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Measuring the economic impact of a reduced rate of Corporation Tax in Northern Ireland

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1. Disclaimer

The analysis contained within this summary paper is based upon the UK Government's Corporation Tax policy published in Budget 2015[1] and expenditure plans published in the 2015 Autumn Statement.

Following completion of this summary paper, the UK Budget 2016 announced a further reduction in the UK Corporation Tax rate to from 18% to 17% in 2020. This will reduce slightly, the costs, benefits and net impact of implementing a reduced rate of 12.5% in NI from 2018.

It is planned that a revised summary paper will be issued later in 2016 when costs become available from the UK Government.

[1] UK Corporation Tax rate of 20% during 2016 & 2017, 19% during 2018 & 2019 and 18% from 2020 onwards.

2. Introduction

The NI Executive has committed to implementing a 12.5% rate of Corporation Tax in NI from 1st April 2018 as part of the Stormont Agreement and implementation plan[2] published on 17 November 2015.

The Ulster University Economic Policy Centre (UUEPC) has been commissioned by the Department of Enterprise, Trade and Investment (DETI) to assess the potential economic impact of implementing the reduced rate of Corporation Tax in NI. This paper summarises the output of the research, which builds upon previous publications by the Economic Advisory Group in May 2011, entitled “The impact of reducing Corporation Tax on the NI Economy[3]” and the Economic Reform Group (ERG), entitled “The Case for a Reduced Rate of Corporation Tax in Northern Ireland” published in May 2010[4] and updated in February 2011[5]. A number of internal papers were completed during 2015 which modelled potential scenarios as data became available.

The model used for this research is an updated version of the EAG and ERG models and the same principles apply. A technical report accompanies this summary report, providing detail on the methodology, sources of data, assumptions and literature employed in the development of the Corporation Tax model.

2.1. Headline economic impacts

Compared to a path where Northern Ireland continues with the current and planned UK rates, the UUEPC model projects an additional economic impact of 32,000 jobs and £4.0bn GVA over a fifteen-year period as a result of implementation a 12.5% rate of Corporation Tax. When considered against baseline forecasts, employment is projected to increase by 3.3%, productivity by 4.1% and GVA by 8.5%.

Table 1.1 – Headline economic impacts, 2033

	Baseline forecast	Corporation Tax forecast	Difference (n)	Difference (%)
GVA (£Bn)	£47.3	£51.3	£4.0	8.5%
Productivity (£)	£49,000	£51,000	£2,000	4.1%
Employment	965,000	997,000	32,000	3.3%

Source: UUEPC
Note: GVA and productivity are presented in 2012 prices

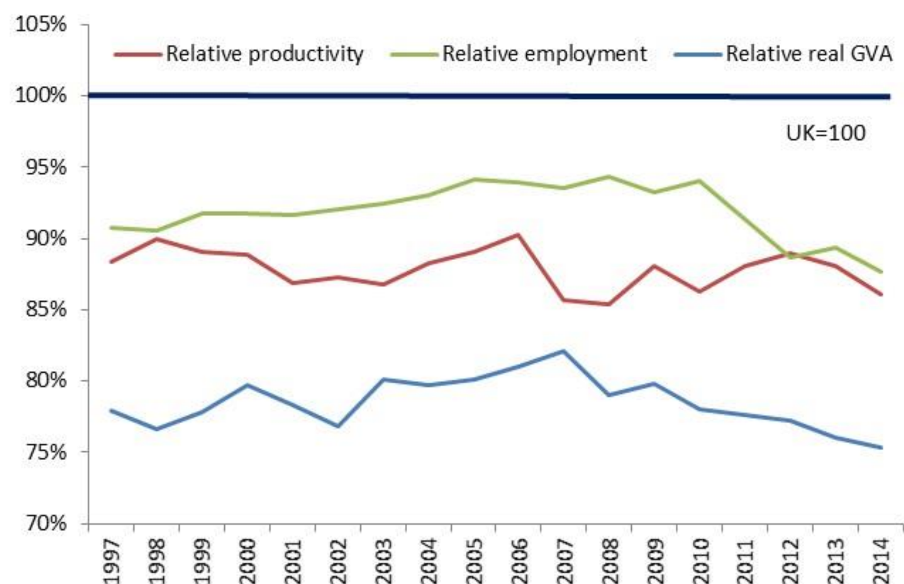
2.2. Economic context

Northern Ireland experienced a decade of strong economic growth until the recession struck in 2007, causing both employment[6] and Gross Value Added (GVA) to contract. The recovery has taken almost a decade, as employment and real GVA have recovered to a level equal to their pre-recession peaks.

One of the most important measures of economic progress is GVA per capita, which quantifies average wealth. Figure 1.1 illustrates that the NI economy was successful in closing part of the wealth gap with the UK in the decade leading up to the recession - mainly as a result of more rapid employment growth. Relative productivity[7] remained stable and persistently below UK levels throughout the period. Following the recession, the employment recovery in the UK was more vigorous than NI, with the result that the wealth gap began to widen.

[2] http://www.northernireland.gov.uk/a-fresh-start-stormont-agreement.pdf
[3] http://eagni.com/portfolio-items/the-impact-of-reducing-corporation-tax-on-the-northern-ireland-economy/?portfolioID=9
[4] Economic Reform Group: The case for a reduced rate of Corporation Tax in Northern Ireland: May 2010
[5] Economic Reform Group: Case for reduced Corporation Tax - Update: February 2011
[6] Workforce Jobs measure of employment.
[7] GVA per hour worked is generally accepted as the most appropriate measure of productivity as it incorporates changes in numbers of hours worked, absences and the impact of overtime etc.

Figure 1.1 – NI Relative employment, productivity & GVA per capita, UK =100, 1997 - 2014



Source: ONS, UUEPC
Note: Employment is based on workforce jobs measure.

2.3. Need for change

The key economic policy challenge for NI is how it might boost wealth. Policies to increase employment, productivity, or more appealingly – both – will be required. The evidence suggests that NI will require a significant policy change if historical patterns are to be transformed.

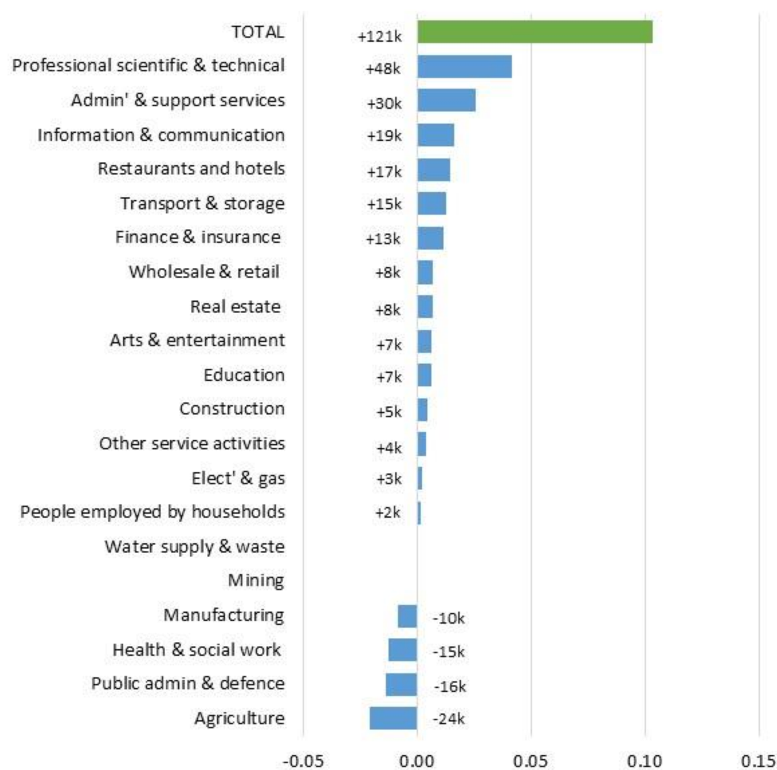
A number of economic forecasts predict that consumer confidence, low interest rates and oil prices will provide a boost to the domestic economy, at least in the short term. Austerity has also proven to be less severe than originally expected as the UK Government scaled back on plans for tax rises, removal of tax credits and reductions in expenditure, leading to a slightly more robust outlook for NI than in previous forecasts. The global economic environment will present a number of challenges and uncertainties in the near future, including the Brexit referendum, continuing geopolitical turmoil and a relatively strong pound which will encumber exporters.

It is well known that NI is relatively more dependent on the public sector than other regions of the UK. The UK private sector employs just under two thirds of the working age population. The public sector[8] employs more than one fifth and the remainder are unemployed or are economically inactive. In contrast, the private sector in NI employs half of the working age population. If the NI economy was to rebalance to mirror the UK composition, the private sector would be required to grow by 145,000 jobs and the public sector to contract by 24,000 jobs with the result that 121,000 more people would be in employment. These data provide context for the level of rebalancing within the local economy that NI might aspire to such as professional, scientific and technical, ICT, finance and high tech manufacturing.

Clearly, different regions have different areas of expertise based on their own particular endowments and NI's greater concentration of agriculture and manufacturing jobs should be viewed as a considerable advantage in terms of private sector employment provision. NI's relative employment composition is shown in figure 1.2, it is not the case that convergence to the UK average would be universally positive as a number of sectors would lose employment, such as agriculture and manufacturing, but there would be considerable gains in professional, scientific & technical, admin and support services and ICT.

Figure 1.2 – Jobs required to rebalance NI to UK employment structure, 2015.

[8] The public sector is defined as Public Administration & Defence, Health and Education. Health and Education include some private provision.



Source: Workforce jobs, UUEPC NI Model
Note: Jobs required to match UK concentration, as a proportion of the working age population

The historical evidence and baseline forecasts[9] for the future demonstrate that there is a real and unmet requirement to make a step change to rebalance and grow the private sector in NI. Reallocating expenditure in order to implement the 12.5% rate of Corporation Tax will be challenging. For context, the cost is less than 2% of total Departmental Expenditure Limits, which is a relatively small proportion of overall expenditure and therefore the challenge is not insurmountable.

2.4. Corporation Tax policy

UK Corporation Tax policy

The main rate of UK Corporation Tax is currently 20%[10]. The Summer Budget announced further reductions to 19% from 2017-18 then to 18% from 2020/21 onwards. Over recent years, the Government reduced the main rate of UK Corporation Tax gradually from 30% during 2008-09 to its current level as part of the Government's aim of creating the most competitive tax regime in the G20[11]. The direction of this policy change is, in part, underpinned by research published by HM Revenue & Customs and HM Treasury[12] which found that a reduction in the rate of Corporation Tax will lead to increased investment, employment and GVA growth for the UK.

Corporation Tax policy in the Republic of Ireland

The Irish Government has focussed a significant strand of its economic development policy on attracting and retaining Foreign Direct Investment (FDI) since the 1950's. A competitive Corporation Tax Strategy is a key policy component[13]. During the 1970's exporters qualified for a zero rate, which was phased out in the 1980's in favour of a 10% rate on manufacturing and financial services activities. The sector specific rates were phased out in 1996 and a general rate of Corporation Tax of 12.5% was introduced on trading income for all sectors. Research published by the Department of Finance in 2014[14] found that there was a

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[9] Baseline forecasts can be found at http://www.business.ulster.ac.uk/epc/
[10] http://www.hmrc.gov.uk/rates/corp.htm (downloaded 29 April 2015)
[11] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183408/A_guide_to_UK_taxation.pdf
[12] HM Revenue and Customs: Analysis of the dynamic effects of Corporation Tax reductions: 5 December 2013
[13] http://www.finance.gov.ie/sites/default/files/CT-sStrategy-Presentation-for-Website-FINAL.pdf
[14] The importance of Corporation Tax Policy in the location choices of multinational firms, October 2014

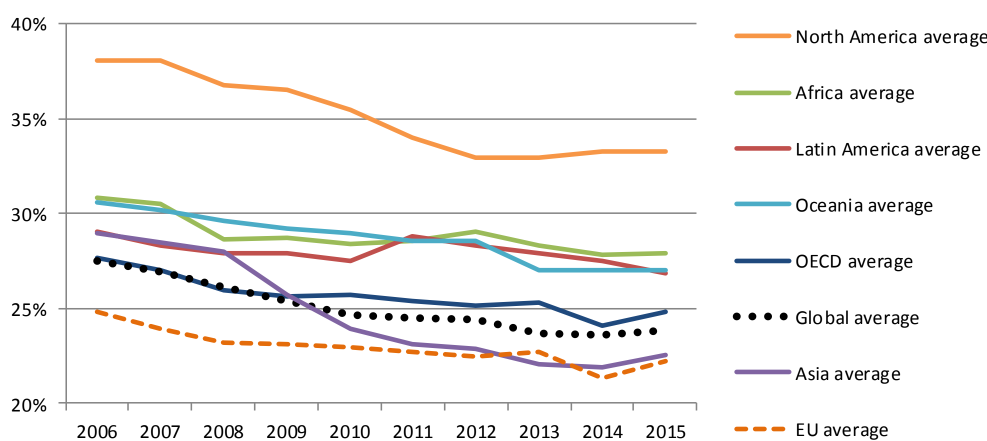
highly significant and consistent negative relationship between the rate of Corporation Tax and the likelihood of a company choosing to invest in that location. Specifically, they found that increasing the Corporation Tax rate to 22.5% would reduce the probability of a company locating in the RoI by more than half.

It is clear that a low rate of Corporation Tax was, and will continue to be, a key element of the Irish economic development strategy.

Corporation Tax policy across the globe

Corporate Tax rates are on a downward trajectory across the globe as Governments seek to ensure that their fiscal environment is competitive and conducive for inward investors. The global average rate reduced by almost four percentage points over a nine-year period, driven to a large extent by reductions in the Asian economies.

Figure 1.3 – Global Corporate Tax rates, 2006 – 2015



Source: KPMG

Corporate Tax competition

The current UK rate of 20% is lower than the Global, EU and Asian averages, making it more competitive than many other nations that are targeting mobile FDI. The rate will reduce further to 18%, ensuring that the UK remains competitive in an international context. However, Jersey, Guernsey and the Isle of Man have a zero rate of Corporation Tax and many other potential competitors for certain types of FDI already have lower rates than the UK, including Bulgaria, Macedonia and Bosnia at 10%, Cyprus, Ireland and Liechtenstein (12.5%), Latvia, Lithuania, Georgia, Kuwait, Serbia and Albania (15%), Romania (16%), Hong Kong (16.5%), Singapore (17%), Belarus (18%) and the Czech Republic, Hungary and Poland (19%).

2.5. Setting the scene for change

It is clear that Corporate Tax policy is an active part of the economic development toolkit of many Governments across the globe. It is important for NI to be aware of these global trends, the relative competitiveness and fiscal infrastructure in place in other economies and to have the ability to react appropriately to ensure that NI can continue to attract and grow levels of investment.

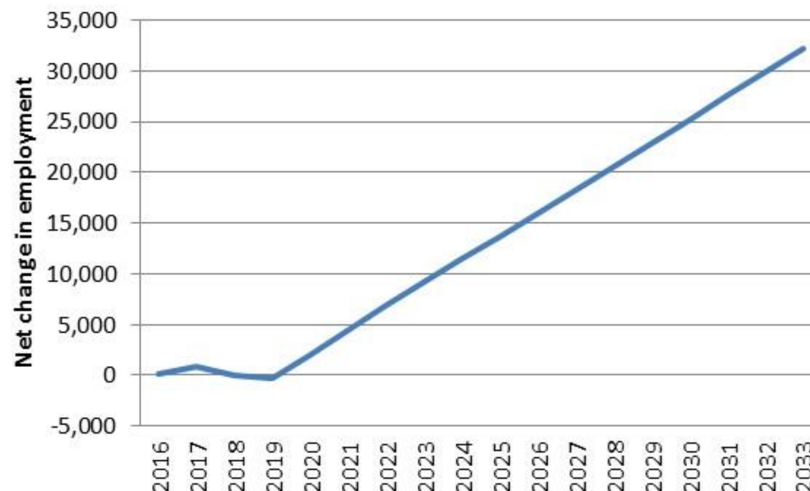
There is a clear economic imperative for change in NI. Employment, wealth and productivity have for too long, lagged the UK average. A significant policy change will be required to stimulate a significant rebalancing in the NI economy as set out in the aspirations of a series of Programme for Government and Economic Strategy documents. Implementing a reduced rate of Corporation Tax should help to deliver part of this aspiration.

3. The economic case for a Corporation Tax reduction in NI

3.1. Economic impacts

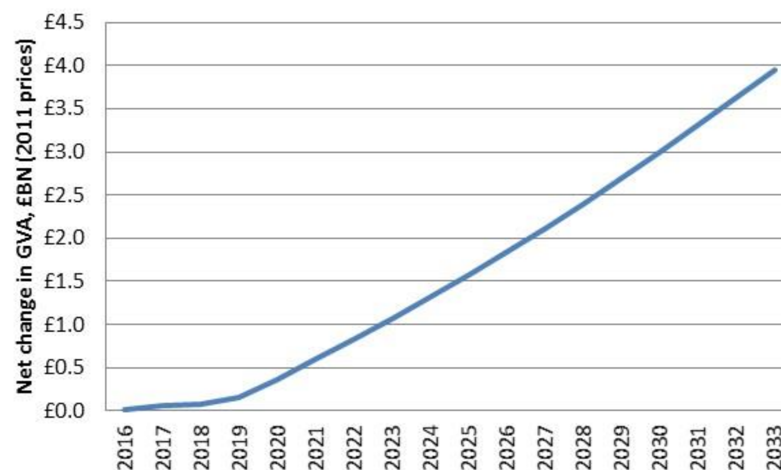
Compared to a path where Northern Ireland continues with the current and planned UK rates, the UUEPC model projects an additional economic impact of 32,000 jobs and £4.0bn GVA by 2033 as a result of implementing a 12.5% rate of Corporation Tax in 2018. When considered against the baseline forecasts, employment is forecast to increase by 3.3%, productivity by 4.1% and GVA by 8.5%.

Figure 2.1 – Cumulative net job creation, 2016-2033



Source: UUEPC

Figure 2.2 – Cumulative GVA creation, £Bn, 2016-2033



Source: UUEPC

The forecast reduction in Government expenditure in NI (due to a reduction the block grant from Westminster to pay for the policy) results in an initial decline in employment. At present, nine tenths of the public expenditure implications are assumed to fall on the public sector, with the remainder on the private sector through a reduction in public expenditure on construction contracts. Other options are available in terms of how the cost may be met and these options would impact differently on other groups or sectors within the NI economy. For example, a composite funding package could be developed across the public, private and domestic sectors, or removal / reduction of existing subsidies to firms could be considered as part of the solution to funding this policy initiative.

The benefits accruing to the NI economy come from a range of modelled impacts, namely:

- **Direct FDI effect:** This is the additional inward investment attracted by a reduction in the rate. In the medium term this is estimated to be almost 1,000 jobs per annum. It should be noted that this number is well below the level reported by Invest NI as a result of their interventions (costing approximately £123m during 2013/14[15]). In that sense, it might be argued that the estimates of job creation (which are based on an economic analysis of FDI levels and Corporate Tax rates across a range of small national economies) are conservative.
- **Existing firm expansion**: The modelling assumes that one third of additional profits retained by existing firms as a result of the rate reduction is re-invested. It could be argued that this is a conservative estimate and firms may reinvest a larger proportion.
- **Indirect effects:** are the supply chain expenditures created by the direct effects. This estimate is based on published data on firms purchasing patterns (also referred to as Input-Output analysis).
- **Induced effects:** are the spending impacts that arise as employees in the direct and indirect effects spend their wages in the local economy on, for example, retail, leisure, hotels and restaurants and domestically owned business spend additional profits generated.

Table 2.1 details the direct effects (New FDI, existing FDI company expansions, existing domestic company expansions and the impact of public spending cuts) and the associated indirect and induced effects of a reduction in the rate of Corporation Tax.

Table 2.1 – Composition of net employment impact

	2018	2019	2020	2025	2033
New FDI	900	2,100	3,100	8,300	17,300
Existing FDI expansions	400	600	900	2,200	4,700
Domestic company expansions	100	200	300	800	1,800
Impact of public expenditure cuts	-1,600	-3,400	-3,400	-2,700	-2,000
Indirect effects	-100	-300	100	1,800	4,000
Induced effects	300	600	1,100	3,400	6,300
Total impact	**0**	**-200**	**1,900**	**13,700**	**32,000**

Source: UUEPC

Note: Indirect effects measure the supply chain impacts as companies that grow purchase additional inputs from NI suppliers. Examples include machinery, raw materials and semi-manufactured components.
Induced effects measure the impact of employees spending their additional wages within the local economy. Examples include food, retail and leisure services.

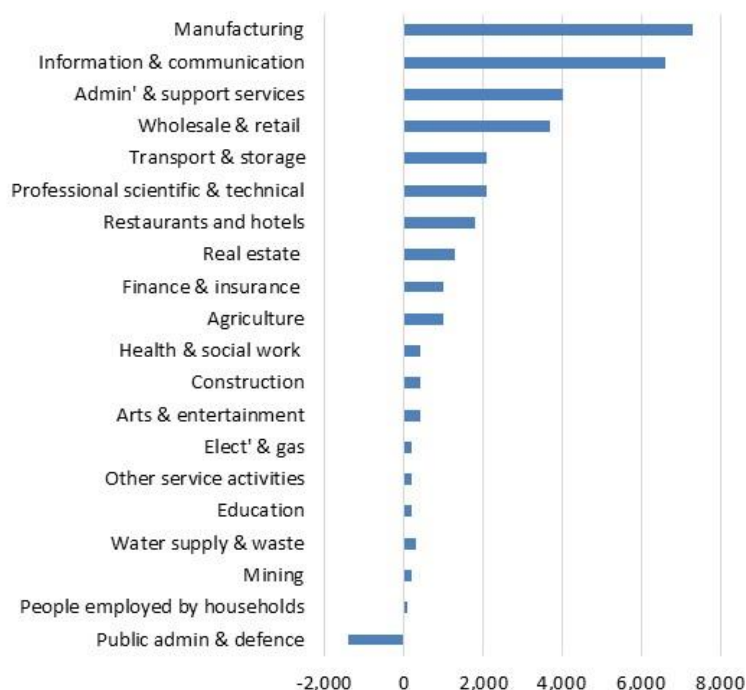
3.2. Composition of employment

The sectoral composition of employment is challenging to forecast as the sectoral mix of FDI will evolve over time, with or without a reduction in the rate of Corporation Tax. New sectors will also develop that are not in existence today. However, with the implementation of a lower rate of Corporation Tax, it is likely that the sectoral composition will change more markedly and more rapidly.

Exploring the sectoral composition of current NI and RoI FDI flows and the structure of the NI and RoI economies helps to inform the assumptions employed in the model on the potential sectoral FDI patterns that NI may expect. Figure 2.3 provides an overview of the structural composition of changes in employment that are forecast by 2033.

[15] Invest NI Annual report, P57. http://secure.investni.com/static/library/invest-ni/documents/annual-report-investni-2013-2014.pdf

Figure 2.3 – Employment change by sector, 2033



Source: UUEPC

A wide range of sectors are expected to benefit as the supply chain and spending effects reach a number of domestically focussed sectors that might not enjoy an immediate direct impact of increased FDI. The reduction in the size of the public sector is evident as the transitional impact of moving money from the public purse to the private works feeds through the economy. The implementation of a lower rate of Corporation Tax will help to achieve the ambitions contained in the Programme for Government by helping to rebalance the local economy and grow the private sector.

3.3. Assessing risks

As with any policy decision there are risks to consider. Three specific risks are worth particular consideration. They are;

Realised benefits

Forecasting the behaviour of investors or existing firms that will benefit from the implementation of a lower rate of Corporation Tax is subject to margins of error. It is clear is that the private sector will be in receipt of substantial additional cashflow and much depends on how and where these monies are reinvested or saved. A review of the economic literature suggests that a reduction in the rate of Corporation Tax will increase the amount of FDI into a host economy, though different authors and research methods suggest differing results. A Brexit vote also provides further uncertainty regarding FDI company flows.

Public expenditure implications

The policy 'cost' is in terms of a reduction to the block grant from Westminster to the NI Executive. This is a subject that has generated considerable debate and remains the topic of engagement between the UK and NI Governments. The Fresh Start Agreement states that "***the Executive attaches importance, on the basis of fairness and proportionality, to Northern Ireland bearing the full costs and receiving the full benefits of the devolution of Corporation Tax consistent with the Azores criteria.***[16]" As such, the final cost of the policy and how it will be funded are yet to be agreed. Any revision will have an impact on the costs, benefits and net impact of the policy and the outcomes generated by the UUEPC Corporation Tax model.

[16] http://www.northernireland.gov.uk/a-fresh-start-stormont-agreement.pdf

At the time of writing, the detailed mechanism for calculating the costs and benefits and the definition of what is included in full costs and full benefits have not yet been made public. For the purposes of this report, DETI supplied DFP & HM Treasury sourced estimates of the public expenditure implications of implementing a 12.5% rate of Corporation Tax from 1 April 2018. The approach to forecasting costs and benefits employs UK Government estimates of the costs from 2018-19 – 2020-21 and DFP estimates from 2021-22 – 2022-23. UUEPC then forecast the increase in nominal costs at 4.5% per annum, as advised by DFP, which is in line with the OBR's nominal GDP growth forecast. UUEPC then calculate the net impact by offsetting the gross costs with estimates of the additional corporation tax receipts and rates income that are expected as a result of the additional economic activity that is generated. Public expenditure implications from 2023/24 – 2033/34 are calculated by applying a growth rate of 4.5% per annum, as advised by DFP, to reflect anticipated nominal GDP increases and finally, the figures are converted from nominal to real.

On the basis of these calculations, UUEPC expects that the real net annual average public expenditure implications are c£175m including additional Corporation Tax and Rate revenue from additional economic activity, or c£200m excluding the Rate revenue. The annual real and nominal net cost estimates are included below.

Table 2.2 – Public expenditure impact estimates used in the model (£M)

	2018	2019	2020	2021	2022	2023	2024	2025
Nominal	£110	£250	£256	£245	£240	£241	£242	£243
Real	£101	£226	£228	£215	£206	£203	£199	£196

	2026	2027	2028	2029	2030	2031	2032	2033
Nominal	£243	£243	£242	£241	£240	£237	£235	£232
Real	£192	£188	£183	£178	£173	£168	£163	£157

Sources: UK Government from 2018-19 to 2020-21 (figures rounded to nearest £5m and are calculated on a receipts basis).
DFP estimates from 2021-22 to 2022-23 reflect further impact of the reduction in the UK rate to 18% which is expected to take three years (until 2022-23) to fully take effect
UUEPC estimates from 2023 onwards, based on DFP advice, use the latest OBR estimate of nominal GDP growth (4.5% per annum) to inflate costs and benefits
UUEPC estimates of Corporation Tax increases and extra rates income which arise as a consequence of the additional economic activity that is anticipated to flow from a reduced corporation tax are included from 2018 onwards

Note: Real figures are in 2012 prices

Costs are critical to the affordability and viability of this policy. Understanding how the mechanism for calculating the cost works is essential, particularly in the event of an increase in the UK rate or receipts which could escalate the cost to NI depending on the mechanism agreed. It should be noted that the public expenditure implications of the policy may change as a result of future UK Budgets, Autumn Statements and as a consequence of updates to forecasts by the Office for Budget Responsibility.

Supporting policy environment

As a single policy initiative, Corporation Tax will not solve all of NI's regional economic challenges. Even if the projected jobs estimates are realised, NI will not have created the scale of jobs that the region should be aspiring to create. For context, NI would need to create almost 145,000 jobs in the private sector and trim the public sector by 24,000 jobs in order to mirror the sectoral composition of the UK economy (assuming a similar public / private split is aspired to). Given current job creation rates, this is a significant challenge. Moreover, the policy environment will need to be conducive to a lower tax environment in order to capitalise on all of the potential benefits. This is particularly relevant to the area of skills but also to aspects of policy such as infrastructure, planning and marketing. Invest NI has commissioned research to look more specifically at the types of jobs, skills profiles and experience that may be required to help inform future policy responses.

4. Conclusions

The NI economy has lagged the UK for a number of decades in terms of wealth, employment and productivity. Forecasts suggest that NI will continue to lag behind the UK average, well below its potential unless a step change is made. It has long been recognised that there is a need to rebalance the economy towards a larger private sector and wealth generating economy that ultimately will be more sustainable and less susceptible to shifts in national policy.

Internationally, tax competition is increasing and the average rate of Corporation Tax is reducing. The UK rate has reduced from 30% to 20% over recent years and is set to reduce further to 18%. The Republic of Ireland is unequivocal on its use of the flagship 12.5% policy. NI must monitor global developments and act decisively to retain and where possible, boost its competitive position in the global marketplace.

Implementing a reduced rate of Corporation Tax has the potential to make a substantial positive impact on the NI economy by attracting new firms to the region (in addition to NI's other competitive factors) and allowing existing firms to retain additional profits to re-invest and create more economic activity. Local firms will benefit from the arrival of new FDI and expansion of existing companies as supply chains expand and wages are spent.

Compared to a path where Northern Ireland continues with the current and planned UK rates, the UUEPC model projects an additional economic impact of almost 32,000 jobs and £4.0bn GVA by 2033 as a result of implementing a 12.5% rate of Corporation Tax in 2018. A lower rate of Corporation Tax will not, however, be the only policy initiative that is required in NI. In fact, the potential benefits may be at risk if the policy environment is not conducive to delivering the required skills, infrastructure and marketing.

A reduction in the rate of Corporation Tax will help to move NI towards a more sustainable economic future with a reduced dependency on the public sector, more people in work and many more global firms located within its shores. The public expenditure implications are the subject of ongoing engagement between the UK and NI governments and seek an outcome based on fairness, proportionality and consistency with the Azores criteria.

Annex – Differences between Economic Advisory Group and UUEPC Corporation Tax model

The UUEPC Corporation Tax model is broadly based on the ERG and EAG Corporation Tax models. The model was rebuilt and updated with the most recent data, UK Corporate Tax policy position and up-to-date UK and NI baseline economic forecasts.

Methodology

There are three main elements in the UUEPC Corporation Tax model, each of which has associated multiplier effects. These effects are;

1. Increased FDI flows;
2. Impact on existing firms in NI; and
3. Public expenditure implications.

The accompanying technical report provides more specific detail on the methodology, assumptions, data and estimates employed within the Corporation Tax model.

Key differences to EAG Corporate Tax model

Since the publication of EAG's report "The impact of reducing Corporation Tax on the NI economy" in 2011, a number of factors that impact upon the model and underpinning assumptions have changed, or been updated. These changes set a new context within which to frame the discussion on the devolution of Corporation Tax setting powers to NI and impact upon the inputs, estimates and assumptions employed in the model.

These main changes are;

1. A later date of implementation of a reduced rate of Corporation Tax (now 1 April 2018);
2. A lower main rate of UK Corporate Tax throughout the forecast period (now 20%, reducing to 19% and then 18% in line with the Summer Budget instead of 23%, which also reduces both the potential costs and benefits from previous analysis);
3. Updated estimates of the public expenditure implications have been incorporated;
4. Updates to data including GVA, productivity, employment, wages, profits, turnover, proportion of firms that are foreign owned etc.;
5. Incorporation of new baseline forecasts from UUEPC's NI macroeconomic model;
6. Updated econometric estimation of FDI impacts;
7. Incorporation of a multiplier matrix to calculate indirect and induced effects more precisely than the approach previously adopted; and
8. Exclusion of income tax and VAT as benefits to NI in line with the Stormont House Agreement.

These changes, their rationale and impact are discussed in more detail in the accompanying technical report.