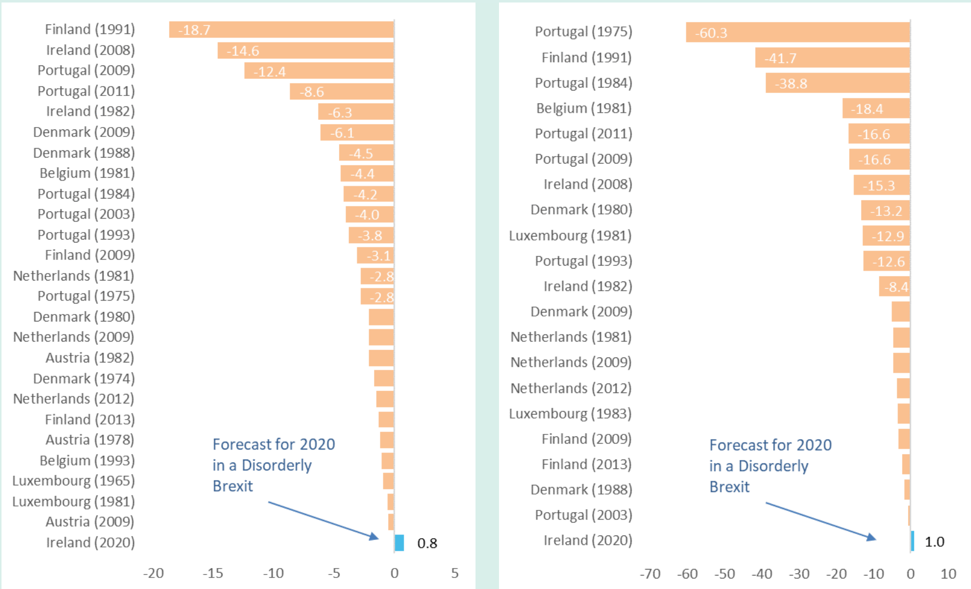
What happens to employment and employees’ wages in downturns?

Figure D.2 shows corresponding labour-market impacts of downturns in Ireland and similar European countries. Ireland’s largest downturns have severely impacted employment and real compensation of employees, although impacts have been worse elsewhere, for example in Finland (for employment) and Portugal (for wages). While *Budget 2020* does not forecast a downturn episode in 2020, the historical context shows an average impact across country downturn episodes of −4.5 per cent for employment and −15 per cent for real compensation of employees.

Figure D.2: Wages often fall by more than employment in downturns

Peak-to-trough percentage change in volumes, by country and first year of downturn episode

A. Employment **B. Compensation of employees (HICP deflated)**



Sources: European Commission, AMECO database; CSO; and internal Fiscal Council calculations.
Notes: Downturns are defined as growth in final domestic demand (excluding stocks) one standard deviation below its long-run (1961–2018) average. Bars show peak-to-trough percentage change from years *t-1* to *t+6*, with a downturn occurring in year *t*. The latest CSO data are used for Ireland for 1999–2018.

Implications

These findings suggest that Ireland’s downturns have been relatively severe, in particular for underlying investment. Although all downturn episodes are unique, the examples included in this box suggest that investment and real compensation of employees have been exposed to particularly large peak-to-trough falls of over one tenth in many cases. As such, if a disorderly Brexit causes a downturn to occur, there could be large downside risks to the Budget’s forecasts for 2020.

Box E: How well do consumer and business sentiment correspond to real economic activity?

A number of surveys are used to measure consumer and firm assessments of their financial circumstances and their expectations for the general economy. Among these are the KBC consumer sentiment index, and the European Commission’s indices for consumer and business sentiment (which includes sub-indices for industry and services).

Table E.1 shows the correlations between these sentiment indices and four measures of real economic activity: expenditure on personal consumption, underlying domestic demand, underlying investment, and gross domestic product. The highest correlations are between the consumer sentiment indices and underlying domestic demand, and a similarly strong relationship exists between these indices and personal consumption—the largest component of underlying domestic demand.

Table E.1: Consumer sentiment is more correlated with real economic growth than is business sentiment

Correlation coefficient: 1=perfectly correlated, –1=perfectly negatively correlated

	Consumer sentiment		Business sentiment	
	KBC	DGECFIN	DGECFIN (Industry)	DGECFIN (Services)
Personal consumption	0.80	0.81	0.52	0.61
Underlying domestic demand	0.81	0.83	0.62	0.69
Underlying investment	0.60	0.60	0.60	0.61
Gross domestic product	0.66	0.65	0.60	0.72

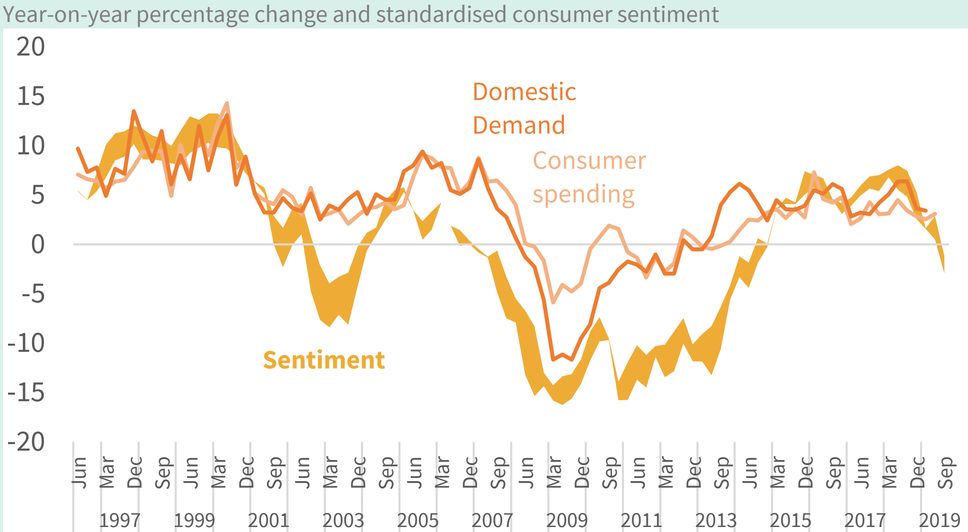
Sources: CSO; KBC Bank Ireland; European Commission; and internal Fiscal Council workings.
Note: The table shows correlations between year-on-year percentage changes for real economic activity—using quarterly data—and standardised sentiment, which is constructed by subtracting a long-run average from quarterly sentiment data, and scaling it by its long-run standard deviation.

Consumer sentiment indices

Consumer sentiment has a reasonable correlation with real activity, as shown in Figure E.1. But looking closely at the performance of sentiment indicators over time, their performance as leading indicators is relatively mixed.[33]

Figure E.1: Consumer sentiment indices are reasonably correlated with real activity, but have a mixed performance as leading indicators

Year-on-year percentage change and standardised consumer sentiment



Sources: CSO; KBC Bank Ireland; European Commission; and internal Fiscal Council workings.
Note: These data show year-on-year percentage changes for personal consumption and underlying domestic demand, using quarterly data. Standardised consumer sentiment is constructed by subtracting a long-run average from quarterly sentiment data, and scaling by its long-run standard deviation.

[33] McQuinn (2019) finds that while Irish consumer sentiment has a statistically significant relationship with economic activity, this model has performed relatively poorly since 2018.

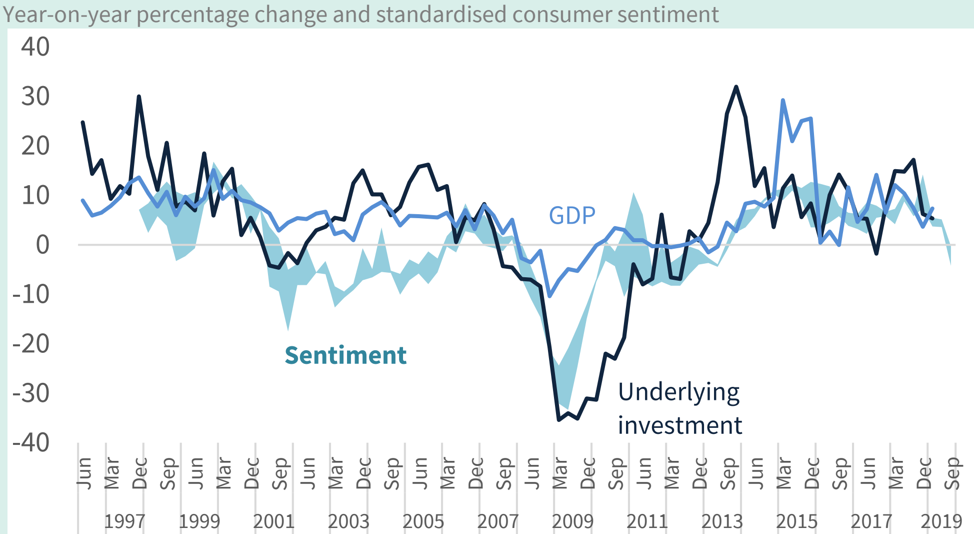
For instance, in the early 2000s around the time of the "dot-com bubble" and 9/11, the sentiment indices weakened substantially. Though real activity did moderate during this period, they held up quite well regardless of the declines in sentiment. This moderation also partly reflected the ending of a catch-up (or "convergence") period as opposed to an underlying weakening in economic conditions. By contrast, in the financial crisis period, weaknesses in consumer sentiment did appear to pre-sage contractions in real activity as far out as four to six quarters ahead.

Business sentiment indices

Business sentiment data tend to have a weaker correlation with real activity compared to consumer sentiment indicators (Figure E.2). Looking more closely at their performance as leading indicators, we can see that it is—as with consumer sentiment—quite mixed.

Figure E.2: Business sentiment indices show weaker correlation with real activity

Year-on-year percentage change and standardised consumer sentiment



Sources: CSO; European Commission; and internal Fiscal Council workings.
Note: These data show year-on-year percentage changes for personal consumption and underlying domestic demand, using quarterly data. Standardised consumer sentiment is constructed by subtracting a long-run average from quarterly sentiment data, and scaling by its long-run standard deviation.

The early 2000s again saw business sentiment indices weakening, though real activity (underlying investment and GDP) held up quite well. The contraction in investment in 2001 was short-lived relative to the ongoing weaknesses in sentiment. At the time of the financial crisis, underlying investment contracted before sentiment turned. While sentiment seemed to recover its pre-crisis levels by 2011, investment continued to contract.

Budget 2020 medium-term forecasts

Over the medium term, underlying domestic demand forecasts in *Budget 2020* show growth of close to 2½ per cent per year for 2021–2024, while employment growth is forecast to recover gradually after falling to 0.8 per cent in 2020, towards 2 per cent by 2024. The unemployment rate is forecast to increase only modestly to 5.9 per cent in 2021 before recovering to 5½ per cent by 2024. Compared to an orderly Brexit, the unemployment rate is forecast to increase by just 0.6 of a percentage point in 2020 and 0.8 of a percentage point in 2021 as a result of a disorderly Brexit.