

# PwC Restructuring Update - Q4 2022

A look back at 2022 and what to expect in 2023



# Contents

Foreword	3
2022 Key Insights - a year in review	5
The Direct Economic Impact of Business Failures	7
Local Economic Indicators	8
Global Headwinds	9
Q4 Business Failure Highlights	11
Business Failures in the UK	13
Q4 Industry Highlights	15
Q4 County Highlights	16
Act Now	17
Contact Us	17
Appendix - Data Sources	18

Download previous reports below





# Foreword





# 2022 Year in Review - 39% increase in business failures during 2022

- Large increase in business failures from 2021 There was a 39% increase year on year in the total
  number of insolvencies, 527 companies in 2022
  compared to 379 companies in 2021. The annual
  business failure rate per 10,000 companies increased
  from 14 in 2021 to 20 in 2022.
- Our PwC Insolvency Barometer indicates insolvency levels remain lower than pre-pandemic levels While there was a significant increase in 2022, the pre-pandemic rate in 2019 was nearly twice as high at 36 per 10,000 (848 in 2019 to 527 current year in absolute terms). Ireland's current insolvency rate per 10,000 companies is running at 18% of the peak rate from 2012 and is running at 38% of the average insolvency rate per 10,000 companies over the past 18 years.
- Context is important Although there was a significant annual increase in 2022, it has to be taken into context with the historic annual average of 53 per 10,000 over the last 18 years. This long term average equates to over 1,000 business failures per year, far higher than the actual figure of 527 in 2022.
- Insolvency levels have increased during each quarter of 2022 - The average quarterly increase was 27% from Q1 2022 to Q4 2022.
- SMEs are the main driver of insolvencies 99% of all insolvencies during 2022 were SMEs which represents the main driver behind the overall increase in insolvency levels, with most of these insolvencies being smaller businesses leaving behind debts of c. €2 million on average.

- During Q4, almost 1 in 10 insolvencies were either a SCARP or Examinership appointment - The new SME restructuring option known as SCARP accounted for 4% of the total insolvencies during 2022.
- Lenders are relatively quiet on the restructuring front - There was little to no change in the annual business failure rate per 10,000 companies for lender initiated receiverships (3.0 per 10,000 companies in 2022 compared to 3.1 in 2021), from 81 (2021) to 78 (2022) in absolute terms.
- UK liquidation rate nearly three times higher The UK saw their highest ever number of liquidations in both Q1 and Q2 2022. At one point during 2022 the UK liquidation rate was running at a rate 3 times higher than the equivalent Irish rate but this has since reduced to 2.4.
- Most impacted Sectors The arts, entertainment and recreation sector had the highest number of insolvencies in 2022 with 73 per 10,000 companies. The rate of insolvencies in the hospitality sector nearly trebled from 46 per 10,000, up from 17 in 2021. Energy & Utility companies faced a difficult year, with the overall insolvency rate nearly doubling from 22 to 43 per 10,000.
- Dublin, Cork & Galway account for two thirds of all insolvencies - For the second year running Dublin had the highest number of business failures per 10,000 companies at 28 per 10,000. In overall numbers Dublin, Cork and Galway comprised nearly two thirds of all the insolvencies in 2022.

### **Business Failure Rate per 10,000 companies**



# Direct Economic Impact of Irish business failures

- In our Q3 report, we published data on the direct economic impact of business failures for the first time ever in Ireland. This is a new method of analysing business failures and assessing their financial impact on the Irish economy.
- In addition to providing an update on the actual number of insolvencies, this gives a broader measure and indication of the economic and financial impact of these insolvencies which can vary greatly depending on the size of the companies.
- In 2022, 527 companies failed with associated debts outstanding of €1.8 billion.
- Whilst this is a significant figure, it is set against
  a backdrop of a very low number of insolvencies
  during 2022. As insolvencies are likely to increase
  in 2023 and move closer to the longer term
  average, we would expect the annual direct
  economic impact to rise and could be a multiple
  of 2022 figure.
- The top 10 companies accounted for over 50% (c. €1 billion) of the total economic impact during 2022
- Leinster alone accounted for over 85% (c. €1.5 billion) of the total economic impact during 2022.
- Excluding the larger companies, the average SME debt for business failures during 2022 was €2 million.

### **PwC Insolvency Barometer**

	Business Failure Rate per 10,000	Year
Current	20	2022
18 Year Average	53	Past 18 years
Highest	109	2012
Lowest	14	2021

# Q4 Business Failure Update - quarterly increase of 57% year on year, also the the third consecutive quarterly increase

- The business failure rate has increased significantly by 57% when Q4 2022 is compared to the same quarter in 2021, from 4.2 insolvencies per 10,000 companies to 6.6 per 10,000.
- The business failure rate has also increased quarter on quarter by 20% from 5.5 per 10,000 companies to 6.6 per 10,000.
- This is the third quarter in a row that insolvencies have increased throughout 2022.

# Energy & utility insolvencies increasing during Q4

- As we anticipated in our Q3 report, the energy and utilities sector had the highest rate of business failures in Q4 with 33 per 10,000 companies.
- The (i) arts, entertainment and recreation and (ii) hospitality sectors continue to have high rates of business failures in Q4 at 26 and 21 per 10,000 companies respectively.
- In overall numbers Dublin comprised 42% of the total insolvencies during Q4 2022.

### Look ahead to 2023

- Increased business failure rates in 2023 We expect
  to see the overall insolvency rate move closer to the long
  term average and back towards pre pandemic levels of c.
  850 in 2019. If many economists are correct in their view
  that a global recession is very likely, we could see the
  number of insolvencies rise above 1,000 which is the long
  term average in Ireland.
- SMEs will continue to make up most insolvencies We will continue to see most of the distress arising from SMEs and particularly small businesses. During the year, the Central Bank of Ireland published a report indicating that c.10,000 businesses may require some form of restructuring or liquidation.
- SCARP will continue to gain traction Alongside examinership, we expect to see continued increase in the use of the SCARP process during 2023. Investment will be critical for a good success rate within these restructurings and access to capital is likely to be tougher in 2023.

### Sectors

- » We will see continued elevated rates of business failure in the job intensive (i) hospitality and (ii) arts, entertainment & recreation sectors.
- » Similar to trends in the UK over the past year, we expect to see an increase in business failure rates within the construction and real estate sectors.
- Interest rate increases begin to bite While inflation & energy costs have been at the forefront in 2022, the impact of increasing interest rates will be felt more during 2023. With continued pressure on corporate profitability through inflation and energy costs, any business facing a refinancing during 2023 will also be looking at a higher cost of debt.
- Economic impact of insolvencies to increase We will continue to monitor the liabilities associated with insolvencies and we expect it to be significantly higher in 2023. Again if many economists are correct in their consensus that there will be a global recession in 2023, based on an elevated level of c. 1,000 insolvencies then the direct economic impact could be in the range of €3 to €4 billion, possibly higher if larger companies begin to encounter some financial distress.

# 2022 Key Insights - a year in review

### Number of Insolvencies per 10,000 companies

Insolvency Type	2022	Average 2005-2022
Total Corporate Insolvencies	20.0	52.8
Liquidations	15.8	38.8
Receiverships	3.0	12.6
Examinerships	0.3	1.3
SCARP	0.9	0.0

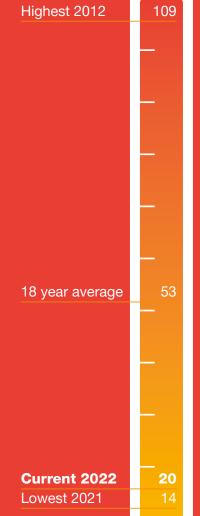
### **Number of Insolvencies in absolute** terms

Insolvency Type	2022	Average 2005-2022
Total Corporate Insolvencies	527	1,035
Liquidations	417	760
Receiverships	78	248
Examinerships	9	26
SCARP	23	1

### **PwC Insolvency Barometer**

There was a year on year rise of 39% in the total number of corporate insolvencies from 2021

There were 23 SCARP appointments during 2022 which was only enacted in December 2021



Insolvencies increase for

3 consecutive quarters during 2022

The number of business failures remains at very low levels. They also remain well below the pre-pandemic numbers - 20 per 10,000 companies in 2022 compared to 36 per 10.000 in 2019





There was **€1.8 billion** of debt owing from businesses that failed in 2022 whilst the average debt for SMEs was approximately €2 million





The top 10

companies comprised over 50% (c.€1 billion) of the total economic impact of all the business failures during 2022

The arts, entertainment and recreation sector had the highest number of business failures per 10,000 for the

### second year in a row



In the region of 10,000 businesses

may require some form of restructuring or liquidation according to the Central Bank of Ireland The number of insolvencies in the hospitality industry almost trebled in 2022





Dublin had the highest rate of business failures for the second year in a row

The UK's liquidation rate

continues to remain much higher (2.4 times) than that of the equivalent Irish rate



Three counties

(Dublin, Cork & Galway)

accounted for nearly two thirds of all insolvencies



### **Business Failures - Top 5 by Industry**

Industry	2022	2021
Arts, entertainment and recreation	73	82
Health	57	35
Hospitality	46	17
Energy and utility	43	22
Real estate	39	29

### **Business Failures - Top 5 by County**

County	2022	2021
Dublin	28	25
Wicklow	23	12
Monaghan	23	3
Cavan	22	12
Galway	21	13

# The Direct Economic Impact of **Business Failures**



The direct economic impact from business failures in 2022 was €1.8 billion\*.



The top 10 companies comprised over 50% (nearly €1 billion) of the total economic impact of all the business failures during 2022.



Leinster accounted for 85% of the total economic impact (c. €1.5 billion) of all insolvencies during 2022.



Excluding larger companies, the average SME that failed during 2022 had debts of c. €2 million.

In our last report for Q3 we published data on the direct economic impact of business failures for the first time ever in Ireland. This is a new method of analysing business failures and their financial impact on the Irish economy. In addition to providing an update on the actual number of insolvencies, this gives a broader measure of the economic and financial impact of insolvencies.

The direct economic impact from business failures in 2022 was €1.8 billion\*. This figure represents the aggregate level of debts outstanding from businesses that have failed in the year to date. However, this figure is lower than previously anticipated. During Q4 2022 the Government announced that the Revenue debt warehousing scheme has been extended into 2024. There also was a favourable budget for SMEs with the Temporary Business Energy Support being particularly welcomed. In addition, almost all of the insolvencies during Q4 were of SMEs.

As we have noted on previous pages of this report, the current annual business failure rate of 20 per 10,000 is far below the historic 18 year average of 53 failures per 10,000. As such, the economic impact of business failures could increase to a multiple of this figure if business failure rates return close to their long term average.

For companies that failed during 2022, we have calculated the debt outstanding from the last set of accounts filed. As there tends to be a 12-24 month gap between the last filed accounts and the date of insolvency, the level of debts outstanding at the date of insolvency tends to be significantly higher than the last filed accounts. This would in turn indicate that the actual debts outstanding are in reality higher than €1.8 billion reported\*.

Mitigating the economic impact of these outstanding debts will be any recoveries from assets for the benefit of creditors. In most SME liquidations, there is generally little if any returns at all for most creditors. In receivership cases, recovery is limited to the value of underlying security.

There will also be broader indirect economic losses arising from insolvencies which we have not calculated in this analysis such as loss of employment, impact on taxes and disruption to other business. Irish unemployment remains at record lows and effectively at full employment. This allows the employees of businesses that have failed to quickly find new jobs or opportunities and mitigates greater economic damage. If employees cannot find new jobs and remain unemployed, this will amplify the economic damage of future business failures above and beyond the pure financial liabilities.

\*As per the last set of accounts publicly available



Direct economic impact of business failures in 2023 could be in the range of €3 to €4 billion and possibly higher

# Local Economic Indicators



### Irish inflation at 9.0%

The Irish inflation rate was 9.0% in November 2022. This was lower than the EU average of 11.1%. There is increased pressure being placed on businesses and households in particular, as prices continue to rise.



### **Unemployment rate at 4.4%**

The unemployment rate has remained fairly consistent in 2022 and currently stands at 4.4% as of November 2022. The EU unemployment rate was significantly higher at 6.0% in October 2022. The unemployment rates in the UK and US were both at 3.7% in November 2022.



### The ECB has increased their interest rate to 2.5%

In December, the European Central Bank ("ECB") raised its main refinancing operation interest rate to 2.5% in an effort to stabilise inflation in the eurozone.



### Ireland's GDP grew by 11.7% year on year in the first nine months of 2022 $\,$

Ireland's Gross Domestic Product ("GDP") grew by 11.7% year on year in the first nine months of 2022 according to the CSO. Meanwhile, Gross National Product ("GNP"), which is a more meaningful measure of economic activity in Ireland, grew by 7.7% year-on-year in the first nine months of 2022. The ESRI predicts that the growth in GDP and GNP in 2023 will slow to 3.0% and 1.7% respectively.



### The Credit Union Consumer Sentiment Index increased to 48.7

Ireland's Credit Union Consumer Sentiment Index increased to 48.7 in December, from low levels in both October (46.1) and November (45.3). Sentiment had been at 81.9 in January prior to Russia's invasion of Ukraine. It's now increasing slowly from 42.1 in September, a level not seen since the global financial crisis over 14 years ago.



### **Construction index at 46.8**

BNP Paribas Real Estate Ireland's construction index measures the growth in Irish construction activity. The index was 46.8 in November 2022, representing a consecutive monthly decrease since October (47.4). November's fall is being accredited to a decline in housing and civil engineering activity.

# Global Headwinds

### 1. Interest rates

Since our Q3 2022 restructuring report "A Challenging Winter Ahead" the current US Federal Reserve interest rate has increased to a targeted range of 4.25% to 4.50%. During December, the US Federal Reserve raised interest rates by 0.5% which constituted the seventh rate hike of 2022. The Bank of England ("BoE") increased their interest rate to 3.5% in December having already increased it by 0.75% in November. The increase in September was the ninth consecutive increase and it's now at their highest rate in nearly 14 years. The ECB interest rate is far below that of the US and UK at 2% but is the fourth consecutive increase in interest rate this year. Further increases are expected from the ECB, BoE and US Federal Reserve in 2023.

### 2. Inflation

The current annual inflation rate in the EU is 11.1% (eurozone area - 10.1%) with the Irish inflation below this level at 9.0% according to Eurostat. Elsewhere in the EU certain countries recorded annual inflation rates which were at or over double the EU average: Hungary (23.1%), Latvia (21.7%) and Lithuania (21.4%). Spain currently has the lowest annual inflation rate in the EU at 6.7%. The US inflation rate is currently at 7.1% and the UK is at 10.7%. With high inflation rates, pressure is placed on businesses across the globe as consumers tighten their spending habits and wage demands increase.

### 3. High energy costs

In our Q3 2022 restructuring report "A Challenging Winter Ahead", we highlighted that the energy and utility sector is proving to be a difficult environment for businesses to operate in. This was confirmed in Q4 2022 with the energy and utility sector having the highest business failures per 10,000 as we anticipated in our last report. During 2022, four residential energy providers have exited the market as it has proved difficult to make a profit. This is as a result of surging wholesale energy costs since the Russian invasion of Ukraine.

### 4. Supply chain issues

The pandemic breakout that is quickly expanding throughout China is already causing distribution and supply chain disruptions. With an expected peak this winter, it's possible that supply chain concerns will continue into mid 2023. Certain sectors of the European market are very dependent on supplies from China which can have a major knock on effect.

### Corporates are facing headwinds in 2023



Supply chains have been impacted by a wide range of issues including lockdowns, illness and volatile supply/demand



### **Working Capital**

Businesses have had to keep up with fast changing working capital demands through COVID-19



Management teams are fatigued after two years of unprecedented economic conditions



### Volatile demand

Volatile demand caused by panic buying, muted demand from social distancing



Labour availability has been a challenge, driven by quarantines and lockdowns



Inflation is rising, both for consumers and corporates. The current annual inflation rate in the EU is 11.1%

# Quarterly Update - Q4 2022

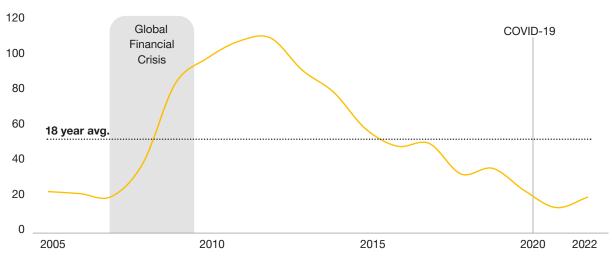


# Q4 Business Failure Highlights

### Why we use a per 10,000 business measure - Business Failure Rate

Our analysis is based on a per 10,000 measure which has become all too common to hear since the pandemic. It is also widely used when comparing the birth or death rates across different regions or countries. It is a simple yet effective statistic for comparison purposes between different periods, industries, towns, counties or countries with different population sizes. It provides meaningful context to the numbers rather than simply looking at them in absolute terms.

### **Business Failure Rate per 10,000 companies**



### **PwC Insolvency Barometer**

	Business Failure Rate per 10,000	Year
Current	20	2022
Average	53	N/A
Highest	109	2012
Lowest	14	2021

# Irish quarterly business failure rate per 10,000 businesses

Insolvency Type	Q4 2022	Q3 2022	Q4 2021
Total Corporate Insolvencies	6.6	5.5	4.2
Liquidations	5.3	4.7	3.3
Receiverships	0.7	0.5	0.5
Examinerships	0.1	0.0	0.4
SCARP	0.5	0.3	0.0

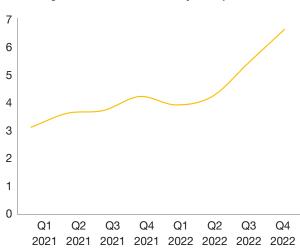
 The business failure rate has increased by 57% when Q4 2022 is compared to the same period last year

The business failure rate of 6.6 per 10,000 businesses during Q4 2022 represents a 57% increase when compared to the same quarter last year (4.2 failures per 10,000 businesses).

### Insolvencies have risen for the third quarter in a row and appears to have bottomed out

There has been another quarter on quarter increase in business failures of 20% from 5.5 per 10,000 in Q3 to 6.6 per 10,000 in Q4. During every quarter of 2022 the business failure rate has continued to increase albeit from record low levels in 2021 which suggests that the insolvency rates are beginning to rise from historic lows.

### **Quarterly Business Failure Rate per 10,000**

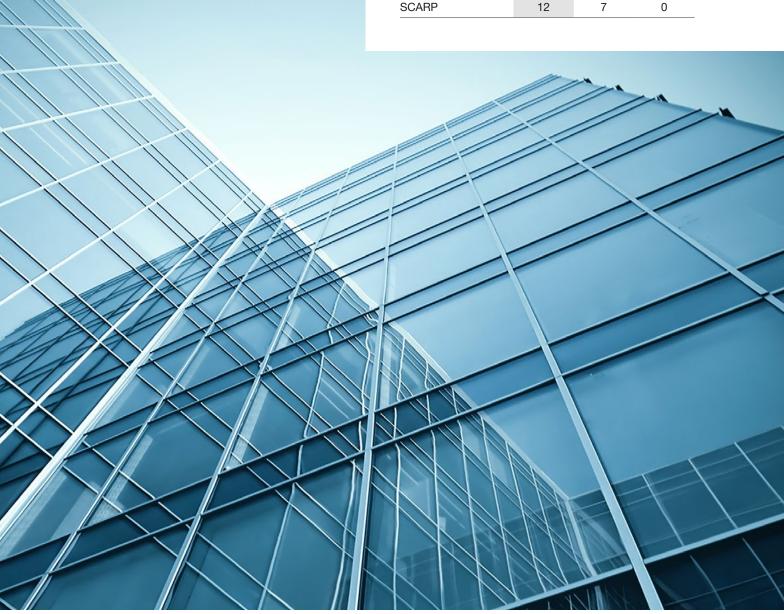


# 3. Further uptake in SCARP and examinership appointments during Q4 2022, accounting for nearly 10% of all insolvencies

During Q4 2022 we saw another increase in the number of SCARP appointments continuing the trend seen in the last report for Q3. There were 12 new SCARP appointments recorded in Q4 2022 which is more than the three previous quarters combined. SCARP and examinership appointments accounted for nearly 10% of all of the insolvencies during the last quarter.

Total number of Irish quarterly business failures

Insolvency Type	Q4 2022	Q3 2022	Q4 2021
Total Corporate Insolvencies	175	143	109
Liquidations	140	123	86
Receiverships	21	13	14
Examinerships	2	0	9
SCARP	12	7	0





# 1. Liquidations in the UK remain at record levels

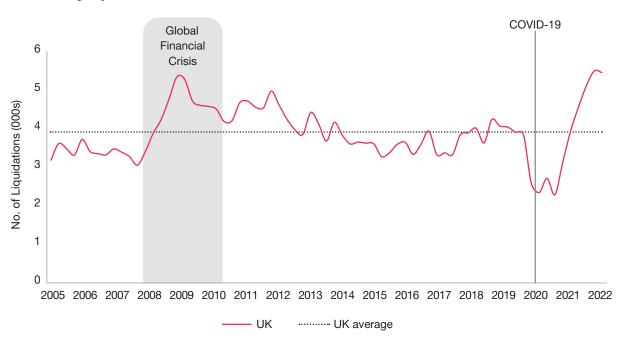
As highlighted in our previous reports, during the first two quarters of 2022 the UK had seen a record number of liquidations comparable with trends not seen since the global financial crisis. Since the publication of our last report they have started to plateau although they still remain very high with 5,443 liquidations recorded during Q3 2022. This is a decrease of less than 1% from Q2 2022 when 5,486 liquidations were reported. Interestingly the number of liquidations in the UK during Q3 2022 increased by 40% when compared to the same period in 2021.

Although the absolute number of liquidations in the UK are at an all time high, the Q3 2022 per 10,000 figures are running at approximately half of the figures seen during the global financial crisis due to a significant increase in the number of companies registered in the UK.

In a more recent report published by the UK Government, it was highlighted that the number of total business failures increased by 21% in November 2022 when compared to the same month last year.

Creditor voluntary liquidations are the most commonly used insolvency process in the UK accounting for 85% of the total insolvencies during Q3 2022.

### **UK Quarterly Liquidations**





The construction sector had the highest number of insolvencies in the UK with 3,949 recorded in the twelve month period ending Q3 2022. This was followed by the wholesale and retail trade (2,910) and accommodation &

food service activities (2,478) sectors.

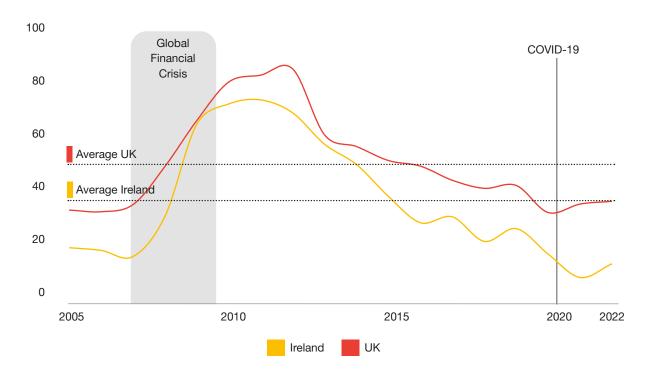
### 3. SMEs most impacted in the UK

During the first three quarters of 2022, there were only 104 insolvencies of businesses with a turnover of more than £10m in the UK. This is very similar to Ireland whereby during 2022, 99% of the insolvencies in Ireland were SMEs It's apparent that the SMEs in the UK are suffering considerably more from the recession in the UK as the larger companies are likely to have better access to funding and better placed to reduce overheads amongst other factors.

# 4. The gap in the liquidation rate between Ireland the UK is closing

In our previous report the UK liquidation rate was 36 per 10,000 companies and had risen to 39 per 10,000 in Q3 2022. Whilst Ireland's equivalent rate was 12 per 10,000 companies in Q3 2022, this has since risen to 16 per 10,000 in Q4 2022 due to the increase in the number of SME liquidations in Ireland. This means the gap between the UK and Ireland's equivalent liquidation rates has reduced from a multiplier of 3.0 to 2.4 in the last quarter. This gap could reduce further in 2023 as historic insolvency data suggests that liquidations in Ireland tend to lag behind the UK.

### Ireland's Liquidation Rate Compared to the UK (rolling twelve month average)



# **Q4** Industry Highlights

### Quarterly business failure rate per 10,000 by industry:

Industry	Q4 2022	Q3 2022
Energy and utility	33	0
Arts, entertainment and recreation	26	21
Hospitality	21	15
Health	8	10
Real estate	8	6
Manufacturing	7	5
Construction	7	4
Education	6	9
Retail	6	4
Finance and insurance	5	14
Professional, scientific and technical activities	5	5
Travel and transport	4	8
Information and communication	2	2
Administration and support services	1	1
Mining and quarrying	0	0
Other	0	0

### In Q4 2022, the energy and utility sector had the highest business failure rate which we had anticipated in our Q3 report

Energy and utility had the highest quarterly failure rate per 10,000 businesses with 33 per 10,000 companies during Q4 2022. This sector also had the largest increase from Q3 to Q4 (0 per 10,000 in Q3), although it must be noted that there are a relatively small number of businesses in this industry compared to some of the other industries.

### 2. (i) Arts, entertainment and recreation and (ii) hospitality continue to have large numbers of insolvencies

Throughout the last two quarters (i) Arts, entertainment and recreation (26 per 10,000 businesses in Q4 and 21 per 10,000 in Q3) and (ii) hospitality (21 per 10,000 in Q4 compared to 15 per 10,000 in Q3) have had a consistently high number of business failures. We expect this trend to continue into 2023 given the significant cost pressures these businesses continue to experience along with rising inflation and interest rates.

### 3. No business failures recorded in two sectors

The (i) mining and quarrying and (ii) other industries did not record any business failures during Q4 or Q3 2022.



# Q4 County Highlights

### Quarterly business failure rate per 10,000 by county:

County	Q4 2022	Q3 2022
Cavan	10	0
Dublin	9	9
Wicklow	9	7
Leitrim	9	5
Offaly	9	3
Monaghan	9	3
Westmeath	8	6
Meath	8	5
Galway	7	7
Clare	6	4
Wexford	6	3
Kildare	6	2
Louth	5	6
Longford	5	5
Kerry	5	5
Cork	5	4
Donegal	5	2
Limerick	4	2
Tipperary	4	2
Waterford	4	0
Carlow	3	3
Mayo	3	1
Roscommon	3	0
Laois	3	0
Sligo	3	0
Kilkenny	2	4

### In overall numbers, Dublin had by far the highest number of insolvencies in the last quarter

Dublin had the highest number of total business failures with 42% of the overall total during Q4 which is down from 54% in the previous quarter.

# 2. Every county experienced some form of business failure for the first time this year

Each county experienced at least 2 business failures per 10,000 companies during the fourth quarter. In contrast, 5 counties in the third quarter had 0 business failures per 10,000. This is the first quarter in 2022 where every county experienced a business failure during the quarter.

# 3. 57% of all insolvencies for the quarter occurred in Dublin, Cork and Galway

Dublin, Cork and Galway accounted for 100 of the 175 insolvencies in Q4 2022 representing 42%, 9% and 6% respectively. This is slightly below the yearly trend discussed earlier whereby Dublin, Cork and Galway accounted for nearly two thirds of the 2022 insolvencies.



## Act Now

### Assess your working capital

Companies must re-appraise and shore up their liquidity and working capital requirements to address the unwinding of government support and debts accrued during the pandemic, while meeting renewed customer demand and delivering delayed investment.

### Identify multiple funding sources

The limited availability of further government support will increase reliance on existing lenders, shareholders and access to the capital markets, which may be less forthcoming in sectors where the prospects for recovery and long-term growth are less clear.

### Monitor your cash flow

In this uncertain and potentially stop-start pathway to recovery and economic growth, it's essential to monitor cash flow and develop realistic forecasts which take account of potential varying recovery scenarios and, in particular, increasing interest rates and inflation in Ireland as well as around the world.

### Revise business plans

The immediate demands don't just include day-today expenses, but also funding for future growth and adapting to the trends reshaping marketplaces and economies. Revised and flexible business plans will be required to allow for quick forecasting and reacting to market changes. Robust data driven reporting will enable a fast response to changes and prevent profit leakage.

# Contact Us



Ken Tyrrell Partner - Business Recovery Services E: ken.tyrrell@pwc.com



**Declan McDonald** Partner - Head of Business **Recovery Services** E: declan.mcdonald@pwc.com

Download previous reports below



# Appendix - Sources

- Bloomberg
- BNP Paribas Real Estate
- Central Bank of Ireland
- Central Statistics Office
- Companies Registration Office
- Courtsdesk
- ESRI
- European Central Bank
- Eurostat
- Experian Gazette
- Financial Times
- Gov.ie
- Gov.uk
- Irish League of Credit Unions
- PwC UK
- Reuters
- Revenue Commissioners
- Vision-net
- Wall Street Journal