

ANNEX A

A distributional analysis of Budget 2017 Measures on a variety of household family types across a range of income levels.

Introduction

This Annex presents a range of information that illustrates the effect of the Budget measures on different categories of income earners and household types. Distribution tables show the impact of Budget measures for different family types – single individuals, married couples, families with children - across a range of income levels from €12,000 to €175,000.

The examples are based on specimen incomes from both employment and self-employment sources, taking into account the personal, PAYE, Earned Income and Home Carer tax credits as relevant. The examples also do not take account of additional tax reliefs which may be available such as Mortgage Interest Relief. Variations can arise due to rounding.

There are also tables showing the average effective tax rate for different household types with employment and self-employment income for the years 2002 to 2017.

Information is also provided on the distribution of income earners for Income Tax purposes on a 2016 and a post-Budget 2017 basis. This shows a breakdown of the number of income earners: exempt from Income Tax; paying Income Tax at the standard rate; and paying Income Tax at the higher rate.

A number of illustrative cases are also provided to demonstrate the impact of the Budget changes across a broader range of family types and income sources.

This complements other analyses that are undertaken aimed at integrating equality and distributional considerations into the Budget process as set out in the Economic and Fiscal Outlook section of this document. In particular, the following Annex B provides a broader examination of income tax and progressivity issues.

(i) Examples showing the effects of Budget changes on different categories of single and married income earners

EXAMPLE 1

Single person, no children, private sector employee taxed under PAYE

Full rate PRSI contributor

Note: Assuming that employees currently earning less than €18,556 p.a. earn all their income at the minimum wage and will therefore benefit from an increase of 1.09% (€9.15 to €9.25 per hour) in their gross income

Gross Income			Income Tax		PRSI		Universal Social Charge		Total Change		Change as % of Net Income	Effective Tax Rate	
Existing	Min. Wage	New	Existing	Proposed	Existing	Proposed	Existing	Proposed	Per Year	Per Week		Existing	Proposed
€	Increase	€	€	€	€	€	€	€	€	€		%	%
12,000	131	12,131	0	0	0	0	0	0	131	3	1.1%	0.0%	0.0%
14,000	153	14,153	0	0	0	0	180	114	219	4	1.6%	1.3%	0.8%
18,000	197	18,197	300	339	0	0	300	215	242	5	1.4%	3.3%	3.0%
20,000	0	20,000	700	700	459	459	393	290	103	2	0.6%	7.8%	7.2%
25,000	0	25,000	1,700	1,700	1,000	1,000	668	540	128	2	0.6%	13.5%	13.0%
30,000	0	30,000	2,700	2,700	1,200	1,200	943	790	153	3	0.6%	16.1%	15.6%
35,000	0	35,000	3,940	3,940	1,400	1,400	1,218	1,040	178	3	0.6%	18.7%	18.2%
45,000	0	45,000	7,940	7,940	1,800	1,800	1,768	1,540	228	4	0.7%	25.6%	25.1%
55,000	0	55,000	11,940	11,940	2,200	2,200	2,318	2,040	278	5	0.7%	29.9%	29.4%
70,000	0	70,000	17,940	17,940	2,800	2,800	3,143	2,790	353	7	0.8%	34.1%	33.6%
100,000	0	100,000	29,940	29,940	4,000	4,000	5,542	5,189	353	7	0.6%	39.5%	39.1%
150,000	0	150,000	49,940	49,940	6,000	6,000	9,542	9,189	353	7	0.4%	43.7%	43.4%
175,000	0	175,000	59,940	59,940	7,000	7,000	11,542	11,189	353	7	0.4%	44.8%	44.6%

Variations can arise due to rounding

EXAMPLE 2

Married couple, one income, no children, private sector employee taxed under PAYE Full rate
PRSI contributor

Note: Assuming that employees currently earning less than €18,556 p.a. earn all their income at the minimum wage and will therefore benefit from an increase of 1.09% (€9.15 to €9.25 per hour) in their gross income

Gross Income			Income Tax		PRSI		Universal Social Charge		Total Change		Change as % of Net Income	Effective Tax Rate	
Existing	Min. Wage Increase	New	Existing	Proposed	Existing	Proposed	Existing	Proposed	Per Year	Per Week		Existing	Proposed
€	€	€	€	€	€	€	€	€	€	€		%	%
12,000	131	12,131	0	0	0	0	0	0	131	3	1.1%	0.0%	0.0%
14,000	153	14,153	0	0	0	0	180	114	219	4	1.6%	1.3%	0.8%
18,000	197	18,197	0	0	0	0	300	215	282	5	1.6%	1.7%	1.2%
20,000	0	20,000	0	0	459	459	393	290	103	2	0.5%	4.3%	3.7%
25,000	0	25,000	50	50	1,000	1,000	668	540	128	2	0.5%	6.9%	6.4%
30,000	0	30,000	1,050	1,050	1,200	1,200	943	790	153	3	0.6%	10.6%	10.1%
35,000	0	35,000	2,050	2,050	1,400	1,400	1,218	1,040	178	3	0.6%	13.3%	12.8%
45,000	0	45,000	4,490	4,490	1,800	1,800	1,768	1,540	228	4	0.6%	17.9%	17.4%
55,000	0	55,000	8,490	8,490	2,200	2,200	2,318	2,040	278	5	0.7%	23.7%	23.1%
70,000	0	70,000	14,490	14,490	2,800	2,800	3,143	2,790	353	7	0.7%	29.2%	28.7%
100,000	0	100,000	26,490	26,490	4,000	4,000	5,542	5,189	353	7	0.6%	36.0%	35.7%
150,000	0	150,000	46,490	46,490	6,000	6,000	9,542	9,189	353	7	0.4%	41.4%	41.1%
175,000	0	175,000	56,490	56,490	7,000	7,000	11,542	11,189	353	7	0.4%	42.9%	42.7%

EXAMPLE 3

Married couple, one income, two children, private sector employee taxed under PAYE
Full rate PRSI contributor

Note: Assuming that employees currently earning less than €18,556 p.a. earn all their income at the minimum wage and will therefore benefit from an increase of 1.09% (€9.15 to €9.25 per hour) in their gross income

Gross Income			Income Tax		PRSI		Universal Social Charge		Total Change		Change as % of Net Income	Effective Tax Rate	
Existing	Min. Wage Increase	New	Existing	Proposed	Existing	Proposed	Existing	Proposed	Per Year	Per Week		Existing	Proposed
€	€	€	€	€	€	€	€	€	€	€		%	%
12,000	131	12,131	0	0	0	0	0	0	131	3	1.1%	0.0%	0.0%
14,000	153	14,153	0	0	0	0	180	114	219	4	1.6%	1.3%	0.8%
18,000	197	18,197	0	0	0	0	300	215	282	5	1.6%	1.7%	1.2%
20,000	0	20,000	0	0	459	459	393	290	103	2	0.5%	4.3%	3.7%
25,000	0	25,000	0	0	1,000	1,000	668	540	128	2	0.5%	6.7%	6.2%
30,000	0	30,000	50	0	1,200	1,200	943	790	203	4	0.7%	7.3%	6.6%
35,000	0	35,000	1,050	950	1,400	1,400	1,218	1,040	278	5	0.9%	10.5%	9.7%
45,000	0	45,000	3,490	3,390	1,800	1,800	1,768	1,540	328	6	0.9%	15.7%	15.0%
55,000	0	55,000	7,490	7,390	2,200	2,200	2,318	2,040	378	7	0.9%	21.8%	21.1%
70,000	0	70,000	13,490	13,390	2,800	2,800	3,143	2,790	453	9	0.9%	27.8%	27.1%
100,000	0	100,000	25,490	25,390	4,000	4,000	5,542	5,189	453	9	0.7%	35.0%	34.6%
150,000	0	150,000	45,490	45,390	6,000	6,000	9,542	9,189	453	9	0.5%	40.7%	40.4%
175,000	0	175,000	55,490	55,390	7,000	7,000	11,542	11,189	453	9	0.4%	42.3%	42.0%

(a) Variations can arise due to rounding

(b) Total change includes Income Tax and USC changes only

EXAMPLE 4

Single person, no children, taxed under Schedule D (self-employed)

Gross Income	Income Tax		PRSI		Universal Social Charge		Total Change		Change as % of Net Income	Effective Tax Rate	
	Existing	Proposed	Existing	Proposed	Existing	Proposed	Per Year	Per Week		Existing	Proposed
€	€	€	€	€	€	€	€	€		%	%
12,000	200	0	500	500	0	0	200	4	1.8%	5.8%	4.2%
14,000	600	200	560	560	180	110	470	9	3.7%	9.6%	6.2%
18,000	1,400	1,000	720	720	300	210	490	9	3.1%	13.4%	10.7%
20,000	1,800	1,400	800	800	393	290	503	10	3.0%	15.0%	12.5%
25,000	2,800	2,400	1,000	1,000	668	540	528	10	2.6%	17.9%	15.8%
30,000	3,800	3,400	1,200	1,200	943	790	553	11	2.3%	19.8%	18.0%
35,000	5,040	4,640	1,400	1,400	1,218	1,040	578	11	2.1%	21.9%	20.2%
45,000	9,040	8,640	1,800	1,800	1,768	1,540	628	12	1.9%	28.0%	26.6%
55,000	13,040	12,640	2,200	2,200	2,318	2,040	678	13	1.8%	31.9%	30.7%
70,000	19,040	18,640	2,800	2,800	3,143	2,790	753	14	1.7%	35.7%	34.6%
100,000	31,040	30,640	4,000	4,000	5,542	5,189	753	14	1.3%	40.6%	39.8%
150,000	51,040	50,640	6,000	6,000	11,042	10,689	753	14	0.9%	45.4%	44.9%
175,000	61,040	60,640	7,000	7,000	13,792	13,439	753	14	0.8%	46.8%	46.3%

Variations can arise due to rounding

EXAMPLE 5

Married couple, one income, no children, taxed under Schedule D (self-employed)

Gross Income	Income Tax		PRSI		Universal Social Charge		Total Change		Change as % of Net Income	Effective Tax Rate	
	Existing	Proposed	Existing	Proposed	Existing	Proposed	Per Year	Per Week		Existing	Proposed
€	€	€	€	€	€	€	€	€		%	%
12,000	0	0	500	500	0	0	0	0	0.0%	4.2%	4.2%
14,000	0	0	560	560	180	110	70	1	0.5%	5.3%	4.8%
18,000	0	0	720	720	300	210	90	2	0.5%	5.7%	5.2%
20,000	150	0	800	800	393	290	253	5	1.4%	6.7%	5.5%
25,000	1,150	750	1,000	1,000	668	540	528	10	2.4%	11.3%	9.2%
30,000	2,150	1,750	1,200	1,200	943	790	553	11	2.1%	14.3%	12.5%
35,000	3,150	2,750	1,400	1,400	1,218	1,040	578	11	2.0%	16.5%	14.8%
45,000	5,590	5,190	1,800	1,800	1,768	1,540	628	12	1.8%	20.4%	19.0%
55,000	9,590	9,190	2,200	2,200	2,318	2,040	678	13	1.7%	25.7%	24.4%
70,000	15,590	15,190	2,800	2,800	3,143	2,790	753	14	1.6%	30.8%	29.7%
100,000	27,590	27,190	4,000	4,000	5,542	5,189	753	14	1.2%	37.1%	36.4%
150,000	47,590	47,190	6,000	6,000	11,042	10,689	753	14	0.9%	43.1%	42.6%
175,000	57,590	57,190	7,000	7,000	13,792	13,439	753	14	0.8%	44.8%	44.4%

Variations can arise due to rounding

EXAMPLE 6

Married couple, one income, two children, taxed under Schedule D (self-employed)

Gross Income	Income Tax		PRSI		Universal Social Charge		Total Change		Change as % of Net Income	Effective Tax Rate	
	Existing	Proposed	Existing	Proposed	Existing	Proposed	Per Year	Per Week		Existing	Proposed
€	€	€	€	€	€	€	€	€		%	%
12,000	0	0	500	500	0	0	0	0	0.0%	4.2%	4.2%
14,000	0	0	560	560	180	110	70	1	0.4%	5.3%	4.8%
18,000	0	0	720	720	300	210	90	2	0.4%	5.7%	5.2%
20,000	0	0	800	800	393	290	103	2	0.5%	6.0%	5.5%
25,000	150	0	1,000	1,000	668	540	278	5	1.0%	7.3%	6.2%
30,000	1,150	650	1,200	1,200	943	790	653	13	2.2%	11.0%	8.8%
35,000	2,150	1,650	1,400	1,400	1,218	1,040	678	13	2.0%	13.6%	11.7%
45,000	4,590	4,090	1,800	1,800	1,768	1,540	728	14	1.8%	18.1%	16.5%
55,000	8,590	8,090	2,200	2,200	2,318	2,040	778	15	1.7%	23.8%	22.4%
70,000	14,590	14,090	2,800	2,800	3,143	2,790	853	16	1.6%	29.3%	28.1%
100,000	26,590	26,090	4,000	4,000	5,542	5,189	853	16	1.3%	36.1%	35.3%
150,000	46,590	46,090	6,000	6,000	11,042	10,689	853	16	1.0%	42.4%	41.9%
175,000	56,590	56,090	7,000	7,000	13,792	13,439	853	16	0.8%	44.2%	43.7%

Variations can arise due to rounding

(ii) AVERAGE EFFECTIVE TAX RATES ON ANNUAL EARNINGS IN % TERMS*
FULL RATE PRSI

FULL RATE PRSI	SINGLE															
Gross Income €	2002	2003	2004	2005	2006	2007	2008	2009	2009 (s)/2010	2011	2012	2013	2014	2015	2016	2017
15,000	7.7%	6.8%	5.2%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	2.7%	2.7%	2.7%	1.9%	1.4%	0.9%
20,000	13.8%	13.1%	11.9%	8.4%	7.1%	5.1%	4.4%	5.4%	6.4%	9.8%	9.8%	11.1%	11.1%	10.2%	7.8%	7.2%
25,000	16.2%	15.7%	14.7%	13.5%	12.5%	10.9%	8.3%	9.3%	10.3%	14.0%	14.0%	15.1%	15.1%	14.4%	13.5%	13.0%
30,000	19.3%	18.9%	18.1%	16.0%	14.7%	13.4%	12.9%	13.9%	16.9%	16.8%	16.8%	17.7%	17.7%	17.1%	16.1%	15.6%
40,000	26.4%	26.1%	25.5%	24.0%	21.9%	19.7%	18.6%	19.1%	22.1%	24.2%	24.2%	24.8%	24.8%	23.7%	22.6%	22.1%
60,000	32.4%	32.3%	32.0%	31.1%	29.8%	28.1%	27.5%	28.2%	31.7%	33.4%	33.4%	33.9%	33.9%	32.8%	31.6%	31.1%
100,000	37.1%	37.0%	36.9%	36.3%	35.6%	34.2%	33.8%	34.6%	39.2%	40.9%	40.9%	41.1%	41.1%	40.4%	39.5%	39.1%
120,000	38.3%	38.2%	38.1%	37.6%	37.0%	35.7%	35.4%	36.5%	41.1%	42.7%	42.7%	42.9%	42.9%	42.3%	41.6%	41.3%

FULL RATE PRSI	MARRIED/CIVIL PARTNER ONE INCOME TWO CHILDREN															
Gross Income €	2002	2003	2004	2005	2006	2007	2008	2009	2009 (s)/2010	2011	2012	2013	2014	2015	2016	2017
15,000	2.2%	2.2%	2.2%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	2.7%	2.7%	2.7%	1.9%	1.4%	0.9%
20,000	4.7%	4.7%	4.7%	2.7%	2.7%	2.7%	2.7%	3.7%	4.7%	6.3%	6.3%	7.6%	7.6%	6.7%	4.3%	3.7%
25,000	7.1%	6.5%	5.5%	4.9%	4.9%	4.9%	2.9%	3.9%	4.9%	7.2%	7.2%	8.3%	8.3%	7.6%	6.7%	6.2%
30,000	10.2%	9.8%	9.0%	7.8%	6.7%	5.1%	5.1%	6.1%	9.1%	8.6%	8.6%	9.5%	9.5%	8.9%	7.3%	6.6%
40,000	15.7%	15.5%	14.9%	13.2%	11.5%	10.2%	9.4%	10.4%	13.4%	14.2%	14.2%	14.9%	14.9%	14.5%	12.9%	12.1%
60,000	25.3%	25.1%	24.8%	23.9%	22.5%	20.8%	19.8%	20.5%	24.0%	26.2%	26.2%	26.6%	26.6%	25.7%	24.1%	23.5%
100,000	32.8%	32.8%	32.6%	32.0%	31.2%	29.7%	29.2%	30.0%	34.6%	36.5%	36.5%	36.8%	36.8%	36.1%	35.0%	34.6%
120,000	34.7%	34.6%	34.5%	34.0%	33.3%	32.0%	31.6%	32.6%	37.2%	39.1%	39.1%	39.3%	39.3%	38.8%	37.9%	37.5%

*Average Effective Tax Rates 2001-2010: Total of Income Tax, Levies (Income and Health) and PRSI as a proportion of gross income.

Average Effective Tax Rates 2011-2015: Total of Income Tax, PRSI and Universal Social Charge as a proportion of gross income.

Calculations only account for the standard employee credit, personal income tax credit and home carer credit where relevant.

(s)Supplementary Budget 2009

AVERAGE EFFECTIVE TAX RATES ON ANNUAL EARNINGS IN % TERMS*
SELF EMPLOYED

SELF EMPLOYED	SINGLE															
Gross Income €	2002	2003	2004	2005	2006	2007	2008	2009	2009 (s)/2010	2011	2012	2013	2014	2015	2016	2017
15,000	12.9%	12.9%	12.9%	12.5%	12.1%	11.3%	10.8%	10.8%	10.8%	15.7%	15.7%	15.7%	15.7%	14.9%	10.7%	7.6%
20,000	17.4%	17.4%	17.4%	15.1%	14.9%	14.2%	13.9%	14.9%	15.9%	19.3%	19.3%	19.3%	19.3%	18.5%	15.0%	12.5%
25,000	18.9%	18.9%	18.9%	18.7%	18.5%	18.0%	15.7%	16.7%	17.7%	21.7%	21.7%	21.7%	21.7%	21.0%	17.9%	15.8%
30,000	21.4%	21.4%	21.4%	20.2%	19.6%	19.1%	18.9%	19.9%	22.9%	23.2%	23.2%	23.2%	23.2%	22.6%	19.8%	18.0%
40,000	27.8%	27.8%	27.8%	26.9%	25.3%	23.8%	22.8%	23.3%	26.3%	29.0%	29.0%	29.0%	29.0%	27.8%	25.3%	23.8%
60,000	34.2%	34.2%	34.2%	33.6%	32.6%	31.2%	30.6%	31.2%	34.2%	36.6%	36.6%	36.6%	36.6%	35.6%	33.4%	32.2%
100,000	39.3%	39.3%	39.3%	39.0%	38.3%	37.1%	36.7%	37.5%	41.3%	42.8%	42.8%	42.8%	42.8%	42.0%	40.6%	39.8%
120,000	40.6%	40.6%	40.6%	40.3%	39.8%	38.7%	38.4%	39.4%	43.2%	44.8%	44.8%	44.8%	44.8%	44.2%	43.0%	42.4%

SELF EMPLOYED	MARRIED/CIVIL PARTNER ONE INCOME TWO CHILDREN															
Gross Income €	2002	2003	2004	2005	2006	2007	2008	2009	2009 (s)/2010	2011	2012	2013	2014	2015	2016	2017
15,000	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	6.7%	6.7%	6.7%	6.7%	5.9%	5.4%	4.9%
20,000	6.0%	6.0%	6.0%	3.4%	3.0%	3.0%	3.0%	4.0%	5.0%	7.6%	7.6%	7.6%	7.6%	6.7%	6.0%	5.5%
25,000	9.8%	9.8%	9.8%	9.3%	8.9%	7.8%	4.8%	5.8%	6.8%	11.8%	11.8%	11.8%	11.8%	11.1%	7.3%	6.2%
30,000	12.3%	12.3%	12.3%	11.9%	11.6%	10.7%	9.8%	10.8%	13.8%	15.0%	15.0%	15.0%	15.0%	14.4%	11.0%	8.8%
40,000	17.1%	17.1%	17.1%	16.1%	14.9%	14.3%	13.6%	14.6%	17.6%	19.0%	19.0%	19.0%	19.0%	18.6%	15.6%	13.9%
60,000	27.1%	27.1%	27.1%	26.4%	25.3%	23.8%	22.9%	23.5%	26.5%	29.4%	29.4%	29.4%	29.4%	28.5%	26.0%	24.6%
100,000	35.1%	35.1%	35.1%	34.6%	34.0%	32.7%	32.1%	32.9%	36.7%	38.4%	38.4%	38.4%	38.4%	37.8%	36.1%	35.3%
120,000	37.0%	37.0%	37.0%	36.7%	36.1%	35.0%	34.5%	35.5%	39.4%	41.2%	41.2%	41.2%	41.2%	40.6%	39.3%	38.6%

*Average Effective Tax Rates 2001-2010: Total of Income Tax, Levies (Income and Health) and PRSI as a proportion of gross income.

Average Effective Tax Rates 2011-2015: Total of Income Tax, PRSI and Universal Social Charge as a proportion of gross income.

Calculations only account for the personal income tax credit and home carer credit, where relevant.

(s)Supplementary Budget 2009

(iii) ESTIMATED DISTRIBUTION OF INCOME EARNERS ON THE INCOME TAX FILE FOR 2016 AND 2017

	Exempt (standard rate liability covered by credits or age exemption limits)	Paying tax at the standard rate* (including those whose liability at the higher rate is fully offset by credits)	Higher rate liability NOT fully offset by credits	Total
2016	918,400 37.3%	1,064,900 43.3%	476,900 19.4%	2,460,200
2017 on a post budget basis	920,700 36.6%	1,079,500 42.9%	517,100 20.5%	2,517,300

Notes:

1. Distributions for 2017 are estimates from the Revenue tax-forecasting model using actual data for the year 2014, adjusted as necessary for income and employment trends in the interim.
2. Figures are provisional and likely to be revised
3. A jointly assessed married couple/civil partnership is treated as one tax unit.

(iv) ILLUSTRATIVE CASES

These cases deal with basic personal tax credits, the employee tax credit, earned income tax credit, the home carer credit, the age credit, the age exemption limits, the standard rate bands, PRSI and the Universal Social Charge (USC). Social welfare payments such as the State Pension and Child Benefit are included, where relevant. Additional tax reliefs such as Mortgage Interest Relief and Rent Relief are not taken into account. Some figures are rounded to the nearest euro

Example 1

Ian and Jennifer are married. Jennifer is self-employed and earns €50,000 per annum. Ian works in the tourism industry and earns €40,000 per annum. They each pay pension contributions of 4.5% of gross income. The couple will see a gain of €855 in their annual net income due to this Budget

	2016	2017
	€	€
Gross Income	90,000	90,000
Pension Contributions	<u>4,050</u>	<u>4,050</u>
Taxable income	85,950	85,950
Income tax liability	15,360	14,960
PRSI liability	3,600	3,600
USC liability	<u>3,536</u>	<u>3,081</u>
Total tax liability	22,496	21,641
Net Income	63,454	64,309
Annual Gain		855
Change as a % of net income		1.35%