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# An Oifig Buiséid Pharlaiminteach Parliamentary Budget Office **Inflation Issues for Ireland 2022**

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## Séanadh

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## Key Messages

- There has been more inflation and price volatility in the past 11 months ( $\approx 5.2\%$  between January 2021 and November 2021), than there has been in the previous 12 years combined ( $\approx 3\%$  over 2008-2020).
- Fuel and electricity make up approximately half of current inflationary pressures.
- COVID-19 remains a risk, especially in light of the new Omicron variant and the consequent temporary reintroduction of some pandemic supports, including PUP.
- Inflation forecasts are unusually uncertain due to ongoing changes in the global circumstances.
- There are differing opinions as to whether the current levels of inflation are temporary or persistent.
- COVID-19 has disrupted global supply chains, transport and manufacturing.
- In the short-term, the reintroduction of pandemic restrictions globally will worsen supply issues and inflation, provided consumer demand remained high.
- The reintroduction of pandemic restrictions internationally would also likely reduce oil and natural gas prices, and this could reduce inflation pressure for these particular items.
- Ireland imports the majority of its energy products and is exposed to international price changes.
- The policy changes necessary to meet climate change targets would likely increase inflationary pressures significantly in the long-term, especially for fuel.
- Housing, land and rent prices have increased significantly due to demand and are likely to continue doing so, depending on supply.
- There are risks that sustained inflation would increase poverty and inequality. However, Budget 2022 has implemented measures that protects to a large extent the purchasing power of households.
- Ideally government policy should, in the spirit of fiscal prudence, prepare contingency for possible sustained elevated inflation in the medium-term.

# 1 Background to Inflation

## 1.1 Introduction to Inflation

In a market economy, prices for goods and services can always change. Some prices rise; some prices fall. Inflation occurs if there is a broad increase in the prices of goods and services, not just of individual items. It means, you can buy less for €1 today than you could yesterday. In other words, inflation reduces the value of money over time.<sup>1</sup>

Between the end of the 2008 financial crisis and the start of the COVID-19 pandemic, both Ireland and the Eurozone have experienced only mild inflation. The HICP (Harmonised Index of Consumer Prices) is used to measure consumer price inflation.<sup>2</sup> It is standardised across the Euro area for comparability. It measures the average change over time in the prices paid by people for a specific, regularly updated basket of consumer goods and services.

**Figure 1: Ireland's Annual HICP Inflation 2008 to November 2021**



Source: CSO CPM15<sup>3</sup>.

<sup>1</sup> European Central Bank, *What is inflation?*

<sup>2</sup> European Central Bank.

<sup>3</sup> Annual rate of change in HICP.

Basically, all consumer goods and services are within this basket, and it includes everyday items such as food, newspapers and petrol, durable goods such as computers and washing machines, and services such as hairdressing, insurance and rented housing<sup>4,5</sup>

When calculating the average increase in prices to measure inflation, the prices of products different households spend proportionally more on, such as electricity, are given a greater weight than the prices of products households spend proportionally less on, for example, salt or postage. For the HICP, every month, approximately 1.8 million prices are collected for around 700 representative goods and services across the Euro area.<sup>6</sup>

Product groups in the index are weighted according to their importance in average household budgets and amended regularly. Sometimes changes in product quality affects price, such as for technological advancement in vehicles. The HICP deals with this by subtracting the change that is due to quality.<sup>7</sup>

As of November 2021, for the Euro area HICP inflation rate of 4.9%<sup>8</sup>, energy was 9.5% of the basket of goods while making up 2.6% of the total inflation. Transport made up 1.7% of the total 4.9% Euro area inflation, while only being 13.7% percent of the HICP index, though there is overlap between these two items such as oil costs.<sup>9</sup> The ECB has a policy responsibility to maintain price stability, measured as a year-on-year HICP inflation rate of 2% over the medium-term.<sup>10</sup>

Between 2008 to 2020, Ireland experienced an average HICP inflation rate of  $\approx 0.23\%$  a year.<sup>11</sup> The total inflation rate between 2008-2020 was  $\approx 3\%$ . In contrast, between January 2021 and November 2021, the total HICP inflation rate was  $\approx 5.2\%$ .<sup>12</sup> In contrast the CPI (Consumer Price Index) stands at 5.3% in the year to November 2021.<sup>13</sup> This is in part due to the fall in prices experienced in some months of 2020, as the 12-month rolling average for Ireland's inflation rate is 1.9% as of November 2021.<sup>14</sup>

Figure 1 highlights how there has been significantly more inflation and price volatility in the past ten months than there was in the previous 12 years combined. How the components of inflation affect the economy is complex and will be discussed in the forthcoming sections.

Before the 2008 financial crisis and since the 1990s, inflation tended to be higher at around 2-4%. Ireland has not experienced sustained significant inflation since the 1980s. Stagflation<sup>15</sup> was an issue in the 1970s primarily due to the oil crisis.

<sup>4</sup> Homeownership costs are not currently included in the HICP, but this is being introduced.

<sup>5</sup> *European Central Bank, An overview of the ECB's monetary policy strategy, (July 2021).*

<sup>6</sup> *European Central Bank, What is inflation?.*

<sup>7</sup> *Ibid.*

<sup>8</sup> *Eurostat, HICP - monthly data (annual rate of change).*

<sup>9</sup> *Eurostat, HICP - contributions to EA annual inflation (in percentage points).*

<sup>10</sup> *European Central Bank.*

<sup>11</sup> *CSO, HICP CPM15.*

<sup>12</sup> *Ibid.*

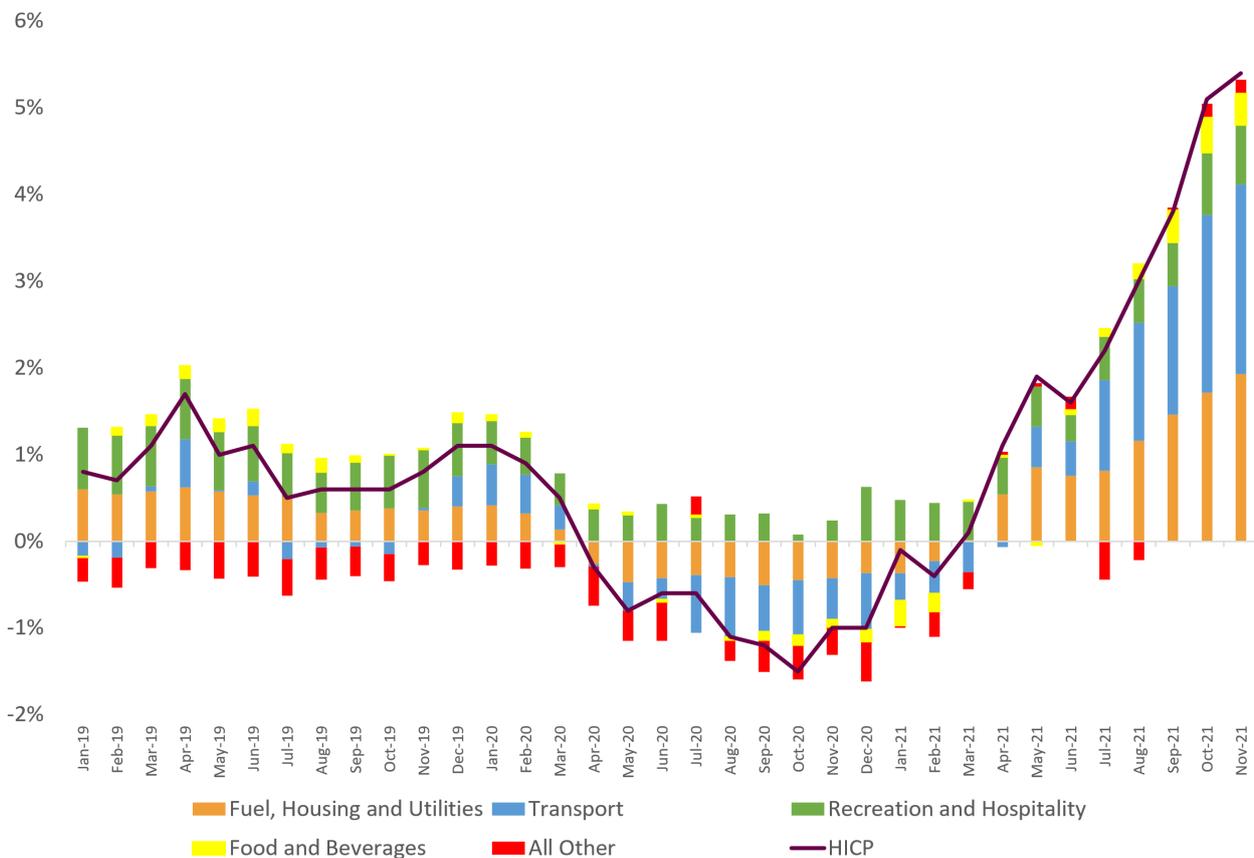
<sup>13</sup> *CSO, CPM03.*

<sup>14</sup> *Eurostat, HICP - monthly data (12-month average rate of change).*

<sup>15</sup> Stagflation is a situation in which the inflation rate is high, the economic growth rate slows, and unemployment remains steadily high.

## 1.2 COVID-19 and the Eurozone Situation

Figure 2: Ireland HICP Inflation Breakdown by Category



Source: CSO CPM15 and Eurostat prc hicp inw - Note on Legend, HICP Categories: F.H.U.=4, T.=7, R.H.=9,11, FB=1,2, Other=3,5,6,8,10,12.

The circumstances around COVID-19 and subsequent lockdowns resulted in a general reduction in consumer prices in 2020 and high inflation towards the end of 2021. Ireland’s inflation rate is higher than the EU average at 5.4% vs 5.2% as seen in Figure 3. The European Commission projects the 12-month rolling average HICP inflation in Ireland at 2.3% in 2021, 3.1% in 2022 and 1.5% in 2023.<sup>16</sup>

Overall, the elevated inflation rate is mostly driven by energy commodity price inflation. The Energy category has a weight of approximately 10% of the HICP basket but accounted for half of inflation in November 2021. This means inflation in Ireland was only around 2% excluding energy prices and their dependencies.<sup>17</sup> Services inflation has also increased, impacted by re-opening and simultaneous demand for new staff.<sup>18</sup> The breakdown of inflation is discussed in Section 2, while COVID-19 is discussed further in Section 4.

<sup>16</sup> European Commission, Post-Programme Surveillance Report Ireland, (November 2021).

<sup>17</sup> CBI, An overview of inflation developments, (November 2021).

<sup>18</sup> European Commission, European Economic Forecast Autumn 2021.

**Figure 3: European Union Inflation for November 2021**

Source: Eurostat *prc hicp manr*, annual inflation November 2021.

### 1.3 Current Inflation Projections

Inflation may arise through an increase in the costs of certain items, or extra demand pulling up inflation. For example, a strong level of discretionary income available to spend can result in higher prices. Higher levels of demand can increase prices both as shortages may arise, and also as households may spend on more expensive goods than normal.

In light of the reopening of the economy in mid-2021 following the successful vaccination programme, forecasts for both inflation and nominal GDP growth were revised upward. A booster vaccination programme is ongoing. The Central Bank of Ireland notes that supply chain disruptions and sectoral capacity constraints have led to growing price pressures.<sup>19</sup>

The emergence of the Omicron variant and recent emergency restrictions on international travel make the economic trajectory more uncertain. In the event of a return to widespread lockdowns internationally, both inflation and GDP would be lower, at least so long as there is a decrease in modified domestic demand (MDD), which is used as a proxy for the domestic economy.

Ibec predicted a strong increase in Christmas spending at approximately €800 per household, despite Omicron dampening demand for some sectors.<sup>20</sup> Irish households currently hold a record €135 billion in deposits.<sup>21</sup> There are significantly increased household savings, with a saving ratio of 13.5% at the beginning of 2020 versus an average of 25.5% for the beginning of 2021, though levels fluctuated as the pandemic developed.<sup>22</sup>

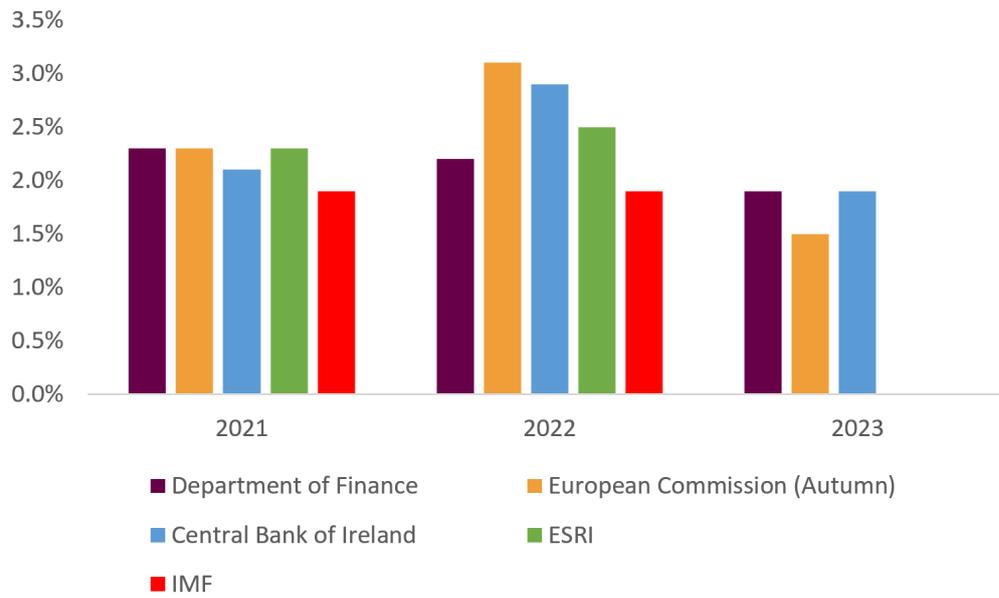
<sup>19</sup> CBI, *Financial Stability Review 2021 II*, (2021).

<sup>20</sup> Ibec, *Quarterly Economic Outlook*, (December 2021).

<sup>21</sup> Ibid.

<sup>22</sup> CSO, *ISQ04*.

**Figure 4: Compared Inflation Projections**



Source: DoF,<sup>23</sup> EC,<sup>24</sup> CBI,<sup>25</sup> ESRI,<sup>26</sup> IMF<sup>27</sup> (12 month rolling average).

<sup>23</sup> Department of Finance, Budget 2022 Economic & Fiscal Outlook, (October 2021).  
<sup>24</sup> European Commission, Autumn 2021 Economic Forecast.  
<sup>25</sup> Central Bank of Ireland, Quarterly Bulletin Q4 2021.  
<sup>26</sup> ESRI, Quarterly Economic Commentary Winter 2021.  
<sup>27</sup> IMF, World Economic Outlook, (October 2021).

## 2 Breakdown of Inflationary Pressures

### 2.1 Supply and Transport Issues

The onset of lockdowns in 2020 resulted in the halting and disruption of the physical manufacturing process, especially in China. There have been ongoing disruptions in international shipping, particularly delays around ports. Notably, the cost per container shipped has increased dramatically internationally.<sup>28</sup>

While much of long-haul shipping makes use of long-term contracts to fix prices, the container freight price index is currently up to ten-fold higher in comparison to pre-2020 prices.<sup>29</sup> The cost of freight transport may increase with climate change mitigation policies.<sup>30</sup>

Approximately 94% of Irish manufacturers said they find the current transportation and logistics costs challenging for business.<sup>31</sup> “Just in time” manufacturing, which prioritises low levels of stock components to reduce costs, has suffered worst. Some car manufacturing plants have shut down due to shortages of a few key electronic components.<sup>32</sup>

In general, the price of transporting goods has increased while the reliability of arriving on time according to previous standards have decreased. In addition, Brexit has caused some changes to the importation of shipping goods into Ireland, especially for intra-EU trade and Brexit related uncertainties remain ongoing.<sup>33</sup> Generally, the cost of shipping makes up only a small fraction of the prices of a good, so it tends to only have a minor effect on inflation.<sup>34</sup>

### 2.2 Energy Commodities

Electricity prices and fuel costs have increased in 2021. Unleaded petrol prices have increased by approximately 37% and diesel prices have increased by 39% compared to last year.<sup>35</sup> Ireland has limited options to control energy prices and is a ‘price taker’ from the international market. Rising fuel prices have led to protests in November<sup>36</sup> and December 2021<sup>37</sup> by the truck transport industry. As of the end of 2021, prices remain elevated amid supply constraints.<sup>38</sup>

<sup>28</sup> Reuters, *China-U.S. container shipping rates sail past \$20,000 to record, (August 2021).*

<sup>29</sup> Freightos, *Global Container Freight Index.*

<sup>30</sup> ESRI, *Climate policies for freight transport: Energy and emission projections through 2050, (April 2021).*

<sup>31</sup> Ibec, *Quarterly Economic Outlook, (December 2021).*

<sup>32</sup> DW, *Germany: Opel plant to shut over global chip shortage, (September 2021).*

<sup>33</sup> IT, *Protocol negotiations need to be finished by end of February, says Coveney, (December 2021).*

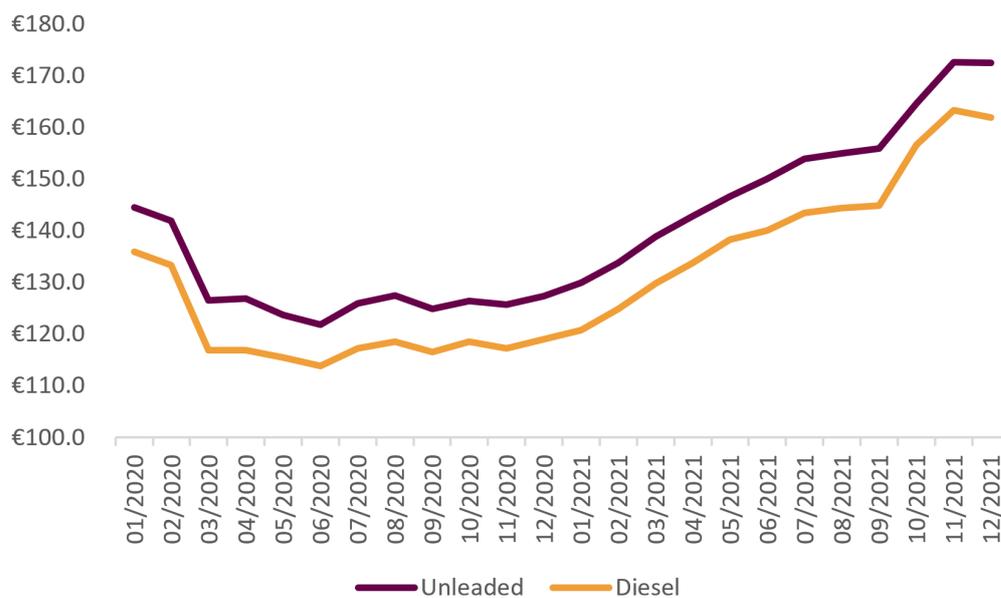
<sup>34</sup> ECB, *Economic Bulletin Issue 3 2021, (May 2021).*

<sup>35</sup> AA, *Record high fuel prices severely affecting household budgets, (November 2021).*

<sup>36</sup> Irish Times, *‘I’ve never seen diesel prices this high’ - Dublin traffic disrupted by trucker protest, (November 2021).*

<sup>37</sup> Irish Times, *Traffic chaos expected in Dublin as hauliers protest again over high fuel prices, (December 2021).*

<sup>38</sup> IT, *Rising demand, stagnant supply: Burning questions for Irish electricity network, (January 2022).*

**Figure 5: Fuel Prices Ireland**

Source: AA<sup>39</sup>.

Natural gas prices have more than doubled since the beginning of the pandemic. This is primarily due to increased market demand, and disruptions to supply.<sup>40</sup> Global oil and natural gas production declined during parts of 2020, negatively affecting supply.<sup>41</sup> In 2018, natural gas accounted for 31% of Ireland's energy requirement, with 61% being extracted in Ireland, primarily from the Corrib Field.<sup>42</sup>

Current climate change mitigation policies encourage cleaner fossil fuels, such as natural gas, over more polluting fossil fuel, such as coal. In Ireland, for 2021, increased electricity demand and supply issues have resulted in two decommissioned natural gas fired power stations needing to be reopened, Huntstown and Whitegate, to prevent a risk of blackouts over winter.<sup>43</sup> Europe is reliant on the import of foreign supplies such as from Russia for natural gas. Ireland's own natural gas production has been decreasing over time.<sup>44</sup>

<sup>39</sup> AA, *Petrol Prices*.

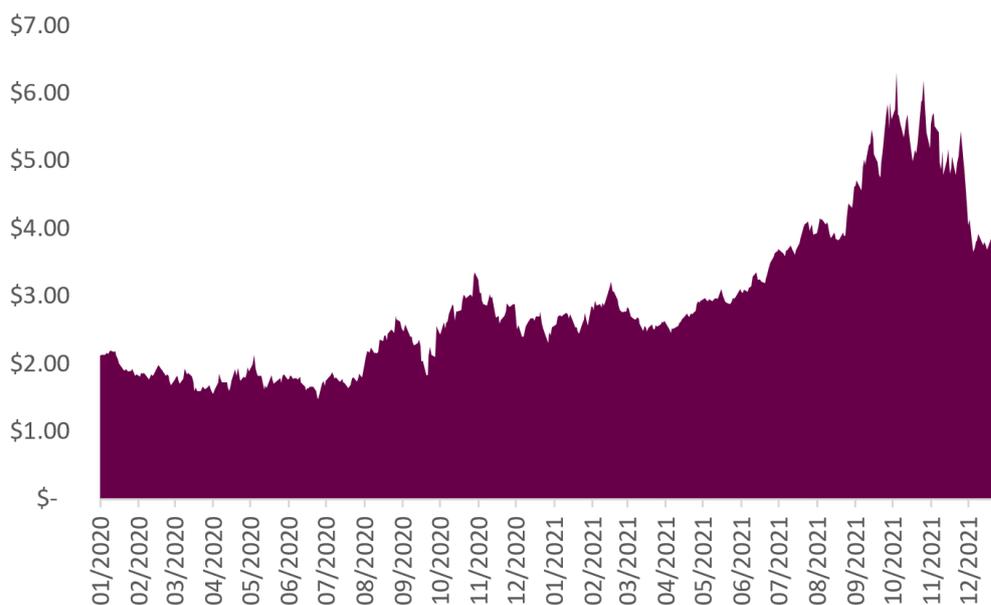
<sup>40</sup> *The Economist*, *Natural-gas prices are spiking around the world*, (September 2021).

<sup>41</sup> *Ibec*, *Quarterly Economic Outlook*, (December 2021).

<sup>42</sup> *Sustainable Energy Authority of Ireland*, *Energy Security in Ireland*, (2020).

<sup>43</sup> *RTE*, *Boost for grid as Huntstown power station resumes operations*, (October 2021).

<sup>44</sup> *Sustainable Energy Authority of Ireland*, *Natural gas*.

**Figure 6: Natural Gas Index Price**

Source: NASDAQ<sup>45</sup>.

In 2019 Ireland had an energy import dependency ratio of 68%,<sup>46</sup> down from an average of 89% between 2001 and 2015.<sup>47</sup> This means that the majority of Ireland’s energy needs are met from overseas imports. Ireland’s electricity prices are among the most expensive in the EU. In the first half of 2021, Ireland had an average consumer electricity cost of €0.21 per Kilowatt-hour, as opposed to a €0.14 average for the Euro area.<sup>48</sup>

To encourage the use of green energy, the EU prices energy with the “pay as you clear” system. At its simplest, wholesale electricity costs reflect the price of the “last unit” of energy type bought through auctions in member states. Electricity producers bid into the market and they establish their price according to their production cost. Renewable energy sources are produced at minimal cost and are therefore always cheapest.

The bidding goes from the cheapest to most expensive, with polluting fossil fuels being priced higher. The cheapest electricity is bought first, next offers in line follow. Once the full demand is satisfied, every supplier is paid the price of the last producer from which electricity was bought. This means that if the electricity demand is high, prices can be set by the price of the fossil fuel needed.<sup>49</sup>

## 2.3 Indirect Regulatory Inflation

A small proportion of inflation can be caused or influenced by direct government policy such as taxation. This is especially relevant for motor-related taxes which increase the cost of car ownership. The excise duty on alcohol and tobacco impacts on the prices of these goods. Minimum alcohol pricing came into force in January 2022, setting a minimum price per one “standard drink” at €1, meaning a standard 12.5% bottle of wine of 7.4 “standard drinks” would cost a minimum of €7.40.<sup>50</sup>

<sup>45</sup> NASDAQ, USD/MMBtu (NG:NMX).

<sup>46</sup> Eurostat, Energy Imports Dependency.

<sup>47</sup> Sustainable Energy Authority of Ireland, Energy Security in Ireland, (2020).

<sup>48</sup> Eurostat, Electricity prices for household consumers nrg pc 204.

<sup>49</sup> European Commission, Carbon Border Adjustment Mechanism.

<sup>50</sup> HSE, Public Health (Alcohol) Act 2018.

## 2.4 Climate Policy

Ireland failed to meet its 2020 climate change reduction targets, even though there was a positive impact on emissions due to the pandemic as a result of a dramatic decline in economic activity and travel in the short-term.<sup>51</sup> This was in part due to ‘implementation gaps’ between policy and the necessary actions.<sup>52</sup> There are concerns surrounding the feasibility of achieving Ireland’s climate change targets.<sup>53</sup> It must be noted that climate change itself, and a lack of timely action by governments, would bring manifold economic and fiscal consequences for both Ireland and the world, including increasing inflationary pressures.

Extensive expansion and strengthening of climate policy is required for Ireland to meet the EU requirement of a 30% cut in emissions in non-ETS sectors by 2030.<sup>54</sup> Non-ETS sectors are sectors which fall outside of the scope of the EU Emissions Trading System, such as transport, buildings and agriculture. The Climate Change Advisory Council states it is unlikely that Ireland would be capable of meeting this goal with the current spending plans.<sup>55</sup> It must be noted that climate change itself, and a lack of timely action by governments, would bring manifold economic and fiscal consequences for both Ireland and the world, including increasing inflationary pressures.

Agriculture and transport make up the majority of greenhouse gas emissions in Ireland. Electric vehicles are being promoted and subsidised to help achieve a reduction in transport pollution. The Climate Action Plan aims for 945,000 electric vehicles on the road by 2030, while there are currently around 40,000 as of 2021.<sup>56</sup> Ireland previously missed its previous target of 10% of all road vehicles being electric vehicles by 2020.<sup>57</sup> Cycling is also being encouraged.<sup>58</sup> The PBO has published *An Overview of Electric Vehicles and Their Impact on The Tax Base*.

Ireland is targeting having net zero green emissions by 2050.<sup>59</sup> The effect of climate policies on inflation and exchequer spending is likely to increase over time.<sup>60</sup> Climate policy when implemented through either increased taxes or reduced subsidies, would increase inflationary pressures, especially for fuel. There are concerns that climate change policy may be far more expensive in future than projections currently budget for.<sup>61</sup> However, the costs of inaction are large, both in terms of financial penalties and wider societal impacts of a failure to transition the economy.

In 2019, there was an estimated €2.4 billion spent on fossil fuel subsidies in Ireland. In addition, €0.4 billion was spent on environmental subsidies related to energy and emissions, while €3 billion was raised in energy taxes.<sup>62</sup> It is necessary that these fossil fuel subsidies are tapered over time to meet climate goals. Doing so without altering any other aspect of the system would both increase inflationary pressures and fuel poverty.<sup>63</sup> A significant proportion of petrol pump prices is already due to tax.<sup>64</sup>

<sup>51</sup> Environmental Protection Agency, *Ireland will not meet its 2020 greenhouse gas emissions reduction targets. Action is needed now to meet 2030 EU targets*, (June 2021).

<sup>52</sup> Climate Council, *Climate Change Advisory Council Annual Review 2021*, (December 2021).

<sup>53</sup> Environmental Protection Agency, *Ireland will not meet its 2020 greenhouse gas emissions reduction targets. Action is needed now to meet 2030 EU targets*, (June 2021).

<sup>54</sup> European Commission, *Effort sharing 2021-2030: targets and flexibilities*.

<sup>55</sup> Climate Council, *Climate Change Advisory Council Annual Review 2021*, (December 2021).

<sup>56</sup> Department of Transport, *The benefits of switching to an Electric Vehicle*, (December 2021).

<sup>57</sup> Sustainable Energy Authority of Ireland, *Electric vehicles roadmap*, (December 2010).

<sup>58</sup> IGEES, *An Examination of the Cycle to Work Scheme*, (2021).

<sup>59</sup> Department of the Environment, Climate and Communications, *Government approves landmark Climate Bill putting Ireland on the path to net-zero emissions by 2050*, (March 2021).

<sup>60</sup> ECB, *Climate change and monetary policy in the euro area*, (September 2021).

<sup>61</sup> Fiscal Council, *Path for the Public Finances 2020: Budgeting for Climate Change*, (February 2020).

<sup>62</sup> CSO, *Fossil Fuel Subsidies 2019*.

<sup>63</sup> Climate Council, *Climate Change Advisory Council Annual Review 2021*, (December 2021).

<sup>64</sup> AA, *Petrol Prices*.

Budget 2022 announced that the weekly rate of Fuel Allowance will increase by €5 to €33 per week from October 2021.<sup>65</sup> The estimated cost of Fuel Allowance is €300 million in 2021 before the Budget 2022 increase and affects approximately 372,000 low-income households.<sup>66</sup> As per Finance Act 2020, carbon tax will increase by €7.50 a tonne every year.<sup>67</sup> Budget 2022 increased it from €33.50 per tonne to €41.00 per tonne of carbon dioxide emitted.

There is a commitment to spend €3 billion from carbon tax on targeted social welfare and other initiatives to prevent fuel poverty and ensure a just transition over 2021-2030. €5 billion is provided to part fund a socially progressive national retrofitting programme. €1.5bn of additional funding is allocated to encourage and incentivise farmers to farm in a greener and more sustainable way.<sup>68</sup> While initiatives to prevent fuel poverty would increase both carbon emissions and inflationary pressures, retrofitting measures will reduce the demand for fuel.

There are complex trade-offs concerning climate policy and controlling inflationary pressures for electricity and fuel, especially as it is lower income households most affected by inflation.<sup>69</sup> Simply making fuel more affordable, especially for heating houses with a poor energy efficiency, increases market demand for it, and thus emissions.<sup>70</sup> ECB Executive Isabel Schnabel says that low-carbon economy “poses measurable upside risks” to medium-term inflation projections.<sup>71</sup> Ultimately climate policy may have an inflationary pressure, especially as targets increase.

## 2.5 Agricultural Impacts

The Irish agricultural industry relies on fuel, natural gas and fertiliser. The majority of fertilisers are nitrogen based and require natural gas to produce.<sup>72</sup> Most would necessitate the importation of chemical compounds from abroad, especially phosphorus-based fertiliser.<sup>73</sup> Aside from the increased price of energy commodities, the price of fertiliser has increased significantly, depending on the exact sub-product.<sup>74</sup> Physical stocks of fertiliser are down 50% from normal and shortages may be sustained.<sup>75</sup>

Changes to the cost and structure of farming would have implications for CAP (common agricultural policy). Given the rise in global food prices abroad and the demand for Ireland’s agricultural exports, it remains to be seen how current trends will affect farming profitability.

<sup>65</sup> Department of Social Protection, *Budget 2022, (October 2021)*.

<sup>66</sup> Oireachtas, *Fuel Allowance Debate, (March 2021)*.

<sup>67</sup> ISB, *Finance Act 2020*.

<sup>68</sup> Department of Finance, *The Use of Carbon Tax Funds 2022, (October 2021)*.

<sup>69</sup> ESRI, *Carbon Taxes, Poverty and Compensation Options, (October 2020)*.

<sup>70</sup> ESRI, *The impacts of removing fossil fuel subsidies and increasing carbon tax in Ireland, (December 2019)*.

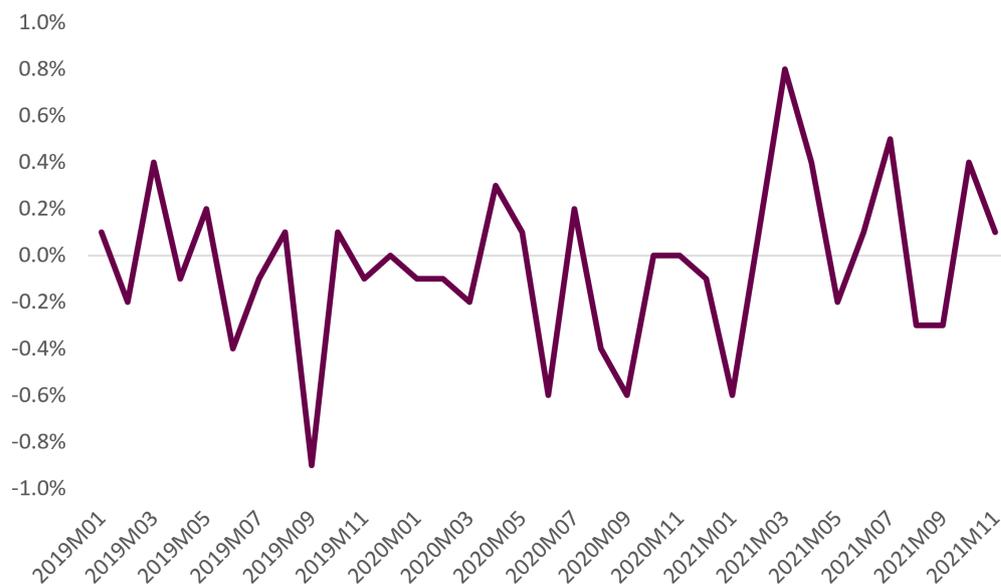
<sup>71</sup> FT, *ECB executive warns green energy push will drive inflation higher, (January 2021)*.

<sup>72</sup> *Fertilizers Europe, How fertilizers are made?*

<sup>73</sup> *Ibid.*

<sup>74</sup> *Irish Examiner, Hoping that fertiliser prices will fall and delaying spreading is fools folly, (November 2021)*.

<sup>75</sup> *Independent, No sign of fertiliser prices coming down top industry exec warns, (December 2021)*.

**Figure 7: Food Price Stability in Ireland**

Source: CSO<sup>76</sup> Monthly Price Change.

Ireland has a high level of food security<sup>77</sup> and exports more in food quantity than it consumes. The majority of the agricultural industry revenues are export focused. Ireland had a positive agricultural balance of trade in 2020 of €3,749 million, meaning more is exported than imported by the value of trade. However, agriculture makes up 8.4% of exports and 11.1% of imports.<sup>78</sup> Note that food grown in Ireland can count as “imports” if it has been processed and packaged abroad.

The CPI (consumer price index) of food has, on average, continued to decrease slightly during the pandemic and experienced little volatility, with food making up approximately 15% of the HICP index in Ireland.<sup>79</sup>

## 2.6 Labour Cost Inflation

The cost of labour is a component that feeds into the cost of goods or services manufactured in that country. Ireland has among the highest average industrial wages in the world, above the OECD average.<sup>80</sup> The majority of household items are not manufactured in Ireland and thus would not be affected by Irish wages, but many services are.

Younger and low-skilled workers were the most negatively affected by the pandemic,<sup>81</sup> especially due to their concentration in the most impacted sectors.<sup>82</sup> The national minimum wage has increased to €10.50 at the beginning of 2022, thereby increasing the cost of lower-income labour.<sup>83</sup> Ibec expects that unemployment will continue to fall and reach the pre COVID-19 level of 5.2% by the end of 2022.<sup>84</sup> Budget 2022 forecasts an unemployment rate of 7.2% in 2022 and 6.0% in 2023.<sup>85</sup>

<sup>76</sup> CSO, CPI (Food and non-alcoholic beverages) CPMo1.

<sup>77</sup> Farmers Journal, Ireland the most food-secure nation in the world, (September 2021).

<sup>78</sup> European Commission, Statistical Factsheet Ireland, (June 2021).

<sup>79</sup> Eurostat, HICP - item weights.

<sup>80</sup> OECD, Average wages.

<sup>81</sup> PBO, Labour Market Scarring, (September 2021).

<sup>82</sup> European Commission, The Sectoral Impact of the COVID-19 Crisis, (December 2021).

<sup>83</sup> Department of Enterprise, Trade and Employment, National Minimum Wage will increase 1 January 2022, (December 2021).

<sup>84</sup> Ibec, Quarterly Economic Outlook, (December 2021).

<sup>85</sup> Department of Finance, Budget 2022 Economic & Fiscal Outlook, (October 2021).

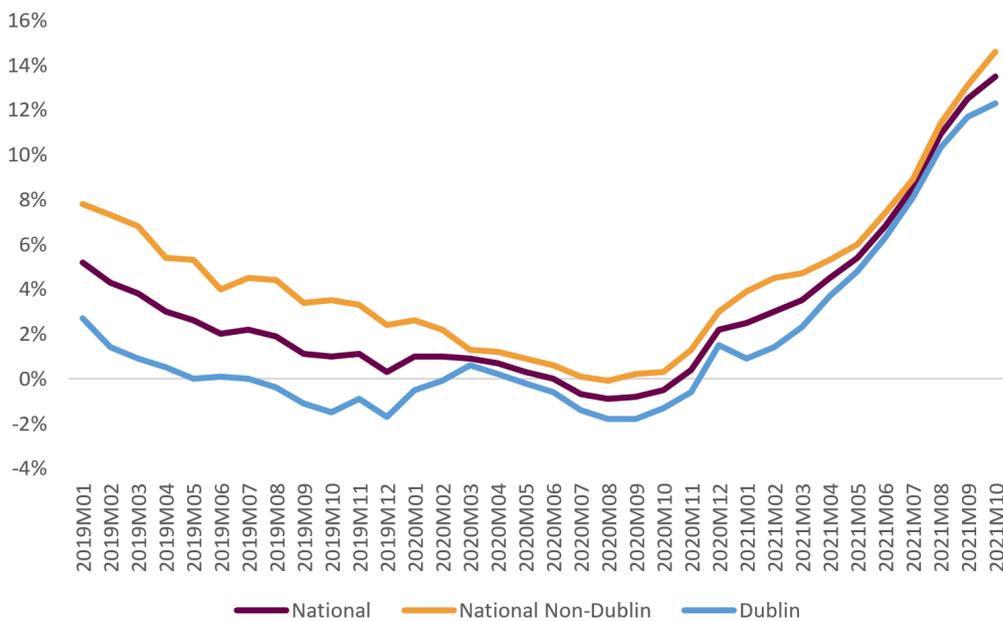
Central Bank Director of Economics and Statistics Mark Cassidy said to the Committee on Budgetary Oversight in November that there is no evidence of a wage-price spiral in the Irish economy. A wage-price spiral is a process in which wage increases cause price increases, due to the increased cost of labour, which in turn cause wage increases to maintain purchasing power, thereby causing a spiral. He suggested that in the circumstances where wages were increasing, it would be in MNEs (multinational enterprises) and sectors such as financial and IT services that “are able to afford it”.<sup>86</sup>

There are specific sectors suffering from a temporary shortfall of specialised labour.<sup>87</sup> This may result in increased wages for these occupations. HGV (heavy goods vehicle) drivers are in short supply in both Ireland and the EU, though less so than the United Kingdom. In addition, the average labour cost in the construction sector for July 2021 increased by about 4% in the past year.<sup>88</sup> Sourcing enough specialists for construction work can be difficult.<sup>89</sup>

There is a shortage of nurses and medical staff, especially due to the increased demand from COVID-19.<sup>90</sup> There are a record number of 2.4 million individuals in the labour force currently. It is presumed that labour shortages would likely remain an issue even past mid-2022.<sup>91</sup>

## 2.7 Land and Property Markets

Figure 8: Property Price Increases Dublin vs Non-Dublin



Source: CSO HPMo6.

<sup>86</sup> Houses of the Oireachtas, Committee on Budgetary Oversight to resume discussions on inflation, (November 2021).  
<sup>87</sup> PBO, Labour Market Scarring, (September 2021).  
<sup>88</sup> Turner & Townsend, Republic of Ireland market intelligence survey, (August 2021).  
<sup>89</sup> IT, Building skills shortage may check Coalition plans on homes, (October 2021).  
<sup>90</sup> RTE, Nurses warn of ‘unsafe’ conditions due to staff shortages, (October 2021).  
<sup>91</sup> Ibec, Quarterly Economic Outlook, (December 2021).

Since 2011, house prices in Ireland have increased by over 85%, while rents have approximately doubled in price.<sup>92</sup> Housing affordability for the general public may not improve in the short-term according to European Commission research, unless measures are taken to support sector productivity and the housing supply, especially investment in social housing.<sup>93</sup> The Central Bank of Ireland macroprudential rules may reduce affordability in the short-term, especially in major cities. That being said, these may increase affordability in the owner-occupied sector in medium-term to long-term.<sup>94</sup>

Rising price-to-income ratios have been seen across the EU. Between 2013 and mid-2021, growth of house prices exceeded growth of household income in 21 Member States and by more than 20% in 11 Member States. In Ireland, price growth since 2013 exceeded cumulated household income growth by more than 30%.<sup>95</sup>

The annual house price inflation, as of October, outside of Dublin was 14.6% as opposed to 12.3% for Dublin.<sup>96</sup> In addition, the rate of increases in 2021 has been more homogeneous on average across the price ranges than previous years, meaning houses of all price ranges increased in value with an equal proportion.<sup>97</sup>

In November 2021, the CBI confirmed it would maintain existing mortgage lending rules.<sup>98</sup> The mortgage lending rules would make housing more affordable in the long-term by curbing price inflation.<sup>99</sup> During the COVID-19 pandemic the commercial rates were waived, and this has been extended into Q1 2022, thereby temporarily reducing the cost of commercial property.<sup>100</sup>

**Figure 9: Ireland Average Land Price**



Source: IPAV<sup>101</sup> and CSO ARAo2 (per Acre Agricultural).

<sup>92</sup> PBO, *Snapshot of the Housing Market in 2021*, (December 2021).

<sup>93</sup> European Commission, *Housing Affordability in Ireland*, (December 2020).

<sup>94</sup> Ibid.

<sup>95</sup> European Commission, *European Economic Forecast Autumn 2021*, (November 2021).

<sup>96</sup> CSO, *Residential Property Price Index*.

<sup>97</sup> CBI, *Financial Stability Review 2021 II*, (2021).

<sup>98</sup> RTE, *No changes to Central Bank's mortgage rules*, (November 2021).

<sup>99</sup> European Commission, *Housing Affordability in Ireland*, (December 2020).

<sup>100</sup> Department of Housing, Local Government and Heritage, *Government announces €62.3m targeted commercial rates waiver for quarter one 2022*, (December 2021).

<sup>101</sup> IPAV, *Land Prices in Ireland*.

Aside from COVID-19 related pressures, Ireland, along with most developed regions, has experienced a general increase in land cost over time. Because land is a finite resource, this is likely only to increase further as the population grows. In comparison to its EU counterparts, Ireland has a significantly lower proportion of households living in apartments. Ireland at 92% recorded the highest share of the population living in a house in the EU.<sup>102</sup> Dublin has a very low population density in comparison to other EU capitals,<sup>103</sup> this is a factor in housing costs.

At present, there are strong pressures on housing prices due to shortages. The PBO has discussed the property market in detail in other publications, such as *Snapshot of the Housing Market in 2021*.

The easing of restrictions and the gradual re-opening of the economy has resulted in the supply of property available to rent falling sharply. Currently the level of available rental stock on Daft.ie is the lowest since 2006.<sup>104</sup> This is in part due to increased market demand and the decline in the number of “small-scale” landlords. As of November 2021, the annual private rent inflation is 8.1%.<sup>105</sup>

In Dublin, 69% of rental properties paid more than €1,500 monthly in 2021, while approximately 58% of tenants had an income lower than €30,000.<sup>106</sup> In 2016, on average rent nationwide was 29% of household disposable income for tenants and highest at 33.3% in South Dublin.<sup>107</sup> The affordability and price stability of housing is an issue internationally.<sup>108</sup>

## 2.8 Construction Costs

An increase in price and delays for certain building materials, especially steel and lumber, has negatively affected the construction industry, and potentially could have impacts on completion of public contracts. Some pre-existing contracts risk being backed out of by the contractor if cost increases make them unprofitable.<sup>109</sup> Construction cost inflation runs currently at approximately 7%.<sup>110</sup>

The construction sector has capacity limits<sup>111</sup> and employs less than in 2007 where it employed 11% of the labour force compared to 6% in 2016.<sup>112</sup> As of Q3 2021, there were 144,000 people in the construction sector, composing 5.9% of the labour force.<sup>113</sup> While the construction sector has a high labour retention rate,<sup>114</sup> the insufficient number of new entrants being trained may be a capacity constraint.<sup>115</sup>

While the pandemic has made the movement of labour more difficult, Ireland’s construction sector is less attractive to foreign EU workers than it was before the 2008 financial crisis. Other European regional markets, including London and Zurich, reported higher labour costs than Ireland, despite Dublin having the highest construction costs in the EU according to the European Commission.<sup>116</sup> All this could limit the labour supply available for the construction sector in the coming decade.<sup>117</sup>

<sup>102</sup> Eurostat, *Housing in Europe 2021*.

<sup>103</sup> European Commission, *Housing Affordability in Ireland*, (December 2020).

<sup>104</sup> Daft, *Irish Rental Report Q3 2021*, (November 2021).

<sup>105</sup> CSO, *CPI 04.1.1*.

<sup>106</sup> BPF, *Housing Market Monitor Q3 2021*, (December 2021).

<sup>107</sup> CSO, *Geographical Profiles of Income in Ireland 2016*.

<sup>108</sup> European Commission, *European Economic Forecast Autumn 2021*, (November 2021).

<sup>109</sup> Department of Public Expenditure and Reform, Minister McGrath announces details of interim measures to address the impact of Construction Material Price Inflation on Public Works Projects, (November 2021).

<sup>110</sup> SCSJ, *Tender price index*, (October 2021).

<sup>111</sup> ESRI, *Research assesses if economy has the capacity to meet future activity in the construction sector*, (November 2018).

<sup>112</sup> European Commission, *Housing Affordability in Ireland*, (December 2020).

<sup>113</sup> CSO, *QLF03*.

<sup>114</sup> ESRI, *The Aging Workforce in Ireland*, (October 2019).

<sup>115</sup> Investment Projects and Programmes Office, *Project Ireland 2040, Construction Sector Performance and Prospects*, (2019).

<sup>116</sup> European Commission, *Housing Affordability in Ireland*, (December 2020).

<sup>117</sup> Fiscal Council, *Ireland’s next ramp-up in public investment*, (November 2021).

## 2.9 The Cost of Living

Sustained inflation historically has impacted on poverty. For lower-income households, increases in the cost of food, electricity and rental accommodation can sometimes outstrip income, resulting in poverty and a higher likelihood of health issues. Low-income households spend proportionately more on essential items such as food, medicines and housing.<sup>118</sup>

The ESRI said that Budget 2022 has implemented measures that will on average protect most households from rising prices as they stand in 2021. In particular, households in receipt of the state pension have roughly maintained purchasing power in 2021.<sup>119</sup> However, some low-income working parents and retired couples will see real cuts to their payments, as may others if price rises are higher than forecast.<sup>120</sup>

## 2.10 Supply Demand Imbalances

Some aspects of inflation are primarily due to simple over-demand. Retail sales are up 5.3% compared to 2019.<sup>121</sup> Notably, computer components and the sub-products required for their manufacture have suffered from shortages in the past few years which may not correct any time soon. While COVID-19 and raw input shortages are partially to blame, many technological goods have complex and changing manufacturing infrastructure requirements, making expansion of output difficult.

There is the general risk that demand in several sectors of the economy might continue to exceed supply. This could lead to self-reinforcing effects, where higher wages are sought by workers in demand to deliver supply, thereby fuelling higher prices again. This could mean that the current inflation in prices could continue in a “wage price spiral”. There has been trade union calls for wage rises of up to 4.5% in 2022.<sup>122</sup>

<sup>118</sup> European Commission, *The Sectoral Impact of the COVID-19 Crisis*, (December 2021).

<sup>119</sup> ESRI, *Budget 2022 measures compensate most households for rising prices*, (October 2021).

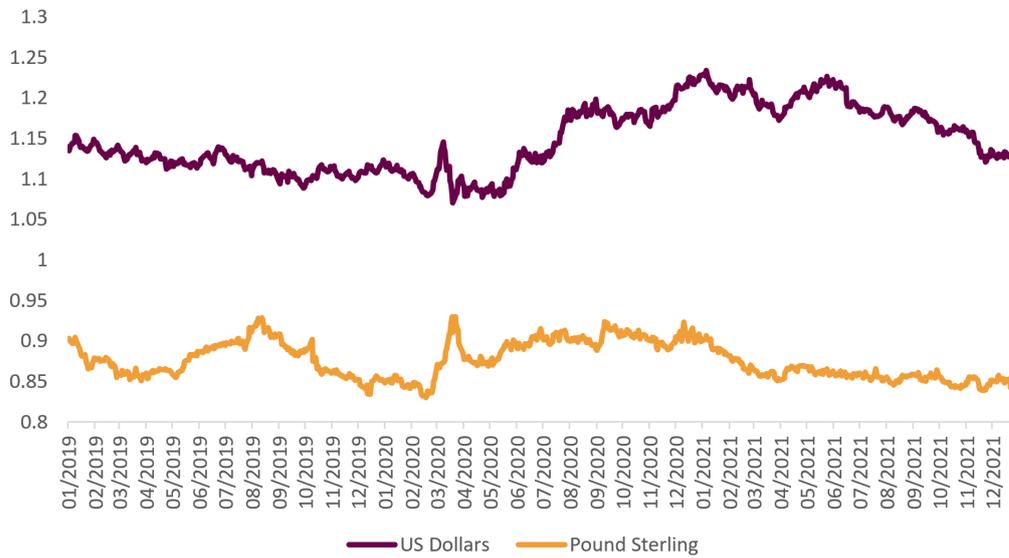
<sup>120</sup> Ibid.

<sup>121</sup> Ibec, *Quarterly Economic Outlook*, (December 2021).

<sup>122</sup> Independent, *Pay rises of up to 4.5pc to be demanded for private sector workers next year*, (December 2021).

## 2.11 Currency Foreign Exchange

Figure 10: Euro to Dollar & Sterling FX



Source: ECB<sup>123</sup>.

Changes to foreign exchange values can impact consumer inflation, as it changes the price of importing goods. As of 2019 63% of both Ireland’s imports and exports were with non-EU nations, including the UK.<sup>124</sup> This leaves Ireland exposed to currency risks, particularly for US Dollars and Pound Sterling. While the Euro has fluctuated since 2020, its purchasing power has remained stable. Roughly 76% of Ireland’s imports are denominated in Euro, USD and GBP.<sup>125</sup> Ultimately, currency fluctuations would have little impact on inflation in Ireland unless there is variation in the exchange rate with the US or UK.

<sup>123</sup> ECB, Eurosystem policy and exchange rates.

<sup>124</sup> CSO, Ireland’s Trade in Goods 2019.

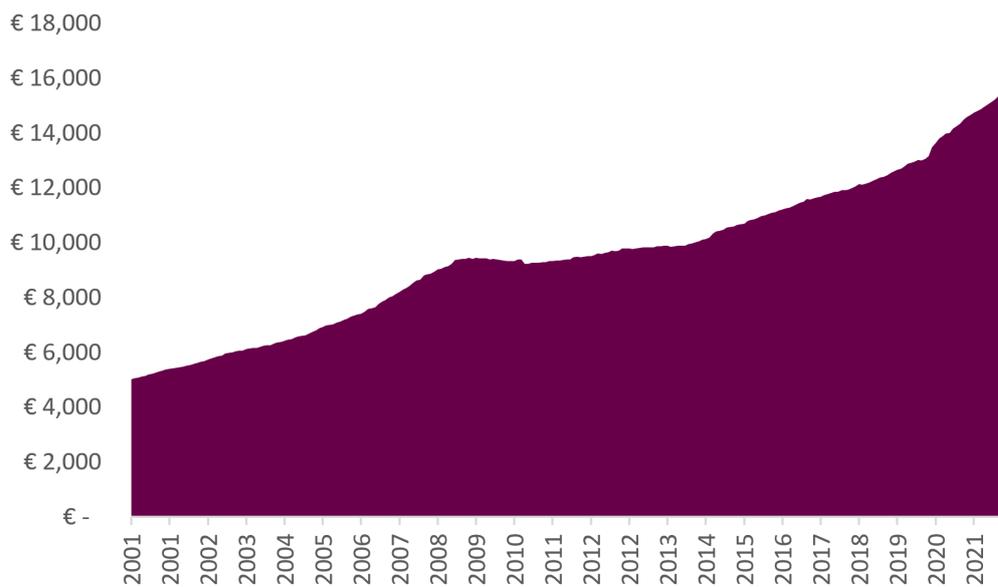
<sup>125</sup> PBO approximations based on CSO, Ireland’s Trade in Goods 2019.

## 3 Policy Responses to Inflation

### 3.1 Quantitative Easing

Quantitative easing is a monetary policy whereby a central bank purchases predetermined amounts of government bonds or other financial assets to inject money into the economy to expand economic activity. In effect, quantitative easing increases the overall money supply, thereby increasing inflation in the long-term. It also has a variety of spill-over effects, such as for currency exchange. While it is indirectly related to consumer inflation, the total Euro M<sub>3</sub><sup>126</sup> money supply has increased by ≈8% in the past 12 months.<sup>127</sup>

**Figure 11: Euro Money Supply (M<sub>3</sub>) (Billions)**



Source: ECB<sup>128</sup>.

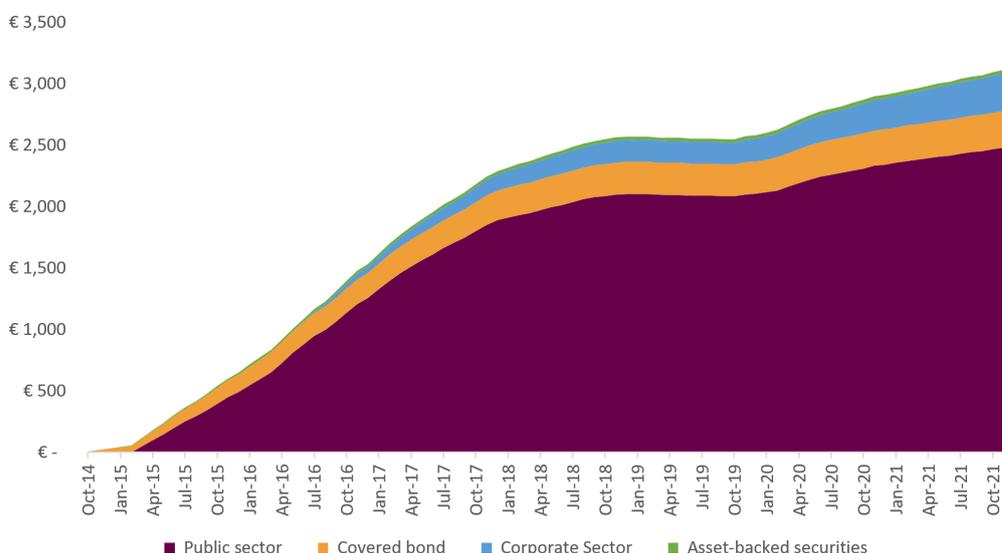
<sup>126</sup> M<sub>3</sub> is the sum of currency in circulation, overnight deposits (M<sub>1</sub>), deposits with an agreed maturity of up to two years, deposits redeemable at notice of up to three months (M<sub>2</sub>), repurchase agreements, money market fund shares/units and debt securities with a maturity of up to two years.

<sup>127</sup> ECB, *Monetary aggregate M<sub>3</sub> vis-a-vis euro area non-MFI excl. central gov. reported by MFI & central gov. & post office giro Inst. in the euro area (stock)*.

<sup>128</sup> Ibid.

In the Euro area, quantitative easing is primarily organised under the APP (Asset Purchase Programme).<sup>129</sup> Quantitative easing programmes began in earnest, both in the EU and internationally, following the 2008 financial crisis (ECB in 2009) and are still ongoing. In March 2020, in light of COVID-19, the ECB announced an additional €750 billion PEEP (Pandemic Emergency Purchase Programme) to ensure stable borrowing rates.<sup>130</sup> It is unknown when such supports would begin to be tapered due to the unpredictable nature of the COVID-19 pandemic.

**Figure 12: ECB APP Cumulative Holdings (Billions)**



Source: ECB<sup>131</sup>.

While the primary objective of the ECB (European Central Bank) is to target an inflation rate of 2% over the medium-term, quantitative easing plays an important role in keeping interest rates and government debt servicing costs low and sustainable. Quantitative easing was also valuable in helping to prevent deflationary spirals in 2013 to 2014.

The risk of an abrupt increase in the long-term market interest rate would have implications for asset prices. In addition, it would impact the cost of servicing public and private debt, which is at record levels. Simultaneously, low real interest rates would continue to incentivise risk-taking in financial markets.<sup>132</sup>

Some central bankers have expressed concern over the inflationary risks of existing quantitative easing and associated policies, such as Bundesbank President Jens Weidmann, who resigned at the end of 2021.<sup>133</sup> Some academics suggest that there will be higher wage demands to compensate for past and future inflation, which could lead to a wage-price spiral.<sup>134</sup>

<sup>129</sup> ECB, Asset purchase programmes.

<sup>130</sup> ECB, Pandemic emergency purchase programme.

<sup>131</sup> ECB, Asset purchase programmes.

<sup>132</sup> CBI, Financial Stability Review 2021 II, (2021).

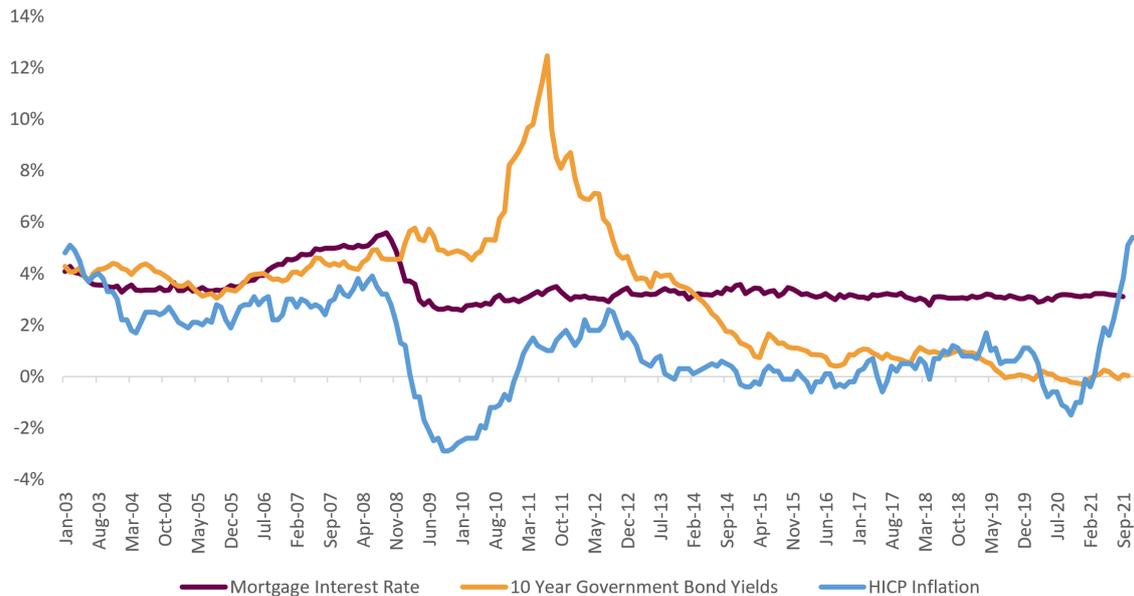
<sup>133</sup> Bundesbank, Letter from the President to Bundesbank staff, (2021).

<sup>134</sup> VoxEU, What may happen when central banks wake up to more persistent inflation?, (October 2021).

It has been suggested that tapering of current ECB quantitative easing policy could reduce inflation. The Chief Economist of the ECB Philip Lane stated to RTE that he believes inflation will ease towards the end of 2022.<sup>135</sup> The US Federal Reserve plans to taper its bond purchasing programme in light of increasing inflation concerns.<sup>136</sup> Some American economists speculate that the Federal Reserve will finish the complete taper of bond buying by the end of Q1 2022.<sup>137</sup> The hypothetical ending of quantitative easing policies would likely hurt Euro area debt sustainability due to increased interest rates, especially for member state government borrowing.<sup>138</sup>

### 3.2 Correlation between Inflation and Interest Rates

Figure 13: Mortgage Interest Rate vs Ireland Government Interest Rate vs HICP Inflation



Source: CSO CPM15, CSO CBMo2 and FRED.

This chart shows the consumer and government bond interest rates as well as inflation. Historically inflation and interest rates were highly linked. These have been less interconnected since the 2008 financial crisis. This is primarily due to the government bond interest rates of developed nations being kept artificially low.

This was primarily achieved through ECB quantitative easing policy. German government bond rates are currently negative and have been since 2019.<sup>139</sup> In November, Central Bank governor Gabriel Makhoulf said to the Committee on Budgetary Oversight that “increasing interest rates today would be a mistake”.<sup>140</sup> The Bank of England has preemptively raised interest rates due economic concerns in the wake of Omicron.<sup>141</sup>

<sup>135</sup> RTE, *Inflation will fall later this year, says ECB's Lane*, (January 2021).

<sup>136</sup> FED, *Financial Stability Report*, (November 2021).

<sup>137</sup> FT, *Economists predict complete 'taper' of Fed bond buying by end of March*, (December 2021).

<sup>138</sup> ECB, *Asset purchases: from crisis to recovery*, (September 2021).

<sup>139</sup> FRED, *Long-Term Government Bond Yields:10-year: Germany*.

<sup>140</sup> Houses of the Oireachtas, *Committee on Budgetary Oversight to resume discussions on inflation*, (November 2021).

<sup>141</sup> FT, *Bank of England raises key interest rate to 0.25%*, (December 2021).

A return to the higher pre-2008 financial crisis government borrowing rates would have significant implications for the debt sustainability of some nations. It is possible that private bond interest rates may rise, while the credit risk quality of corporate debt globally is still significantly below pre-pandemic levels.<sup>142</sup> An increase in corporate financing costs would have complex effects on inflationary pressures due to the knock-on second order effects of responding behaviour.<sup>143</sup> At its very simplest, in the short-run an increase in interest rates would increase the cost of capital and hence increase the cost of goods.

Sustained inflation would increase demand for higher market interest rates.<sup>144</sup> Alternatively, if interest rates did not increase in line with market demand, consequently the liquidity supply could dry up for higher-risk customers. This would be especially relevant for SMEs (small to medium enterprises), as if the real rate of return is too low for lenders, it would not compensate for the cost of risk and make getting loans more difficult.<sup>145</sup>

### 3.3 Price Regulation and Rent Supports

Historically, direct price controls were often used to control inflation. Famously, price controls and rationing were employed during the second world war. Venezuela has price controls due to ongoing economic issues. The usage of price controls during the stagflation of the 1970s were generally seen to be ineffective. While direct price controls are still used by some nations for certain strategic goods, there has been no widespread usage in developed nations for several decades.

In Ireland there are targeted rent supports, such as the Housing Assistance Payment (HAP).<sup>146</sup> Due to COVID-19 partial rent freezes were implemented.<sup>147</sup> Since July 2021, the 4% max price increase in rent pressure zones was replaced by HICP indexing.<sup>148</sup> In December 2021, legislation was passed to cap rent increases in Rent Pressure Zones to a maximum of 2%, even if inflation is higher than 2%, due to the current high rate of HICP inflation.<sup>149</sup> The PBO has explored the affordability of the rental market in *Snapshot of the Housing Market in 2021 (Part 2)*.

<sup>142</sup> CBI, *Financial Stability Review 2021 II, (2021)*.

<sup>143</sup> *Ibid.*

<sup>144</sup> IMF, *How Economies Function Inflation: Prices on the Rise*.

<sup>145</sup> CBI, *SME liquidity needs during the COVID-19 shock, (2020)*.

<sup>146</sup> Citizens Information, *Housing Assistance Payment (HAP)*.

<sup>147</sup> Citizens Information, *Renting and COVID-19*.

<sup>148</sup> Residential Tenancies Board, *Rent Pressure Zones*.

<sup>149</sup> Department of Housing, Local Government and Heritage, *Legislation capping rent increases at 2% passed by both Houses of the Oireachtas, (December 2021)*.

## 4 Potential Inflationary Trends

### 4.1 Transitory vs non-Transitory Arguments

While the future is uncertain, the ECB and CBI (Central Bank of Ireland) view current inflation as transitory.<sup>150</sup> They hold that the reopening of economies after COVID-19 lockdowns are the primary factor for current inflation.<sup>151</sup> They accept that while inflation may temporarily rise, the 2% inflation target would be met in the medium-term. It remains a possibility that inflation could remain elevated into 2023.

Expectations of inflation levels can affect market actions and these reactions can impact on inflationary pressure, especially for investors and the financial services industry.<sup>152</sup> The European Commission highlights the significant risk of inflation becoming non-transitory if a wage spiral occurs.<sup>153</sup>

The US Federal Reserve has growing concerns that inflation may not be transitory, particularly in light of continued COVID-19 concerns and demands for wage increases.<sup>154</sup> The US inflation rate is currently at approximately 6.8% as of November, higher than that of the Euro area, though the US and the EU have significant economic differences.<sup>155</sup> The Bank of England has raised interest rates from 0.1% to 0.25% in light of continued inflation and COVID-19 concerns.<sup>156</sup>

### 4.2 Climate Change

Climate change produces two-fold inflationary risks. First, environmental regulation increases extraction and production costs, particularly in parts of the supply chain that are traditionally polluting such as mineral purification.<sup>157</sup> This is discussed in Section 2.

Secondly, adverse climate developments would make economic activity in certain regions more difficult, especially for already hot arid regions.<sup>158</sup> It is possible that without changes to international trade and technology, the price of industrial goods will inflate as the temperature rises. This would be due in part to climate related weather disasters and desertification of equatorial regions. Weather disasters would disrupt the economy and thereby indirectly increase inflationary pressures.

<sup>150</sup> ECB, *Monetary policy decisions*, (July 2021).

<sup>151</sup> European Commission, *European Economic Forecast*, (November 2021).

<sup>152</sup> Brookings, *Why are inflation expectations important?*, (November 2020).

<sup>153</sup> European Commission, *European Economic Forecast*, (November 2021).

<sup>154</sup> Fortune, *Why U.S. officials say inflation is no longer 'transitory'*, (December 2021).

<sup>155</sup> Trading Economics, *United States Inflation Rate*.

<sup>156</sup> FT, *Bank of England raises key interest rate to 0.25%*, (December 2021).

<sup>157</sup> ESRI, *Transitioning to a low-carbon Irish economy: An analysis of regional labour impacts*, (December 2019).

<sup>158</sup> European Commission, *A Climate Resilient Europe*, (September 2020).

While Ireland is comparatively less exposed to climate change disasters than other regions, the climate in Ireland is likely to become wetter and warmer over time. Annual precipitation (rainfall) was 6% higher in the period 1989 to 2018, compared to the previous 30-year period. The annual average surface air temperature in Ireland has increased by over 0.9 degrees Celsius over the last 120 years.<sup>159</sup> The average sea surface temperature at Malin Head has been 0.47 degrees Celsius higher over the last ten years compared to the period 1981-2010.<sup>160</sup> How climate change in Ireland would directly affect the economy is complex.

The sea level around Ireland has risen by approximately 2-3mm per year since the early 1990s. Sea levels rising may create issues for coastal urban areas and necessitate additional infrastructure.<sup>161</sup> There is a risk that flood management in particular may prove more expensive in the long-term than currently budgeted for.<sup>162</sup> The changes affecting Ireland's climate would likely only increase pressures on spending and inflation in the long-term.

### 4.3 Demographic Risks

There are factors in economic projections that would affect future inflation trends. While Ireland has a birth rate below replenishment and an aging population, the adult population is expected to continue to grow in the medium-term. An increased population is likely to increase demand of goods, and hence increase inflationary pressures.

Ireland's total dependency ratio is expected by the CSO to increase to 69.9% by 2051.<sup>163</sup> A reduction in the proportion of people working may reduce the supply of labour and hence increase labour costs and thereby inflation. An older population can also demand a different variety of goods, such as elderly care which is labour intensive.<sup>164</sup> However, population ageing overall will likely exert a drag on inflation over the long-term.<sup>165</sup>

Globally, the higher the international population, the greater the generalised inflationary pressure for manufactured goods and finite natural resources. The PBO has discussed aging demographics and the impact on the public finances in other publications, *Demographics and Voted Expenditure*.

### 4.4 Resource Exhaustion

All manufactured goods rely on finite natural resources. Even green energy supplies such as wind turbines require polluting mineral resource extraction, shipping and manufacturing. Much of the extractable natural resources of Ireland have already been exhausted, leaving the remaining deposits often prohibitively expensive to exploit. Ireland is among the most deforested regions in Europe, limiting cheap lumber supplies.<sup>166</sup>

Certain energy commodities such as crude oil are not merely used for electricity and transport, but also manufacturing (plastics), industry (pharmaceutical petrochemicals) and construction (road pavement). Ultimately crude oil supply would eventually dry up, even if it was no longer used for fuel. Often the alternatives to natural resources are in short supply and prohibitively expensive. For example, there is no existing cost-effective way of manufacturing most plastics without oil.<sup>167</sup>

<sup>159</sup> *Environmental Protection Agency, The evidence is clear, global climate change means Ireland is warmer and wetter, (August 2021).*

<sup>160</sup> *Ibid.*

<sup>161</sup> *Environmental Protection Agency, The Status of Ireland's Climate 2020, (2021).*

<sup>162</sup> *OPW, Implementing the National Flood Risk Policy, (May 2018).*

<sup>163</sup> *CSO, PEC15 M2F2.*

<sup>164</sup> *Fiscal Council, Long-term Sustainability Report, (July 2020).*

<sup>165</sup> *CBI, An overview of inflation developments, (November 2021).*

<sup>166</sup> *Environmental Protection Agency, 21st Century Deforestation in Ireland, (2017).*

<sup>167</sup> *OECD, Considerations and Criteria for Sustainable Plastics from a Chemicals Perspective, (May 2018).*

Europe is increasingly reliant on the import of raw resources. Rare earth metals, needed for computer-related manufacturing, risk rising prices due to supplies being primarily controlled and limited by China and to a lesser extent the US.<sup>168</sup> Ultimately the exhaustion of finite natural resources would, in time, raise prices due to reduced supply.

## 4.5 Budgetary Implications

The precise budgetary and policy implications of inflation are manifold and will be discussed in detail in future PBO publications. Inflation has a direct effect on tax and benefits. High inflation erodes the value of social welfare benefits, tax allowances and thresholds for income tax, leading to demands for these to be adjusted. As shown in the PBO's *Social Welfare Rate Changes 2011 - 2022*, indexing benefits is not in place in Ireland. Indexation would ensure that the real value of benefits remain despite inflation.<sup>169</sup>

Departmental expenditure limits are often set in nominal terms, so higher inflation may not boost spending. Not indexing certain expenditures to inflation has the effect of reducing the value of the spending in the long-term.

Higher consumer prices would push up nominal consumer spending and consequently VAT receipts and some excise receipts. If wages are increased, this would impact income tax. At its simplest, inflation increases would increase Exchequer revenue. Additionally, it may require increases in spending, assuming that departmental spending votes and capital plans are increased in line with inflation to maintain purchasing power.

Ireland's debt is primarily composed of 10-year bonds, at 61% currently, with inflation linked bonds only composing 0.5% of Ireland's borrowings. Any changes to interest rates would only filter through to Ireland's debt servicing costs in the long-term.<sup>170</sup> The relative cost of servicing the national debt has decreased by approximately two-thirds since a decade ago, being at roughly 3.5% of tax revenue in 2021, while at 10% in 2011.<sup>171</sup>

Inflation can have the effect of reducing the debt to GDP ratio. This is because as GDP increases, the previous borrowing would remain constant and reduce proportionally. While this may reduce the debt to GDP ratio, a sustained increase in inflation in Ireland would likely increase interest rates and possibly reduce currency value for international trade. Inflation and monetary policy are largely decided at an EU level. Generally, stable prices are good for the economy.<sup>172</sup>

## 4.6 Continued COVID-19 Risks

COVID-19 remains a threat. As of late November, the Omicron variant has been flagged as an emerging risk,<sup>173</sup> while as of the end of 2021 it was the dominant variant.<sup>174</sup> Under the circumstances that pandemic restrictions were reintroduced, or a lockdown reinstated, there would be significant direct and indirect economic impacts.

Omicron has provoked the reintroduction of certain restrictions, especially on international travel,<sup>175</sup> this is likely to result in reduced consumer spending on leisure and hospitality.<sup>176</sup> The reintroduction of the previously closed PUP (pandemic unemployment payments) in December 2021 to new applicants may help to support those whose employment has been affected by the new restrictions.<sup>177</sup>

<sup>168</sup> Statista, *Distribution of rare earths production worldwide as of 2020*.

<sup>169</sup> Parliamentary Budget Office, *Social Welfare Rate Changes 2011 – 2022*, (December 2021).

<sup>170</sup> NTMA, *Gross National Debt at End-October 2021*.

<sup>171</sup> *The Times*, *Cost of servicing national debt has dropped by two thirds since 2011*, (January 2021).

<sup>172</sup> ECB, *Our price stability objective and the strategy review*.

<sup>173</sup> Department of Health, (November 2021).

<sup>174</sup> IT, *Omicron driving coronavirus infections to staggering level*, (December 2021).

<sup>175</sup> Department of Health, *Minister for Health announces changes to international travel requirements*, (December 2021).

<sup>176</sup> Department of the Taoiseach, *Statement on COVID-19 public health measures*, (December 2021).

<sup>177</sup> Department of Social Protection, *Minister Humphreys announces details on the re-opening of PUP to workers impacted by the latest restrictions*, (December 2021).

COVID-19 wage subsidy supports have been extended so as to prevent unemployment. Specifically, the CRSS (COVID-19 restrictions support scheme) is extended until end-January 2022<sup>178</sup> and the EWSS (employer wage subsidy scheme) is extended until end-April 2022.<sup>179</sup> There are concerns around the tapering off of business supports potentially too quickly for sectors affected by the new Omicron restrictions.<sup>180</sup>

Pertaining to inflation in particular, increased restrictions are likely to cause further disruption to the labour market and supply chains. Consumer concerns for COVID-19 restrictions may result in planned expenditure being postponed, especially for tourism. As Ireland is a small open economy, imports of goods would be affected by coronavirus restrictions abroad. Bulk transport shipping costs especially are likely to suffer from increased costs due to port disruptions.

A reduction in the supply of labour and additional COVID-19 risks would put further wage pressures on non-remote jobs or high in-demand occupations. Lockdowns and travel restrictions resulted in a reduction of labour mobility internationally. Sufficiently high rate of hospitalisation and self-isolations, alongside with restrictions of foreign workers and retirements, may create shortages in certain occupations, such as healthcare.<sup>181</sup> As of January 2022 and after the increase in COVID-19 cases,<sup>182</sup> some public transport routes are temporarily cancelled due to a lack of available staff.<sup>183</sup>

## 4.7 Conclusion

Inflation is a complex and multifaceted issue, with little forecasting certainty currently. The rate of inflation will be tied to the evolution of the current health, environmental, geopolitical and economic circumstances. In particular, the effects of Omicron and potential future COVID-19 variants remain key. Inflation is forecast to remain high, though it may be transitory. It might be prudent for government policy to prepare contingency for possible sustained elevated inflation in the medium-term.

The ECB's target of an inflation rate of 2%<sup>184</sup> in the medium-term must be balanced with the need to maintain low and stable interest rates. Low interest rates are important to ensure the stability of Ireland's debt and to support businesses.<sup>185</sup> This is discussed in a previous PBO publication, *Ensuring Medium-Term Fiscal Sustainability*. The PBO in addition, has published a calculator on how interest rates would affect Ireland's debt sustainability, *Debt Sustainability Analysis Calculator Budget 2022*.

<sup>178</sup> Revenue, *Covid Restrictions Support Scheme (CRSS)*.

<sup>179</sup> Revenue, *Employment Wage Subsidy Scheme (EWSS)*.

<sup>180</sup> *Ibec, Quarterly Economic Outlook, (December 2021)*.

<sup>181</sup> *Irish Medical Organisation, Chronic shortage of doctors will have devastating implications if not addressed, (October 2020)*.

<sup>182</sup> *IT, Omicron cases 'substantially higher' than official figures, says HSE vaccine lead, (January 2022)*.

<sup>183</sup> *RTE, Absences due to Covid see some train services cancelled, (January 2022)*.

<sup>184</sup> *European Central Bank, Monetary policy*.

<sup>185</sup> *PBO, Ensuring Medium-Term Fiscal Sustainability, (October 2021)*.



Contact: [PBO@Oireachtas.ie](mailto:PBO@Oireachtas.ie)

Go to our webpage: [www.Oireachtas.ie/PBO](http://www.Oireachtas.ie/PBO)

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## Houses of the Oireachtas

Leinster House

Kildare Street

Dublin 2

D02 XR20

*[www.oireachtas.ie](http://www.oireachtas.ie)*

Tel: +353 (0)1 6183000 or 076 1001700

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