Submission to Revenue in response to Public Consultation Notice 11th October 2016.

PAYE Modernisation

The existing PAYE system, introduced in 1960, has proved to be very efficient in managing the Income Tax system as it applies to individuals, employees or self-employed and also companies of various sizes. Traditionally the majority of users of the system had income that was essentially constant over a given year so it was possible to project the yearly income tax liability and thus allow stage payments of the tax at regular intervals over the year. Hence PAYE was introduced. The majority of tax payers had full time employment and had a single employer who worked with Revenue to collect the Income Tax due.

In the last 10 years we have seen a greater number of taxpayers in part-time work, limited hours or even zero hour contracts and with possibly multiple employers.

In the future this situation may extend to many more tax payers and possibly State Payments will be paid to subsidise a percentage of them.

Thus the Taxation of Income environment is changing and coupled with increased life expectancy and the possibility of people having to earn income beyond the "retirement age" Revenue should provide tools that will enable the Government to be innovative , flexible and speedy in its response to changes that are and will happen in the way people will:

a/   earn / accumulate income ,

b/   invest in ventures to realise gains (maybe losses),

c/   develop Intellectual Property (even privately ,ie, Apps for Smartphones / Tablets)

 These can happen in Ireland and across the world using the latest Information and Communication Technology (Internet) as the Digital World grows in reach and capability.

Goals of This Proposal

Accepting that, for this Public Consultation, Taxation Policy issues are not to be addressed I believe Revenue should provide tools to policy makers that could enable a PAYE type system to implement new policies or even well accepted old policies that are not realisable with the existing system.

Revenue should develop a new tool (or set of tools) to allow the Department of Finance if desired, to introduce four new taxation policies that are required :

A/   To devise a means to levy tax on Universal Allowances (child allowance, maybe Medical Cards, free travel)

B/   To devise a means to collect, on an "ability to pay" basis, Universal Service Charges (Water Charges, Property Charges)

C/   To tax Capital Gains for individuals, progressively with increasing Gains rather than at a flat rate as exists today.

D/   To give Pension Contributions (as applicable) a common credit percentage, against income tax liability, up to a ceiling amount.

As a consequence of these tools the simplification of the calculation of Income Tax, USC and PRSI liabilities will be possible.

Therefore I wish to propose a taxation policy that will allow Revenue to develop a tool or set of tools to achieve these four goals.

Who should make a Tax Return?

In this proposal it is required that every person reports, at least once a year, to Revenue the Total Income that they receive each year.

Total Income Matters!

 "Total Income" received is defined as the sum of all of the following sources of income that are applicable

1/   Salary, Income from paid work, Professional fees, from all employers

2/   Private Pension(s)

3/   State Pension

4/   Deposit Interest, Irish and Foreign

5/   Interest on Bonds, Irish and Foreign

6/   Dividends on Investments, Irish and Foreign

7/   Income/ Royalties from Intellectual Property (IP), sale of Apps?

8/   Property Rental Income

9/   Social Welfare Payments

10/   State Universal Allowance 1, a notional value for Child Allowance

11/   State Universal Allowance 2, a notional value for Medical Card received

12/   Inheritance / Gift(s) received

13/   other possible sources of income, Family Income Supplement,

        Forestry Income, Exercising of Stock Options......

Each person must aggregate the amount received for each of these categories, if applicable, to get the Total Income liable for Income Tax in their annual Tax return.

A Single Income Tax Rate?

For Income Tax (IC) a single rate of tax (%) will apply which will scale (increase) with the level of Total Income that the individual will receive each year. For example, a person on a low Total Income will pay say 5% of Total Income as Income Tax while a person on a higher level of Total Income will pay say 23% of Total Income and a person on a much higher Total Income will pay say 34% of Total Income as their Income Tax liability. Note the maximum income Tax rate could be set to 40%.

Thus every person will pay income tax at a tax rate percentage specific to them that will be their Effective Tax rate for the Tax Year in question. As the effective tax rate will not be finalised until the year is complete an estimate for the current year (use last year's value?) will have to be used to allow for the projected tax liability to be paid in instalments as per the existing PAYE system. As the projected tax liability may differ from the actual liability a refund will be made on completion of the annual tax return or additional tax payment will be due on the completion of the tax return. If it's expected that there would be significant variations in Total Income from year to year then more frequent, say quarterly, tax returns can be made as all returns will be through the ROS system.

Using ROS with mobile devices?

To enable this new method of tax calculation and collection all persons liable for tax will be required to make at least one Tax Return each year. The amount of data required to be returned to Revenue via the ROS system each year will also scale (increase) with the level of Income each individual receives. High Income persons   would be required to complete the E11 Form on ROS   using a secure computer. Low   income   persons could use an App on their Smartphone or Tablet device to make their annual Tax Return. Of course the appropriate security would be developed by Revenue and put in place for these mobile devices.

The extension of the requirement for a Tax Return to all tax payers would be required, in part, due to the dramatic shift from Defined Benefit to Defined Contribution Pensions that is well underway today. This shift will require that individual Pension Funds will be managed by Tax Payers thus traditional salaried PAYE payers will need to report additional Income gains and Capital gains, hopefully, to Revenue each year.

What Single Tax Rates for USC and PRSI ?

Similarly, a single tax rate, that scales (increases) with the level of Total Income received, should apply to USC and PRSI based on a Maximum Tax rate appropriate to the specific tax, possibly 10% for USC and 8% for PRSI.

Clearly from this proposal a case can be made for merging Income Tax, USC and PRSI into a single tax with say a Maximum Tax rate on Total Income received of say 50%.

Universal State Allowances

When Universal State allowances (items 10 and 11 above) are received a notional value for this allowance is used in the Total Income pool. The notional value is computed by dividing the actual allowance amount by the Maximum Tax Rate that

applies in a given year. For example, if a Universal Allowance of €1,000 is paid to all and the Maximum Income Tax rate is 40% (or 0.4X) then the notional value of the allowance will be €1,000/0.4 or €2,500. Thus a high income person paying Income Tax at the maximum rate of 40% will pay €1,000 on the notional allowance of €2,500 or €1,000 on the actual allowance of €1,000. Hence no benefit will accrue from the actual Universal Allowance given.

A person paying Income Tax at a rate of 10% would pay €2,500 x 0.1 or €250 in tax giving a benefit of €750 from the €1,000 paid by the State.

If the Maximum Income tax rate is changed then the notional value will be changed thus changing the benefit of the State allowance to the individual tax payer.

Universal State Charges

For Universal State Charges (possibly Water Charges or Property Charges) it is proposed that the "ability to Pay" principle should apply.

"Ability to Pay" will be judged on the level of Total Income that is received each year with the resulting individual Effective Income Tax Rate % that is computed. As very high earners should pay the full State Charge that applies to them, low income earners should pay a "Percentage of State Charge" that applies to them based on their Effective Income Tax rate % as follows:

Percentage of State Charge =

(Effective Income Tax Rate / Maximum Income Tax Rate) %

For example;

 Assume a Maximum Income Tax rate of 40% (or 0.4x) then

% of State Charge = (Effective Income Tax rate / 0.4)%

So for different Effective Income Tax Rates (with a Maximum of 40%) the % of State Charge we get is :

Effective IC Tax %	% of State Charge
5	12.5
10	25
20	50
30	75
40	100

Essentially this method allows for the "ability to pay" principle to apply for Universal Charges from the State as the level of Total Income will dictate the percentage of a State Charge that a person will be liable for.

Credit for Pension Contributions

To enable this new method of tax calculation and collection all persons liable for tax will be required to make at least one Tax Return each year.

For the total population required to make such a tax return, a national average effective tax rate % will be computed annually for each of the taxes levied and be reported. The National Average Income Tax Rate % will be used to allow people to compute an Income Tax credit based on the level of their pension contribution.

This pension contribution will normally have a maximum level set by Policy which may be age related as well as an overall pension fund limit.

This will encourage people to contribute to a private pension with preferential treatment given to low income earners, paid for by high earners.

Capital Gains Tax (CGT)

For Capital Gains Tax (CGT) for individuals, a Maximum Tax Rate % could be say 30% but again just like the income based taxes a single tax rate % on all gains would apply based on the level of the gains made. So for a small gain less than 10% CGT might apply while very large gains will have CGT charged at up to 30% in the example mentioned.

Overall, tax rates will be based on individual circumstances with low earners paying low tax rates while very high earners will pay the maximum tax rates designated by The Department of Finance for each specific tax type.

Taxation Bands?

To enable Universal allowances to be taxed progressively I propose that Individual Taxable Income (including the Universal allowance, ie, Child allowance) be taxed at a single tax rate % that scales (increases) with increasing levels of income up to say a maximum Tax Rate of 40%. For example a person with a Total Income of €20,000 could pay a 5% tax rate (that is €1,000) while a person with €50,000 total income could pay a 20% tax rate (that is €10,000) and a person with €150,000 total income could pay a tax rate of 33.33% (that is €50,000). Thus as total income increases the percentage tax that applies to the income increases. Such a scheme should eliminate Taxation traps that can occur at tax rate transitions (Bands) in the existing taxation system.

Increased Number of Tax Bands

If in the present Income tax system the number of tax rates were increased (as the USC system shows) the concept of progressive taxation rates with increasing income could be approached, although the tax rate transition points would raise concerns of a significant tax increase as one transitions through adjacent tax rates.

For example if the 40% Maximum rate was divided into 5% point steps then 8 Tax Rates would apply. Moving from a 5% rate to a 10% rate would be severe as would moving from 10 to 15% while the step from 35 to 40% may be considered tolerable although the extra amount of actual tax to be paid would be significant as the income level is high.

Why not increase the number of tax rates further? Say 1% point steps from 1 to 40%.

Yes an improvement. Can we go further? Yes.

Continuous Tax Bands?..... Linear Curve

I propose that a mathematical approach be taken by adopting a specific formula/equation relating the tax rate % to the level of Total Income received.

A simple linear equation is proposed,

 Tax Rate % =

 Max Tax Rate % x (Total Income / Min Income where Max Tax Rate applies).

For example say Max Tax rate is 40% and Minimum Income for Max Tax Rate is €1,000,000. or €200,000 .The Table A below shows the resulting Tax Rate % for a range of actual Total Income levels noting that the maximum tax rate is limited to 40% ,in this example, using both minimum income limits.

Income €	Max Tax Rate at €1,000,000		Max Tax Rate at €200,000	
	Tax Rate %	Tax due €	Tax Rate %	Tax Due €
10,000	0.4	40	2.0	200
20,000	0.8	160	4.0	800
40,000	1.6	640	8.0	3,200
60,000	2.4	1,440	12.0	7,200

Income €	Tax Rate %	Tax due €	Tax Rate %	Tax Due €
80,000	**3.2**	**2,560**	**16.0**	**12,800**
100,000	4.0	4,000	20.0	20,000
150,000	6.0	9,000	30.0	45,000
200,000	8.0	16,000	**40.0**	**80,000**
350,000	14.0	49,000	40.0	140,000
500,000	20.0	100,000	40.0	200,000
1,000,000	**40.0**	**400,000**	40.0	400,000
2,000,000	40.0	800,000	40.0	800,000

Table A

The choice of the Minimum Income at which the Maximum Tax rate applies changes significantly the Tax Rate % that applies at low to middle income levels where the majority of the tax payers exist so the overall tax take will be very sensitive to the setting of the Minimum Income point at which the Maximum tax rate applies. Detailed knowledge of the profile of income tax payers is necessary to set this point to ensure the tax take is at least equal to that realised by the existing scheme.
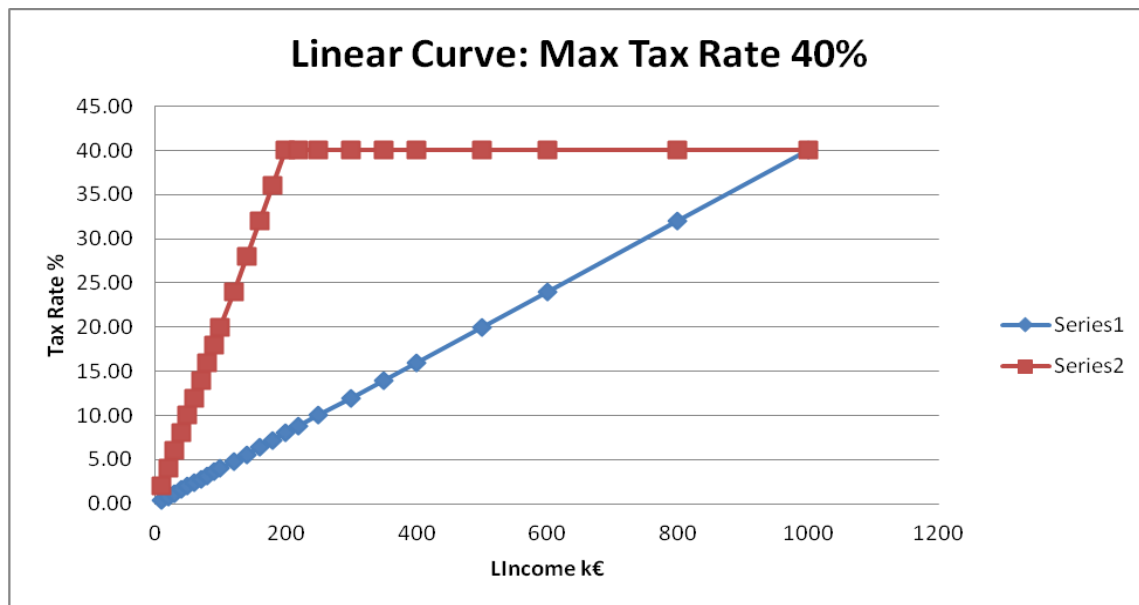
Figure 1

See the attached Excel Spreadsheet, TaxRates _2017.xls,   see Sheet 3

Note, in these curves the Tax Rate uses a linear scale on the Y-axis and again a linear scale is used for the Total Income on the X-axis scale. The total income range is very large, €10,000 to €1,000,000.

Continuous Tax Bands ... Non Linear Curve

An alternative set of tax rate curves / profiles can be generated if a non-linear curve shape is considered.

Here is one example:

Again assuming a Maximum Tax Rate of 40% and defining a pivotal income level (ICp) as a point where the tax rate will be half of the Maximum Tax rate, that is 20% in this example, we can use the following formula / equation to define the relationship between the Actual Tax Rate % and the actual Total Income for a defined Max Tax Rate and Pivotal Income Level (ICp) as follows:

Actual Tax Rate % =

 Max Tax rate % X (1/(1+((Pivotal Income, ICp,)/(Actual Total Income)^N)).

$$\text{Where N = 2.}$$

As an example, assume the Max Tax rate is 40% and the Pivotal Income ICp is set to €80,000 or €100,000. For a range of Total Income levels, as shown in Table B below, the Tax Rate % and the Tax Due € are presented:

	Pivotal Income ICp = €80,000		Pivotal Income ICp = €100,000	
Income €	**Tax Rate %**	**Tax due €**	**Tax Rate %**	**Tax Due €**
10,000	0.615	61.54	0.396	39.60
20,000	2.35	470.6	1.54	307.7
40,000	8.0	3,200	5.52	2,207
60,000	14.4	8,640	10.59	6,353
80,000	**20.0**	**16,000**	15.61	12,488
100,000	24.39	24,390	**20.0**	**20,000**
150,000	31.14	46,712	27.69	41,538

Income €	Tax Rate %	Tax due €	Tax Rate %	Tax Due €
200,000	34.48	68,965	32.0	64,000
350,000	38.01	133,049	36.98	129,434
500,000	39.00	195,008	38.46	192,308
1,000,000	39.75	397,456	39.60	396,040
2,000,000	39.94	798,722	39.90	798,005

Table B

The Pivotal Income ,ICp, value has a large effect on the tax rates of middle income earners , being less sensitive at low and very high incomes suggesting that this type of tax curve may be a good choice. N=2 was used in Table B.   Using N=1 or N=3 changes the rate at which the tax take changes about the Pivotal Income point and are also worth reviewing. See Figure 2 below where N=1,2,and 3 curves with ICp = €100,000 are plotted.

Note, with this formula / equation as Total Income increases the Tax Rate % always increases and continues to approach the Maximum Rate % even for very very large Total Incomes. As Total Income decreases the Tax Rate % always decreases and continues to approach zero as the Total Income approaches zero.
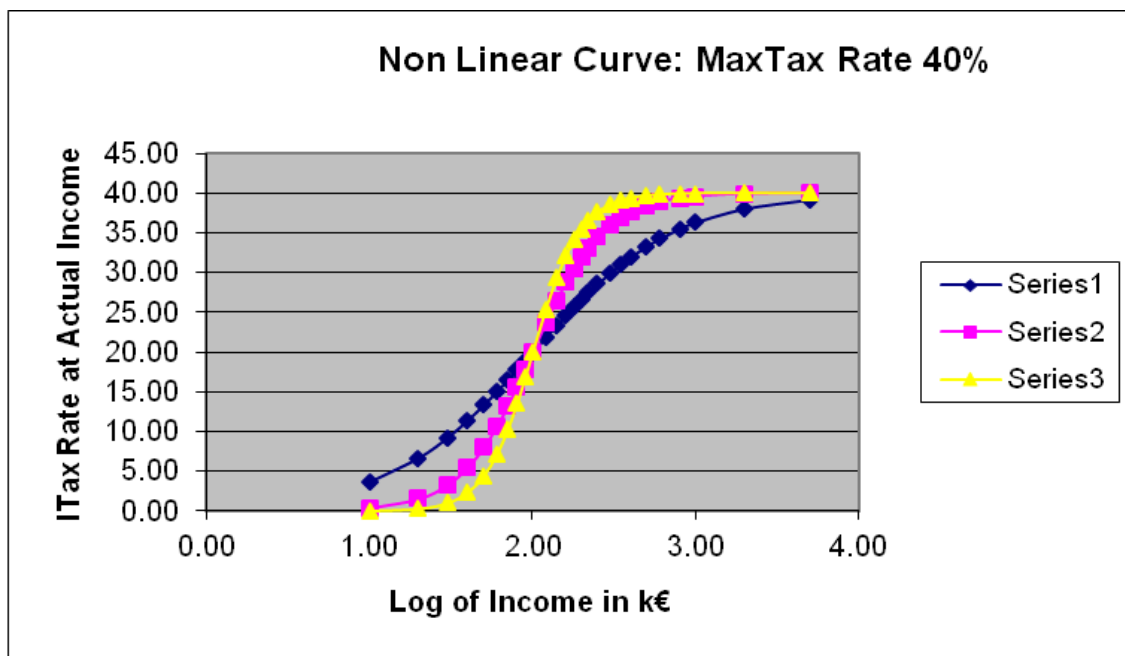

Figure 2

See the attached Excel Spreadsheet.   TaxRates_2017.xls,   Sheet 1.

Sheet 1 shows the effect of changing N from 1 to 2 to 3.

Note, in these curves the Tax Rate uses a linear scale on the Y-axis while a log scale is used on the income scale on the X-axis as the income range is very large, €10,000 to €5,000,000.

A few Examples:

Take a few examples of Income Tax Rate% that would apply. Assume the Max Tax Rate on Total Income is 40%.

	Ex A	Ex B	Ex C	Ex D
Income, earned	20,000	60,000	0	150,000
Pension, state	0	0	12,000	0
Pension, private	0	0	30,000	0
Deposit interest	100	500	500	1,000
Dividends	0	2,000	4,000	10,000
Royalties	0	0	0	20,000
Rental Income	0	10,000	10,000	20,000
Social Welfare	0	0	0	0
Child Allowance	0	1,700	0	3,400
Medical Card*	5,000	0	5,000	0
Inheritance/gift	0	0	0	100,000
	-------	------	-------	-------
Total Income	**25,100**	**74,200**	**61,500**	**304,400**
Tax Rate % Linear	**5.02**	**14.84**	**12.3**	**40.0**
Tax Rate % Non Linear	**2.37**	**14.2**	**10.98**	**36.09**

*Medical Card notional value

Ex A   Low income earner with a Medical card and a small deposit account

Ex B   Middle Income earner with 1 child allowance, room rental income, dividends, a deposit account,

Ex C   75 year old pensioner with private pension, state pension, Medical card, room rental income, dividends and a deposit account,

Ex D   High income earner with property rental income, dividends, a deposit account, IP royalties, allowance for 2 children, and an inheritance.

Shape of Tax Rate Curve

The shape of the Tax curve for Income, USC, PRSI and CGT (for individuals) will dictate the amount of tax that will be collected for each tax type. The amount collected will also depend on, a/ the Maximum Tax Rate for each tax. b/ the profile of the tax payers in a given year.

In order that the tax take for each tax will, initially, be equal to the present system tax take the shape of the tax curve will need to be adjusted by changing the Pivotal Point (for non linear curve shown) or if necessary devise a more complex curve with more adjustment points.

The profile of the tax payers means the number of tax payers with income in €5,000 bands up to €200,000, in €10,000 bands up to €500,000 and in €20,000 bands above €500,000. I was not able to obtain this tax profile from public domain information on the tax-paying population so I cannot compute the tax take for any of the tax curves I have presented in this document.

Summary Comments:

1/   A proposal for a tool that effectively "means tests" State Allowances is presented.

2/   A tool that allows the "ability to pay" principle to apply for the collection of State Charges is also presented.

3/   Credit for Pension contributions at a National Rate % is possible based on an Income Tax policy presented to encourage greater participation in Pension schemes especially for low income earners.

4/   A CGT Rate % that is proportional to gains made by individuals is presented.

        This may encourage people to invest in Capital Projects or Equities (Crowd Funding !)

5/ Deposit Interest tax rates will increase with increasing interest earned as against a flat rate that applies presently. This change may encourage a "save" policy among tax payers on low levels of income and possibly more easily accumulate deposits for house purchase!

6/ The argument for a "single tax type" on Total Income to replace Income Tax / USC / PRSI based on the method presented is worthy of discussion.

7/ The proposed approach on Tax could enable the simplification of the Social Welfare System as a Universal, age related, Benefit Scheme for the various allowances could be enacted.

8/ A big downside to what's proposed is in the area of recording the income received by all persons involved. In particular, cash payments to people for services delivered.

Maybe a person who is paid by cash must report :

a/   the PPS Number of the person who delivered the service.

b/   the amount paid for the service delivered.

Into the account of the recipient(their account) on ROS using their mobile device or computer.

Revenue can then let Data Analysis software in ROS distribute the cash payments as income to the relevant PPS owners (providers of the service), to be included in their Total Income.....

I hope this proposal generates good discussion and maybe is the seed for a Taxation Tool that will bring further efficiency to our Tax Collection System but also be made available to other jurisdictions for a significant fee and/or ongoing royalties !!

Thank you for taking the time to review this proposal. I am available to provide clarification on issues raised if required.

<div align="center">I am a member of the public.</div>

Bill Hunt,

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9th December 2016.