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FROM ECONOMIC DISRUPTIONS TO DISRUPTING ECONOMIC PARADIGMS

NPA COVID-19 RESPONSE PROJECT ON ECONOMIC IMPACTS

MAIN REPORT: PART 2

by Thomas Fisher

drawing on 10 partner reports

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The project involved the following partners and associated partners:

https://core.interreg-npa.eu/

Table of Contents of all of Main Report

2.1 The economic impacts of Covid-19 on national economies within the NPA: Comparing Ireland, Norway, Sweden and Finland[1]

The pandemic caused by COVID-19 has had a considerable impact on health and mortality in the NPA area. By November 2020, almost two and half a million people had been confirmed to suffer the disease in the NPA countries and almost 50 000 had died from it. Besides the irreparable consequences on the health conditions of the population, the pandemic has also impacted the economy of the NPA regions.

The ongoing Covid-19 pandemic represents one of the most severe shocks that have hit the global economy and has caused a significant disruption to economic activity worldwide. The nature of this unprecedented shock and its ongoing impact have led governments to impose measures aiming at restricting the movement of individuals and in effect shutdown sectors of economic activity that rely on social interaction and are thus considered as higher risk in terms of transmitting the virus. This "Great Lockdown" has had a major impact on economic activity worldwide (IMF, *World Economic Outlook*, April 2020).

The imposition of these strict measures at the onset of the Covid-19 pandemic led to a significant decline in economic activity, with most European economies facing large losses in terms of output and jobs. Once the strict measures were gradually lifted during the summer period, most economies were able to recover part of the losses; however, the recovery was incomplete due to a new round of lockdowns and restrictions that were reinstated following a new surge in infections and Covid-related deaths.

The ESRI report, which compares impacts at the national level for Ireland, Norway, Sweden and Finland, concludes:

"While the negative impact of the pandemic is concentrated in the second quarter of 2020, its magnitude varies across countries; the heterogeneous impact of the pandemic is even more pronounced in the third quarter, where some countries experienced negative output growth rates whereas others managed to recover from the negative shock. [So], the recovery was incomplete -with the exception of Ireland - and didn't manage to cover the initial losses in terms of output. [And], by examining the sectoral impact of the pandemic, we observe that sectors which rely on social interaction and where physical distancing cannot be ensured – e.g. the arts and entertainment sector and construction – are the ones that suffered the largest losses."

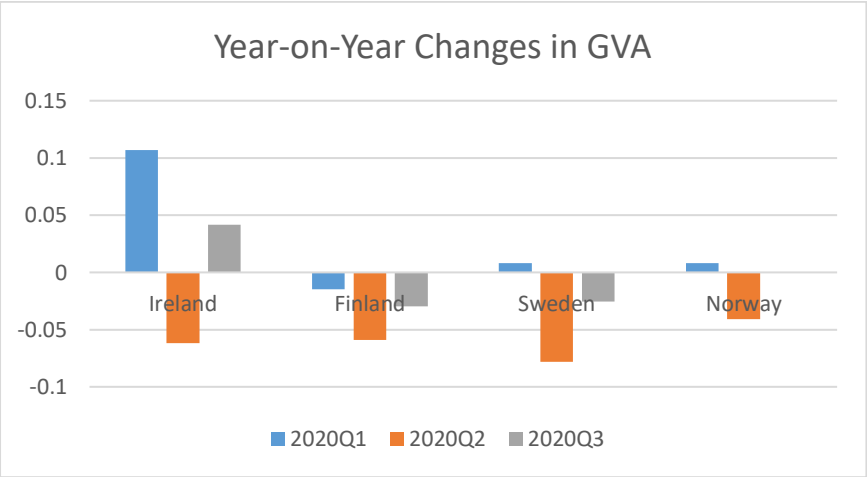
Box 2.1 provides significant more detail on this, based on the ESRI study. The analysis sets out the significant negative impacts on economic activity in the four countries according to many of the standard economic measures such as Gross Value Added (GVA), household consumption expenditure, investment expenditure, and government consumption expenditure. The latter primarily represents government expenditure on social benefits such as healthcare and housing. It is striking that while Ireland substantially increased its government consumption to ameliorate the negative effects of the pandemic, Finland and Sweden saw a reduction in such expenditure.

[1] Analysis in this section is taken from *A study of the economic impacts of the Covid-19 pandemic on national economies within the NPA* conducted for the COVIDWATCHEU-NPA project by Ilias Kostarakos and Conor O'Toole at the Economic and Social Research Institute (ESRI) in Ireland.

Box 2.1 Impacts on economic output in Ireland, Finland, Sweden and Norway

The bulk of the negative effects is concentrated in the second quarter of the year, with the average decline being equal to almost 6 percentage points compared to the second quarter of 2019 and the largest decline being recorded in Sweden (7.8 p.p.). During the third quarter of 2020, when the restrictive measures were gradually eased, … the only country recording a significant rebound compared to the third quarter of 2019 is Ireland, with a growth rate of 4 p.p.; the rest of the countries in the sample performed better compared to the second quarter but still remained in a negative territory compared to 2019.

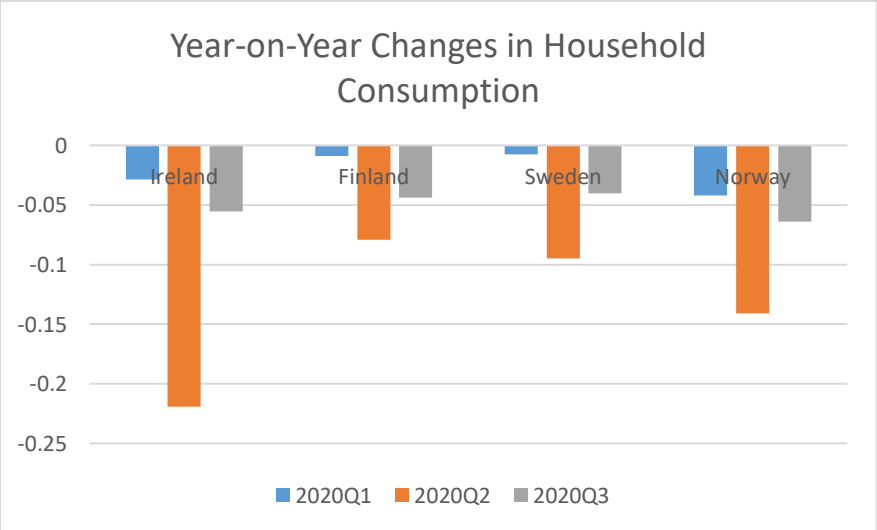
Figure 2.1: Yearly Changes in Gross Value Added



Source: ESRI authors' calculations based on Eurostat data

One of the main drivers of the observed trend in Gross Value Added is the changes in the rate of consumption. … household consumption was heavily impacted by the pandemic, with all the countries facing significant declines in the second quarter of 2020. Ireland recorded a decline of almost 22 p.p. while Finland faced a relatively smaller decline of 8 p.p. [And] in the third quarter of the year, despite the easing of restrictions, even though there is a recovery compared to the second quarter of the year we do not observe a large increase in household consumption (when compared to the same quarter of 2019).

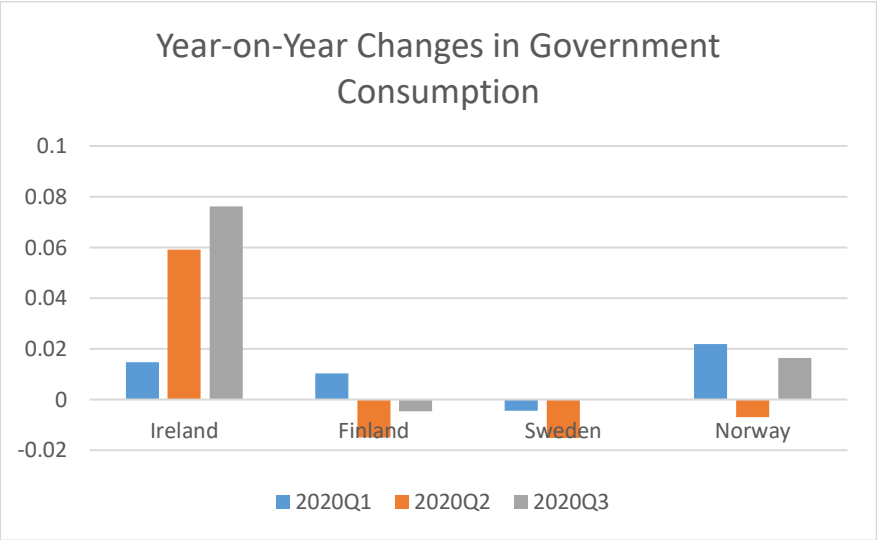
Figure 2.2: Yearly Changes in Household Consumption Expenditure



Source: ESRI authors' calculations based on Eurostat data

Figure 3 depicts the year-on-year changes in the size of government consumption, which to a large extent represents expenditure on the part of the government related to social benefits (e.g. healthcare, housing etc.). As can be gleaned from the graph, Ireland seems to have substantially increased its spending on these benefits as a means of ameliorating the negative effects of the pandemic. Norway was the other country in the sample that increased this type of expenditures during the third quarter, while a reduction is observed in Finland and Sweden.

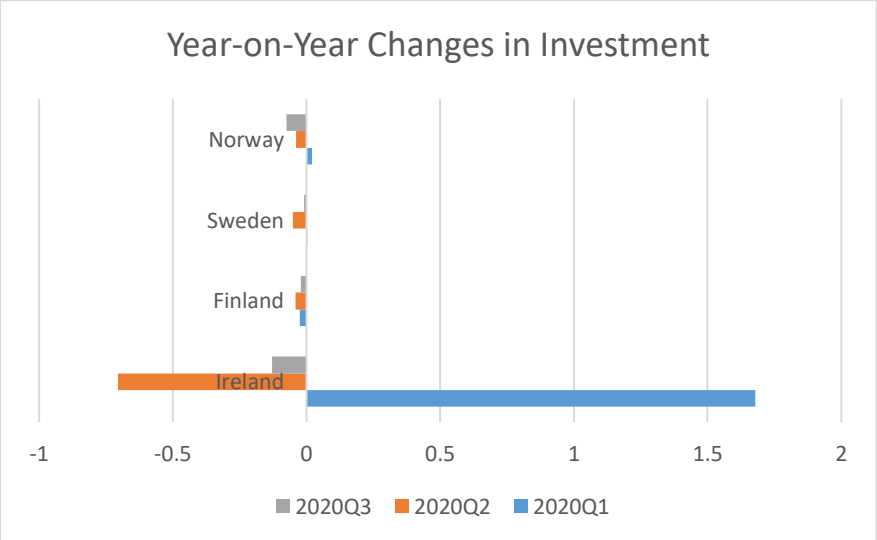
Figure 2.3: Yearly Changes in Government Consumption Expenditure



Source: ESRI authors' calculations based on Eurostat data

The final component of aggregate output that explored is investment. As can be seen in Figure 4, investment in Finland, Sweden and Norway dropped during the first three quarters of 2020, with Finland exhibiting the smallest decrease. The decline in the investment rates can be attributed to the elevated uncertainty caused by the pandemic and the waves of tightening/easing the various types of restrictions. Ireland is an outlier with a year-on-year increase in quarter 1 of 2020 that far exceeded 150%, largely explaining the large growth rate in gross value added (see Figure 2.1), and a decline in the second quarter of almost 70% compared to the second quarter of 2019. These large fluctuations in Ireland stem to a large extent from the operation of large multinational enterprises

Figure 2.4: Yearly Changes in Investment



Source: ESRI authors' calculations based on Eurostat data

"Overall, … the Covid-19 shock had a significant negative impact on household consumption and investment, the bulk of which is concentrated in the second quarter of 2020, and which led to a decline in the value added produced. During the third quarter of 2020, all countries experienced a recovery which, nonetheless, was not large enough to cover the losses incurred." ESRI study

The impact of such sudden falls in output, consumption, investment and even in some cases of government consumption should not be underestimated, significantly increasing the huge impact on citizens and households already triggered by lockdown and other protective health measures.

In addition, economic impacts of the on-going pandemic have varied significantly across the main sectors of economic activity, affecting the structure of the economies in the four countries. What is noticeable, however, is that some economic sectors recovered in the third quarter of 2020, either fully or partially (see Box 2.2).

Box 2.2: Effects on industrial structure (see ESRI report for the graphs and details)

While **manufacturing** suffered significant cumulative losses in the first two quarters of 2020 (except in Ireland), recovery set in in the third quarter. The cumulative change over the first three quarters of 2020 demonstrates a positive cumulative growth rate in manufacturing in Sweden (with an increase of almost 20% in Q3), and a partial recovery in Finland and Norway. And if we include mining and quarrying, which dominates the production of industrial value added in Norway, then Norway, like Ireland, did not experience any contraction in industrial GVA.

In **construction**, Ireland suffered a massive drop in GVA in the first two quarters, but fully recovered in Q3, Finland and Sweden experienced only minor cumulative changes, while Norway suffered decline only partially recovered in Q3.

The positive effect of the easing of restrictions is evident in the large sector comprising **Wholesale and Retail Trade, Transport, Accommodation and Food Services**. Although all the countries in the sample recorded a cumulative contraction in value added in the first two quarters of 2020, with the loss of output in Ireland reaching almost 40 p.p., the third quarter saw a substantial yet incomplete recovery. In particular, Finland, Norway and Sweden saw an expansion of value added of 8.7% on average, while Ireland grew by 46%, thus managing to recover from the extensive losses in value added over the first two quarters of 2020.

In the **Information and Communication (ICT) sector**, Finland and Sweden experienced minor declines (not reversed in Q3), Norway recorded the largest decline (contracting by 4 p.p.), while Ireland recorded an expansion in cumulative terms even in the first two quarters of 2020.

In the **Financial and Insurance activities** sector Finland, Sweden and Norway all recorded an expansion, while Ireland is the only country that faced cumulative losses in value added over the first nine months of 2020.

In the **Professional, scientific, technical, administrative & support service activities** sector, all four countries faced significant cumulative losses in value added in the first two quarters, with Ireland recording a loss equal to a third of the sector's output. By the end of the third quarter, only Ireland and Finland were able to recover a part of the loss, yet the recovery was incomplete; in Norway and Sweden the loss of value added continued albeit to a lesser extent compared to the first six months of 2020.

In the **Arts, Recreation and Entertainment activities**, there are significant losses in all the countries, with Ireland standing out having recorded a cumulative loss of 80 per cent in the first two quarters of 2020, the largest decline across all the countries in the EU. And while Finland, Norway and Sweden exhibited a positive growth rate in the third quarter, Ireland kept on a negative trend albeit significantly milder compared to the catastrophic second quarter of the year.

Overall, there is a large degree of heterogeneity in the performance of the various sectors of the economy across countries, both in the first two quarters of 2020 when the pandemic's first wave hit and during the third quarter which saw a lifting of restrictions and a surge in economic activity. Ireland often records very different changes from Finland, Sweden and Norway (which are more aligned with each other), and indeed from the rest of Europe (e.g. Ireland was the only EU country not to suffer losses in the industry sector in the first two quarters of 2020, instead recording a considerable expansion of almost 10 p.p.). Likewise, we have seen the significance of mining and quarrying in the industrial sector in Norway. These findings "highlight the importance of accounting for country-specific structural and behavioral characteristics. These characteristics are the ones that in effect determine the response to the shock caused by the covid-19 pandemic" (ESRI report).

The ESRI report reveals similar divergence in tracking the retail trade index (a business indicator which measures the monthly changes in the turnover of retail trade) and the Industrial Production Index (a business cycle indicator which measures monthly changes in the price-adjusted output of industry) during 2020. For example, Ireland experienced the largest drop in the retail trade index after the outbreak of the pandemic which lasted until April 2020, and then a V-shaped recovery period. In contrast Finland and Sweden experienced a much milder decline in the first two months of the pandemic, and by May 2020 their retail sales index had surpassed its pre-pandemic level, while in Norway the sales indicator exhibited a robust upward trend that was reversed only in July 2020.

Such heretogeneity is all the more relevant when studying the NPA region, which includes only the peripheral areas of the Nordic countries, which may have experienced very different impacts from Covid-19 from their urban heartlands in the south. Similarly, the four provinces that make up Atlantic Canada have experienced very different impacts from most of the rest of Canada.

2.2 Linking health outcomes and economic activity during the pandemic

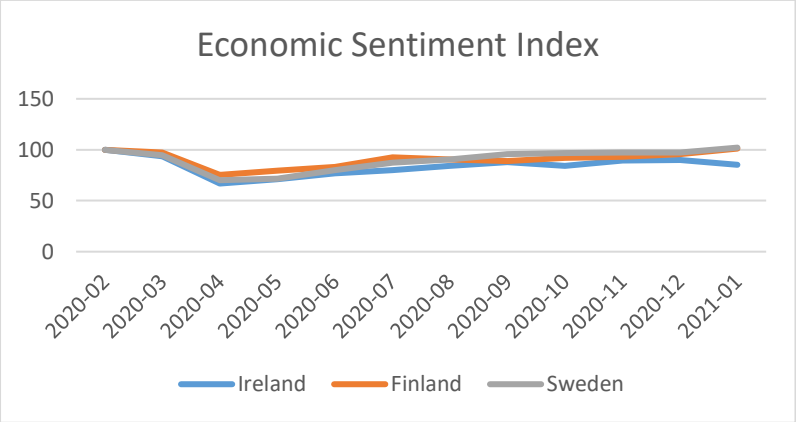
One of the most interesting findings of the ESRI research links health and economic impacts of Covid-19. By and large, the economic impacts of Covid-19 have been attributed to the widespread implementation of policies restricting movements and closing non-essential businesses in order to contain the spread of the virus.

"At first sight, there seems to be a strong correlation between the two, especially in light of the evidence presented above, which indicate that the easing of the restrictive policies coincides with a surge in economic activity (both in terms of the value added produced and the increases in consumption expenditure). However, this approach neglects the effects that the pandemic has on the behavior of individuals. Recently published research … utilises mobile phone usage data and highlights the fact that the decline of economic activity is largely explained by the choice of the consumers to reduce their visits to stores for shopping due to their fear of being infected. In particular, this research provides evidence that in areas where the number of Covid-related deaths is high, consumers voluntarily reduce their in-store visits, even more so in the case of large stores and establishments which do not provide the online shopping alternative. This finding is

crucial in terms of policy design, as it implies that it is the impact on consumers' behavior rather than the policy measures implemented that actually impact on economic activity."

In order to examine whether it is the implementation of government policy or the fear resulting from the increases in infection and mortality rates that affects the behavior of individuals that ultimately affects economic performance, the ESRI researchers focus on their potential impact on the economic sentiment index. This index captures the expectations of the private sector regarding the future path of the economy.

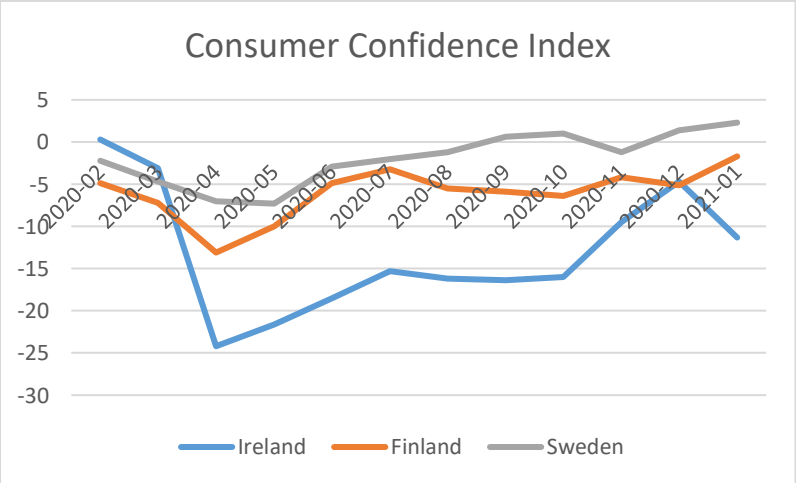
Figure 2.5: Economic Sentiment Index



Source: ESRI authors' calculations based on Eurostat data

As can be seen in the figure, in the first two months of the ongoing pandemic, economic sentiment collapsed; however, despite its initial recovery in all countries, economic sentiment started declining again in Finland by July 2020 while Ireland did not face a decline until October 2020 and again in December 2020 when Level 5 restrictions were again imposed, negatively affecting expectations. In Sweden, in the post-April 2020 period, economic sentiment followed an uninterrupted upward path. The divergent effect of the pandemic on expectations in different countries is particularly evident in the oscillating patterns of the consumer confidence index, one of the subcomponents of the Economic Sentiment index.

Figure 2.6: Consumer Confidence Index



Source: ESRI authors' calculations based on Eurostat data

In particular, the researchers focus on providing simple correlations between the economic sentiment index and measures of the severity of Covid-19 per country as proxied by the (log of the) number of deaths as well as a measure of the severity of the lockdowns (as captured by a stringency index developed by Hale et al). Note that because of data limitations regarding the economic sentiment indicator, only Ireland, Finland and Sweden, not Norway, are included in the analysis.

Figures 2.7 to 2.9 set out the relationship between the economic sentiment indicator and the (log of the) number of Covid-related deaths. It is evident that the sharp rise of Covid-related deaths in all three countries led to a sharp deterioration of economic sentiment, which was reversed once the number of deaths stabilised (note that since the number of deaths is presented in a log scale in the y-axis, each point represents the corresponding percentage change). Nonetheless, the economic sentiment index has not returned to its pre-Covid level by the end of 2020. Indeed, the increase in the number of deaths in Sweden led to another decline in the economic sentiment index in that country at the end of 2020.

Overall, this set of descriptive evidence seems to suggest that the expectations formed by the private sector are negatively affected by the rise in Covid-related deaths, indicating that the evolution of the pandemic and its effects on mortality could be an important driver of economic activity.

Figure 2.7 Comparisons – Ireland

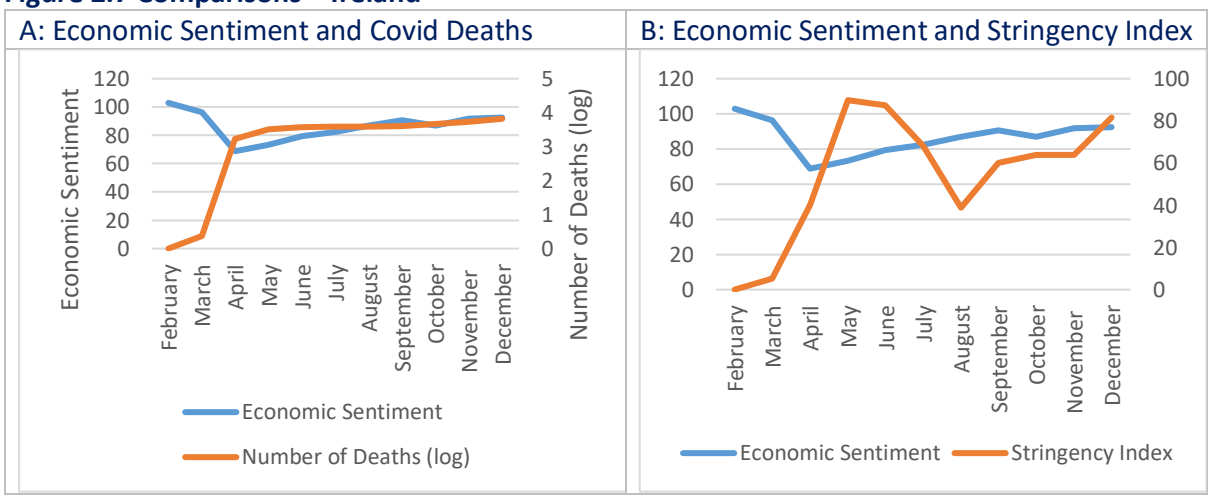


Figure 2.8 Comparisons – Finland

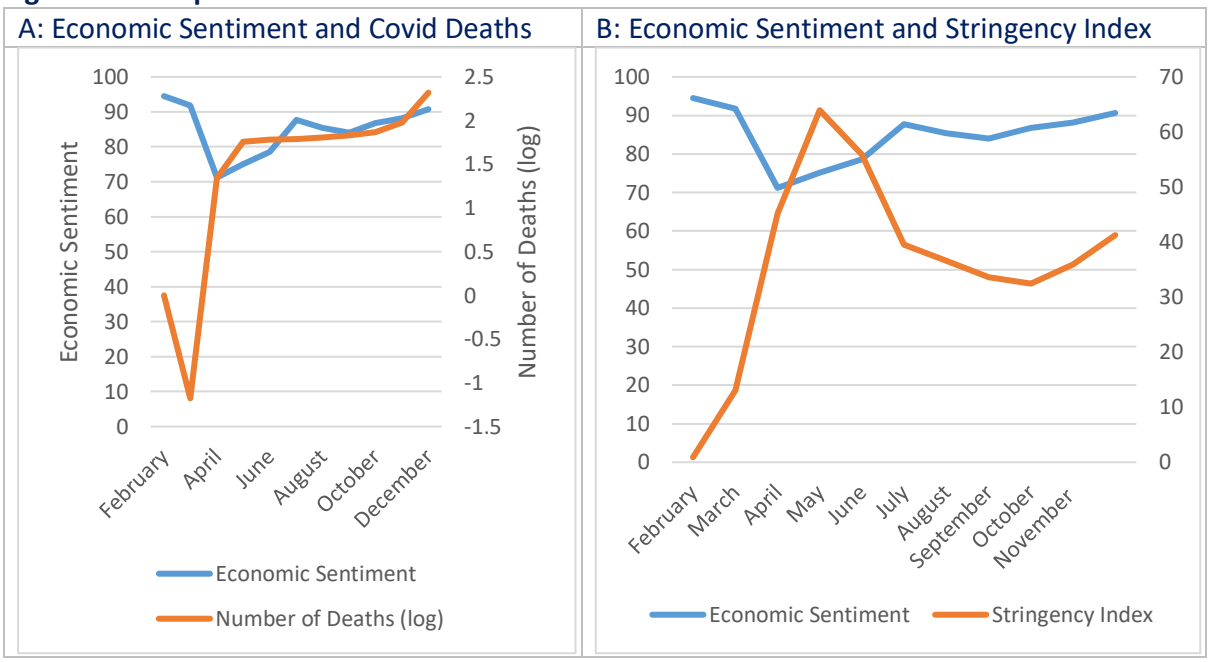
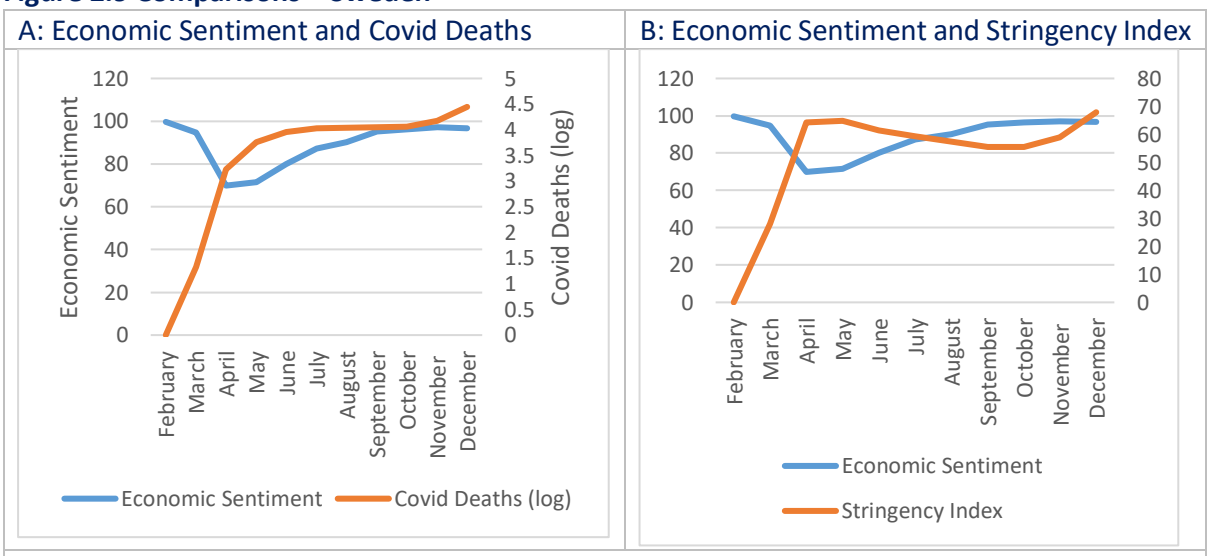


Figure 2.9 Comparisons – Sweden



Source: ESRI authors' calculations based on Eurostat data

In contrast, when the researchers examine whether the imposition of lockdown measures is related with the formation of the private sector's expectations regarding the future path of the economy by comparing both the economic sentiment index and the Halle's Stringency Index (see graphs B in each of the figures above), they observe there is no clear correlation between the two measures.

"Rather a quite heterogeneous relationship seems to emerge without a clear pattern. In particular, while the initial tightening of the restrictive measure seems to be correlated with a deterioration of expectations across all three countries in the beginning of 2020, the further tightening of the measures up until May 2020 seems to coincide with an improvement in the economic sentiment indicator. This improvement persisted during the summer period which saw

a gradual easing of the restrictions, while in the post-September period when the lockdown measures were re-introduced the trend in the economic sentiment index remained positive. Overall, this set of results suggests that the formation of expectations is not correlated with the stringency of the lockdown measures which, at a first glance, implies that this type of policy measures implemented by governments is not the main determinant of the observed economic outcomes."

This is potentially a fundamental result, challenging the common view that saving lives and saving the economy are in conflict with each other (a tension our project has analysed from a human rights perspective in particular; see Box 2.3). This result suggests that introducing effective measures to save lives, while imposing obvious restrictions on economic activity, may also have a positive and immediate impact on the economy. Reducing the death rate impacts positively on economic expectations which strongly influence economic outcomes.

Box 2.3. Perspectives from the human rights report

"Due to its different COVID-policy, Sweden got a lot of attention, and people speculated whether its voluntary recommendations could endanger peoples' lives and violate human rights, such as the right to life and health. On the other hand, most countries with lockdowns have had other human rights issues, concerning the right to movement, right to assembly, freedom of expression, education and rule of law."

The human rights report, focusing primarily on Sweden, "pointed out that the Scandinavian Legal Realism and Uppsala School embraced a philosophy where the economy and economic wellbeing trumped individual rights. Several governments, like Sweden and the UK … avoided or delayed adopting large scale public health and social measures to prevent economic downturns …. [But] Sweden did not do better than its neighbours who imposed hard lockdowns, due to its high fatality rate and the second wave that made the economy dive. For example, Australia, which imposed severe lockdown measures from mid-March 2020, could then open up domestically as a basically COVID-free society in late October 2020. [And] it came out of its recession quicker than expected, because during lookdown people accumulated savings and then spent them at home. On the other hand, countries like Italy, Spain and France that did lockdown, also made huge economic losses, and still had a high death toll." A study of the economy of 42 states during COVID concludes:

"[t]hat tighter government measures have a negative impact on economic activity but by keeping fatality rates low they… support economic activity. Thus, from an economic perspective, lockdowns might represent a second-best policy approach as they limit the economic damage associated with high fatality rates … tight lockdowns – despite their negative effect on growth – might still serve as a useful economic policy instrument if they succeed in reducing health risks as economic activity is severely hampered by high fatality rates." (König et al, *Intereconomics*, 56(1), 2021)

An important lesson is that there is not necessarily an opposition between human rights and saving the economy. Figures calculated for the value of a healthy life year (VOSLY) and the value of a quality of life year (QUALY) show that respect for basic human rights and the avoidance of human suffering is also an economic benefit.

In addition, citizens should be able to expect hospitalisation with adequate standards, affordable medicine, and vaccination against COVID, based on their right to health. The right to health thus demands adequate spending on health care. In a pandemic the population has the right to treatment and not be deprioritised or triaged founded in economic shortcomings.

"Death and economic losses are not simply inevitable consequences of the virus … Frail health systems are a result of decades of defunding and policies of austerity ... This acknowledgement is a precondition for a revision of the structures of the global political economy, which are expressed in law. The containment of the virus was, in fact, difficult to attain from the outset, against the background of an 'international economic life' organised

around open markets, freedom of navigation, migrant workers, and global value chains." (Quintana et al, American Journal of International Law, 114(4), 2020, 689)

The Finnish researchers provide an example of how local investment in the health sector can support economic activity. In the Autumn of 2020 the Ministry of Education and Culture gave special funding to the East Savo Association of Educational Municipalities for community-based nurse training, highlighting the importance and crucial role of the welfare state in financially supporting economic vitality and employment. Investing in social and healthcare infrastructure can be understood as a *social investment* measure by the state. The purpose of such an investment is to add to society's existing stock of human and social capital. Studies demonstrate positive consequences of such investments for the competitiveness of national and regional economies.

The economic analysis draws attention to additional short-term dynamics by way of economic sentiment and expectations beyond the usual focus on short-term measures to protect our longer-term future. But even assessing the trade offs between short-term and long-term impacts is not easy, as outlined in the Nordregio report. During the Covid-19 pandemic governments in Northern Periphery and Arctic countries have aimed to prevent the number of infections from increasing uncontrollably to avoid their health care systems, and to some extent other key systems in society, collapsing. Epidemiological measures of this kind have an obvious negative economic impact in the short-term. In the long run, the situation becomes more complicated because an unrestrained epidemic will also have very strong negative economic impacts, which further reduce the potential for effective disease control. To assess the net economic impact of disease control over time, it is therefore desirable to assess what the progress of the epidemic would have been without them and then their impact on economic development, but in practice this is difficult. This must be kept in mind when interpreting the results of studies on the economic impact of disease control.

FLATTENING THE EPIDEMIC AND ECONOMIC CURVE

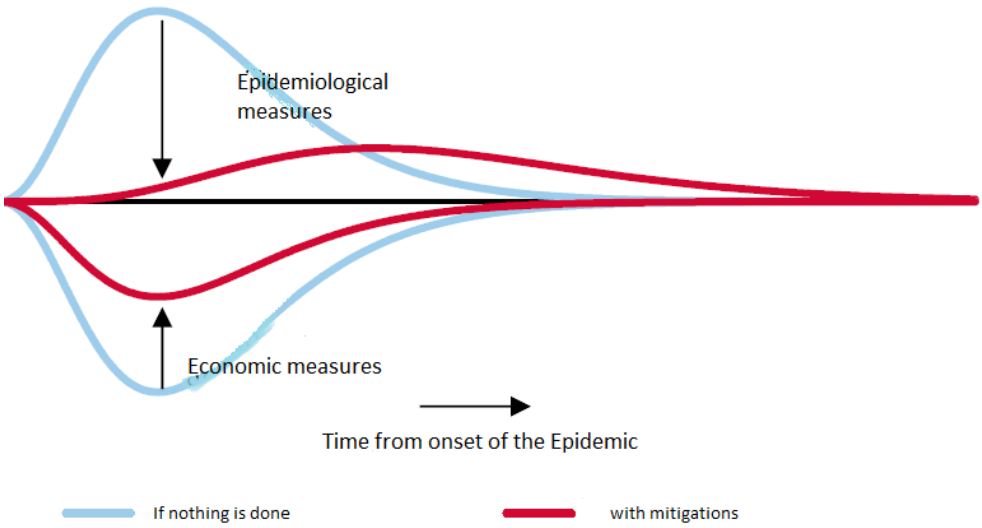


Figure 2.10. Government measures aimed at flattening both the epidemic and the economic impact curve. (Source: adapted from Iceland Government, 2021).

So, effective disease control includes short-term sacrifices for long-term benefits. For this reason, it is necessary, as far as possible, to assess individual measures under the lens of whether the long-term benefits for society outweigh the short-term sacrifices. Moreover, in this context, all societal benefits and costs must be assessed, as economic activities and the health system are part of, but not the whole of society. And measuring sacrifices and benefits that are largely intangible and have no market value is particularly difficult. For example, decisions can be made to sacrifice people's daily relationships for the benefit of life and health, but it is difficult to assess the value of both social connections and health (Iceland Government, 2021).

2.3 The economic impacts of Covid-19 on regional economies within the NPA

The ESRI research looked at Covid-19 impacts on national economies, comparing Ireland, Norway, Sweden and Finland. The Nordregio report looks at Covid-19 impacts on regional economies using on the OECD database Quarterly National Accounts. Because of limitations of data at the regional level, this is not an easy task. To be transparent and informative, Nordregio applied sector-specific change rates available from national accounts on the last observed values at the regional level using harmonised units and comparable industrial classifications in both territorial levels. In other words, the data shows the impacts of Covid-19 at the national level transposed to the regional level; regions will show the same rates of growth or decline in each sector. This procedure is informative because it highlights to what extent their economic structure may contribute to regions being more resistant to Covid-19 impacts.

The OECD data confirms that, in terms of GVA, most of the regions, including non-NPA regions, saw an economic recovery which in some cases reached pre-Covid-19 levels, with most countries seeing their GVA grow again in the third quarter of 2020. And the Nordregio analysis confirms that the impact of Covid-19 varies significantly across different sectors. For example, the services sector was the most affected in almost all countries in Q2 of 2020, but these were, in most cases, totally or partially recovered in Quarter 3. On the other hand, trade and tourism, and professional services have been hard hit, and have yet to fully recover. Further travel restrictions and in some places lockdowns due to outbreaks later in 2020 and at the start of 2021 provide most of the explanation for this. Tourism in particular remains critically affected, which is hugely important for the peripheral regions within the NPA, where tourism development has been used pre-Covid as one of the primary tools, in some cases the primary tool, for local and regional economic development.

Box 2.4 provides some examples of the regional analysis in Nordregio's report, which indicate just how diverse the economic impacts of the pandemic have been on different regions of the NPA because of the different profiles of their economic activities.

Box 2.4 Impacts of Covid-19 on regional economies

In Ireland, different regions suffered different impacts depending on the structure of their regional economies. The Southern region (IE05), heavily driven by the manufacturing and energy sectors, has not been severely impacted by the pandemic as the GVA of these sectors has remained stable. In the Eastern and Midland region (IE06) the information and communication sector is the largest and has not been hit by the Covid-19 outbreak. In fact, this sector's GVA has grown from €38,000 million in 2020Q2 to more than €45,000 million in 2020Q3. In the North Western region (IE04), the construction's sector GVA decreased from €1,800 million in 2020Q1 to about €900 million EUR in 2020Q2, to later increase to €1,500 million EUR in 2020Q3. A similar pattern took place in the tourism sector as the sector's GVA decreased from €3,000 million in 2019Q4 to €1,850 million in 2020Q2 to later rise to €3,750 million in 2020Q3.

In Northern Ireland public administration is the largest sector, followed by tourism and industry. The impact of Covid-19 in these sectors went in opposite directions. Public administration GVA went from £11,125 million to £12,500 between the first and third quarters of 2020. On the other hand, tourism GVA fell from £8,750 million in 2020Q1 to less than £6,250 million GBP to later climb to £7,800 million GBP. This represents less in the peak tourist season in 2020 than in one of the quietest quarters of the year for tourism.

NPA regions in Norway are also strongly driven by their public administration sector. In all of them it is the largest sector and, in some of them, the size of this sector is double that of the following sector. Take Vestlandet (NO05) as an example. Before the outbreak (2019Q4), public administration GVA stood at 125,000 million NOK, industry GVA at 75,000 million NOK, and tourism GVA at 70 000 million NOK. While the public sector did experience a very slight decline initially, by the third quarter its GVA was larger than at the beginning of the outbreak. However, the GVA of industry dropped from 70,000 to 52,000 million NOK between 2020Q1 and 2020Q2, and only rose to at 60 000 million NOK in 2020Q3. The GVA of tourism did not decline as much but, nonetheless, the sector also shrunk from 70,000 to 62,500 million NOK between the first two quarter, and only recovered to 65,000 million NOK during the peak tourist season.

NPA regions in Sweden, Mellersta Norrland (SE32) and Övre Norrland (SE33), are the smallest in the country, and show similar patterns to the Norwegian regions, with public admistration recovering, but other key sectors (industry, tourism and manufacturing) only recovering partially, and in the case of tourism, again, GVA in the peak season remaining lower than in the first quarter of 2020.

In Övre Norrland, industry used to be the largest sector but the impact of Covid-19 caused the sector to decline heavily so that in Quarter 2 the public administration sector was for the first time the largest sector in the region, although the industry sector exceeded GVA in public administration again in Quarter 3.

Länsi-Suomi (West Finland, FI19) and Pohjois-ja Itä-Suomi (East and Northern Finland, FI1D) are the two NPA regions in Finland. They represent a significant share of the national GVA, and their economic structure is quite diversified across sectors. For example, in Länsi-Suomi, the industry, public administration, and manufacturing sectors were the largest pre-Covid-19, with GVAs between €9,000 and €11,000 million each. While the impact of the pandemic was greater on industry and manufacturing, it was not extreme: both decline by less than 5% in Quarter 2 and almost regained all of this decline in Quarter 3. And public administration remained stable at around €10 000 million.

Our research provides significant evidence of the similarities but also many differences within economic impacts on different regions. In particular, it provides detailed analysis of the economic impacts of Covid-19 in two regions: the Highlands and Islands of Scotland, and Atlantic Canada.

The report on the Highlands and Islands shows that the Vulnerability Index, covering economic diversity, business environment and digital connectivity to indicate an area's ability to withstand and respond to Covid-19 economic shocks, places all of the six Highlands and Islands Local Authority areas in the 12 most vulnerable in Great Britain, including Argyll & Bute (1st) and Orkney (2nd), with low digital connectivity the main factor for all six areas. These areas also face significant demographic challenges.

Nevertheless, the Highlands and Islands have suffered less severe health impacts of Covid-19 due to lower rates of infections, hospitalisations and mortalities – although there have been clusters in local areas. Similarly, vaccinations have been relatively high. By 11 Feb 2021, the Outer Hebrides had the highest proportion in Scotland of its population vaccinated, Orkney the second highest, and Shetland the fourth highest (with Dumfries & Galloway the third highest). All of these areas are within the peripheral areas of Scotland included in the NPA.

An additional resilience factor for sustaining regional employment, as we have already seen for some of the remote regions in Nordic countries, has been the relative importance of public sector employment: health and social work activities, education and public administration together totalled 28% of all employment in H&Is in 2019. And the region has benefitted significantly from public support schemes during Covid-19: e.g. the Highland Council area had Scotland's highest proportion (35%) of its workforce furloughed (i.e. laid off temporarily with the Government paying 80% of their wages).

However, Covid-19 has had severe economic impacts throughout the region:

- Of 1,200 business owners and the self-employed in Highland 54% were closed – 45% by law and 9% voluntarily, 35% were struggling to stay afloat, and a further 33% had experienced a fall in sales and profits. Almost half were concerned about their ability to survive for the next few months. This 54% of Highland businesses that were closed compared with 27% in Glasgow and Edinburgh combined.
- In 2020 the unemployment rate increased significantly more in the Highlands and Islands than in Scotland as a whole – with the highest increases in those areas that are most dependent on tourism
- Between March and October 2020, the number of young people aged 16-24 seeking work in Highland increased from 768 to 1,430 (+86%), and could rise to around 2,200 by the spring.
- Job postings were 36% lower in the Highlands and Islands in Week 48 of 2020 than in the same week in 2019 (with Scotland postings 27% lower).

The reduction in economic activity related to tourism and hospitality has been the most prominent impact to-date in most parts of the region, which is highly dependent on tourism and hospitality trade for employment and income (possibly accounting for c20% of all employment in the region).

Many other factors are also impacting on the economy in the Highlands and Islands, for example:

- Brexit, including loss of markets (e.g. for fish), reduced availability of temporary and seasonal staff from EU countries, and the loss of the substantial EU funding that the region has received (ERDF, ESF, LEADER and agricultural support).
- the underlying decline in North Sea Oil & Gas, and the speed and extent of the necessary move towards renewable energy and a zero carbon economy
- The rate at which digital connectivity is improved across the region, especially in outlying areas

Atlantic Canada is made up of four provinces - Nova Scotia (NS), New Brunswick (NB), Prince Edward Island (PEI) and Newfoundland and Labrador (NL) - with a total population of 2.44 million. In terms of socioeconomic status, Atlantic Canada has long been characterised as a have-not part of the country, yet the region is one of the richest in terms of history, culture, and identity.

Like for the Highlands and Islands in Scotland, however, Atlantic Canada has performed very well during Covid-19 with among the lowest case rates in the country and only 91 Covid-related deaths in the entire region as of February 2021. PEI has the lowest case rate in the country, at 71 per 100,000, compared to a rate of 2,150 nationally, and no recorded Covid-19 deaths. The case rates and death counts for the Maritimes closely mirror those of Canada's northern territories (Yukon, Northwest Territories, Nunavut) resulting in this group of peripheral Canadian regions having drastically different COVID-19 experiences from the rest of the country.

Border restrictions, along with tough public health measures implemented early, are believed to be the reasons for the region's success in containing the virus. All the Atlantic provinces have self-isolation measures in place and, all but Nova Scotia, continue to prohibit non-essential travel into their province.

The four Atlantic provinces have effectively slowed the spread of the virus in the region, which has allowed for some earlier economic recovery than the rest of Canada. However, because key trading partners, both Canadian provinces and the United States, continue to struggle to contain the virus, the economy of the Atlantic provinces will remain severely impacted for the foreseeable future.

The economic contraction in Atlantic Canada was similar to the rest of Canada between February and April 2020. In that period, 171,000 jobs were lost in the region, a 4% rise in unemployment year- over-year, compared to 7.3% nationally. By July, 61% of those jobs lost were regained, compared to a recovery of 55% of jobs nationally.

This table shows the industries in Atlantic Canada that have been hardest hit.

Sector	% GDP 2019	Revenue decline 2020 (CDN$)	YOY change 2019 to 2020	Employed 2019
Tourism	2%	$3.3 billion	- 60%	100,000
Restaurants	0.5%	$700 million	- 60%	66,000
Retail	2.7%	$1.6 billion	5% (June)	150,000
Construction	7%	$3.3 billion	- 26%	85,000
Oil and mining	2.6%	$1.3 billion	- 20%	17,300
Manufacturing	15%	$3 billion	-8%	78,000

Tourism, seafood, offshore oil and parts of manufacturing and retail are all still quite far from an economic recovery. Much of this is because international markets are critical for Atlantic Canada's prosperity. Atlantic exports were valued at 29% of the region's GDP, supporting over 118,000 jobs. These exports were down 50% in May from 12 months earlier.

The hardest hit industry in the region is tourism and accommodations with a contraction of almost 60% or about $3.3 billion Canadian. International visitors to the four different provinces were down by 80 to 96%, domestic visitors by 40 to 80%, accommodation sales by 55 to 65%. It is expected to be the slowest industry to recover and affects several other industries such as restaurants, retail, arts, entertainment and recreation. The tourism industry accounts for 4% of jobs across the region.

The Canadian report provides further analysis of impacts on different sectors: airlines, restaurants and bars, retail, construction, oil and mining, and manufacturing.

2.4 Impacts on the economics of the health care sector itself

The economic impacts of Covid-19 have not only affected business activity within peripheral regions, but also the delivery of health care services themselves, as the Finnish report describes in detail for small hospital districts in Finland.

Although peripheral regions with small health service provision are more vulnerable to being overwhelmed by pandemics, the infection rates in many of these peripheral regions during Covid-19 have in fact been lower and fewer people have been hospitalised (especially during the first wave of the pandemic), so that the economic costs have also been less. But even in less affected regions, the spread of Covid-19 has required intervention by regional and local authorities in distributing safety material and medical protection equipment, providing guidelines and information to citizens, and providing services for vulnerable groups.

> *"Due to the corona, human resources have been directed to, among other things, testing and emergency services. On the other hand, there has been less training compared to normal times, also less commuting, and these have saved us costs. The virus situation has been good here and therefore the economic impact is not as dramatic as in many other hospital districts."*
>
> *"The preparation (to rising infection rates) has caused costs, even though there have not been Covid-patients to treat, so it is probably not the treatment of patients that has caused costs, but this preparation."* (Expert interviews)

Covid-19 has already had a negative effect on the availability of health and social care personnel, most notably on the availability of the temporary workforce. The shortage of personnel was chronic even before Covid-19 especially in home care services. "The fact that we do not have enough temp workers to make up for absentees means that there are units working with very scarce personnel resources." (expert interview). These problems with home care services for older people have been widely acknowledged in Finland. It is a nation-wide problem, but can become particularly acute in regions where the proportion of working-age people is declining in relation to other age groups. And the pressures and uneven distribution of staff workloads since the pandemic could soon lead to problems with well-being at work. The small and peripheral hospital districts have also had significant problems with recruiting medical doctors even before Covid-19. These shortages of health personnel are reflected in other NPA regions such as Northern Ireland.

Nevertheless, as we see in Section 5 of the main report, small hospital districts have also shown significant flexibility and innovation in addressing these challenges, for example in seeking to secure an adequate number of nursing staff during and after the pandemic. Increased and improved cooperation during the pandemic between actors at different levels and in different sectors of health care provision has been particularly significant.

The pandemic will also have future impacts on the economy of the consortium of four municipalities that constitute the East-Savo Hospital District (ISSHP). Lower tax revenues for the municipalities in future may force municipalities to economise on their social and health care services, aggravating retrenchments already made in service provision. Meanwhile, expenses will grow, for example due to Covid-19 vaccination. In other words, ISSHP must make savings and simultaneously provide new services. These pressures will further accelerate digital developments: the usage of telemedicine services has already increased during (and due to) the pandemic.

Another significant future cost will be the accumulating 'care debt'. Care debt refers to a situation where people with non-Covid-19 illnesses will not be able to use health and social care services during the pandemic. While the pandemic itself has immediate impacts on people´s health due to death or illness, the concept of care debt highlights the longer-term consequences it may cause on the service system.

The pandemic has impacted non-urgent health and dental care services, and people have avoided making doctor's appointments for fear of catching the virus during visits to clinics and health centers. While in many regions, including East-Savo, the appointment services were kept at a normal level, appointments of those in risk-groups (older people, people with immunosuppressive medication or with increased risk) were delayed. And access to social care services, for example the contribution of personal assistants for people with disabilities, has been

diminished. Similar challenges around future care costs were highlighted in the Faroe Islands also. The crucial question is how this will backfire in the next few years in terms of health care expenses and in terms of its effects on people's well-being.

"When we get out of this, then it's still shrouded in obscurity, how much care debt there is, and how much will come in terms of long-term sickness, whose personal care balance has deteriorated, and what will follow from that." (Expert interview)

Finland is currently reforming the funding model of social and health care services to consolidate responsibility for these services from the municipal level into a new regional tier of administration. While the goal has been to cut costs and streamline services, it remains to be seen whether the reform will ease the economic impact of Covid-19 in peripheral regions, let alone ease the problem of workforce shortages. Even though the new remote working possibilities may increase the attraction of peripheral areas, and although smaller districts appear to be more agile and thus more resilient to survive the pandemic, there are still severe economic issues concerning the overall organising of social and health care services in the peripheral regions after Covid-19.

In terms of future economics, the pandemic together with the exceptional measures introduced have also increased the direct intervention of public authorities in the economy. The Finnish experts interviewed speculated whether this would have long-term effects on the relationship between public authorities and private enterprise and ownership. It is evident that in Finland, that is often characterised as a representative of the Nordic welfare state model, the state has indeed borne the greatest responsibility for the functioning of society during the pandemic, and thereby lived up to these expectations.

2.5 Economic inequalities

So far our analysis has shown the similarities and differences in regional and sectoral impacts of Covid-19, demonstrating how critical it is to adapt policies and actions to be appropriate and effective for each of the peripheral regions that make up the NPA, depending on the structures of their regional economies. As important are the differences in impact among different groups within regions.

The Nordregio report draws attention to evidence that, even if the economy is showing signs of recovery, there are signs of increased gaps between groups, a trend that has been persistent since the 1980s and is accelerated when crises hit (see here and here). This is part of a general trend in OECD countries where there has been a persistent increase in inequality in the period 2000-2019 except for Norway. This is particularly significant for the NPA area. While aggregated analysis of economic data may seem to indicate that impacts may not be severe, they may be experienced as severe in particular regions or localities.

INKOMSTKLYFTAN ☆

Studie: Sverige har största inkomstklyftorna i Norden

Mellan 2000 och 2017 gick Sverige från de näst lägsta inkomstskillnaderna i Norden till de största. Det visar Nordiska rådets rapport ”State of the Nordic Region 2020” som presenteras på tisdagen, enligt DN.

– Det har varit en kraftig tillväxt och det har en tendens att öka inkomstskillnaderna, säger Kjell Nilsson, direktör för Nordiska rådets forskningscenter Nordregio, till tidningen.

Men samtidigt noterar han att Norge som också sett en kraftig tillväxt har ett betydligt mindre gap än Sverige.

Photo from Swedish News on increased income gaps in Sweden and the Nordic countries. DN 7Feb2020

A crisis situation tends to amplify social inequalities and the impacts of the crisis are felt asymmetrically across societal levels and regions, generations, societal groups and gender. In some cases effects are examples of accumulations of dispossessions, and some regions are locked into systems of capitalist relations of production that produce uneven development.

So, while economies in the short-term seem to be recovering from the impacts of Covid-19 impressively soon (with the exception of tourism), there are signs of increased income gaps where unemployed groups, for example, lag behind while wealth gets consolidated amongst the established affluent in society. Simply put, the bottom gets out, the middle is pressed out and shrinks, while the top gains.

A Scottish Government report (*Scotland's Wellbeing: The Impact of Covid-19*, Dec 2020) highlighted that there have been disproportionate negative impacts on low paid workers, children and young people, older adults, households on low income or in poverty, disabled people, women and ethnic minority groups. Where these groups overlap, impacts will be particularly severe.

And our Canadian report analyses different groups that have been disproportionately impacted by the pandemic economically, socially and in terms of health outcomes. The comparative figures for low-wage earners compared to those earning more, for example, provide striking evidence in an NPA area of what the Nordregio researchers point to:

“**Low-wage earners** have been among the hardest hit of anyone in Atlantic Canada. Employment for wage earners under $15/ hr went down 39% year-over-year in April, while employment for jobs paying more than $15/ hr declined by just 8%. Further, employment in jobs over $15/ hr fully recovered by September while low-wage employment remained 18% below its 2019 levels. Many low-wage earners are people under the age of 25 and those without a post-secondary education. Many of these jobs are in tourism-related industries: accommodations, retail and food service.”

Other groups disproportionately impacted include:

Young people, whose lives and consequently their health have been severely impacted by the pandemic. Across Atlantic Canada there is resounding evidence that the youth and student population are suffering from mental health and anxiety issues. And this has not been helped by attempts to shame young people (e.g. for “living as if COVID-19 doesn't exist”). Other officials on the other hand celebrated young people for their cooperativeness. In Prince Edward Island, the 20-29 age demographic showed their support to vulnerable communities when the Chief Public Health Officer requested all be tested for COVID-19 and more than 4,000 young people turned up at testing sites.

According to the Office for National Statistics "young people account for nearly two-thirds of job losses in the UK since the pandemic … more than half of under-25s have been furloughed or lost their jobs." (*The Guardian*, 23Mar2021)

Women: employment losses have been consistently larger for women than men by a few percentage points. Women hold nearly 60% of jobs in industries closely tied to tourism, so recovery of employment for women is likely to lag behind that of men. There is also evidence of working women bearing disproportionate stresses due to shifting responsibilities both at work and at home. Women are more often employed in front-line roles, carrying the extra burden of contact with the public and the risk of becoming infected. Closures of schools, day cares, in-home-cleaning services and food service all added to the responsibilities of working mothers, in particular, single parents. Women often find themselves in caregiver roles as well, and are experiencing 'caregiver fatigue' as respite services have been scaled back to prevent the spread of the virus.

From a different perspective, the human rights report states, "Severe cases of Covid-19 and deaths are more prevalent in men, according to statistics and research. The NPA-regions in Sweden represent a male predominance with about 10% more men in Norrland, often living in single households. Studies from Sweden show that being a single man with a lower income and a lower level of education also gives a greatly increased risk of dying in Covid-19.

Indigenous communities in Canada were worse off than most others before the pandemic lacking access to clean water and adequate housing, and suffering high rates of chronic disease and systemic discrimination. These issues have become even more threatening to the lives of indigeonous Canadians during the pandemic. Multiple generations and sometimes multiple families living in one home makes containing the virus extremely difficult, comorbidities make the health risk associated with the virus dire, and lack of access to health care resources further complicates their precarious situation. Indigenous youth who rely on cultural practices and group events for healing have been hard hit due to ceremonial events and sacred practices not being held, 'retraumatising' families who suffered from these practices being outlawed in Canada in previous generations. Over the past decades, many First Nations have been successfully growing their own economies. However, the pandemic has resulted in lower revenues with especially large declines in fishing, hospitality, gaming and tourism for Indigenous businesses. It is estimated that these community revenues will decline by roughly 40% in 2020/2021.

Covid-19 has underscored other existing vulnerabilities of Arctic communities in general, and those of indigenous peoples in particular. The situation for the Sami communities, vulnerable to disease and because of preconditions, such as cardiovascular, and less access to health care, is a concern. The crisis has had a strong impact on their traditional livelihoods: the drop in tourism, border restrictions and lockdowns, including preventing travel to important cultural events, as Sami are spread out in several different countries. It is imperative to direct resources to counter the threat that Covid-19 presents to these communities. The position of the Arctic also makes the adaptation to the closure of businesses, premises and schools very challenging. For example, poor internet in many parts of the Arctic has posed difficulties for distance learning during the pandemic. (Human rights report)

The so-called **'gig economy' workers** - self-employed and contract workers, artists and those working in the creative industries - have been among the hardest-hit as a direct result of lockdowns and social distancing rules resulting in cancellation after cancellation of projects and performances. With no employer to fall back on, and most living gig to gig, these Canadians have had to rely on federal government support. For the creative industries, some important relief has come through arts organisations receiving government funding to employ artists and musicians to create mostly online programming through the pandemic. Indeed, the lifeline for many artists in Atlantic Canada has been to pivot to online performances, where audiences 'pay what they can'. And as many have noted, it's been the creative industries that have gotten people through the pandemic: books, Netflix, video games, and music have all been a connection, a comfort and an inspiration during trying times.

> *The economic impact of Covid-19 on the Traditional Music sector in Scotland, like so many in the 'entertainments' and public interface sectors, has been crushing in terms of the complete cancellation of every performance 'gig', concert, wedding and festival. The impact on musicians, communities and the country is as if someone turned the soundtrack off.*
>
> *In the early weeks of national and international lockdown, musicians in isolation went on-line. As time went on major events, festivals and teaching went on-line and musicians were paid for delivering their music in a virtual context. [However,] the most alarming [result from a survey was] that only 17% of audiences said they were willing to pay for online performances.*
>
> *It is hard to imagine full festival and event face to face engagement any time soon. It is likely events will become a hybrid model with a combination of 'live' attended events with smaller numbers and streamed on-line. This will sit well with environmental concerns and enable greater participation from a wider audience, within Scotland, and internationally.*
>
> from CoDeL's report on the economic impacts on the cultural sector

On the other hand, employment among **immigrant populations** in Canada has, for the most part, mirrored that of the rest of Canada during the pandemic, suggesting that they are not uniquely vulnerable to the impacts of the pandemic. However, in Finland, there has been a nationwide worry that special groups such as non-native Finnish speakers could remain a blind spot for critical communication by hospital districts during the pandemic. Since the first cases were detected, the need for communication has been acute, and clear and multilingual communication is of great importance to realise accessible health care services for all.

2.6 Location matters: initial challenges from economic geography to standard economic frameworks[2]

Location matters. After a long period of catching-up for most of the disadvantaged regions, including within the NPA, inequalities among regions have been on the increase again.

An important aspect of the ESPON ReLocal project was to discuss why there was a need to go beyond strict economic indicators to understand dynamics of spatial injustice. Some of the factors identified were:

- Because a lot of details are overlooked,
- If policies are based on data from national and NUTS 2 levels, then it is not sufficiently aligned with the reality of less-favoured regions
- The idea is to recognise 'territorial diversity' and potentials, not handicaps
- The aim is to reduce disparities and promote growth.

But how do they develop? How do you know which incentives should be used to promote development, if you only have labels like "lagging" and "underperforming"? This is very much a policy question.

The academic interest in regional and spatial inequalities stems from the ongoing debate on growth of an economy. The neoclassical school of thought claims that "spatial inequalities are bound to decrease" because less advantageous economies catch up as a result of higher marginal rates of return on invested capital in faster-growing economies.

Other schools of thoughts, including endogenous growth theories, "understand growth as a cumulative process that tends to increase inequalities". In this framework, growth is perceived as a cumulative process that strongly depends on "initial conditions", and requires a minimum scale (or quality) of resources and activities in order to take place". They place innovation and knowledge accumulation "central to explaining economic performance and competitiveness". This implies that inequality patterns can be explained by differences in the knowledge bases and not by differences in factor proportions (as standard neoclassical theory would assume).

To achieve "a complete understanding of the determinants of long-run economic success" a broader set of "economic attributes" should be considered including institutional arrangements, levels of education, investment in research and development and the like. Lucas focuses on the role of human capital as "the engine of growth" and for divergence in growth rates between leading and lagging economies. This implies that regional disparities will not be reduced by a mere equalisation of capital-output ratios, but also market incentives and government policies should play a role in reducing disparities and bring about "discovery, diffusion, and technological advance".

How best to overcome inequalities between regions is also subject to fierce debate. The New Economic Geography school, favoured among others by the World Bank, emphasises the "superior efficiency of large metropolitan areas and the need to support them for the sake of

[2] The references for this section can be found in the Nordregio report.

aggregate wellbeing …with favour openly expressed for the efficiency goal and 'space-blind' policies". The experience of the Covid-19 pandemic has raised serious questions about the 'superior efficiency' of large urban areas, as does the climate emergency.

The opposite strategy, place-based regional policy, supported by such organisations as OECD and the Barca Report (2009) is based on "place specificities and territorial assets, designed in a transparent and inclusive way by local actors" with the support from multi-level governance.

While the focus rightly suggests going beyond GDP to measure regional disparities, it is also important to examine GDP per at the national and regional levels. While imperfect, GDP per capita does correlate with many other standard of living measures at the regional level. And GDP per capita is one of the few measures collected or estimated at NUTS3 level by Eurostat.

The Nordregio report shows a map of GDP per capita at this level (Figure 2 in Nordregio report). While there are disparities within countries, there are greater disparities among countries. Within countries, it seems as if the regional disparities for GRP (Gross Regional Product) per capita have not changed significantly since 2000. The figure shows the disparities at the NUTS2 and NUTS3 levels. Note that the Northern Periphery part of Europe shows relatively high GRP with the exception of a few rural areas (North Finland and parts of Scotland and Ireland are some examples of such areas).

Even if conditions have improved during the second decade of the century regional inequalities are still significant in Finland, with the highest at-risk-of-poverty rate observed in Pohjois-Karjala (17.8%), more than two times larger than the lowest value in Åland (8.2%). The possible explanation behind the high at-risk-of-poverty rate in Pohjois-Karjala could be the aging problem, with a high old-age dependency ratio resulting in more recipients (the elderly) of social assistance. This is cause for concern in the situation created by Covid-19 restrictions and border closures preventing commuters and a mobile labour force travelling to their jobs in 2020 and 2021.

2.7 Rethinking economics: radical challenges to dominant economic paradigms that have underpinned much development for peripheral regions

We have already highlighted the challenges presented by divergent regional development and economic impacts within the NPA region, of economic inequalities that do not deliver wellbeing for all groups and individuals, and of opposing economic schools of thought on policy and economic development in regions, although most of these schools of thought remain within a framework that is dominated by the need for economic growth to deliver prosperity and wellbeing.

The Covid-19 pandemic, and of course the climate emergency, have deeply challenged this foundation for prosperity and wellbeing, by revealing how unsustainable for long-term, and now even short-term prosperity and wellbeing traditional economic frameworks are. It is therefore imperative to look for alternative frameworks that put people and the planet first. This shift in economic thinking was already happening before Covid-19, but has been hugely accelerated by the pandemic, now even within mainstream economic thinking.

"Repairing the immediate economic consequences of the crisis and avoiding a recession will require major increase in public spending and investment. These investments can, however, be directed in a way that is conducive to a carbon-neutral, climate-friendly, and ecologically sustainable economic system. In addition, while it has become commonplace today to think that public spending is excessive, it is important to notice that social and health care expenses also provide employment and thereby income to individuals, and income tax revenues to the state and the municipalities.

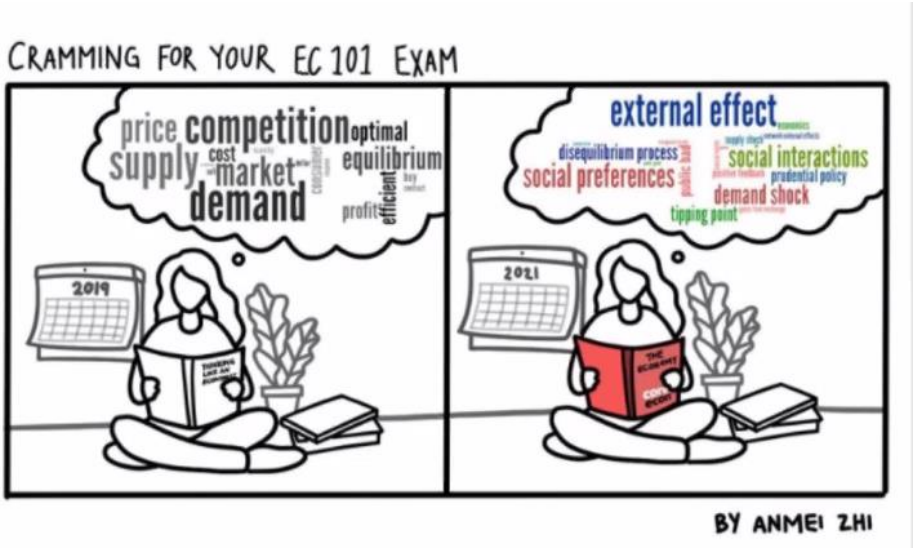
"In relation to peripheral regions and their characteristics beyond the economic environment, the 'ecological transition' should be a project that unites societies. From the perspective of the peripheries, this means the need to secure sustainable and well-functioning social and health care services. In addition to tackling the threats that the pandemic and climate change have brought with them, positive prospects are needed to carry out the transition. Social and health care services are not something extra, to be added in after planning the industrial and economic roadmap for the ecological and progressive future. Instead, social and healthcare are at the heart of ecological reconstruction of peripheral regions." (Finnish report)

And before we provide evidence of shifts in economic thinking, it is important to note that innovation and practice to deliver on this new economic thinking is already taking place on the ground in many peripheral regions, including with the NPA. This not only makes the new economic thinking deeply relevant to peripheral regions within the NPA, to address the challenges and inequalities we have already outlined. It also demonstrates that peripheral regions are often at the forefront of innovation in sustainable living and wellbeing, and place innovation in the periphery at the very heart and centre of solutions to societies' most pressing challenges.

It is well documented (including in the Technology Solutions project) that Covid-19 and other crises stimulate technological innovation. Equally important is the innovation and change in other disciplines, including economics. And this change is taking place in many different academic institutions as two academic events in November 2020 demonstrate.

At a YUFE Academy Lecture hosted by Tor Vergata University of Rome (18November20), Professor Leonardo Becchetti explained that "the global visible shock of the COVID-19 pandemic and the global (less visible) threat of climate change is demonstrating that the old economic paradigm is obsolete and wrong" and "how the post Covid-19 recovery has to be resilient, generative and sustainable". He then set out the case for a new civil economics.

Likewise, at an International Science Council webinar on Rethinking Economics in the Light of COVID and Future Crises (25Nov20) two prominent economists from the US and UK stated that "the pandemic will accelerate acceptance of a new paradigm in economics" illustrated with the following cartoon:



Where previously mainstream economics was a prescription for individualism, harnessing self-interest as the main idea of public policy, with limited government, the pandemic has brought a strong focus on the often neglected economic thinking around public goods and renewed focus on the role of government in delivering these. In addition, as the Financial Times, reported, *"A new narrative may bring in a third pole – community or civil society – expanding the state space for policies by drawing on ethical motivations of solidarity and duty that underpin community and going beyond material gain and compliance with governmental fiat."*

All these perspectives are deeply relevant to, and often already practised in the Northern Periphery and Arctic. And, as one participant, Maria Savona, Professor of Innovation and Evolutionary Economics at University of Sussex, UK and Professor of Applied Economics at Luiss University, Rome, commented, *"Heterodox economics has done this revolution in keywords and narratives decades ago. It is welcome that mainstream economics is recognising that a change in narrative and underpinning theoretical reflection is needed."*

The United Nations is developing a project, Enhance Natural Capital Accounting Policy Uptake and Relevance (EnhaNCA), aiming "to provide materials to increase policy-makers' understanding of applications of natural capital accounting (NCA) according to the System of Environmental-Economic Accounting (SEEA)".

> *Around the world, economic statistics tell a story of 100 years of progress. But they conceal a parallel story of mounting environmental pressures – climate change, pollution, and biodiversity loss – that undermine it. By omitting one of humanity's greatest assets – nature – these statistics ultimately slow progress towards a sustainable, resilient future.*
>
> *As economies begin their recovery from the Covid-19 pandemic, we need to build back better by moving beyond GDP towards a system that recognises all of society's assets – natural, human, social, and institutional, harnesses their interdependencies, and delivers the 2030 Agenda.* Bennett Institute for Public Policy, University of Cambridge, December 2020

Two already well-established paradigms of new economic thinking stand out as of value to peripheral regions: well-being economics and the Doughnut economy.

The *Wellbeing Economy Alliance* has brought together the *Wellbeing Economy Governments partnership (WEGo)* in which three governments within the NPA are already participating. WEGo is "*a collaboration of national and regional governments promoting sharing of expertise and* transferrable policy practices. The aims are to deepen their understanding and advance their shared ambition of building wellbeing economies. WEGo, which currently comprises Scotland, New Zealand, Iceland, Wales and Finland, is founded on the recognition that 'development' in the 21st century entails delivering human and ecological wellbeing."

The goal of the WEA is to create economies where …

- Policy is framed in terms of human and ecological wellbeing, not simply economic growth
- Businesses provide dignified lives for their employees and exist to meet social needs and contribute to the regeneration of nature; and
- The rules of the economy are shaped by collaboration between government, business, and civil society.

In essence, "a wellbeing economy is designed with a different purpose: it starts with the idea that the economy should serve people and communities, first and foremost" (What is a wellbeing economy?, 2019). A wellbeing economy celebrates entrepreneurism and creativity, but seeks "transformation away from the growth orientated development paradigm towards a wellbeing economy", where "measures and conceptions of success [are] aligned with wellbeing, not GDP or short-term profit". It is "rooted in nature and place, supporting cultural heritage".

Pages 9 and 10 of the briefing set out how this approach differs in practical terms from traditional economic paradigms. In relation to the climate emergency, it states clearly that in the old paradigm "low income [*and peripheral?*] communities [are] most affected by climate crisis and bear most of the costs", and "communities [are] expected to increase their resilience". Wellbeing economies instead deliver:

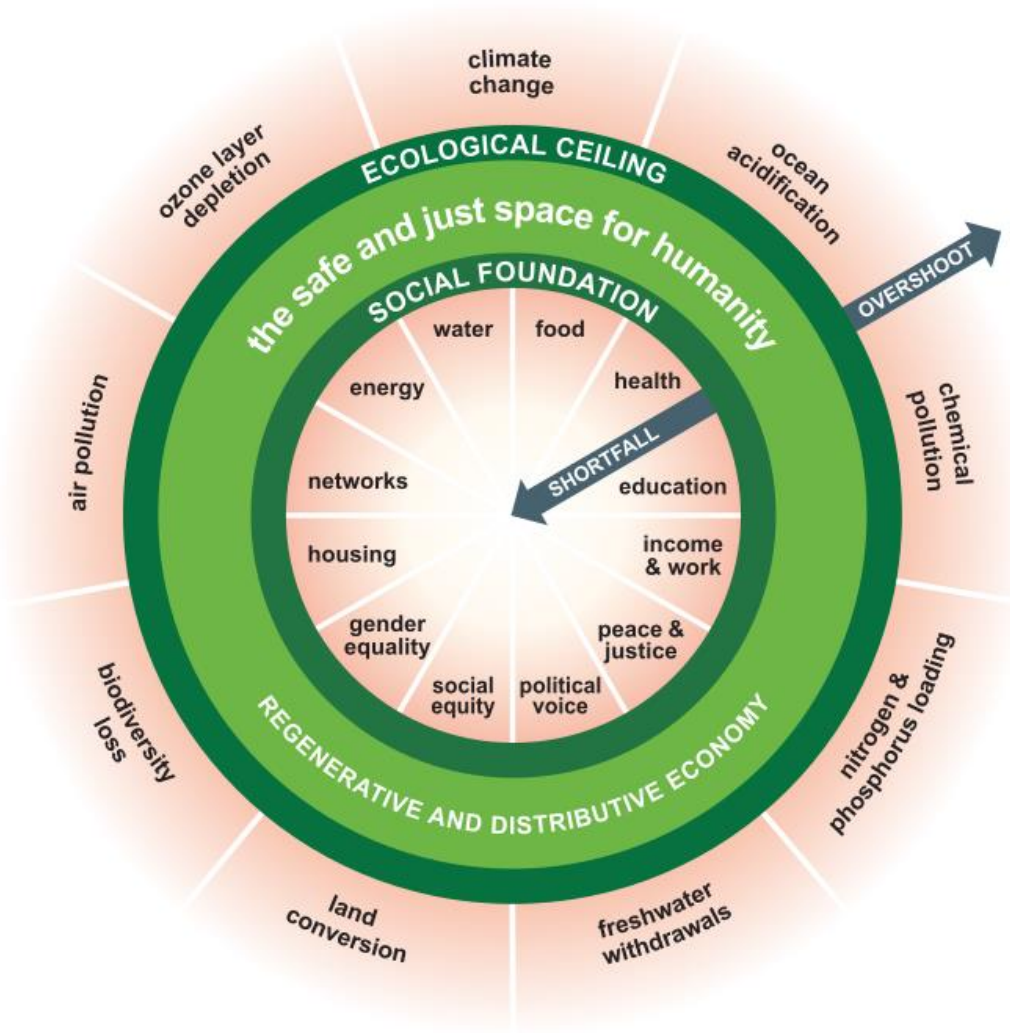
- Circular economy principles in manufacturing and resource use
- Community-based renewable energy generation
- Climate crisis mitigated
- Climate justice to ensure the burden of adaptation and mitigation is shouldered by those most responsible

Doughnut Economics is also a well established paradigm. First published in 2012 in an Oxfam report by Kate Raworth, the concept rapidly gained traction internationally, from the UN General Assembly to the Occupy movement (see Kate's 2017 book, *Doughnut Economics: seven ways to think like a 21st century economist).*

*"*The Doughnut consists of two concentric rings: a social foundation, to ensure that no one is left falling short on life's essentials, and an ecological ceiling, to ensure that humanity does not collectively overshoot the planetary boundaries [Stockholm Resilience Centre] that protect Earth's life-supporting systems. Between these two sets of boundaries lies a doughnut-shaped

space that is both ecologically safe and socially just: a space in which humanity can thrive." (Doughnut Economics Action Lab)

"The starting point of Doughnut Economics is to change the goal from endless GDP growth to thriving in the Doughnut. At the same time, begin economic analysis by seeing the big picture and recognising that the economy is embedded within, and dependent upon, society and the living world. Doughnut Economics recognises that human behaviour can be nurtured to be cooperative and caring, just as it can be competitive and individualistic. It also recognises that economies, societies, and the rest of the living world, are complex, interdependent systems that are best understood through the lens of systems thinking. And it calls for turning today's degenerative economies into regenerative ones, and divisive economies into far more distributive ones. Lastly, Doughnut Economics recognises that growth is a healthy phase of life but nothing grows forever and things that succeed do so by growing until it is time to grow up and thrive instead."



In April 2020 Amsterdam became the first city in the world to formally adopt the doughnut economy model as the starting point for public policy decisions. This is how it was reported in the British newspaper, *The Guardian* (8Apr20):

> **Amsterdam to embrace 'doughnut' model to mend post-coronavirus economy**
>
> *A doughnut cooked up in Oxford will guide Amsterdam out of the economic mess left by the coronavirus pandemic.*
>
> *While straining to keep citizens safe in the Dutch capital, municipality officials and the British economist Kate Raworth from Oxford University's Environmental Change Institute have also been plotting how the city will rebuild in a post-Covid-19 world.*
>
> *The conclusion? Out with the global attachment to economic growth and laws of supply and demand, and in with the so-called doughnut model devised by Raworth as a guide to what it means for countries, cities and people to thrive in balance with the planet.*