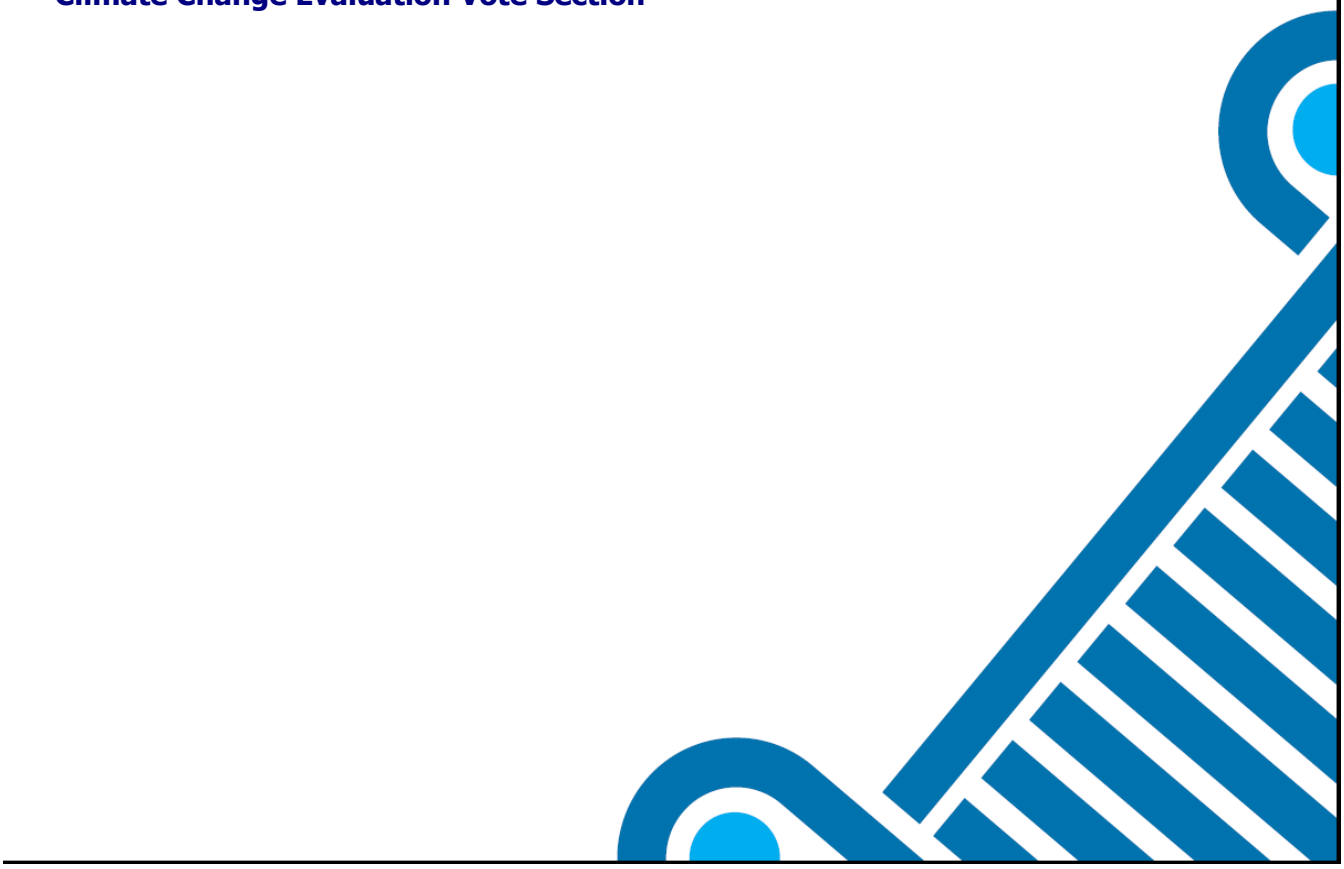
An Roinn Caiteachais Phoiblí
agus Athchóirithe
Department of Public
Expenditure and Reform

Future Expenditure Risks associated with Climate Change/Climate Finance

Climate Change Evaluation Vote Section



This paper outlines Exchequer risk areas flowing from:

(A) Ireland's legally binding EU commitments in the period to 2020 in regard to climate change mitigation measures e.g. emissions reductions to slow down the growth of global warming (the first significant Exchequer cost[1] would be incurred in 2021 and escalate thereafter). It also outlines Exchequer risks from not meeting Ireland's renewable targets (the first Exchequer costs could be incurred in 2021).

(B) potential costs of new emissions reduction commitments for the period 2021 to 2030 under the proposed new EU framework agreement for climate and energy which is currently under negotiation and due to be finalised between October 2014 and June 2015. In one possible scenario if the same distribution key applies as previously for country-level targets, there could be disruptive impacts on the public finances. The scale of adjustment would not be tenable in the context of constrained investment capacity and structural issues. Thus, there would be a growing gap between the annual targets and achievement in the non-emissions traded sectors of the economy (mainly agriculture, and transport) and the costs of purchasing units to meet compliance could spiral.

(C) the possible transformation of existing voluntary political commitments at UN level of international climate finance contributions (i.e. flows of finance from developed to developing countries to cover the additional costs associated with climate change adaptation and mitigation) into legally binding commitments. Climate Finance is mooted to be one of the key elements of an agreement which is scheduled to be reached at UN level in 2015. (It is envisaged that that agreement would come into force in 2020, but there could be pressure for legally binding climate finance commitments from developed countries to start at some point before 2020.)

[1] If emissions reduction measures are insufficient to achieve Ireland's non Emission Trading System (non-ETS) targets there would be costs in respect of purchasing compliance to meet Ireland's non-ETS Targets for the period to 2020

(D) The monies which will be required to adapt to climate change. Also the costs related to the damage associated with climate change.

Possible costs

The quantum of costs are expressed in a range as they are sensitive to underlying assumptions.

1. <u>The Exchequer risk issues if Ireland does not meet its 2020 targets, include:</u>

- Current Department of Environment Community and Local Government (D/ECLG) estimate is that the cost of purchasing compliance[2] with Ireland's current non-Emission Trading System (non-ETS[3]) targets for the period 2013-2020 could be c.€90m[4].

- There will also be a cost if Ireland does not attain its 2020 Renewable Energy Sources (RES) target. While the actual cost of not meeting the 2020 target cannot be known at this point, analysis carried out for the Department of Communications Energy and Natural Resources indicates that a shortfall in the range of 1% to 4% on the overall target could result in costs to the Exchequer of between €140m and €600m[5].

2. <u>Possible future commitment under 2030 Framework for Climate and Energy: Period 2021 to 2030</u>

- The EU Commission publication of January 2014[6] outlines proposals for (i) a 2030 Greenhouse Gas (GHG) emissions reduction target of 40% below 1990 levels for the EU as a whole with binding national targets yet to be determined, and (ii) a renewable energy target of at least 27% of energy consumption for EU as a whole, with flexibility for Member States to set national objectives.

- The period ahead involves critical negotiation and decision (at European Council in

[2] Purchasing compliance entails purchasing emissions units from other Member States that have a surplus of same or from projects which generated emissions reductions in the mechanisms as defined in the Kyoto Protocol
[3] The Emissions Trading Scheme (ETS) is a market based mechanism that covers a covers large (energy intensive) energy and power industry. The term 'non ETS' refers to sectors outside of the Emissions Trading Scheme such as Agriculture, Transport, Residential, and Waste. The non ETS sector accounts for approximately 70% of Ireland's greenhouse gas emissions profile.
[4] This is based on an assumption of a 'with existing measures scenario'. These costs could be incurred in the period 2021 to 2022.
[5] DCENR estimate June 2014
[6] http://ec.europa.eu/clima/policies/2030/index_en.htm

October) on an agreement on climate and energy for the period 2021 to 2030 – which will translate into further legally binding emission reduction commitments.

- Recent modelling work by the ESRI[7] and UCC[8] on behalf of D/ECLG suggests that potential costs of purchasing non-ETS GHG compliance for the Irish Exchequer for the 2020 to 2030 period could have a cumulative total in the billions in the absence of any further policy changes or policy/technological developments i.e. a business as usual scenario. A large degree of uncertainty remains regarding the assumptions being used and the actual target that Ireland may receive in the upcoming negotiations but there is cause for concern.

3. Commitments on climate finance:

- At the United Nations Framework Convention on Climate Change (UNFCCC) climate conference in Copenhagen (2009) and Cancun (2010), Ireland as part of the EU made a voluntary pledge to contribute to the EU's share of the developed countries goal to mobilise US$100bn per annum by 2020 to help developing countries deal adequately with climate change. The distribution of this figure between developed countries is not clear[9] but it is already acknowledged that the figure does not relate specifically to public finance – the commitment refers specifically to a variety of sources such as including direct public funds, private finance leveraged by public action and innovative sources. Ireland's current levels of climate finance from public sources – mainly from Irish Aid programmes - is c.€30m to c.€35m per annum. Ireland may have to scale up its climate finance to developing countries by 2020 from a variety of sources including direct public funds, private finance leveraged by public action and innovative sources etc by a multiple of that figure. It is not yet clear whether and how private finance, which is anticipated to make up a large share of the US$100bn, will be accounted for on a country by country basis.

- A legally binding global agreement on climate change is due to be agreed under the UNFCCC at its 21st Conference of the Parties in Paris at the end of 2015. While it will be essential that finance is addressed in the agreement, it is unlikely to impose quantified legally binding obligations on specific Parties, given the long-term nature of the

[7] Economic and Social Research Institute
[8] University College Cork
[9] these have to be finalised through international processes

agreement and the difficulty in binding national government budgets so far in advance. It is likely however, that there will be pressure for political commitments and other types of obligations in relation to finance to form part of the final deal.

4. Adaptation to take account of climate change will require investment in Ireland:

- There are also costs associated with domestic adaptation (e.g. defensive measures against flooding and rising sea levels) to cope with climate change. In 2013, the EPA reported[10] that the cost of Irish adaptation are estimated at between €80m and €800m per annum. Availability of Exchequer monies for climate change adaptation in 2021 to 2030 will have to contend with parallel future mitigation and climate finance commitments noted above as well as other fiscal priorities. The National Climate Change Adaptation Framework[11] (2012) outlined that a national response to adaptation will need to be cross-sectoral and likely have cost implications for various sectors.

5. Damage costs

- There are also damage costs associated with climate change. One of the documents accompanying the 2014 Country Specific Recommendations (CSRs)[12][13] notes '*Flood prevention is becoming an increasingly important challenge. Ireland has not been spared the consequences of climate change. There is now an increased risk of coastal flooding and related significant economic losses and public health problems. Between 2002 and 2013, total damage for the 16 floods recorded is estimated at €1.5bn*.'

Revenues

Based on current revenues into the Exchequer from Ireland's proportion of the EU ETS auctioning revenues (€41.6m[14] in 2015), the yield would be insufficient to fund meeting Ireland's climate mitigation targets, climate adaptation requirements, and possible legally

[10] The Environmental Protection Agency published a project report *'Co-ordination, Communication and Adaptation for Climate Change In Ireland: an integrated Approach (COCOADPT)'* as part of their 2007 to 2013 Climate Research Programme.
[11] http://www.environ.ie/en/Publications/Environment/ClimateChange/FileDownLoad,32076,en.pdf
[12] Commission Staff Working document, Assessment of the 2014 national reform programme and stability programme for Ireland. Accompanying the document Recommendations for a Council Recommendation on Ireland's 2014 national reform programme and delivering a Council opinion on Ireland's 2014 stability programme {COM(2014)408 final}
[13] Each year the European Commission publishes country-specific recommendations for each Member State. The recommendations are based on an assessment of every Member State's plans for sound public finances (Stability or Convergence Programmes) and policy measures to boost growth and jobs (National Reform Programmes).
[14] D/ECLG estimate June 2014

binding climate finance commitments. If the modelling scenarios are realised, the scale of investment, compliance costs, and climate finance required to be funded by the Exchequer for the period 2021 to 2030 timeframe could result in the displacement of other Government programmes.

Progress towards 2020 targets

Progress towards meeting targets and commitments depends on a range of factors including: feasibility of the targets given the rate of economic growth, the cost of additional policy measures, and structural constraints. A parallel consideration is that EU/International developments could increase the cost of carbon in the EU which would knock on to energy prices and the cost of purchasing compliance with existing targets. Although such developments could also increase Exchequer receipts from auctioning revenues these would not constitute a sufficient offset. These possible developments include Structural Reform in the EU ETS, the 2030 Climate and Energy Package, and the 2015 International Climate Change Agreement.

Based on current EPA projections in a 'with existing measures scenario', Ireland is unlikely to reach the very challenging emission reduction targets for 2020 (without recourse to using flexibilities to purchase compliance) nor the target for the use of renewables for the period to 2020. Potential Exchequer costs would arise from penalties/or purchase of credits to achieve compliance in respect of the period. In addition, the cost of the unfulfilled climate mitigation targets would knock on to the next period and be compounded by further targets.

Recommendation

It is recommended that, where feasible, financial provision for purchasing compliance and/or for reducing these costs outlined above through affordable and cost effective additional policy measures should inform sectoral estimates discussions for 2015 and beyond.
