



Economic Growth Impacts of Structural Reforms in Ireland

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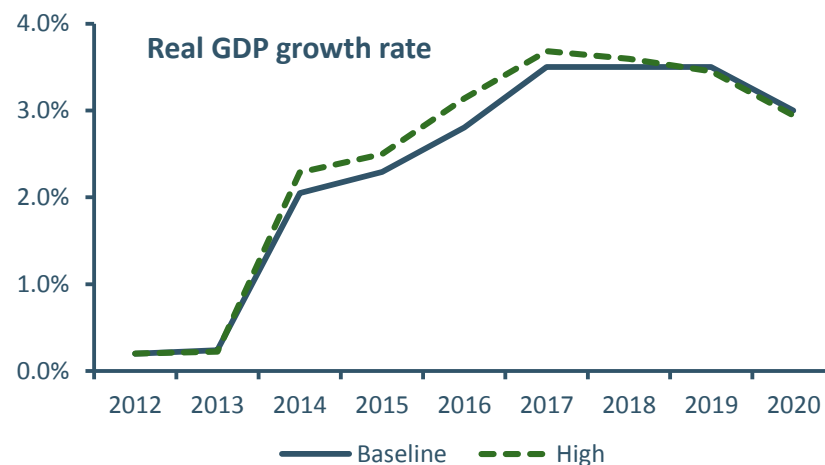
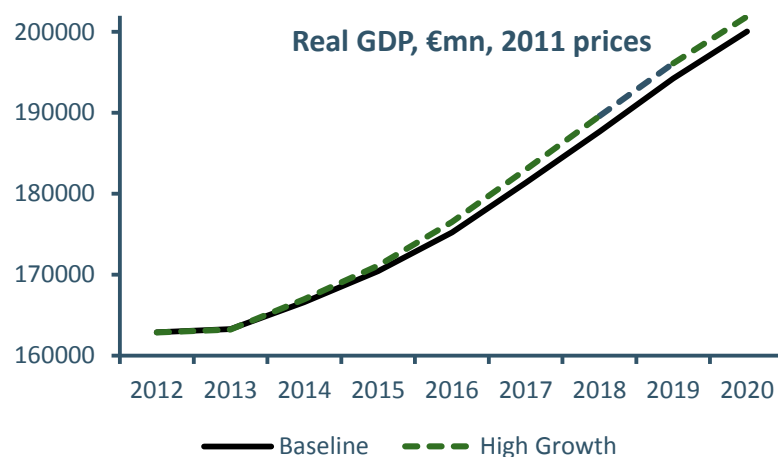
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Background to IGEES Working Paper

The Medium Term Economic Strategy

- Highlighted importance of structural reforms in improving growth potential
- Outlined in general terms how reforms could contribute to the achievement of higher rates of growth and employment over the medium-term
 - High-growth scenario presented in MTES based on 'beneficial policy scenario' set out in working paper – 1% improvement in GDP





Economic Rationale

- **Structural Reforms**

- Key focus of the EU 2020 Strategy for Growth and Jobs – National Reform Plans
 - Product market reforms (facilitate competition or ease regulatory burdens)
 - Labour market reforms (e.g. changes to wage setting mechanisms to promote flexibility. Reforms to labour taxation to improve financial incentives to work)
- MTES highlighted importance of structural reforms for improving growth potential
- Focus on aggregate supply – or growth potential – i.e. the productive capacity of the economy (Solow, 1956)
- Productivity and innovation = long run drivers of economic growth
- Typical policy drivers include investment, human capital and competition



Approach

- Joint work between economists of Finance and PER
- Prospective reforms developed by authors on basis of discussions with ESRI
- Simulations conducted by ESRI using HEMES-13 structural model
- Steps
 - Reform areas identified by authors based on review of economic literature and internal technical sessions
 - Microeconomic evidence basis for choices then discussed with relevant ESRI research experts
 - Where micro evidence exists, the macro evidence and HERMES channels were considered
 - Where material macro impact likely, reforms were simulated using HERMES model
 - Aggregate impact of chosen reforms ‘bundled’ together to generate High and Low growth scenarios



The HERMES Model

- Multi-sector supply side ‘structural model’ of the Irish economy used by the ESRI for medium-term forecasting and macro-fiscal analysis
 - *Traded sectors* (manufacturing, agriculture and parts of market services) - price taking exporters subject to competitive global markets and non-traded
 - *Non-traded sectors* (rest of economy) – sectors sheltered from international competition
- Level of output a function of world demand and competitiveness of Irish economy
- Wages determined through bargaining process over real after-tax wages
 - Labour supply highly elastic
 - Higher taxes or inflation lead to higher wages – and loss of export market share!
- Other bells and whistles (consumption function, government risk premium)
- Different beast to (micro-founded) DSGE models
 - Used by the European Commission (2013) and others (Clancy & Merola, 2014) in modelling impacts of structural reforms in Ireland
 - Both model types can act as a consistency check on one another



Hypothetical reforms considered

- Tax Policy
 - Tax shift – move burden from income tax to consumption or capital (property)
 - Increase carbon tax to pay for ETS compliance rather than through income tax
- Financial sector reform and domestic cost of capital
 - Reduction in domestic cost of capital through bank entry or non-bank sources of finance
- Labour market activation – reduction in long-term unemployment
- Competition policy - weakening of competition in non-traded sector
- Competitiveness - loss of competitiveness through higher labour costs
- Others (human capital and infrastructure)
- Paper uses following analytical framework
 - Outline of reforms – motivated by micro evidence
 - Analysis of macroeconomic channel through which reform takes effect
 - Summary of output and employment impacts



Tax Policy – Tax Shift

“Empirical and theoretical evidence suggests that there could be gains in terms of long run GDP per capita from increasing the use of consumption and property taxes relative to income tax without changing overall tax revenues”

(OECD, Tax Policy Reform and Economic Growth, 2010)

OECD hierarchy of harmful taxation – Tax and Economic Growth (2008)

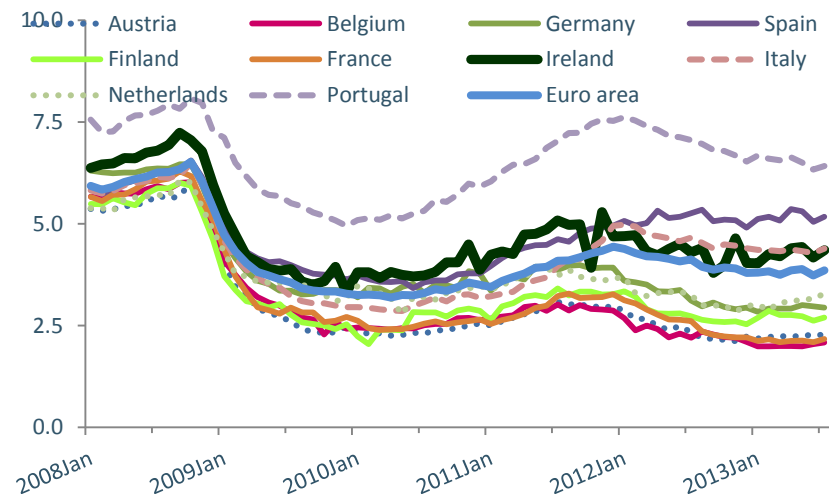
Channels

- High elasticity of labour supply means incidence of income tax mainly falls on companies – exporters suffer loss of market share and reduce output and employment in Ireland
- Incidence of consumption tax falls less on companies and incidence of property tax falls entirely on household sector – less harmful relative to income tax in terms of output and employment

Tax shift from Labour to Property - Revenue neutral shift of €1 bn

- Property tax shift	2014	2015	2016	2017	2018	2019	2020
Real GDP (%)	0.0	0.16	0.26	0.32	0.32	0.29	0.26
Unemployment rate (%)	0.03	-0.05	-0.14	-0.34	-0.44	-0.46	-0.46
Employment growth (%)	0.00	0.08	0.25	0.39	0.44	0.41	0.41

- Legacy of euro area financial crisis - fragmentation in financial markets
 - Considerable divergence in interest rates charged to private sector across euro area particularly for SME
 - An issue for SMEs rather than large MNCs
- Cost of capital for SME sector domestically determined – based on spread over sovereign
 - Many factors determine spread (risk, liquidity, and competition)
 - Weak competition a key factor – O’Toole et al (2013)
- Reform captures a range of possible policy measures – bank and non-bank SME financing
 - 0.5% increase in real GDP and 0.25% increase in employment by 2020





Weakening of Competition

“Internal Competition is in the national interest” Don Thornhill, Chairman, National Competitiveness Council, 2012

- This measure simulates the impacts of policy errors or other adverse developments that limit competition in product markets
 - Competition law exemptions
 - Creation or facilitation of barriers to entry
 - Regulatory actions that limit product market competition
- Channels: Lower competition in non-traded sector feeds through to traded sector through higher inflation and wage demands – loss of external competitiveness
 - Lower competition raises firm margins and product market prices
 - Causing inflation to rise
 - Which leads to pay demands
 - Causing loss of external competitiveness – loss of market share
 - Lower output and employment

	2014	2015	2016	2017	2018	2019	2020
Real GDP (%)	0.00	0.00	-0.06	-0.14	-0.20	-0.26	-0.31
Unemployment rate (%)	-0.03	0.08	0.11	0.35	0.67	1.05	1.12
Employment (%)	0.00	0.00	0.00	-0.12	-0.20	-0.27	-0.33
Nominal GDP (%)	0.00	0.00	-0.40	-0.39	-0.38	-0.32	-0.26



Labour Market Activation

*“Activation policies have been fundamentally reshaped under the **Pathways to Work** strategy”*

European Commission, Ireland IDR, March 2014

- Probability of re-employment declines with duration of unemployment (ESRI, Central Bank)
- Channels – migration and participation channels highly pro-cyclical
 - new positions normally filled through migration or participation channel rather than from stock of long-term unemployed
 - What if activation policies significantly improved the re-employment probabilities of LTU – migration channel ‘restricted’ in model to proxy for improved activation of LTU
- Lower LTU results in lower social transfers
 - Two scenarios – (i) reduce EBR, or (ii) reduce income tax burden (GGB neutral)
 - Reduce income tax burden – reduces real after tax wage – gains in output and employment

Scenario 2 - Income Tax Reduced		2014	2015	2016	2017	2018	2019	2020
Real GDP (% change)		-0.03	0.00	0.04	0.07	0.09	0.09	0.10
GDP per head (% change)		-0.05	0.10	0.36	0.82	1.27	1.71	1.81
Unemployment rate		0.02	-0.19	-0.42	-1.10	-1.90	-2.80	-3.05
Employment (% change)		0.05	0.03	0.00	-0.02	-0.02	-0.01	0.00



Loss of competitiveness

- Measure simulates loss of competitiveness
 - Higher labour costs across economy (public and private sector)
 - Not supported by productivity improvements
 - To ensure GGB neutrality, public sector wages financed by higher incomes taxes – technical assumption
- Channels
 - Exporters assumed to be ‘price takers’ – unable to pass on cost increase
 - Causes loss of market share and lower output and employment in traded sectors
 - Initial positive consumption effects from public sector pay offset by lower employment in private sector
 - Higher income tax causes a further competitiveness loss – incidence on companies!
 - Further losses in output and employment

	2014	2015	2016	2017	2018	2019	2020
Real GDP (%)	-0.03	-0.04	-0.02	-0.02	-0.07	-0.16	-0.25
Unemployment rate (%)	-0.10	-0.12	-0.03	0.26	0.60	0.97	1.01
Employment (%)	-0.05	-0.23	-0.24	-0.24	-0.28	-0.35	-0.43
Nominal GDP (%)	0.01	0.31	-0.34	-0.37	-0.32	-0.22	-0.14



Comparison with other analyses

- European Commission (2013)
 - Reforms modelled using QUEST III DSGE model
 - Based on structural reform indicators: market competition, R&D expenditure, skills, tax policy, labour market participation, 'benefit' generosity, labour market activation
 - Reforms based on closing the gap in these indicators with 3 best performers by a half
 - Skill-enhancing changes, reduction in benefit generosity and increase labour force participation boost Irish GDP by 4.5pp after 10 years. Effect even greater on employment (+6.8pp)
- Clancy and Merola (2014)
 - First vintage of the EIRE MOD DSGE model for Ireland
 - Considers reforms in innovation, competitiveness and competition
 - "Results on the effects of an increase in wage competitiveness are consistent with IGEES staff working paper"



Aggregation of Results

- ‘Beneficial Policy’ scenario
 - Rebalanced tax system
 - Lower domestic cost of capital
 - Greater dividend from labour market activation
 - Improvements in Human Capital
 - Competition enhancing reforms
- ‘Harmful Policy’ scenario
 - Deterioration in competitiveness
 - Weakening of product market competition
 - Negative cost of credit shock
- Marginal impacts of reforms applied proportionately to April 2014 SPU baseline



Contributions

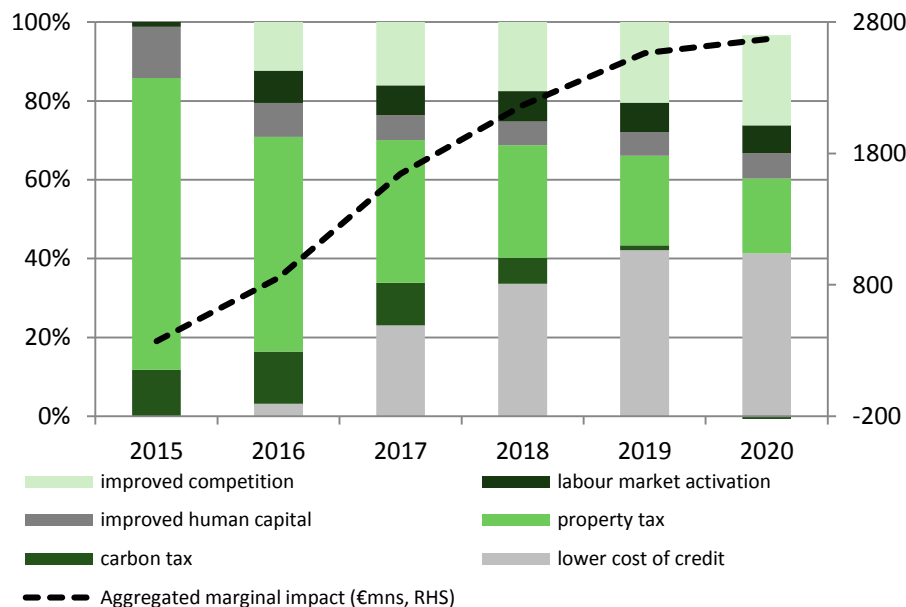
Beneficial Policy

- Tax policy reforms contributing significantly in early years
- Improvement in competition and cost of credit gain importance in latter years

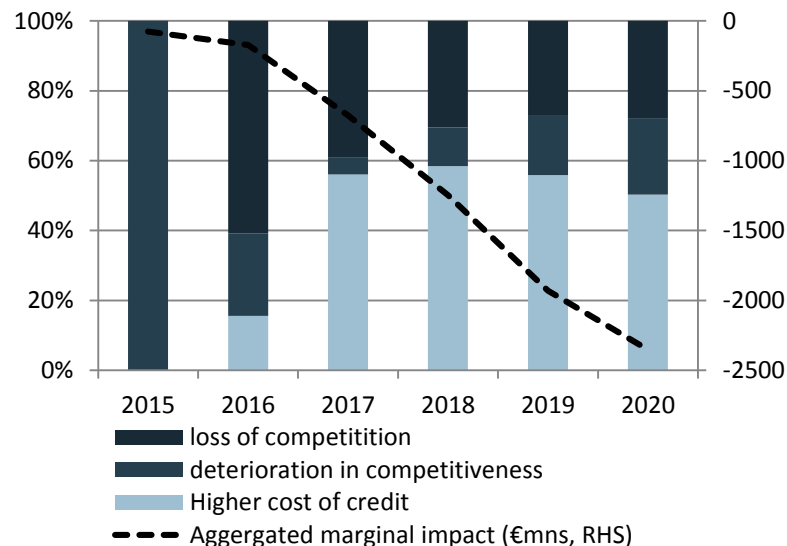
Harmful Policy

- Weakening in competition and loss of competitiveness more significant in early years
- Cost of credit impact most relevant in latter years

Beneficial Policy



Harmful Policy





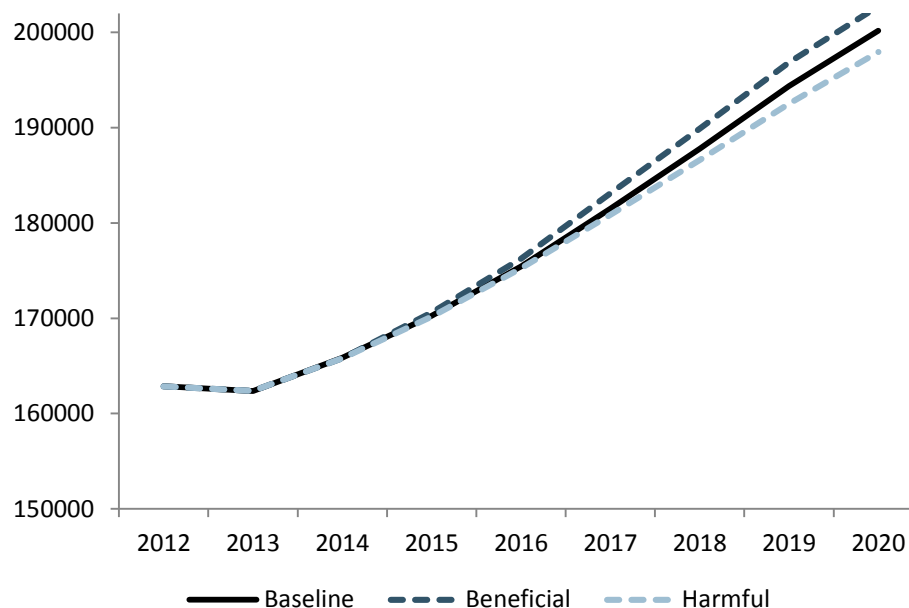
Aggregate Impacts - GDP

Beneficial Policy

- +1.3% in real GDP volumes by 2020 – permanent increase in levels of output
 - Acknowledge further upside potential from structural reforms as list is not exhaustive

Harmful Policy

- -1% in real GDP volumes by 2020 – permanent reduction in levels of output





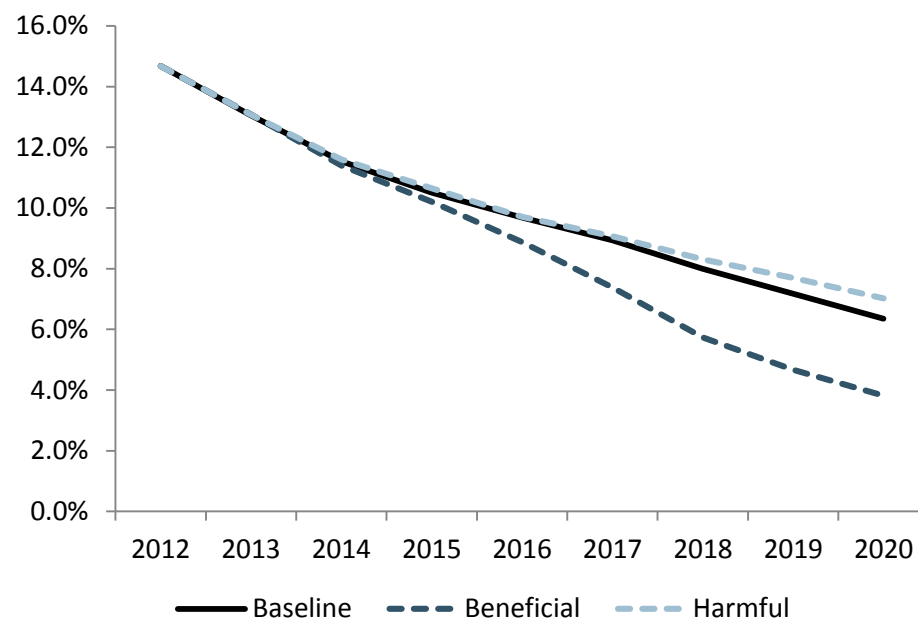
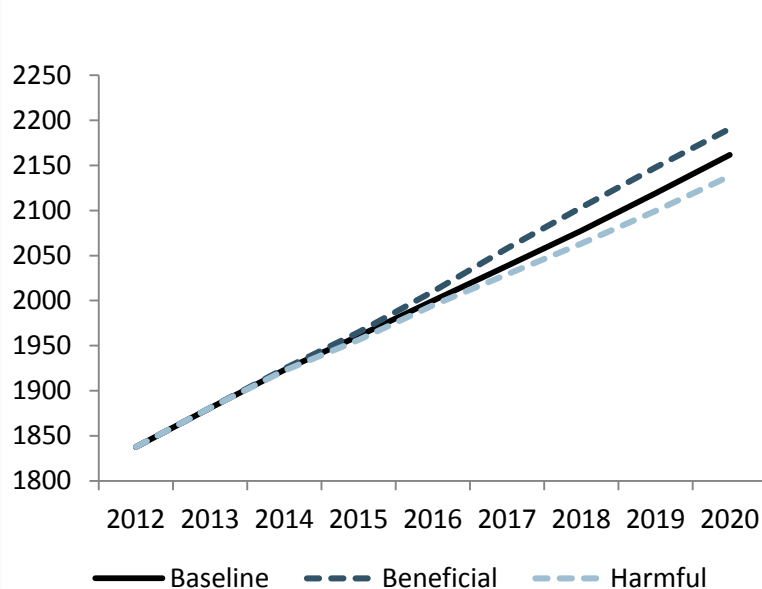
Aggregate Impacts – Labour Market

Beneficial Policy

- +28,000 (1.3%) in additional jobs
- -2.4 percentage point fall in unemployment rate

Harmful Policy

- - 25,000 jobs (1.2%) fall in levels of employment
- Increase in unemployment rate of 0.7 percentage points





Conclusion

Some considerations:

- Focus solely on range of available domestic options
- Beneficial structural reforms can support economic growth potential
- Reforms described in general terms. Results represent broad orders of magnitude
- Technical rather than advocacy piece
- Specific reforms would need fuller evaluation prior to being pursued
- Findings overall consistent with other analyses



Thank you

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