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Box D:

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## The Irish ICT Services Sector during the Covid-19 Pandemic

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The financial and economic effects of the Covid-19 pandemic have been both negative and substantial and are still being felt in most countries. While quantifying the global impact of Covid-19 on output is a complicated process, estimates suggest that the global economy contracted by 3.5 per cent in 2020, relative to the 3.4 per cent growth that had been anticipated prior to the pandemic<sup>2</sup>. Similarly, forecasts for growth in 2021 based on continued strong fiscal supports, the anticipated vaccine-powered recovery in the second half of 2021, and continued adaptation of economic activity to subdued mobility, have subsequently been reduced.<sup>3</sup>

At the country-level, there was considerable homogeneity in the decline/ recovery in consumer demand across industries. Customer-facing services sectors (including accommodation and food services, transportation and travel, and entertainment and recreation activities) suffered the largest negative effects in 2020, while e-commerce, healthcare and pharmaceutical services, and information and communications services have experienced the largest recoveries due to the unique nature of the crisis.

Within the Irish economy, indigenous domestic economic activity experienced a decline in output similar to other countries during the pandemic, while sectors dominated by MNE activity have continued to expand their employment, export and output shares of the aggregate economy. Of these sectors, the Information & Communications Technology (ICT)

<sup>1</sup> Irish Economic Analysis Division

<sup>2</sup> IMF World Economic Outlook Report, April 2021

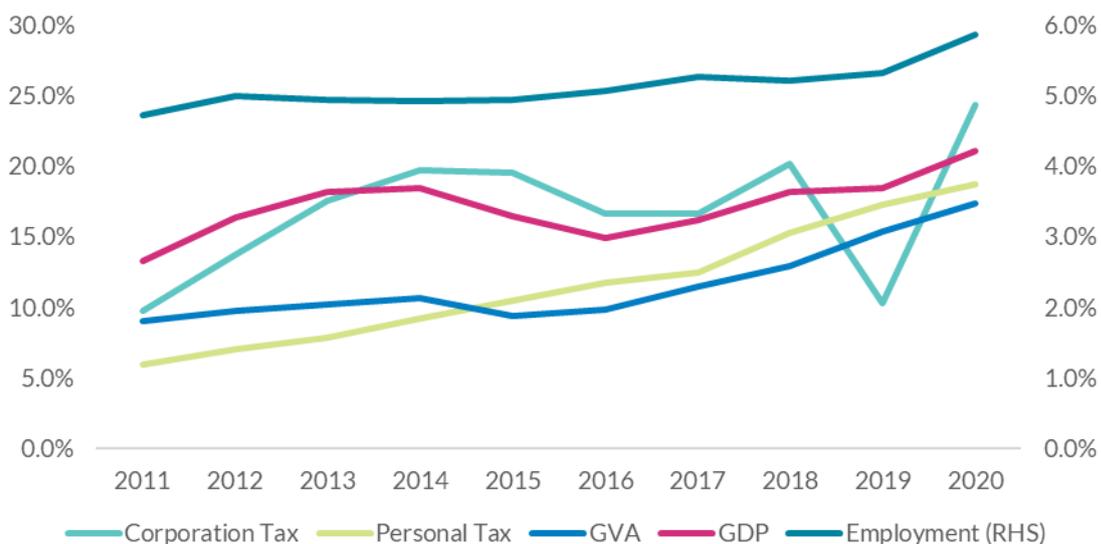
<sup>3</sup> Forecasts of 6 per cent global growth in April 2021 were reduced to 5.3 per cent by October 2021, with further downward revisions expected due to the Omicron variant.



services sector has shown some of the more remarkable dynamics, further establishing its importance in contributing to domestic macroeconomic conditions.

Figure 1 presents the ICT services sector share of a number of key macroeconomic aggregates over the last decade, including corporation tax, employment, gross value added and output. As can be seen from the chart, the macroeconomic contributions of the sector, as a share of the total economy, have increased markedly over the decade: personal and corporation tax shares have more than doubled between 2011 and 2020, while the share of employment in the sector has risen from 4.7 per cent in 2011 to almost 6 per cent by 2020.

Figure 1: ICT Services Sector Development, 2011-2020



Source: CSO, Revenue and Author's Calculations.

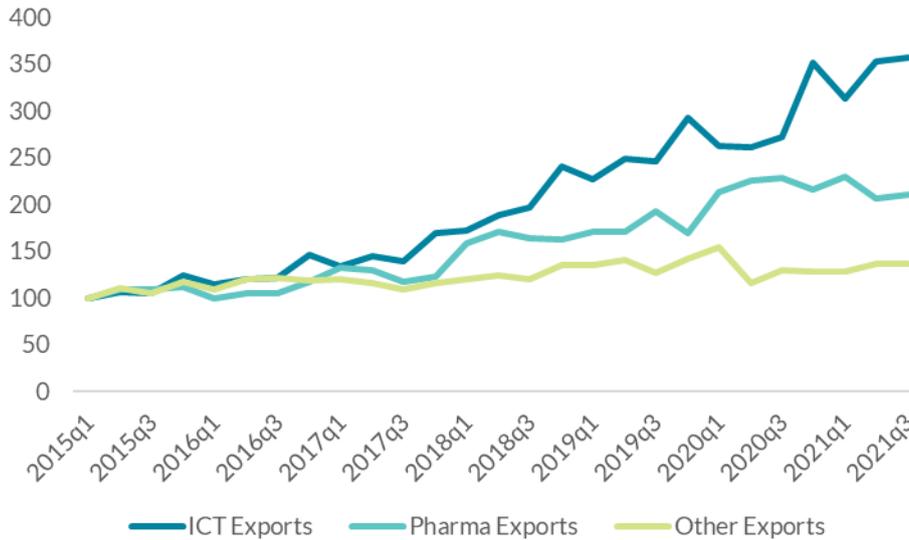
Note: Corporation and Personal Tax, GVA and GDP measured on LHS, Employment measured on RHS

Since the emergence of the pandemic in the first few months of 2020, Information and Communications (ICT) services has been one of the strongest performing sectors in the Irish economy. Combined with growth in the production of pharmaceutical and medical products, the ICT services sector has been a key driver of Irish export volumes, with annual growth of 13% in 2020, and stronger growth rates projected for 2021 (Figure 2).



Figure 2: Export Growth, Pharmaceuticals and ICT Services

Chart: Index of Volume Growth



Source: CSO, WTO and Author's Calculations

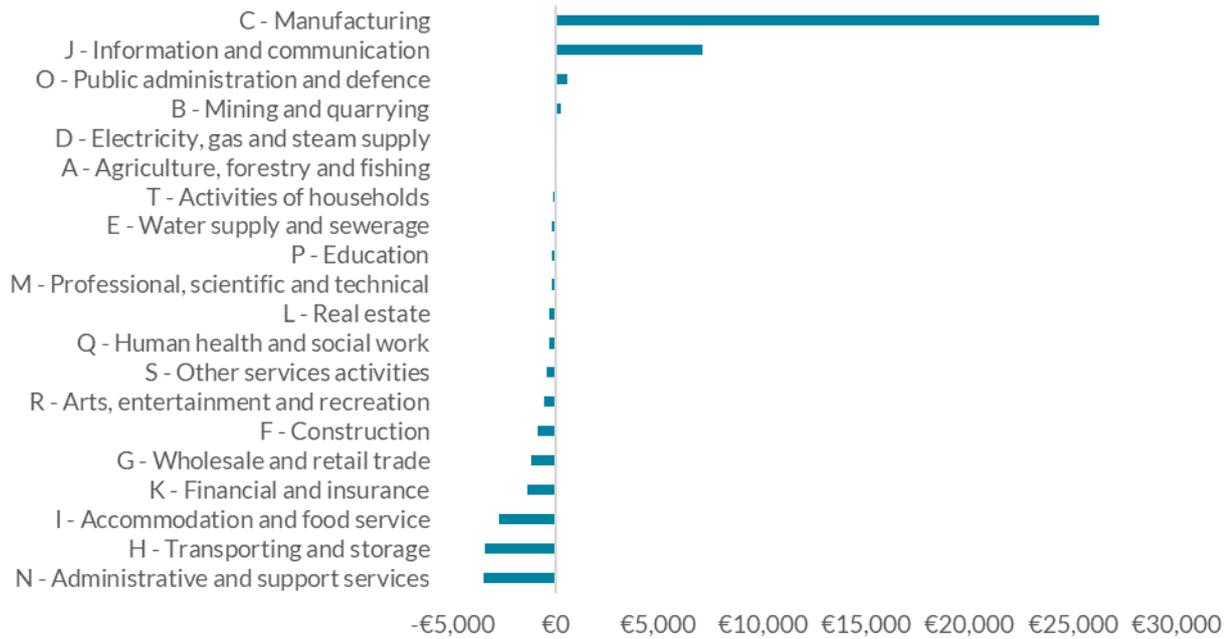
Despite this exceptional growth in growth of ICT services exports, the net benefit to the Irish economy is considerably lower than Figure 2 would suggest, as there is typically a counterbalancing ICT services import of royalties and licenses. Typically, the Irish operations of MNEs have to pay for the technology they use, either through the outright licence purchase of the technology or via recurrent royalty payments, both of which classify as ICT imports. Since 2017, the share of overall royalties and licenses imports accounted for by the ICT sector has risen from just over 50 per cent to 67 per cent of total volumes. While the high import content of ICT services exports reduces the sector's impact on the domestic economy, the sector has still contributed positively to the domestic economy during the Covid-19 pandemic as reflected in a number of other important economic metrics including employment and employee earnings data.

Figure 3 shows the contribution to growth in Irish GVA using detailed sectoral data from the CSO for 2020. With 16 of the 20 sectors experiencing a decline in value-added relative to 2019, ICT services experienced the largest increase in GVA after the manufacturing sector. Value added increased by €7.1 billion (compared to a €9 billion increase in 2019), accounting for 37.3 per cent of the increased in value added between 2019 and 2020, and 16.5% of total-economy GVA in 2020.



Figure 3: ICT services contributed significantly to measured economic growth in 2020

Chart: GVA Growth (constant €mil)



Source: CSO

Note: The euro amounts correspond to growth of 14% in ICT and 23% in Manufacturing.

Similarly, Figure 4 shows annual sectoral GVA growth rates for 2019 and 2020, with spheres representing the relative size of 2020 GVA levels in each sector. As can be seen from the chart, the ICT sector (J), is one of only four sectors with positive GVA growth in both years, and the sector with the second-largest cumulative GVA growth rate.



Figure 4: ICT outperforming most sectors in GVA growth terms

Chart: Sectoral GVA Growth 2019-2020



Source: CSO and Author's Calculations

Looking only at value added can potentially provide a misleading indication of the contribution of the ICT sector (or any MNE-dominated sector) to the Irish economy. In particular, profits account for a large share of GVA and these are ultimately repatriated to the foreign owners of the MNEs. To more accurately assess the impact of the sector, it is necessary to examine the other channels through which the ICT sector provides real, tangible benefits to the Irish economy.

Figure 5 shows the rate of employment growth across NACE sectors for 2019 and 2020. ICT services (J) stands out as being one of the more robust sectors in weathering the effects of the pandemic, with the largest employment increase (8,596 jobs) in 2020, and the second-largest cumulative increase (19,727 jobs) across the 2020-2021 period.

In addition to the increasing number of jobs created in the ICT sector, Figure 6 shows the growth rate of weekly earnings in ICT-related jobs across 2020 and 2021. Again, the sector performs strongly over the period, with average annualised growth rates of over 4.5 per cent. Additionally, average weekly earnings (reflected in sphere size in Figure 6) are higher than any other sector. This positive real wage growth and high average earnings should continue to attract employees into the sector, further enhancing the importance of the sector to the domestic economy.



Figure 5: ICT a key sector in overall employment growth over 2020 and 2021.

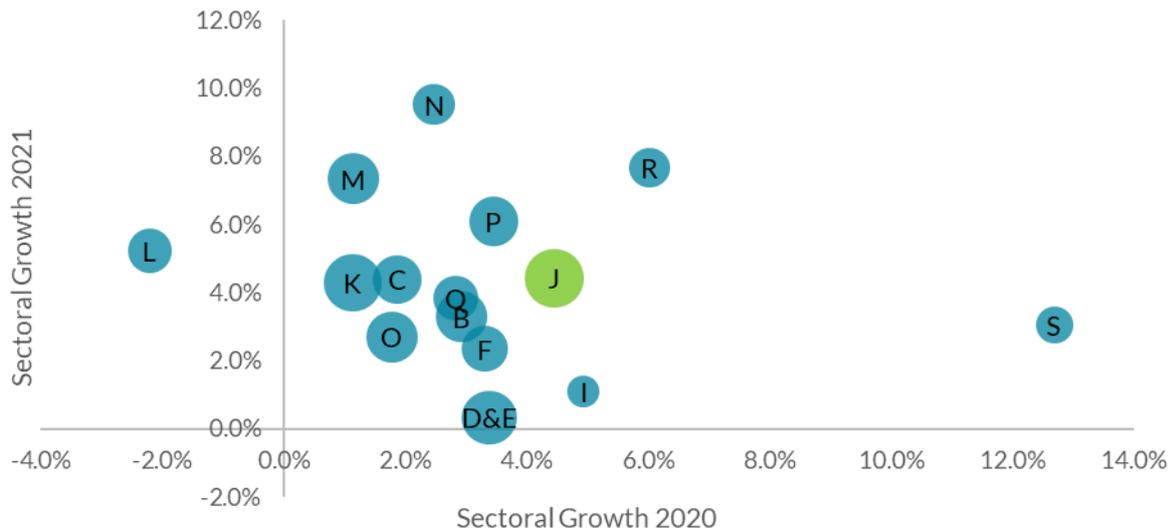
Chart: Sectoral Employment Increase (000s of additional employees), 2020-2021



Source: CSO and Author's Calculations. Data available up to 2021Q3.

Figure 6: Earnings growth has also been significant in the ICT sector

Chart: Sectoral Earnings Growth 2020-2021\*



Source: CSO and Author's Calculations. Data available up to 2021Q3.



Finally, Figure 7 shows net tax receipts for earned income and corporation taxes in 2020. The importance of the ICT sector is readily apparent from the data, contributing more revenue to the exchequer from combined earnings and corporation tax receipts (€5bn) than any other sector with the exception of Manufacturing.

Figure 7: Sectoral Tax Receipts, 2020

Chart: Corporation and Personal Tax Receipts, €mil



Source: Revenue

While there has been considerable discussion of the distortionary effects of MNE activity in the ICT sector on the national accounts in recent years, it continues to have a strong, real presence in the domestic economy, responsible for a significant share of value-added, employment and productivity growth during the Covid-19 pandemic. The activities of these MNEs contribute positively to the performance of the Irish economy, with further second-round effects in the form of forward and backward economic linkages, plus the associated personal and corporate tax revenues deriving from their domestic operations.