



Rialtas na hÉireann
Government of Ireland

National Risk Assessment

Draft List of Strategic Risks 2023

National Risk Assessment

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This document outlines the proposed risks for consideration for inclusion in the National Risk Assessment 2023: Overview of Strategic Risks.

Building on previous iterations of the National Risk Assessment, and inputs from Government Departments and agencies, the proposed risks listed in this document, 25 in total, will be subject to consultation with stakeholders, and further consideration, before the National Risk Assessment 2023 is finalised.

For this consultation, stakeholders will be asked to assess whether the risks identified accurately represent the major risks facing the country, whether there are any significant risks that should be added, or whether any of the proposed risks do not warrant inclusion.

What is the National Risk Assessment?

The purpose of the National Risk Assessment is to identify and discuss significant risks that may arise for Ireland over the short, medium and long term. Since its inception in 2014, the National Risk Assessment has provided a systematic overview of national-level risks and drawn attention, at an early stage, to the importance of phenomena such as the UK's departure from the EU (Brexit), the housing challenge, and pandemics.

The National Risk Assessment process is particularly focused on strategic or structural risks. These risks can occur over different time horizons and have very different impacts in terms of immediacy, reach and costs. They can also be within varying degrees of national control. What is common is they present potentially significant risks to Ireland, our society and our economy. In this way, the National Risk Assessment contributes to the identification of such risks with a view to informing policy and debate.

The National Risk Assessment process is intended to ensure an open and wide-ranging consideration of the risks that Ireland may face, avoid the potential for 'group think', and to welcome and enable consultation and inputs from across a wide range of stakeholders.

The National Risk Assessment is not intended to replace the detailed risk management and preparedness work carried out by individual Government Departments and agencies.

It is important to stress that major strategic risks which pose a threat to Ireland are dealt with in a host of ways by different public and private organisations, as well as in some cases at EU or international level.

In this context, some examples of the specific risk management measures conducted by Departments and agencies are provided in Box 1 below.

As part of Civil Service Renewal 2030, a ten-year strategy for the Civil Service, the Government will further develop strategic foresight capability. Strategic foresight is the ability to constantly perceive, make sense of and act upon different ideas of the future emerging in the present.

Box 1: Risk identification and management by Departments and agencies

Detailed risk management carried out includes the extensive work of the Department of Finance, the Central Bank of Ireland and the Irish Fiscal Advisory Council in relation to financial and macro-prudential risks.

The work of the Government Task Force on Emergency Planning, supported by the Office of Emergency Planning, which produces a separate National Risk Assessment centered on risks relating to potential civil emergencies at national level. This is conducted in the context of the Strategic Emergency Management National Structures and Framework and Ireland's reporting commitments under the EU Civil Protection Mechanism.

All Departments and agencies carry out their own risk assessment processes as part of their own strategic planning and management responsibilities.

This National Risk Assessment compliments these efforts by providing a high-level overview of strategic risks and facilitates public and stakeholder engagement about them.

Categorising risks

Risks by their nature are not confined to neat or simple categories. However, to ensure a comprehensive approach to identifying and documenting risk, it is helpful to provide a structure for the National Risk Assessment process. As in previous years, the categories of risk for the National Risk Assessment 2023 will be based on the approach used by the World Economic Forum in their 'Global Risks Report'; these categories are Geopolitical, Economic, Societal, Environmental and Technological.

The proposed list of 25 strategic risks for Ireland for 2023 is outlined in Table 1 below, arranged under each of these five categories. The section which follows provides an overview of each of the proposed strategic risks, as a basis for consultation prior to finalization of the National Risk Assessment 2023.

The order in which the categories and risks are presented, or the level of detail provided for a risk, does not imply any rank order or assessment regarding the relative scale or importance of the risks.

It is important to emphasise the cross cutting and integrated nature of risks - whereby developments in one risk category may impact on others. It is also important to consider policy responses in this regard. For example, the impact of the war in Ukraine on inflationary pressures and the economic outlook, and also on social cohesion and integration; the impact of disruption to energy markets in Europe as compounding the challenge of ensuring security of supply while also decarbonising the energy system; or that the raising of interest rates to combat inflation reduces investment, compounding efforts to increase house building. The overlapping and compounding nature of the proposed risks identified through the National Risk Assessment process is underlined throughout this document.

Sources of many of the most extreme risks identified are not domestic in nature or are outside exclusive national control. As such, the identification and management of them must, in part, be conducted through international alliances and processes. Ireland's membership of the EU, multilateral organisations and wider international relations are important in this regard.

Proposed Strategic Risks for the National Risk Assessment 2023

Central to the National Risk Assessment process is the need to safeguard against ‘group think’ in identifying strategic risks to the country. For the process to be robust and comprehensive, it is important that a wide range of views, including dissenting and minority ones, feed into the National Risk Assessment.

In this context, the proposed list outlined below is now subject to a public consultation process to assess whether the risks identified accurately represent the major risks facing the country, whether there are any significant risks that should be added, or whether any of the proposed risks do not warrant inclusion.

The lists of proposed strategic risks for 2023 (as detailed in Table 1) has been prepared following initial engagement with Government Departments and other relevant public bodies. These risks will be further developed iteratively through the consultation process in 2023.

Table 1: Proposed Strategic Risks – 2023

Geopolitical risks	<ul style="list-style-type: none"> Disruption of multilateral system Future direction of the European Union Ireland’s relationship, post-Brexit, with the United Kingdom and Northern Ireland Armed conflict, terrorism and hybrid threats
Economic risks	<ul style="list-style-type: none"> Inflation Disruption to a secure and sustainable energy supply Ireland’s enterprise mix Changes to international trading relationships Public finances and the financial system Supply chain and capacity constraints
Societal risks	<ul style="list-style-type: none"> Social cohesion Housing and sustainable development Migration and integration Demographic change Digital exclusion
Environmental risks	<ul style="list-style-type: none"> Climate change Biodiversity loss Extreme weather events and other natural disasters Pandemics Antimicrobial resistance Food safety and Security
Technological risks	<ul style="list-style-type: none"> Data flows, storage and security Disruptive technology Cybersecurity Chemical, Biological, Radiological and Nuclear Threats

Overview of Proposed Strategic Risks

Geopolitical risks

The nature of geopolitical risks facing Ireland remains broadly the same as those identified in the National Risk Assessment 2021/22. However, the significance of these risks has grown as the geopolitical situation has deteriorated, driven by the Russian invasion of Ukraine and the growing rivalry between the US and China.

The war in Ukraine has profoundly altered the security and defence environment in Europe. Over 7.8 million refugees have been forced to leave Ukraine and are being accommodated across Europe, with the expectation that more will be forced to flee as long as the war continues. The war has also brought huge disruption to international energy and food markets.

Along with increased focus on security and defence policies among many European countries, the war has also motivated previously neutral countries, such as Sweden and Finland, to seek membership of NATO.

The changing geopolitical order, demonstrated by growing multipolarity, the potential for the breakdown in multilateral approaches to addressing global challenges, and increased trade tensions between trading blocks, has also corresponded, in some cases, with a more assertive nationalism. The pandemic, and more recently the energy crisis, have also highlighted Ireland's dependence on access to global supply chains.

Ireland's relationship, post-Brexit, with the United Kingdom is dealt with in this section. Brexit has introduced a destabilising element into the politics, economy and social cohesion of Northern Ireland and so instability in the region remains a risk. There is also the impact of Brexit on Ireland's trade with the UK and relations between the UK and Ireland, and how this may evolve in the future.

1. *Disruption of multilateral system*

The multilateral, rules-based system that underpins international co-operation and trade is being challenged by the rise of multiple competing geopolitical blocs. More recently this has been intensified by changes and developments related to the COVID-19 pandemic and in the international political and security environment in 2022.

The Russian invasion of Ukraine has brought about changes to the European security architecture, including the expansion of NATO. There is a risk that the war could be prolonged or could spread, causing further serious impacts. Meanwhile, the rivalry between the US and China continues to dominate many areas of international relations, including climate change, technology and trade. There is also the prospect of heightened tensions in Asia, including in relation to Taiwan.

International competition with regards to regulatory authority and international rules risk undermining multilateralism and existing international institutions, arrangements which have benefited a small country such as Ireland. Increased competition for Critical Raw Materials, in particular those necessary to support the green and digital transitions, can be anticipated.

2. *Future direction of the European Union*

Ireland's political and economic strategic interests are intrinsically linked to the EU, and it gives the country a reach and an influence that it would not otherwise enjoy. The legacy of the pandemic and the Russian invasion of Ukraine have placed a renewed focus on institutional arrangements and the balance between national and European level competencies, while also placing a renewed emphasis on enlargement in respect of the Western Balkans and European neighbourhood. Furthermore, it has brought a new urgency on EU security and defence issues. There is also a risk that the current conflict could spread, impacting on individual EU Member States.

The pandemic and war have also added more emphasis on ensuring open strategic autonomy to secure Europe's competitiveness, economic capacity, and global leadership in the future and to strengthen its resilience to disruption caused by global events. Ireland will need to continue to effectively influence these developments so as to manage any risks to our national interests.

While the European Union has responded well to recent crises, divisions between members, including in relation to the rule of law and democracy, migration, the green transition, relations with external countries, and economic policy, could serve to undermine the Union's effectiveness in the future. Such divisions could pose a risk to the ability of the EU to cohere and set strategic policy that will represent and benefit all Member States.

3. *Ireland's relationship, post-Brexit, with the United Kingdom and Northern Ireland*

The UK's departure from the EU has introduced profound shifts in the relationship between Ireland and the United Kingdom. Brexit introduced a destabilising element into the politics of Northern Ireland at a time when the political parties were finding it difficult to reach consensus.

The Northern Ireland Protocol formed part of the framework for the future relationship between the EU and the UK, but ongoing issues remain around implementation of the Protocol. A failure to come to an agreed and sustainable outcome poses a broad risk to relations on the island of Ireland and between Ireland and the United Kingdom.

Post-Brexit, the UK has the capacity to set its own standards in a range of areas such as manufactured goods, agri-food, services, transport networks, the recognition of professional qualifications, and energy markets. This may lead to regulatory divergence from the EU, posing competition and supply chain challenges for Ireland over time, and potentially leading to barriers to the movement of labour and skills.

The continuing absence of a functioning Assembly and Executive in Northern Ireland remains a matter of concern. The North South Ministerial Council has been unable to meet since November 2021 and only the East-West Strand Three Institutions, the British-Irish Council and the British-Irish Inter-Governmental Conference have met. It is a priority to support the political parties in Northern Ireland to form an Executive, so that the institutions of the Good Friday Agreement can resume their important work at a time of significant political challenges.

4. Armed conflict, terrorism and hybrid threats

The risks arising from terrorist incidents and armed conflicts, as highlighted in previous assessments, have become more pressing with the Russian invasion of Ukraine in February 2022.

The prospects for armed conflict, within and between countries, is an ever-present risk. The Russian invasion of Ukraine has already had significant repercussions for Ireland and the EU.

Concerns about threats to strategic infrastructure, cybersecurity and maritime security, including the risk to telecommunications and energy transmission infrastructure from acts of sabotage, have become more pressing. The presence of significant ICT infrastructure in Ireland, including data centres and undersea communication cables, means Ireland could be a target for threats from both State and non-State actors.

Ireland's vulnerability to cyber-attacks was starkly demonstrated by the attack on the HSE. The emergence of hybrid attacks, utilising a mix of cyber and other methods, has expanded the potential vectors of attack. For example, commercially available technologies such as drones can be used in conjunction with a cyber-attack to disrupt air traffic and shutdown airport operations. Foreign information manipulation and interference also poses a risk to the security of the state.

On the island of Ireland, the Good Friday Agreement has delivered a stable peace process that commands overwhelming cross community support. Nonetheless, certain groups, albeit with very limited levels of support in their own communities, remain intent on disrupting the significant progress which has been achieved. The political disruption caused by Brexit could play a role here.

Economic risks

Following the full easing of pandemic-related restrictions earlier this year, economic activity rebounded strongly with little, if any, evidence of permanent 'scarring' to the economy. However, the invasion of Ukraine and Russia's weaponisation of energy supply has triggered a large energy price shock and undermined global economic prospects.

The significant and persistent increase in inflation, both in Ireland and across our main trading partners, arising from the energy crisis and pandemic related supply chain disruptions, represents a substantial and immediate economic risk to our economy.

The recent job losses in the tech sector in Autumn 2022 re-affirms the concerns regarding the relative concentration of FDI in a small number of high value sectors and markets. The concentration of Ireland's exports in a small number of sectors, dominated by multinational enterprises, leaves us vulnerable to broader global shifts, as well as company/sector specific shocks and decisions.

Concerns about energy security have come to the fore since the Russian invasion of Ukraine. Ireland's geographic position renders us particularly vulnerable to disruptions to supply or price developments with significant economic, social and competitiveness impacts.

These developments taken together highlight the risk of a material deterioration in Ireland's economic performance in the coming years. The nature of any downturn would be largely determined by developments in the global economy. However, legacy infrastructural deficits, especially in energy, transport and housing, have the potential to act as a drag on any recovery.

5. Inflation

Inflation has picked up sharply in 2022, as of October the annual rate of HICP inflation was 9.4 per cent. This trend is being seen across most advanced economies, with euro area inflation reaching a record 10.6 per cent in October. Inflationary pressures have also become increasingly broad-based, with higher energy, transportation, food and other costs being passed through onto prices. The current inflationary pressures are disproportionately impacting the lower paid, those on fixed incomes, and other vulnerable sections of society, including older rural households.

Inflation risks detrimentally impacting on critical areas of the economy. For example, the rise in the cost of building materials can hamper efforts to address Ireland's housing challenges or act as a constraint on the delivery of critical infrastructure. Similarly, the rising cost of Critical Raw Materials, such as rare earth metals, risks slowing the green and digital transitions.

The Department of Finance expects inflation to continue to remain elevated over the coming months driven primarily by energy prices, with a very gradual easing of the inflation rate anticipated over the course of 2023. However, continued volatility in wholesale energy markets poses a risk to the inflation outlook. Domestically, there is the risk of a wage-price spiral emerging as the economy approaches full employment and prices remain elevated. This would damage our cost competitiveness and hamper the economy's ability to compete in the global market.

In response to rising inflation, central banks in most advanced economies have begun tightening monetary policy. Should inflation prove more persistent than anticipated, there may be further or more rapid tightening of monetary policy. These inflationary pressures and the wider global economic slowdown are expected to have a strong moderating effect on the Irish economy. Should conditions deteriorate further, a moderation in growth may turn into a recession. The depth and duration of a potential recession in Ireland would in large part depend on how quickly the international trading environment recovers.

Over the medium term, elevated public debt levels and rising interest rates, would reduce the fiscal scope to stimulate growth. There is a risk we may encounter more persistent stagflationary conditions. Elevated public debt levels also reduce our capacity to respond to adverse shocks. Such conditions, taken alongside the challenges of the climate and digital transitions, would require more focused policy making, including challenging reforms, in a significantly more constrained resource environment with associated challenging trade-offs.

6. Disruption to a secure and sustainable energy supply

Due to our geographic location and our current high reliance on imports to meet the majority of our energy needs, Ireland is highly vulnerable to the impact of disruptions in the supply of energy. In addition, there are increasing energy demands from a growing population and economy with overall demand for electricity expected to increase 37 per cent by 2031.¹ As part of measures to meet our climate change obligations, Ireland is also working to electrify parts of the transport and heat sectors, which will further increase reliance on the electricity network.

¹ All-Island Generation Capacity Statement, 2022-2031, 2022, EirGrid Group

The majority of natural gas currently consumed in Ireland is imported from a single source in Scotland. By 2030, with the continued reduction in production from the Corrib Gas Field, Ireland's dependence on natural gas imports via this source is expected to increase to over 90 per cent. Notwithstanding the increased use of renewables and energy efficiencies to be achieved over this time, this reliance on a single source and its associated infrastructure creates a significant risk for security of supply.

Risks in relation to secure and sustainable energy supplies have been exacerbated by the war in Ukraine and sanctions on Russian supply which has caused a considerable price shock to global energy markets. A lack of storage capacity means Ireland is particularly exposed to risks with regards to gas supply disruption. In addition, a combination of deteriorating performance of the stock of existing thermal electricity generating power plants, the recent problems of delivery of planned thermal generation capacity through auction processes and unanticipated planning and technical difficulties, as well as the unpredictability of wind energy generation, has left the outlook for Ireland's electricity supply in a challenging state.

7. Ireland's enterprise mix

It is well established that Ireland's base of more than 1,600 multinationals plays a major and positive role in the economy. This is enabled by Ireland's competitive strengths; attractiveness as a location of choice for mobile investment, a skilled workforce and the continued ability to adapt to new technologies and emerging business models. However, it does give rise to a number of well-acknowledged risks and issues.

A recent OECD report, outlined that the lack of diversification among Ireland's FDI base, in terms of sector, geography and region, could expose the economy to risks related to macroeconomic trends in trade and investment and to policy changes in partner countries.² The concentration of more than half of Ireland's corporation tax (CT) revenues among ten large foreign-owned MNCs means that if even one of these companies finds itself in difficulty, there will be a tangible impact on the Irish economy.

In late 2022, several high profile foreign multinational enterprises in the ICT sector resident in Ireland announced redundancies. While this may raise some opportunities with regards to reallocation within the labour market, providing other sectors with access to talent, it represents a negative shock amongst the most productive and innovative parts of the Irish economy.

As well as having a direct impact on Ireland's public finances through reduced CT and income tax returns, and on the labour market through possibility of increases to unemployment, there is the potential for knock-on implications for the domestic economy, especially amongst businesses servicing the FDI sector. Furthermore, a darkening global outlook may also precipitate a more severe shock to these sectors.

² OECD, FDI Qualities Assessment of Ireland, 2022

8. Changes to international trading relationships

The disruptions caused to global trade, first by the pandemic and now by the Russian invasion of Ukraine and ongoing tensions between the US and China could result in more permanent shifts away from current patterns of trade and globalisation, intensifying previous trade tensions and trends, with adverse implications for a small, open economy such as Ireland.

It is likely that protectionist tendencies driven by the recent shift towards strategic autonomy and near-/on-shoring, with a greater emphasis on economic self-sufficiency and less reliance on extended global supply chains, will persist at least in the short term. It will be important for Ireland, the EU and international institutions to maintain efforts to preserve and promote balanced international trade.

As a small, trading economy Ireland depends on and has prospered from free trade supported by an international rules-based system. Increased protectionism, the rise of a multipolar world, and the instrumentalization of trade represent a significant risk to Ireland's economic model.

The EU-UK Trade and Cooperation Agreement (TCA) provides for tariff-free, quota-free EU-UK trade. The full introduction of import controls by the UK remains outstanding however. The UK is set to introduce further import controls on EU imports to Great Britain in 2023. These new controls are expected to impact on exporters of goods from Ireland to Great Britain, particularly exporters of agri-food goods.

9. Public finances and the financial system

Ireland has a public debt burden that, on a per capita basis, is among the highest in the developed world. After a prolonged period of record low interest rates, borrowing costs are now rising, increasing debt servicing costs and placing pressure on the public finances for many economies. Due to the relatively long maturity profile of Ireland's debt, the state is unlikely to face substantially higher debt service costs before the latter part of the decade.

The change in the monetary policy environment comes during an unprecedented period for the public finances. The Government has intervened on a significant scale over the last three years to insulate households and businesses from both the impact of the pandemic and now from the cost-of-living challenge. The fiscal intervention during the pandemic laid the groundwork for a robust and broadly-based economic recovery, which has been reflected in the public finances, particularly through strong growth in income tax and VAT receipts.

However, the public finances are increasingly reliant on corporate tax receipts, which this year are expected to account for around €1 in every €4 in tax revenue collected. Estimates by the Department of Finance indicate that between €4-6 billion of corporate tax receipts in 2021 could be 'windfall' in nature. In response to this vulnerability, the Government transferred €2 billion to the National Reserve Fund this year and has committed to transferring an additional €4 billion next year. Dependent on the trend growth for the economy, the Medium-Term Expenditure Strategy may need to be adjusted with the risk of a curtailment in present levels of public expenditure.

Vulnerabilities in global financial markets have grown more pressing amid a deteriorating global economy and high levels of sovereign and corporate indebtedness. As international financial conditions have become less accommodative this year, sovereign debt yields have risen and global

stock markets have contracted. This has heightened concerns about risk-taking and over-leveraging in financial markets, including in the non-bank financial sector.

Ireland is host to one of the largest non-bank financial sectors in the EU. While direct linkages between the non-bank and local sectors are limited, contained to a large presence in commercial real estate investment, and a small but recently growing share of new lending to mortgage and real estate SME lending markets, broader reputational risks may relate to the spillovers from the large funds domiciled in Ireland to foreign markets.

Recent developments in the UK and China suggest that at least some asset markets are already at risk. Eurozone challenges may also re-emerge in the context of a weaker economic outlook for the bloc.

10. Supply chain and capacity constraints

Supply chain disruptions during the pandemic, and more recently as a result of the war in Ukraine, and continuing COVID-19 policies in China, remain a factor constraining production and contributing to inflationary pressures. Supply chains have the capacity to repair themselves as new sources of supply are identified, however disruption can persist until new relationships are forged. Uncertain demand is also becoming a feature, which has the potential to exacerbate supply disruptions.

Recently, signs of easing in supply chain bottlenecks have emerged in some sectors, although the persistence of these issues remain a source of risk for Ireland, as well as for the global economy. Over the course of 2022, inflationary pressures have become increasingly broad-based, with higher energy, transportation, food and other costs being passed through into prices.

Higher prices, if persistent, risk dampening economic activity through demand and investment channels. Of particular concern are higher prices for construction materials acting as a constraint on the delivery of housing and critical infrastructures. This also highlights the importance of the carrying capacity of the State and economy. There is a risk to our future economic prospects should these constraints impinge on our relative competitiveness and attractiveness as a location to invest, start, and grow a business. The insufficient availability of labour and skills, or inflexibility in the labour market, may also impact on our ability to deliver key priorities.

Compounding the challenge of costs, is the challenge for Ireland to manage and deliver large infrastructure projects effectively. Risks created by a lack of certainty regarding processes and timelines in relation to the planning and the judicial system, and the extent of legal involvement in planning processes, can lead to longer timelines, greater uncertainty and relatedly an upward pressure on costs. This creates risks in terms of achieving value for money from exchequer spending, delivery of key infrastructure and housing, and for enterprise in terms of enhancing Ireland's competitiveness. A further issue arises where infrastructure, such as the energy grid and broadband, are not sufficiently developed to meet growing demand.

The deliverability of the States commitments, from climate change to energy to housing and beyond, is an important risk, particularly given that many such projects will draw upon the same pool of capital, skills and labour.

Societal risks

Social cohesion, intergenerational equality, and migration and integration, remain as societal risks in this year's assessment. Issues concerning the cohesion and inclusiveness of society identified in this section include cost-of-living challenges, trust in government and media, and the legacy effects of the pandemic on various social groups and age cohorts.

The rising cost of living has the potential to increase the level of poverty and deprivation among the population, particularly amongst already vulnerable cohorts. This presents a risk to social cohesion.

The supply and affordability of housing persists as a significant risk in the National Risk Assessment, with a range of economic, social and environmental implications.

Ireland's demographic profile is set to change significantly over the coming decades. This will result in increased expenditure demands for health, pensions and social care services, while at the same time see the dependency ratio rise.

Ireland has become a much more multi-ethnic society in slightly over a generation. More recently an increase in the number of migrants, including those seeking protection, with large numbers of people fleeing the war in Ukraine and availing of temporary protection, as well as growing numbers of international protection applicants, underlines the importance of supporting social cohesion and integration efforts.

Over the long term, large numbers of people around the world are expected to be displaced by climate change. This means regions which are less impacted by climate change or are more resilient, can expect to experience increased flows of migrants from areas where climate damage is more severe.

11. Social Cohesion

Ensuring adequate social cohesion, the objective of having an inclusive and equitable society, has been a priority of successive Governments. Such cohesion risks being undermined by a wide range of factors in the future, including any decline in economic prospects, intergenerational inequalities, and lower trust in government and media.

As was learned from previous economic shocks, there is a risk that younger and migrant cohorts are more likely to face ongoing negative impacts from economic and societal shocks. While the economic fallout or scarring of the COVID-19 pandemic has been limited, there remain risks to certain cohorts whose lives and opportunities have been disrupted by the pandemic.

Similarly, the pandemic continues to have a broader impact on the provision of public services, in particular in areas where backlogs have built up, which can both undermine trust in these services and lead to individuals being excluded or marginalised as their needs are not met. A failure of the state to meet expectations for public services and supports can lead to distrust in Government.

The impact of any prospective slow down, driven by rising energy costs or inflation, could undermine cohesion and intergenerational equity – for example the issues of lower average graduate earnings at times of economic contraction, the increased exposure to higher housing and rental costs, the delaying of life opportunities such as starting a family, or higher future

prospective taxation. Economic disruption can also be a contributory factor in the rise of the use of temporary contracts, casual work, and more limited entitlements and protections.

In addition, a further risk to social cohesion is the broad trend, present before the pandemic, of rising distrust in government and the media, a situation which may have been exacerbated by the pandemic and the Russian invasion of Ukraine.

Existential crises about the impacts of climate change and concern for the future as well as anti-establishment sentiment are further contributing to risks around the erosion of social cohesion and trust in institutions.

12. Housing and sustainable development

The shortage of adequate and affordable housing remains a risk. While those from vulnerable cohorts are particularly burdened by this risk, broad sections of society can be negatively impacted by imbalanced rental and housing markets. The situation is further complicated by the continued growth of Ireland's population with the associated struggle to provide sufficient levels of infrastructure.

Housing shortage and pricing issues are unlikely to rectify themselves over the short term with COVID-19 having impacted housing completions, recent construction material inflation, shortages in skilled labour, and the accumulation of large amounts of household savings from the pandemic, potentially having a further inflationary impact on prices.

In the rental market rents continue to rise with growing numbers of renters, this, compounded with housing market constraints, may result in a 'locked-out' generation. Rental availability is also impacting homelessness, rough sleeping, and those in emergency accommodation.

The housing challenge risks increasing social exclusion and impairing labour mobility. Furthermore, high levels of rent and a lack of access to affordable and high-quality housing impacts Ireland's overall competitiveness and attractiveness as a place to live and work. A lack of affordable housing may impact on the availability of labour and skills to support Ireland's economy and society, including in relation to the provision of public services.

The additional short- and medium-term housing demand associated with the Ukrainian refugee crisis and international protection applicants may exacerbate the existing challenge.

13. Migration and integration

Globally, ongoing challenges regarding development and equity are being exacerbated by climate change, civil and cross border conflict, and the fallout from the pandemic, all of which in turn are influencing patterns of migration.

In terms of internal integration risks, Ireland has become a much more multi-ethnic society in slightly over a generation; a transformation reflected in both urban and rural communities. Accordingly, this brings with it a requirement to be cognisant to the changes in society, for example the potential for language to become a barrier in accessing Government communications and services or the labour market. Integration not only allows immigrants to contribute to the

economic, social, cultural and political life of their host country, but is also important for social cohesion and inclusive growth.

The increase in the immigrant population in Ireland has occurred in a short time frame and with relatively limited upheaval compared to other countries. However, Ireland should not be complacent, given the significant potential for social tensions to be exploited by extremist groups. Most recently we have seen a marked rise in migration to Ireland, most notably from those fleeing the devastating war in Ukraine and who have been granted temporary protection in Ireland. Failing to maintain an ongoing level of social cohesion, including for second and third generation migrant communities as they emerge, represents a significant risk.

14. Demographic change

Ireland's demographic profile is set to change significantly over the coming decades. The population aged 65 and over is projected to grow at a higher rate than the working age population (aged 20 to 64), with significant consequences for the funding, sustainability and adequacy of the pensions system, provision of social and healthcare services and the public finances overall. There is a risk of intergenerational inequality in this regard, as the burden of funding this demographic change falls upon younger generations.

At present there are currently around 4 persons of working age to support each person aged 65 and over. This number is expected to fall to just over 2 by 2050. The Department of Finance estimated that age related expenditure is set to be €17 billion higher, in 2050, in today's terms, than in 2019 (€22 billion by 2070).

The moderating pace of population growth also presents a challenge as additional labour supply becomes scarcer, with labour productivity likely to become the main source of improved living standards. In light of this, it remains important to mitigate the risk of lower participation in the labour market by supporting those of working age who are outside of the labour market, particularly those who are discouraged or have faced disadvantages, in finding work.

15. Digital exclusion

The digital transition has been further accelerated by the COVID-19 pandemic, with many public and private services now being increasingly offered online. As we continue the transition to a more digitalised economy and society, it is a risk that significant parts of the population do not obtain and maintain a level of digital literacy. This is of particular importance in context of the demographic change, with a growing older population over time, as older people have been historically less likely to engage with the online world and are more vulnerable to mis/dis-information and cybercrime.

A lack of digital literacy within the population has the potential to isolate citizens from both society and the economy, and to undermine social cohesion.

Environmental risks

As in previous National Risk Assessments, the risks outlined in this section are amongst the most diverse and complex.

Climate change and biodiversity loss represent the biggest challenges facing the world. Like many of the risks covered by the National Risk Assessment, the integrated nature of these risks makes them challenging to quantify. However, it is well understood that the costs of inaction far exceed those of the necessary remedial action, in terms of risks to human health, economic development, preservation of infrastructure and ecosystems, as well as risks to food, water and energy security and population displacement/mass migration.

The most recent IPCC report indicates that these interlocking risks are even more significant than previously thought and demand a stronger global response and within a shorter timeframe.³

Additionally, and directly related to the climate change risk, natural disasters and extreme weather events remain a risk to Ireland. This may take the form of storms, flooding, coastal inundation and erosion, extreme temperatures and prolonged periods of drought. In addition, Irish biodiversity is highly vulnerable to the impacts of climate change and has a low adaptive capacity compared to other vulnerable sectors.

The COVID-19 pandemic has shown the profound impacts a pandemic can have both globally and locally. The next pandemic cannot be predicted with any certainty. However, the lessons learned from battling COVID-19 will contribute to managing it when it occurs.

Antimicrobial resistance is an increasing concern globally, with the extensive use, misuse, and overuse of antimicrobials in human health, animal health, agriculture and the environment, resulting in increased levels of resistance in a wide range of pathogens, in all countries and impacting patients of all age groups. In addition, risks around to food supply and food safety continue to be relevant, as in previous years.

16. Climate change

Climate change is happening at an accelerating and alarming rate, increasing the urgency for countries, including Ireland, to step up efforts to mitigate greenhouse gas emissions across all sectors of the economy. Inaction or insufficient progress, as well as being damaging to the international reputation and credibility of Ireland, risks severely worsening the impacts of climate change on our way of life.

Changes in Ireland's climate are in line with global trends, and extreme weather events domestically in recent years have demonstrated the potential far-reaching risks to Irish society and the economy.

Ireland will face increased risks from rising sea levels and coastal change. Ireland will also face an increased likelihood and magnitude of river and coastal flooding. Average temperatures will continue to increase (0.968C to date). Drier summers could lead to more frequent droughts and adverse impacts to water quality in summer, particularly in the eastern half of the country.

³ IPCC, Climate Change 2022: Mitigation of Climate Change

Climate change will also bring increased risks from new pests and diseases, as well as potential negative impacts on our native species and habitats.

Some communities will be more directly and severely impacted by climate change than others, exacerbating issues around social cohesion and economic equity. There is the risk that severe and repeated impacts could cause displacement of local populations.

Failure to rapidly move to a carbon-neutral economic model will have far reaching negative impacts on the economy and the public finances, it will undermine the long-term, sustainable competitiveness of the economy, and it will lock Ireland into an increasingly redundant fossil-fuel based economic model. Failure to meet obligations and targets on emissions, energy usage, and renewable energy, set both by the EU and in national legislation, is a risk.

17. Biodiversity loss

Irish biodiversity is a unique and priceless natural resource which is a fundamental part of what makes Ireland an attractive place to live. It also plays a vital role in supporting our rural economy. However, it is highly vulnerable to the impacts of climate change, and it has a low adaptive capacity compared to other vulnerable sectors.

Risks to our biodiversity include loss of habitats and consequent pollinator decline. The Irish economy has a large agri-food sector, which while contributing to pollinator decline, also produces food crop types that rely on animal pollination, which highlights the importance of ensuring our economic interests are aligned with protecting and preserving Ireland's biodiversity

Biodiversity loss may result in economic loss due to reduced crop yields and fish catches and increased susceptibility to flooding and disease, all of which have the potential to severely impact on people's quality of lives. Biodiversity loss may be exacerbated by climate change, with climate change itself impacting upon existing land use patterns.

18. Extreme weather events and other natural disasters

In recent years there has been an increase in the number of severe weather events in Ireland, particularly those leading to flooding, coastal inundation and erosion, severe temperature events and longer periods of drought.

These events have major impacts on the local environment and economy, and in particular on the people living and working in the affected areas. In this regard it is notable that much critical infrastructure, such as power stations, wastewater treatment plants, and rail infrastructure can be found along our coastline. Coastal erosion, which can impact upon infrastructure and human settlement, will accelerate in the coming years. Very significant investment, with associated delivery risks, will be necessary for climate change adaptation to secure communities and infrastructure. Trade-offs and choices will also be required.

Disruptions to the availability of critical infrastructure such as clean water and energy as well as inhibited access to the transport and telecommunications networks due to the occurrence of extreme weather events remains a considerable risk, and substantive planning and emergency frameworks will be required to ensure their continued operation.

19. Pandemics

The experience of COVID-19 has shown that in addition to the potential for a pandemic to cause death and illness on a significant scale and increase morbidity and mortality, pathogens with pandemic potential can result in severe disruption to social and economic activity.

New and emerging pathogens (and new emerging variants of existing pathogens) can spread rapidly across the globe due to the speed and reach of human mobility and travel, increasing volumes of trade and tourism, and climate-associated changes in the geographic distributions of disease vectors such as mosquitos.

The experience and lessons learned from COVID-19 will need to inform, enhance and strengthen future emergency preparedness and mitigation plans for any future pandemic. Surveillance of infection and disease, appropriate immunization of the population and advance preparedness planning will be critical to help mitigate the impact of any future pandemic.

20. Antimicrobial Resistance

Antimicrobials are treatments such as antibiotics used to prevent and treat infectious diseases in humans, animals, plants and crops. Increasing levels of antimicrobial resistance (AMR) in micro-organisms that cause infection and disease is making some of the most common infections more difficult to treat. This increases risks to individual human health and patient care, in particular in longer-term community healthcare.

The global growth in AMR is being driven by a range of factors including overuse and misuse of antimicrobials, lack of access to adequate sanitation, as well as poor infection and disease prevention and control practices in the prevention and control of infection in both health-care facilities and on farms.

The risks presented by AMR is compounded by there being relatively few new antimicrobials coming to market, limitations on diagnostic tools, along with the lack of alternatives to antimicrobials for the treatment and control of infectious diseases.

21. Food Safety and Food Security

Food safety is essential to public health. A food or drink incident, such as the emergence of a new pathogen, would have adverse consequences for national food supply, for the international trade of Irish food, and international movement of live animals. A secure supply of safe, nutritious and wholesome food is vital for human health and well-being. Incidents can occasionally occur along the food-chain that impact on food supply and/or food safety such as a major disease in food-producing animals or chemical or microbial contamination of food.

Ireland's food supply is highly internationalised and dependent on the continued smooth functioning of international trade flows. Nationally, food production is highly export dependent (Irish agri-food exports for 2021 were valued at €15.4 billion) and Ireland's strong reputation as a provider of high quality, safe and reliable food is centrally important to Ireland's offering. An adverse incident along the food-chain nationally could therefore lead to immediate exclusion from certain markets, and it could take considerable time to recover confidence and market share.

The agri-food sector is also highly reliant on imported goods such as fertiliser, feed and fossil fuels. Safeguarding the food supply chain and the health and welfare of food-producing animals across borders is of critical importance and failing to do so could pose a significant threat including to public health and food security.

Technological risks

COVID-19 accelerated the digital transformation across all areas of the economy and society. Societies are increasingly reliant on digital infrastructure, and resultant data flows, to maintain connectivity. Data is now an intrinsic part of how modern economies and societies function, meaning that the secure and reliable storage and transfer of data has become a critical necessity.

The risk of failures in cybersecurity can lead to disruption to critical infrastructure, data fraud, or theft. The necessity to address this risk rises as the extent to which society relies on digital technology increases. With Ireland positioning itself as a digital leader, with a growing adoption of online services, the impact of an attack or incident on the provision of services, and on the reputation of organisations is significant. Ireland is particularly vulnerable due to the presence of significant data centre infrastructure as well as critical undersea communication cables in our territorial waters.

Disruptive technology trends continue to advance. These advances create a range of opportunities; however, they also give rise to risks that need to be considered including the potential for automation to displace or reshape existing jobs and sectors.

In relation to chemical, biological, radiological and nuclear (CBRN) threats, while the probability for Ireland is low, the risks to public health and well-being, as well as negative economic impacts are clear, and awareness and planning are important in this regard.

22. Data flows, storage and security

One of the learnings from the COVID-19 pandemic is the increased importance of data for our economy and society. This is underpinned by the absolute necessity for secure and reliable digital infrastructure to facilitate data storage and data flows.

Hyper digital connectivity brings increased risk of cyberattacks and network outages and increased requirements around reliable and secure international transfers. Cross-border transfers of data have become an intrinsic part of how modern economies and societies function. The increased digitalisation of banking and finance further underlines the absolute criticality of secure data for our day to day lives.

International co-operation in relation to ensuring the secure and continued transfer of data, the storage of data in appropriate locations, and the security of these host sites, is integral to counteract the risks associated with increased reliance on digital infrastructure and hyper-connectivity.

The use of mis/disinformation via social media and other digital platforms has the potential to undermine the State, the integrity of elections, social cohesion, and the functioning of the economy.

A strong, coherent and stable digital regulatory framework is central to the digital economy. A failure to ensure a strong well-resourced network of regulators to effectively oversee and enforce new and forthcoming digital regulations is a risk.

23. Disruptive Technology

Advances in science and technology are driving and enabling significant changes in our society and economy. These advances create opportunities for increased productivity and growth, job creation, job specialisation, as well as the emergence of entirely new sectors.

However, the pace of technological change and advances gives rise to a range of risks. Automation has the potential to displace existing jobs and dramatically impact how these jobs are carried out, with sectors most likely to be impacted being agriculture, manufacturing, retail and construction, driven in part by the relatively high share of routine tasks involved. Additionally, and irrespective of the sector, the risk of automation is particularly concentrated in roles held by people with medium and lower levels of education, with potential to polarise the labour market.

While emerging technology has many opportunities for society and the economy, the influence of future automation and emerging technologies risks negatively impacting on social cohesion across society, by further exacerbating inequality divides across income groups. Technological advances also have implications for the security of data flows and cybersecurity.

The dependence of an increasing share of the economy and society on technology also raises concerns in regards Ireland's sovereignty and strategic autonomy. As much of the technology we use on a daily basis is dependent upon global supply chains, this creates risks that have to be managed, such as reliance on a single third-party supplier or the dominance of a supplier in a sector which increases the risk of systemic failures, or where suppliers may be subject to interference from a third country.

24. Cybersecurity

Cybersecurity, the protection of IT systems, data services and communication networks, is vitally important to the economy and society. The trend towards an increase in the use of digital and cloud technologies in both the public and private sectors has been underway for some time, however, COVID-19 has accelerated this trend, transforming much of how we live and work.

This reliance opens up various new and unpredictable threat vectors, and a wide range of significant risks for major national infrastructure including energy, transport, telecoms, health and financial systems. Breakdowns in cybersecurity have the potential to be very disruptive and expensive but also to undermine trust and confidence in our digital systems. The cyber threat landscape has changed significantly in a few short years, with COVID-19, the HSE cyberattack, the Russian invasion of Ukraine, and the risk of supply chain attacks highlighting new and unpredictable threat vectors. With Ireland positioning itself as a technological society, the impact of an attack or incident on the provision of services, and on the reputation of businesses and the public service is significant.

Increasingly the functioning of our society is predicated on the effective functioning of complicated, and increasingly digital, systems and networks – such as banking and finance systems, electricity and power grids, and complicated logistical systems – our reliance on these systems exposes us to the risk of intentional cyberattacks, but also to unintended system failures.

25. Chemical, Biological, Radiological and Nuclear Threats

Chemical, biological, radiological and nuclear (CBRN) threats can originate from accidental or deliberate release, taking into account global geopolitical tensions, as well as incidents by rogue actors. Such an event could have a major public health impact in addition to the innumerable associated societal and financial costs to these health effects – any event would also pose a significant logistical challenge.

The nature of these risks demands significant cross-border cooperation with European states and the UK in relation to the monitoring and sharing of data. Given the potentially devastating impacts of nuclear detonation or accidents in particular, continued international engagement regarding nuclear safety and security, nuclear disarmament and non-proliferation of nuclear weapons remains essential.

The war in Ukraine has resurrected concerns about the use or threat of use of nuclear weapons for the first time in decades. Any use of any nuclear weapon would have profound humanitarian, environmental, societal, financial and public health consequences not just in Ukraine but in the wider region. Moreover, such a development would represent an alarming escalation of the war and set a dangerous precedent in the conduct of warfare in the future.

Ireland is also host to a number of significant commercial manufacturing and research and innovation sites, which, as part of their processes, may rely on chemicals and other inputs which, could pose a threat to individuals or the environment, were there to be an uncontrolled release for any reason.

Next Steps

This document, outlining the proposed strategic risks for inclusion in Ireland's National Risk Assessment, has been prepared in consultation with Government Departments and agencies, building on previous National Risk Assessment exercises.

The 25 proposed strategic risks outlined are now subject to a comprehensive public consultation, where members of the public, representative groups, the private sector, and the Oireachtas will have the opportunity to comment on the proposed risks.

Stakeholders are asked to assess whether the risks identified accurately represent the major risks facing the country, whether there are any significant risks that should be added, or whether any of the proposed risks do not warrant inclusion.

Consultation inputs can be submitted to nra@taoiseach.gov.ie.

On conclusion of this consultation, the proposed risks will be reviewed and further considered by Government Departments and agencies, ahead of finalisation of the National Risk Assessment 2023, for approval by Government, and subsequent publication.



Rialtas na hÉireann
Government of Ireland