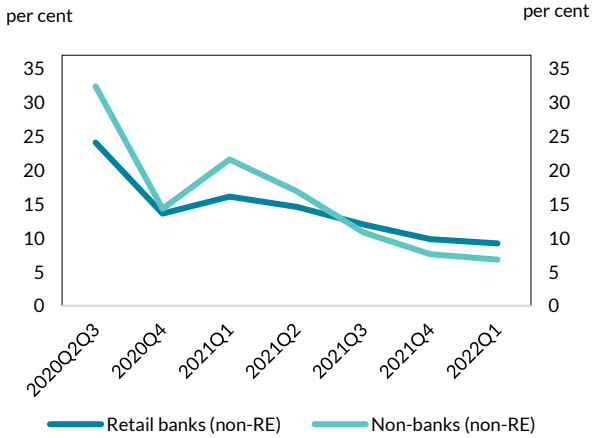
5 How exposed is the financial sector to wage subsidy claimants?

Loan default is a key potential transmission channel for the economic shock associated with the pandemic to negatively impact the financial sector. A key issue is thus to measure the vulnerability of business borrowers and to determine the potential exposure of the financial sector to companies damaged by the pandemic.

In this section, we estimate for the first time the exposure of the financial sector in Ireland to wage subsidy claimants. Chart 15 shows the share of Irish non-real estate NFC balances as at March 2022 that were on the wage subsidy through time and by lender type. We estimate that 24 per cent of Irish retail bank exposures to this group are owed by companies that were claiming the wage subsidy in mid-2020. The equivalent figure for non-bank lenders is higher still at 32 per cent. These two shares followed the overall wage subsidy utilisation pattern broadly (see Charts 1 and 2). 9 per cent of retail bank exposures to Irish companies are owed by businesses that were still claiming the wage subsidy in 2022Q1, while the equivalent figure for non-bank lenders was 7 per cent.

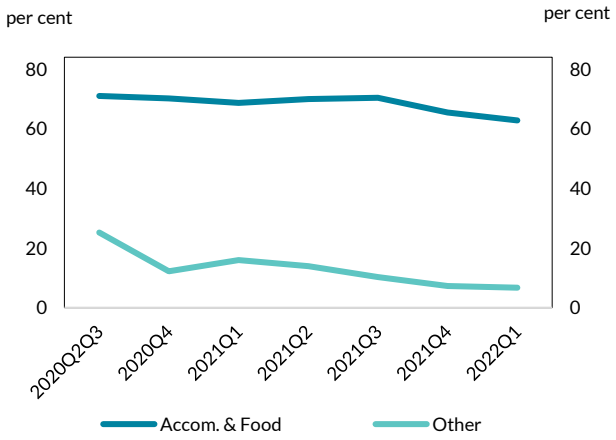
Accommodation & Food stands out as a sector with an exceptionally high share of loan balances linked to wage subsidy claimants. Chart 16 shows that 73 per cent of Accommodation & Food balances were owed by companies on the wage subsidy in 2020 and 2021, with this share only declining to 65 per cent in 2022Q1. That is, two thirds of all balances in this sector are owed by companies still on the subsidy in early 2022. The next highest share for a sector of material size was 26 per cent for Transportation & Storage. Just 7 per cent of non-Accommodation & Food balances were owed by companies still claiming the subsidy in 2022.

Chart 15: A tenth of retail bank exposures to Irish companies are owed by borrowers that were still claiming the wage subsidy in 2022Q1



Source: CCR; CRO; Revenue Commissioners
Notes: The share of non-real estate (RE) Irish non-financial corporate loan balances in March 2022 owed by companies claiming wage subsidies by lender type.

Chart 16: Accommodation & Food borrowers were far more likely to be on the wage subsidy in 2022Q1 than other borrowers

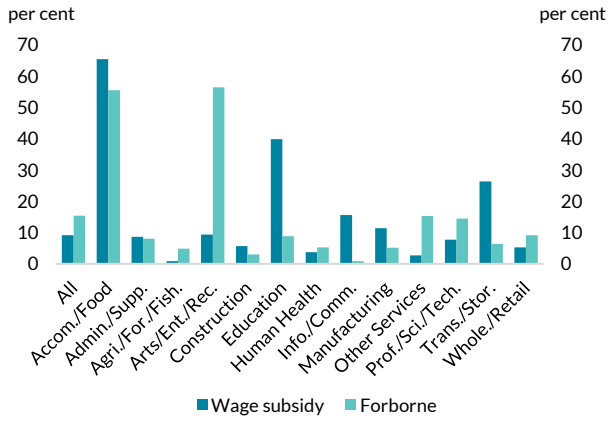


Source: CCR; CRO; Revenue Commissioners
Notes: The share of Accommodation & Food and all other non-financial corporate loan balances owed to retail banks and non-banks in March 2022 by companies that claimed the wage subsidy through time.

[11] Leverage and liquidity are strongly negatively correlated (r=-0.80). That is, high leverage companies tend to have low liquidity also. This collinearity generates instability in our coefficient estimates, as can be seen in specification (7) where the leverage coefficient becoming insignificantly different from zero.

Retail banks have engaged in a significant amount of loan forbearance over the course of the pandemic in an effort to support vulnerable borrowers. Chart 17 contrasts the share of Irish retail bank exposures to non-real estate companies on the wage subsidy with the share of forborne balances at the level of individual sectors.[12] Accommodation & Food had very high rates of both wage subsidy utilisation and forbearance in early 2022. Transportation & Storage and Education borrowers were relatively more dependent on wage subsidies than forbearance, while the opposite is true of Arts, Entertainment & Recreation borrowers. This consistency suggests that there is unlikely to be a hidden cohort of vulnerable businesses that are making full loan repayments, while still being dependent on wage subsidies.

Chart 17: Sectors with higher levels of loan forbearance generally had higher levels of wage subsidy utilisation



Source: CCR; Central Bank of Ireland; CRO; Revenue Commissioners
Notes: The share of non-real estate (RE) Irish non-financial corporate loan balances in March 2022 owed by companies claiming wage subsidies to retail banks and the share of forborne balances in December 2021 by sector.

6 Conclusion

In this *Note*, we examine novel company-level data on wage subsidy utilisation to better understand utilisation patterns through time, determine the characteristics of claimant companies, and estimate the level of exposure of the Irish financial sector to wage subsidy claimants.

We estimate that 10 per cent of active companies in Ireland were still on the wage subsidy in 2022Q1, down from 30 per cent in mid-2020. Utilisation levels were significantly higher for the Accommodation & Food and Other Services sectors, whether measuring by company count or wage cost share met by the subsidy.

We show that there were three main types of wage subsidy claimant: (1) companies that claimed in 2020 only, (2) companies that transitioned off the subsidy during 2021, and (3) companies that were persistent claimants of the subsidy throughout the pandemic and into 2022Q1. The

[12] Note that the loan forbearance data relate to borrowers of all types (e.g., all corporations, sole traders, etc.), while the wage subsidy data relate only to companies incorporated under general company law.

Accommodation & Food and Other Services sectors had a high share of persistent claimants. The Wholesale & Retail sector, in contrast, had relatively few claimants.

Persistent wage subsidy claimants tended to have higher *pre-pandemic* leverage and lower liquidity. That is, their liabilities were relatively high compared to the value of their assets and that their assets were relatively illiquid. This indicates that there were in a position of relative vulnerability coming into the crisis period. We find little evidence of a clear relationship between utilisation intensity among claimants and either company balance sheet size or company age.

We show for the first time the exposure of Irish retail bank and non-bank lenders to companies that claimed the wage subsidy. We estimate that 9 per cent (7 per cent) of Irish retail bank (non-bank) Irish non-real estate non-financial corporation loan balances are owed by borrowers that were still claiming the subsidy in 2022Q1.

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Appendix

Table A.1: Multivariate logistic regression of claim persistence on company characteristics

	Dependent variable: company claimed the subsidy in six or seven periods						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Intercept	-1.926***	-1.953***	-2.253***	-2.449***	-2.663***	-2.681***	-2.653***
Log(leverage)	0.061***				0.098***		-0.026
Log(liquidity)		-0.088***				-0.110***	-0.125***
Log(size)			0.022***		0.019*	0.015*	0.012
Log(age)				0.190***	0.203***	0.211***	0.210***
Other industry	0.170	0.180	0.169	0.157	0.153	0.165	0.168
Manufacturing	0.575***	0.600***	0.570***	0.507***	0.505***	0.533***	0.538***
Construction	0.194	0.218	0.205	0.206	0.223	0.250*	0.252*
Whol. & Retail	0.388***	0.407***	0.402***	0.401***	0.391***	0.418***	0.423***
Trans. & Storage	1.053***	1.047***	1.094***	1.082***	1.053***	1.053***	1.056***
Accom. & Food	2.070***	2.042***	2.106***	2.136***	2.116***	2.086***	2.085***
Info. & Comm.	0.668***	0.697***	0.699***	0.707***	0.702***	0.740***	0.746***
Real Estate	0.679***	0.689***	0.695***	0.677***	0.648***	0.665***	0.671***
Prof./Sci./Tech.	0.664***	0.687***	0.689***	0.716***	0.729***	0.757***	0.759***
Admin./Support	0.959***	0.977***	0.961***	0.906***	0.906***	0.926***	0.929***
Education	2.451***	2.465***	2.473***	2.484***	2.522***	2.534***	2.531***
Human Health	1.627***	1.638***	1.619***	1.642***	1.704***	1.707***	1.699***
Arts/Ent./Rec.	1.801***	1.787***	1.826***	1.822***	1.824***	1.806***	1.803***
Other services	1.574***	1.574***	1.614***	1.645***	1.662***	1.661***	1.659***
N	45,690	45,690	45,690	45,690	45,690	45,690	45,690
Persistent claimants	12,195	12,195	12,195	12,195	12,195	12,195	12,195
Pseudo-R^2	0.076	0.077	0.076	0.077	0.079	0.080	0.080

Notes: This table shows the results of seven logistic regression specifications of persistent claimant status on company characteristics. The dependent variable equals one if the company claimed in six or seven periods during the pandemic and zero if they claimed between once and five times. Leverage is defined as Total Liabilities over Total Assets, Liquidity as Current Assets over Current Liabilities, Size as Total Assets, and Age as years since incorporation. These four continuous variables are highly skewed and we thus convert them into natural logs. We define 'Other Industry' as all claimant companies in NACE sectors B, D, and E. Coefficients marked with a ***, **, or * are statistically significant at a 0.1%, 1%, or 5% significance level, respectively.

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