

# **Effaith amrywiadau mewn treth incwm genedlaethol ac is-genedlaethol**

Ymatebion i'r ymgynghoriad

Ionawr 2020

National Assembly for Wales  
**Finance Committee**

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# **Impact of variations in national and sub-national income tax**

Consultation responses

January 2020





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\* Saesneg yn unig | English only

\*\* Cymraeg yn unig | Welsh only

<b>Rhif   Number</b>	<b>Sefylliad</b>	<b>Organisation</b>
NSIT 01*	Ysgol Busnes Caerdydd	Cardiff Business School
NSIT 02*	Rhwydwaith Cydraddoldeb Menywod (RhCM) Cymru	Women's Equality Network (WEN) Wales
NSIT 03*	Institute of Chartered Accountants of Scotland (ICAS)	Institute of Chartered Accountants of Scotland (ICAS)
NSIT 04	Llywodraeth Cymru	Welsh Government
NSIT 05*	Chartered Institute of Taxation the Low Incomes Tax Reform Group (LITRG)	Chartered Institute of Taxation the Low Incomes Tax Reform Group (LITRG)
NSIT 06*	Institute for Fiscal Studies (IFS)	Institute for Fiscal Studies (IFS)
NSIT 07*	Dadansoddi Cyllid Cymru	Wales Fiscal Analysis



# Cardiff Business School

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## Response to Consultation Inquiry into the Impact of variations in national and sub-national income tax

From Dr Long Zhou; Professor Kent Matthews & Professor Max Munday

4<sup>th</sup> December 2019

### Introduction

We understand that the Finance Committee is undertaking an Inquiry into the effect of variations in national and sub-national income tax. In this response we seek to make the Finance Committee aware of new economic modelling frameworks being developed in Wales which can help us better understand the effects of regional tax variation. We take the view that additional research is required to examine effects across different levels of income earner. In this response we seek to summarise model development and offer some basic simulations of the Welsh effects of varying regional income tax.

The Welsh Government during 2014 sponsored a research programme to develop more complex economic models of the Welsh economy through which to understand the potential effects of changes in taxation rates at regional level. This response derives from the research programme. It is important to note that the findings reported here are very much research in progress and with work ongoing in terms of economic model development and refinement. Moreover the material in this response is the responsibility of the authors, rather than the original research sponsor.

Context for our research programme was that while there has been some history of developing economic models through which to understand changes in regional economic activity, the models developed were not suitable for examining tax variations. For example, the region has benefited from a series of Input-Output tables. While Input-Output tables are useful, they are limited in some applications because of assumptions underlying any economic modelling undertaken through the framework. Then a key element of the research programme was to develop a Computable General Equilibrium model for Wales which would allow one to investigate the effects of tax changes outside the limits of more simple economic models.

### Building models to understand effects of regional tax variation

A Computable General Equilibrium (CGE) model is a large-scale numerical model that simulates the core economy-wide activities and interactions between economic agents (households, private, public, and government sectors). CGE models capture the inter-dependencies between sectors and markets, enabling analysis of how a policy change or shock targeted in one part of the economy will affect the rest of the economy. The CGE model functions through a set of equations that describe how the economy evolves over time in response to a policy change. These behavioural equations usually describe the economic behaviour of the agents based on the economic theory of general equilibrium. They ensure supply and demand for goods, services and factors of production in the economy are balanced and determine how firms and households respond to change.

CGE models can focus on a single area which can be a small sub-national region or a large country. The key advantage of single-region CGE models (such as that developed in the research programme) is their ability to simulate the impacts of policies and events, both regional and national, at the regional level. This type of assessment is valuable to authorities at all levels of government in terms of policy formulation and evaluation. The main constraint in construction is data availability.

CGE models have had a wide application in the field of tax analysis. For example, Lecca et al. (2014)<sup>1</sup> use CGE models to examine the regional impact of varying the rate of income tax, or so called “tartan tax” in Scotland.

The CGE model developed for our project was a single-region model. It is aggregated to 21 industry sectors and 3 production factors: labour, capital and land. The CGE model development used National Accounts data organized in the form of a Social Accounting Matrix (SAM). The SAM gives a snapshot of the Welsh economy. The model is developed in terms of different time perspectives: for example, short run and long run characterized by the different states of production factors. In the short run, the model is marked by a sectorally fixed stock of factors. In this time perspective factors cannot move freely across sectors. Hence, they are also fixed in total within the regional economy, and the factor price changes in each sector will vary in response to a policy shock.

The long run allows for free mobility of capital and labour factors across sectors and regions. A consequence of this assumption is the economy-wide factor price formed for capital and labour. Free mobility of factors enables factor-price adjustment between sectors and regions. What this means is that Wales is assumed to be a factor-price taker in the UK economy. For example, a factor price change from an initial benchmark level will cause a migration in labour and capital into or out of Wales until any regional/national price differential is eliminated.

## How might variation in income taxes affect the economy?

We take here an example of a tax cut. While a cut in Income Tax tends to deliver positive effects through the private sector (Figure 1), it could have contractionary effects through the public sector as the government faces a balanced budget constraint (Figure 2). The linked boxes identify the effects that are captured by the Welsh CGE model such as price, income, consumption and investment changes. All these mechanisms happen simultaneously in the economy.

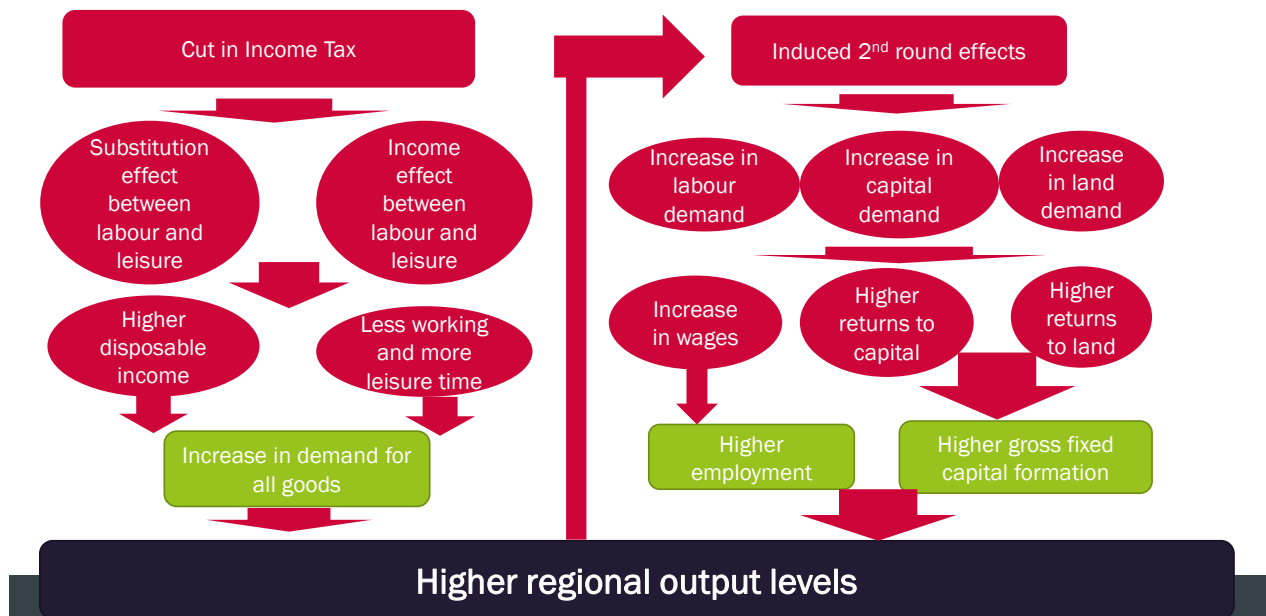
In Figure 1, a cut in Income Tax mainly affects the economy through the labour market first. On the labour supply side (households), workers face a choice between how much time to work and how much time to devote to leisure. Clearly these effects could actually be very different according to whether people are low, medium or high income earners and more model development is needed to pick up on this complexity.

As the tax cut raises the disposable post-tax wages, work becomes relatively more profitable and workers might tend to work more instead of leisure, this resulting from a substitution effect between labour and leisure. Under an income effect, however, with higher post-tax wages, the workers can maintain their standard of living through working less hours. Hence, if leisure time is treated as a normal good, higher disposable income could result in reduced working time and more leisure time.

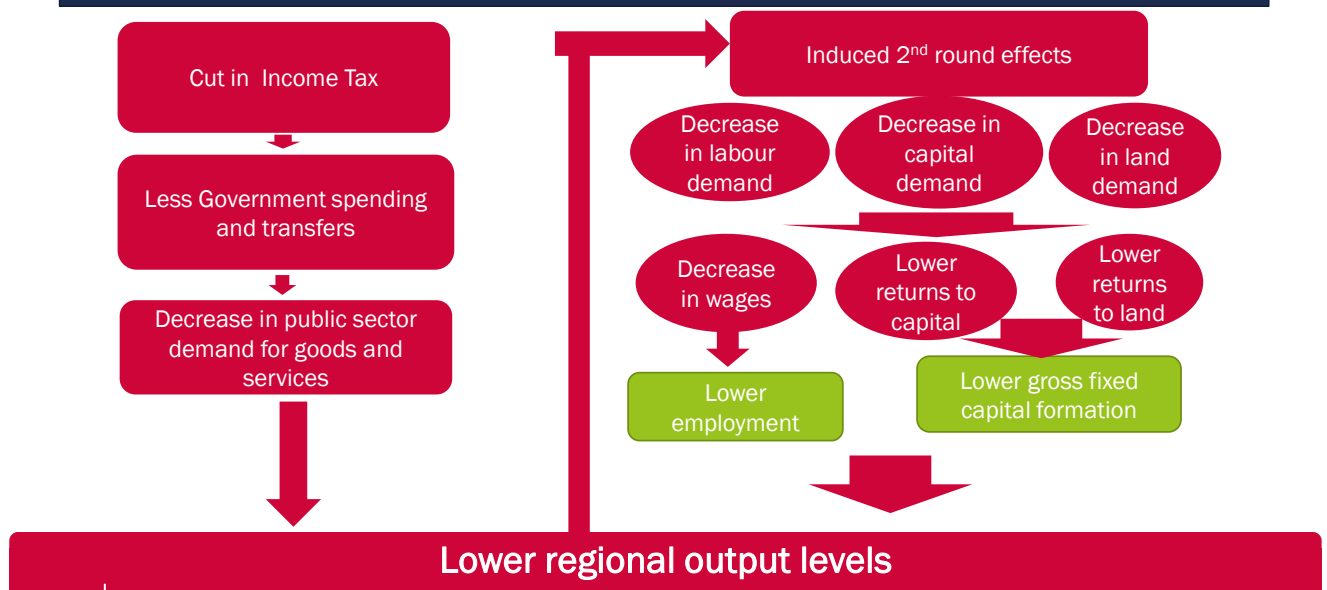
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<sup>1</sup> See Patrizio Lecca, Peter G. McGregor, J. Kim Swales, and Ya Ping Yin, ‘Balanced Budget Multipliers for Small Open Regions within a Federal System: Evidence from the Scottish Variable Rate Of Income Tax’, *Journal of Regional Science*, Vol. 54 (3): 402-421, June 2014.

**Figure 1: Impacts of a reduction in Income Tax**



**Figure 2: Impacts of a reduction in Income tax through the Public Sector**



The net effect is determined by the balance between the two effects. However, both effects have positive impacts on the economy: higher disposable income brings higher consumption, and so does more leisure time which increases demand for entertainment, leisure, cultural and travel goods. Once again these effects could vary markedly according to whether people are low or high earners.

Moreover, on the demand side of the labour market, a cut in Income Tax may reduce the labour cost of firms, and firms substitute labour for other factors to take advantage of relatively cheaper labour. This is the substitution effect between production factors which will raise employment as well as regional output. Cheaper labour only results if wage costs to the employer decrease because of a supply effect. This works only if the income tax effect increases the labour supply of hours (a substitution effect) which in aggregate shifts the supply of labour schedule down and reduces the real wage to the employer. This would be a long run outcome. In the short run workers will take on extra hours because the tax cut makes it worthwhile. In the long run labour migrates to Wales, real wage costs decline, increasing employment and output.

Therefore, aggregate demand in the economy will increase through all the channels described above. To meet this additional demand firms will need to hire more workers, rent more capital and acquire more land. To do so firms may have to increase wages and payments to capital and landowners to induce higher labour supply, investment, and gross fixed capital formation (GFCF) in the economy.

Higher factor demand from firms will stimulate investment in capital goods and higher employment to meet additional consumer demand. Increased investment and employment affects gross value added (GVA) through its short-run effect on the level of demand in the economy and through its long-run effect on how much output the economy can supply. A larger utilized capital and labour stock enables the economy to produce more output in the future, although it may take time for the effects of this larger capital stock to fully feed into a higher GVA.

The tax cut can, however, also deliver contractionary effects through the public sector as shown in Figure 2. As the government faces a balanced budget constraint, the government spending and transfer will reduce given a fall of tax revenue. This implies a decrease of public sector demand and resource which lowers regional output. The contractionary effect originating from the public sector could spread into the private sector further to induce second-round effects. Firms shrink production and cut factor demand to cope with lower demand.

The final macroeconomic effects are determined by the net of the positive effects shown in Figure 1 and the negative effects shown in Figure 2. If the positive effects derived from the private sector dominate the negative effects from the public sector, the tax base will be enlarged and the tax receipts can be partially or even fully recouped. However, the opposite case may also occur, where the stimulation mechanism through the private sector does not generate sufficient growth of the tax base to offset the contractionary effects from tax cut.

## **A Simple Simulation Using the Welsh CGE Framework**

In what follows we provide some basic simulations. In the Table below, we report the results of simulations for the short run (SR) medium run (MR) and long run (LR) under assumptions concerning the substitutability between capital, labour and land. Specifically, we use in the example a relatively low degree of factor substitutability (elasticity of 0.5). The elasticity of substitution value measures the percentage change in the ratio of any pair of factor inputs used in response to a percentage change in their relative factor price ratio. It measures here the assumed substitutability between inputs, i.e. how easy it is to substitute one input for the other, for example how easy it is for firms to substitute labour for capital in response to lower labour cost.



From April 2019, the UK government reduced the 3 rates of Income Tax paid by Welsh taxpayers: basic rate from 20% to 10%, higher rate from 40% to 30% and additional rate from 45% to 35%. The Welsh government can then decide how much to collect on top of the reduced rates and bear the fiscal consequence, which may directly affect their budgets.

While the model is developed with only one representative household due to regional data constraints regarding income allocation and the consumption pattern of different income bands, the tax rate in the simulation is always an effective rate which is defined as the total tax receipts divided by the underlying total tax base. Therefore, any differentiation by the three tax bands is not currently available in the model. However, the simulation is developed in the example to ensure that the variation of the Income Tax will exclusively account for the Welsh government spending change as a result of a balanced budget. The Income Tax simulation is set as a 5% tax cut i.e. a 5% cut on the effective rate, or a 5p-per-Pound cut of the tax revenue. Alternatively, the 5% cut can therefore be seen as a 5% tax refund for what each taxpayer pays in Wales, no matter which band this taxpayer belongs to. We note that the ability to reduce tax by 5% evenly across each tax payer is beyond the Welsh Government's powers, as it only has power over the Welsh rates of income tax (i.e. 10 percentage points of each rate) which are in addition to the non-devolved rates. Then any potential Welsh Government change would not reduce tax evenly across tax payers. For these reasons the example taken here is only illustrative of how our model works.

**Table: Income Tax Simulation: Effects of a 5% Cut (% changes)**

Major variables: Income tax (-5%)	SR	MR	LR
Devolved Government Revenue	-3.90	-3.87	-3.79
Income Tax revenue	-5.07	-5.05	-4.94
Welsh Government spending	-1.24	-1.23	-1.20
Gross value added (GVA)	-0.09	0.03	0.13
Household consumption	0.47	0.49	0.61
Gross fixed capital formation	0.56	0.89	0.95
Total labour factor income	0.37	0.33	0.35
Employment	0.00	0.00	0.35

The 5p per Pound reduction of Income Tax causes devolved government revenue to decrease by around 4% in the short, medium and long run. This is mainly because of the weak recoupment of the Income Tax revenue (note this all income tax contributed from Wales). The Income tax revenue initially falls by slightly more than the scale of the tax cut, 5%, but recovers a little in the long run falling by 4.94%. The small scale of the recoupment implies that the tax cut does not boost the private sector enough to substantially offset the contractionary effect from the public spending cut.

The Welsh Government spending decreases by 1.24% in the short run and 1.20% in the long run. The reason that the scale of the government spending cut is less than that of the devolved government tax revenue, lies in the existence of fiscal transfers from central government. While the devolved government revenue is insufficient to sustain the spending on Wales, the gap is fulfilled by the fiscal support from the UK government. Hence, while the cut of government spending solely results from the cut in devolved tax revenue, the spending decreases by a relatively smaller percentage because this spending itself is more than the devolved revenue.

Major macroeconomic variables, including GVA, consumption and gross fixed capital formation, have generally weak positive responses to the tax change. GVA reduces slightly in the short run but recovers and rises in the medium and long run. The initial fall of GVA is a result of the contractionary effect from the government spending cut. In the medium to the long run, however, the stimulation to the private sector starts to emerge and covers the negative effects from the spending cut.

While the GVA is basically an aggregation of factor incomes, the driving component for GVA here is labour income. The Income Tax cut raises the disposable post-tax income and stimulates labour to work more because the tax cut makes it worthwhile. In the long run, this will in aggregate increase the labour supply and hence lower the labour cost for firms. However, the total labour stock is assumed to be fixed in the short and medium run. Therefore, the increases of labour income in this two time perspective are fully linked with the rise of wage, and the total employment fixed at the regional level. In the long run, the regional labour stock is fully flexible, making the real wage level decline and converge gradually back to the initial equilibrium level. Hence, the increase of labour income in the long run is fully linked with the rise of employment which may come from inactive labour in Wales or migration from outside of Wales. If it was assumed that total full time equivalent in Wales was around 1.2m people, then the tax cut might be connected with around 4,000 more FTE jobs in the long run

## Conclusions

In the context of regional tax devolution in Wales the development of new regional economic models is critical, and with national UK models unlikely to pick up adequately on specific characteristics of the Welsh economy. We accept that our model, as presented here, operates under a number of relative assumptions and uncertainties. This should be borne in mind when examining the findings and deriving inference for policy purposes. However, the purpose of our response to the consultation is to highlight the nature of the model development and as an example application.

However, this research marks progress in regional CGE modelling of the Welsh economy regarding tax variation issues, and sheds some light on tax policy development in the devolved tax regime. There are avenues for further research not least in terms of better understanding how tax changes made in Wales work to affect different income groups, and with the current iteration of our model having just one household sector at present.



Cardiff Business School  
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Welsh Economy Research Unit



## CONSULTATION RESPONSE: NATIONAL ASSEMBLY FOR WALES' FINANCE COMMITTEE'S INQUIRY INTO THE IMPACT OF VARIATIONS IN NATIONAL AND SUB-NATIONAL INCOME TAX

Deadline: **15<sup>th</sup> January 2020**

The email address for responses or queries is: [seneddfinance@assembly.wales](mailto:seneddfinance@assembly.wales)

<b>Your name:</b>	Hilary Watson
<b>Organisation</b>	Women's Equality Network (WEN) Wales
<b>Email Address:</b>	hilary@wenwales.org.uk
<b>Your address:</b>	WEN Wales, c/o Chwarae Teg, First Floor, Anchor Court, Keen Road, Cardiff, CF24 5JW.

### 1. About the Women's Equality Network Wales:

- 1.1 **WEN Wales is a representative women's network<sup>1</sup> and human rights organisation working for a Wales where women and men have equal authority & opportunity to shape society and their own lives. Our charitable objectives are to promote equality and human rights with specific reference to women and gender equality in Wales.**
- 1.2 **WEN Wales, in collaboration with Women Connect First, Welsh Women's Aid and Chwarae Teg published '[Equality for Women and Girls in Wales: Our Manifesto](#)<sup>2</sup>, which sets the agenda in Wales to achieve greater equality for women and girls.**
- 1.3 **In collaboration with Oxfam Cymru we also produced our '[Feminist Scorecard 2019: Tracking Welsh Government Action To Advance Women's Rights and Gender Equality](#)<sup>3</sup>. Collectively, we have a vision of a transformed Wales, free from gender discrimination where woman and men have equal authority and ability to shape society and their own lives. We want to ensure that Wales is the safest country in Europe to be a woman, where women and girls can flourish and actively participate in their communities. These two documents set us on the path to achieving this.**
- 1.4 **WEN Wales sits on the Budget Advisory Group for Equalities (BAGE) We believe that this group has the potential to play a vital role in ensuring that equalities have been properly considered within the Welsh Government's budgetary decisions, including questions around tax powers, but the group needs to be reviewed in order to achieve this fully.**

<sup>1</sup> Over 1,400 individual members and organisational members, including women's rights and allied organisations from across the third sector, academia, international and national NGOs.

<sup>2</sup> [http://www.wenwales.org.uk/wp-content/uploads/LR\\_11509-WEN-Manifesto-20pp-A4-English.pdf](http://www.wenwales.org.uk/wp-content/uploads/LR_11509-WEN-Manifesto-20pp-A4-English.pdf)

[http://www.wenwales.org.uk/wp-content/uploads/LR\\_11509-WEN-Manifesto-20pp-A4-Welsh.pdf](http://www.wenwales.org.uk/wp-content/uploads/LR_11509-WEN-Manifesto-20pp-A4-Welsh.pdf)

<sup>3</sup> <http://www.wenwales.org.uk/wp-content/uploads/Feminist-Scorecard-Report-2019-English-Final.pdf>  
<http://www.wenwales.org.uk/wp-content/uploads/Feminist-Scorecard-Report-2019-Cymraeg-Final.pdf>

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## 2 Consultation Response:

***“Gender budgeting is an approach to public policy making that puts gender analysis at the heart of budget processes, public finance, and economic policy. Gender budgeting has been described as ‘good budgeting’”*** [Tackling Inequality Through Gender Budgeting Evidence and Models](#)

Angela O’Hagan et. al.<sup>5</sup>

- 2.1 Tax systems and tax rules can have different impacts on women and men. So-called gender-neutral taxation – which appears to be the approach adopted by Welsh Government – can actually undermine women’s economic security. A deliberately progressive tax system can have a positive effect.<sup>6</sup>
- 2.2 New taxation powers to Wales mark a significant moment in devolution – this is an opportune moment for Welsh Government to develop tools for analysing the gender impact of taxation decisions and address shortfalls in the budget process. For example, Wales’ gender pay gap<sup>7</sup> affects part-time working women the most<sup>8</sup>, therefore an increase in taxation could have a detrimental effect on women barely making ends meet now. Gender budgeting is an effective tool that shows how decisions affect people differently and would enable Welsh Government to allocate resources more fairly and efficiently and advance gender equality.
- 2.3 Welsh Government states in its Tax Policy Framework<sup>9</sup> that it “will use the tax system to promote fairness and economic growth” and that Welsh taxes should “raise revenue to fund public services as fairly as possible.” This approach should be applied to all Welsh Government’s decisions about taxation and spending, not just its recently devolved powers to set some small new taxes and the limited Welsh income tax.
- 2.4 Impact assessments must be done to show how such a change would affect women, Black, Asian and Minority Ethnic (BAME) people and disabled people before this power is used. Any use must lead to a fairer, more equal and more prosperous Wales with a focus on both short and long-term improvements felt across the whole country and throughout Welsh society.

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<sup>4</sup> Stotsky, J. G. (2016). Gender Budgeting: Fiscal Context and Current Outcomes. IMF Working Paper WP/16/149. Washington, DC: International Monetary Fund. Retrieved from:

<https://www.imf.org/external/pubs/ft/wp/2016/wp16149.pdf>

<sup>5</sup> <https://www.wcpp.org.uk/wp-content/uploads/2019/09/Tackling-Inequality-Through-Gender-Budgeting.pdf>

<sup>6</sup> <http://www.wenwales.org.uk/wp-content/uploads/Feminist-Scorecard-Report-2019-English-Final.pdf>

<http://www.wenwales.org.uk/wp-content/uploads/Feminist-Scorecard-Report-2019-Cymraeg-Final.pdf>

<sup>7</sup> ONS ASHE 2017 provisional results / Welsh Government Priority Sector Statistics 2017

<sup>8</sup> Office for National Statistics, Annual survey of Hours and Earnings, 2017

<sup>9</sup> <https://gov.wales/sites/default/files/publications/2018-09/employability-plan-progress-report-2018.pdf>

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2.5 Wales' new tax powers offer an opportunity for Welsh Government to develop the use of tools for analysing the gender impact of taxation decisions and address shortfalls in the budget process. Gender budgeting is an effective tool that shows how decisions affect people differently, thus helping governments allocate resources more fairly and efficiently and advance gender equality.

2.6 Gender budgeting analysis has been examined alongside equalities budgeting in [Phase 2 of the Gender Equality Review](#). In the Gender Equality Review paper '[Deeds Not Words](#)', Chwarae Teg recommend that "Welsh Government adopt an equalities mainstreaming approach. This will only be successful if an equalities perspective is also put at the heart of budget processes, economic and fiscal policy". WEN Wales endorses the following learning points from '[Deeds Not Words](#)' regarding the Welsh Government budget, which has been supported by international research<sup>10</sup>:

- **Leadership by the ministry of finance has consistently been identified as an essential element of the successful adoption of gender budgeting. This was echoed by Nordic experts who recommended that responsibility for gender budgeting sit with the Minister of Finance, with dedicated officials trained in gender budgeting integrated into the Ministry.**<sup>11</sup>
- **Legal requirements for gender budgeting are important**
- **Gender budgeting goals should be aligned with national gender equality plans. Gender equality goals "should be visible and actively pursued across all areas of policy, including economic and fiscal policy; and not only focused on spending, which has been a more typical focus for gender budgeting, but also on taxes and tax policies."**<sup>12</sup>
- **Gender budgeting can be implemented successfully at the national state and/or local levels**
- **Capacity building is broadly needed but technical-level staff in many countries would benefit from additional training**

2.7 Phase One of the Gender Equality Review identified a disconnect between policy and budget setting processes.<sup>13</sup> Phase Two of the Review also highlighted that "existing forums to support engagement with experts, such as the Budget Advisory Group for

<sup>10</sup> O'Hagan, A., Christensen, E. L., Tilley, H. and Nesom, S. (2019) Tackling Inequalities through Gender Budgeting: Evidence and Models. Wales Centre for Public Policy

<sup>11</sup> Talyor-Collins, E. and Nesom, S. (2019) Gender Equality: Learning from Nordic Nations

<sup>12</sup> O'Hagan, A., Christensen, E. L., Tilley, H. and Nesom, S. (2019) Tackling Inequalities through Gender Budgeting: Evidence and Models. Wales Centre for Public Policy

<sup>13</sup> Chwarae Teg, *Rapid Review of Gender Equality Phase One*, July 2018.

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Equalities (BAGE), are not functioning effectively. WEN Wales sits on BAGE and agrees with concerns raised in the review<sup>14</sup> where Chwarae Teg found that “it’s difficult to determine the extent to which the input from BAGE has shaped the final Annual Budget proposals and there remain some concerns about how well it is delivering its aims”<sup>15</sup>. BAGE appears to play less of an advisory role than the equivalent group in Scotland – the Scottish Equality Budget Advisory Group (EBAG) which appears to have “a more clearly defined role and membership and is a more robust example of engagement with experts as part of the budget process.”<sup>16</sup> The recommendation from the Gender Equality Review Phase Two for BAGE are:

**2.7.1 BAGE should be reviewed to consider, as a minimum, the following questions:**

- **Is there clarity of purpose for BAGE? Is this understood across Welsh Government and by members of the group?**
- **Is BAGE engaged with at right time and at the right level?**
- **Is there a need for better engagement with BAGE from departments, when they are impact assessing their indicative spending proposals? Should BAGE members be funded to ensure that they are able to support the budget process with evidence and analytical capacity<sup>17</sup>**

2.8 WEN Wales supports these recommendations and see BAGE as central ensuring that the impact of variations in national and sub-national income tax is considered in relation to equalities through the specialist expertise of the third sector.

2.9 The UK income tax system is broadly progressive, i.e. as people move into higher income groups they pay an increasing share of gross household income in income tax. The opposite is true for council tax, even after including council tax reductions: people on low incomes pay a higher proportion of their household disposable income in council tax than those who have higher incomes.<sup>18</sup> As there are more women in lower income groups<sup>19</sup> a more progressive council tax would benefit them.

2.10 Council Tax levels have risen faster in Wales than in Scotland or England over the past decade<sup>20</sup>, increasing the burden on lower income households, though also easing cuts to local services. Welsh Government has provided local authorities with funding to

<sup>14</sup> Chwarae Teg, [https://chwaraeteg.com/wp-content/uploads/2019/09/English-Digital\\_Summary-GER.pdf](https://chwaraeteg.com/wp-content/uploads/2019/09/English-Digital_Summary-GER.pdf).

<sup>15</sup> Ibid.

<sup>16</sup> Ibid.

<sup>17</sup> Ibid.

<sup>18</sup> Welsh Government, Welsh Tax Policy Report: Autumn 2017.

<sup>19</sup> <http://blogs.cardiff.ac.uk/thinking-wales/2017/03/31/income-inequality-and-the-1-in-wales-an-analysis-of-taxpayer-data/>

<sup>20</sup> House of Commons Library: Social Indicator 2649.

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maintain the Council Tax Reduction Scheme<sup>21</sup>, which is likely to have benefitted women in poorer households.<sup>22</sup> The discounts for carers may also benefit more women. Welsh Government has committed to making Council Tax fairer and can set policy. Gender budgeting, or gender-sensitive budgeting, allows governments to promote equality by considering a budget's differing impacts on women and men, as well as setting goals or targets for equality and allocating funds to support those goals.

2.11 An Equality Impact Assessment of Welsh budgets is carried out annually but anecdotal evidence suggests this takes place at the end of the budget process to show compliance rather than at an early stage to inform decisions. This approach acts as a barrier to effective cross-government working on gender equality. A more proactive approach would be to outline how all Welsh Government spending is being used to advance equality.

#### **Recommendations – Welsh Government should:**

- 1. Introduce gender budgeting to help determine spending;**
- 2. Develop tools for analysing the impact of the new Welsh income tax and other taxation decisions on women in Wales;**
- 3. Interrogate and improve the use of the Budgetary Advisory Group on Equality as outlined in Phase Two of the Gender Equality Review;**
- 4. Use its policy-making powers to introduce a progressive Council Tax system;**
- 5. Carry out an Equality Impact Assessment of Welsh budgets at an early stage of the budget process to inform decisions**

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<sup>21</sup> Welsh Government, Council Tax Reduction Scheme - Annual Report 2017-18.

<sup>22</sup> The impacts of localised council tax support schemes, The Institute for Fiscal Studies, January 2019.

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Deadline: 15<sup>th</sup> January 2020

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<b>Your address:</b>	WEN Wales, c/o Chwarae Teg, First Floor, Anchor Court, Keen Road, Cardiff, CF24 5JW.

## 1. About the Women's Equality Network Wales:

- 1.1 WEN Wales is a representative women's network<sup>1</sup> and human rights organisation working for a Wales where women and men have equal authority & opportunity to shape society and their own lives. Our charitable objectives are to promote equality and human rights with specific reference to women and gender equality in Wales.
- 1.2 WEN Wales, in collaboration with Women Connect First, Welsh Women's Aid and Chwarae Teg published '[Equality for Women and Girls in Wales: Our Manifesto](http://www.wenwales.org.uk/wp-content/uploads/LR_11509-WEN-Manifesto-20pp-A4-English.pdf)'<sup>2</sup>, which sets the agenda in Wales to achieve greater equality for women and girls.
- 1.3 In collaboration with Oxfam Cymru we also produced our '[Feminist Scorecard 2019: Tracking Welsh Government Action To Advance Women's Rights and Gender Equality](http://www.wenwales.org.uk/wp-content/uploads/Feminist-Scorecard-Report-2019-English-Final.pdf)'<sup>3</sup>. Collectively, we have a vision of a transformed Wales, free from gender discrimination where woman and men have equal authority and ability to shape society and their own lives. We want to ensure that Wales is the safest country in Europe to be a woman, where women and girls can flourish and actively participate in their communities. These two documents set us on the path to achieving this.
- 1.4 WEN Wales sits on the Budget Advisory Group for Equalities (BAGE) We believe that this group has the potential to play a vital role in ensuring that equalities have been properly considered within the Welsh Government's budgetary decisions, including questions around tax powers, but the group needs to be reviewed in order to achieve this fully.

<sup>1</sup> Over 1,400 individual members and organisational members, including women's rights and allied organisations from across the third sector, academia, international and national NGOs.

<sup>2</sup> [http://www.wenwales.org.uk/wp-content/uploads/LR\\_11509-WEN-Manifesto-20pp-A4-English.pdf](http://www.wenwales.org.uk/wp-content/uploads/LR_11509-WEN-Manifesto-20pp-A4-English.pdf);

[http://www.wenwales.org.uk/wp-content/uploads/LR\\_11509-WEN-Manifesto-20pp-A4-Welsh.pdf](http://www.wenwales.org.uk/wp-content/uploads/LR_11509-WEN-Manifesto-20pp-A4-Welsh.pdf)

<sup>3</sup> <http://www.wenwales.org.uk/wp-content/uploads/Feminist-Scorecard-Report-2019-English-Final.pdf>  
<http://www.wenwales.org.uk/wp-content/uploads/Feminist-Scorecard-Report-2019-Cymraeg-Final.pdf>

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## 2 Consultation Response:

***“Gender budgeting is an approach to public policy making that puts gender analysis at the heart of budget processes, public finance, and economic policy. Gender budgeting has been described as ‘good budgeting’<sup>4</sup>”*** [\*Tackling Inequality Through Gender Budgeting Evidence and Models\*](#)

**Angela O’Hagan et. al.<sup>5</sup>**

- 2.1 Tax systems and tax rules can have different impacts on women and men. So-called gender-neutral taxation – which appears to be the approach adopted by Welsh Government – can actually undermine women’s economic security. A deliberately progressive tax system can have a positive effect.<sup>6</sup>
- 2.2 New taxation powers to Wales mark a significant moment in devolution – this is an opportune moment for Welsh Government to develop tools for analysing the gender impact of taxation decisions and address shortfalls in the budget process. For example, Wales’ gender pay gap<sup>7</sup> affects part-time working women the most<sup>8</sup>, therefore an increase in taxation could have a detrimental effect on women barely making ends meet now. Gender budgeting is an effective tool that shows how decisions affect people differently and would enable Welsh Government to allocate resources more fairly and efficiently and advance gender equality.
- 2.3 Welsh Government states in its Tax Policy Framework<sup>9</sup> that it “will use the tax system to promote fairness and economic growth” and that Welsh taxes should “raise revenue to fund public services as fairly as possible.” This approach should be applied to all Welsh Government’s decisions about taxation and spending, not just its recently devolved powers to set some small new taxes and the limited Welsh income tax.
- 2.4 Impact assessments must be done to show how such a change would affect women, Black, Asian and Minority Ethnic (BAME) people and disabled people before this power is used. Any use must lead to a fairer, more equal and more prosperous Wales with a focus on both short and long-term improvements felt across the whole country and throughout Welsh society.
- 2.5 Wales’ new tax powers offer an opportunity for Welsh Government to develop the use of tools for analysing the gender impact of taxation decisions and address shortfalls in the budget process. Gender budgeting is an effective tool that shows how decisions affect people

<sup>4</sup> Stotsky, J. G. (2016). Gender Budgeting: Fiscal Context and Current Outcomes. IMF Working Paper WP/16/149. Washington, DC: International Monetary Fund. Retrieved from:

<https://www.imf.org/external/pubs/ft/wp/2016/wp16149.pdf>

<sup>5</sup> <https://www.wcpp.org.uk/wp-content/uploads/2019/09/Tackling-Inequality-Through-Gender-Budgeting.pdf>

<sup>6</sup> <http://www.wenwales.org.uk/wp-content/uploads/Feminist-Scorecard-Report-2019-English-Final.pdf>

<http://www.wenwales.org.uk/wp-content/uploads/Feminist-Scorecard-Report-2019-Cymraeg-Final.pdf>

<sup>7</sup> ONS ASHE 2017 provisional results / Welsh Government Priority Sector Statistics 2017

<sup>8</sup> Office for National Statistics, Annual survey of Hours and Earnings, 2017

<sup>9</sup> <https://gov.wales/sites/default/files/publications/2018-09/employability-plan-progress-report-2018.pdf>

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differently, thus helping governments allocate resources more fairly and efficiently and advance gender equality.

2.6 Gender budgeting analysis has been examined alongside equalities budgeting in [Phase 2 of the Gender Equality Review](#). In the Gender Equality Review paper '[Deeds Not Words](#)', Chwarae Teg recommend that "Welsh Government adopt an equalities mainstreaming approach. This will only be successful if an equalities perspective is also put at the heart of budget processes, economic and fiscal policy". WEN Wales endorses the following learning points from '[Deeds Not Words](#)' regarding the Welsh Government budget, which has been supported by international research<sup>10</sup>:

- **Leadership by the ministry of finance has consistently been identified as an essential element of the successful adoption of gender budgeting. This was echoed by Nordic experts who recommended that responsibility for gender budgeting sit with the Minister of Finance, with dedicated officials trained in gender budgeting integrated into the Ministry.**<sup>11</sup>
- **Legal requirements for gender budgeting are important**
- **Gender budgeting goals should be aligned with national gender equality plans. Gender equality goals "should be visible and actively pursued across all areas of policy, including economic and fiscal policy; and not only focused on spending, which has been a more typical focus for gender budgeting, but also on taxes and tax policies."**<sup>12</sup>
- **Gender budgeting can be implemented successfully at the national state and/or local levels**
- **Capacity building is broadly needed but technical-level staff in many countries would benefit from additional training**

2.7 Phase One of the Gender Equality Review identified a disconnect between policy and budget setting processes.<sup>13</sup> Phase Two of the Review also highlighted that "existing forums to support engagement with experts, such as the Budget Advisory Group for Equalities (BAGE), are not functioning effectively. WEN Wales sits on BAGE and agrees with concerns raised in the review<sup>14</sup> where Chwarae Teg found that "it's difficult to determine the extent to which the input from BAGE has shaped the final Annual Budget proposals and there remain some concerns about how well it is delivering its aims"<sup>15</sup>. BAGE appears to play less of an advisory

<sup>10</sup> O'Hagan, A., Christensen, E. L., Tilley, H. and Nesom, S. (2019) Tackling Inequalities through Gender Budgeting: Evidence and Models. Wales Centre for Public Policy

<sup>11</sup> Talyor-Collins, E. and Nesom, S. (2019) Gender Equality: Learning from Nordic Nations

<sup>12</sup> O'Hagan, A., Christensen, E. L., Tilley, H. and Nesom, S. (2019) Tackling Inequalities through Gender Budgeting: Evidence and Models. Wales Centre for Public Policy

<sup>13</sup> Chwarae Teg, *Rapid Review of Gender Equality Phase One*, July 2018.

<sup>14</sup> Chwarae Teg, [https://chwaraeteg.com/wp-content/uploads/2019/09/English-Digital\\_Summary-GER.pdf](https://chwaraeteg.com/wp-content/uploads/2019/09/English-Digital_Summary-GER.pdf).

<sup>15</sup> Ibid.

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role than the equivalent group in Scotland – the Scottish Equality Budget Advisory Group (EBAG) which appears to have “a more clearly defined role and membership and is a more robust example of engagement with experts as part of the budget process.”<sup>16</sup> The recommendation from the Gender Equality Review Phase Two for BAGE are:

**2.7.1 BAGE should be reviewed to consider, as a minimum, the following questions:**

- **Is there clarity of purpose for BAGE? Is this understood across Welsh Government and by members of the group?**
- **Is BAGE engaged with at right time and at the right level?**
- **Is there a need for better engagement with BAGE from departments, when they are impact assessing their indicative spending proposals? Should BAGE members be funded to ensure that they are able to support the budget process with evidence and analytical capacity<sup>17</sup>**

2.8 WEN Wales supports these recommendations and see BAGE as central ensuring that the impact of variations in national and sub-national income tax is considered in relation to equalities through the specialist expertise of the third sector.

2.9 The UK income tax system is broadly progressive, i.e. as people move into higher income groups they pay an increasing share of gross household income in income tax. The opposite is true for council tax, even after including council tax reductions: people on low incomes pay a higher proportion of their household disposable income in council tax than those who have higher incomes.<sup>18</sup> As there are more women in lower income groups<sup>19</sup> a more progressive council tax would benefit them.

2.10 Council Tax levels have risen faster in Wales than in Scotland or England over the past decade<sup>20</sup>, increasing the burden on lower income households, though also easing cuts to local services. Welsh Government has provided local authorities with funding to maintain the Council Tax Reduction Scheme<sup>21</sup>, which is likely to have benefitted women in poorer households.<sup>22</sup> The discounts for carers may also benefit more women. Welsh Government has committed to making Council Tax fairer and can set policy. Gender budgeting, or gender-sensitive budgeting, allows governments to promote equality by considering a budget’s differing impacts on women and men, as well as setting goals or targets for equality and allocating funds to support those goals.

<sup>16</sup> Ibid.

<sup>17</sup> Ibid.

<sup>18</sup> Welsh Government, Welsh Tax Policy Report: Autumn 2017.

<sup>19</sup> <http://blogs.cardiff.ac.uk/thinking-wales/2017/03/31/income-inequality-and-the-1-in-wales-an-analysis-of-taxpayer-data/>

<sup>20</sup> House of Commons Library: Social Indicator 2649.

<sup>21</sup> Welsh Government, Council Tax Reduction Scheme - Annual Report 2017-18.

<sup>22</sup> The impacts of localised council tax support schemes, The Institute for Fiscal Studies, January 2019.

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2.11 An Equality Impact Assessment of Welsh budgets is carried out annually but anecdotal evidence suggests this takes place at the end of the budget process to show compliance rather than at an early stage to inform decisions. This approach acts as a barrier to effective cross-government working on gender equality. A more proactive approach would be to outline how all Welsh Government spending is being used to advance equality.

**Recommendations – Welsh Government should:**

- 1. Introduce gender budgeting to help determine spending;**
- 2. Develop tools for analysing the impact of the new Welsh income tax and other taxation decisions on women in Wales;**
- 3. Interrogate and improve the use of the Budgetary Advisory Group on Equality as outlined in Phase Two of the Gender Equality Review;**
- 4. Use its policy-making powers to introduce a progressive Council Tax system;**
- 5. Carry out an Equality Impact Assessment of Welsh budgets at an early stage of the budget process to inform decisions**

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**National Assembly for Wales  
Finance Committee**

**Impact of variations in national and sub-national  
income tax inquiry – call for evidence**

**Evidence from ICAS**

**13 January 2020**

## Introduction

1. The ICAS Tax Board, with its five technical Committees, is responsible for putting forward the views of the ICAS tax community, which consists of Chartered Accountants and ICAS Tax Professionals working across the UK and beyond, and it does this with the active input and support of over 60 board and committee members.
2. The Institute of Chartered Accountants of Scotland ('ICAS') is the world's oldest professional body of accountants and we represent over 22,000 members working across the UK and internationally. Our members work in all fields, predominantly across the private and not for profit sectors.
3. ICAS has a public interest remit, a duty to act not solely for its members but for the wider good. From a public interest perspective, our role is to share insights from ICAS members in the many complex issues and decisions involved in tax and financial system design, and to point out operational practicalities.
4. As a matter of policy, ICAS does not comment on the rates of any tax.

## General comments

5. ICAS welcomes the opportunity to respond to this inquiry, published on 14 October 2019 and closing on 15 January 2020, which we understand raises questions in respect of the possible impact of different income tax rates across the Wales-England border. We acknowledge the terms of reference of the inquiry to be:
  - To examine the effects of sub-national income tax variations in international tax systems on the behaviour of low, medium and high-income earners, particularly migration and tax avoidance.
  - To understand how low, medium and high-income earners may respond to income tax rate divergence for each tax band between Wales and England.
  - To understand the level of divergence in income tax rates that could trigger a behavioural change in low, medium and high-income earners in Wales and England.
  - To assess the monetary impact on WRIT revenue with varying levels of tax rate divergence.
6. ICAS has contributed the experience of its members and their technical expertise in the development and implementation of the devolved taxes in Scotland, both in relation to Scottish income tax and with the two Scottish devolved taxes, Land and Buildings Transaction Tax (LBTT) and Scottish Landfill Tax (SLfT), and in the establishment of the tax authority Revenue Scotland.
7. In relation to Scottish income tax, the direction of travel was set in 2018/19 with the introduction of five bands – providing a more progressive charging structure than in the rest of the UK. With this structure, the profile of Scottish income tax has been raised as the differentials between Scotland and the rest of the UK have grown across thresholds and rates, and from one year to another.
8. Our comments below are based on experience of Scottish income tax. We appreciate that the devolving of income tax powers to Wales differs from that in Scotland, in that the taxable bands cannot be changed, although within each band there is the ability to insert a Welsh rate of income tax.
9. We believe much of the experience in Scotland, and the behavioural reactions to changes in income tax rates may be informative to the Welsh analysis.
10. The key points that attract attention and where behaviour may be influenced in Scotland are for those earning above the average income where the income tax rates are progressively higher than those in the rest of the UK, leading to concerns as to whether this may affect behaviours and, if so, at what point, for
  - those in Scotland, and
  - those who may be attracted into Scotland.

11. The main areas of behavioural reaction to higher taxes are generally considered to be for those who are self-employed and at what level of profits/ growth of their business they make the decision to incorporate; IR 35 type situations; and more generally, methods for seeking to avoid higher rates. We discuss these points of behavioural response below.
12. Whilst Scotland has a lower starting rate of income tax at 19% this is within a relatively small band of income and, based on anecdotal evidence from our members, we do not believe that this influences behaviour of either taxpayers or employers.
13. In the Scottish experience, the substantial time lag between the point at which new rates (and bands, in the case of Scotland) were introduced and the point at which data to assess behavioural responses became available has led to uncertainty for both the public, professional advisers and for those involved in forecasting and spending decisions.

### **The impact on revenues from behavioural change**

14. Clearly, there is a desire that taxpayers should operate within the spirit of the law and not avoid what was intended by the legislators but there can be challenges in fully understanding the contributory factors to tax driven behaviour.
15. A taxpayer simply using the legal options available, or tax incentives offered, can impact revenues. Some of the challenges in relation to the income tax powers include:
  - Learning about the interactions of different taxes and which tax levers are devolved or reserved
  - Evaluating the levels of risk around potential behavioural reactions to tax measures.
  - Accepting that the range of possible responses depends on the level of divergence and an individual's personal circumstances.
16. Appreciating that if a tax is 'competitive' and, say, the rates are reduced relative to those in the rest of the UK, or rates increased, this introduces incentives to reduce tax liabilities in a jurisdiction. Differentials tend to encourage tax planning, but where a jurisdiction only has a small number of taxpayers, such as in Scotland or particularly in Wales, it is important to understand the higher and additional rate population demographic. Their lifestyle (i.e. pensioner, employee, entrepreneur) will impact revenues in different ways should they decide to adapt their behaviour.
17. Any taxpayer who views a tax bill as an unwanted cost may seek to minimise this cost and so divergent rates across income tax (Scottish, Welsh and UK), corporation tax and capital gains tax lend themselves to tax planning behaviours such as business incorporation by an individual who wishes to be paid in dividends rather than a salary. With a partially devolved system, it can be difficult to attribute behavioural impact entirely to a change in income tax rates as there may be other changes taking place in the non-devolved part of the taxation system, for example, with dividend taxation, capital gains tax or taxation of property income. Putting income tax advantages down as the sole reason for certain tax behaviours may be misrepresenting the individual's motivation.
18. Also, arguably, focusing on 'avoidance' misses the point that there is a category of taxpayer behaviour responding to changes in tax law that is not quite strong enough to be categorised as avoidance but can nevertheless affect revenues.
19. For those in employment, it may be difficult to quantify attempts to minimise taxable income in the higher bands. Employers may decide to reconfigure remuneration packages to enable their employees to exchange salaries/wages for items such as pensions or further holiday entitlement; or individuals may increase their pension contributions, reduce their hours or not take on overtime and hence reduce their taxable pay. Small changes for individuals, but the cumulative effect could be significant for the Government in terms of tax take and in terms of productivity with both fiscal and economic impact.

## **The self employed**

20. Across the UK, the self-employed have always had the choice of operating as a sole trader or partnership (liable to income tax) or via a company (liable to corporation tax, whilst the owner may reward themselves by way of salary and/or dividends liable to income tax). A number of factors can influence this choice, including limited liability, tax and pension provision.
21. Using 2019/20 rates, the tax differential for the Scottish taxpayer may be up to around £4,000 depending on the level of profits up to £100,000 and how funds are extracted from the company. For the smaller business, the interaction between Scottish and UK tax regimes may encourage incorporation by Scottish taxpayers at an earlier stage in the business's evolution than compared to those in the rest of the UK.
22. This decision around the form of trading entity adopted not only influences the amount of tax payable by the trader but also determines which jurisdiction receives the taxes paid. Corporation tax is payable to the UK Exchequer, as is income tax on dividends. Scotland will only directly receive funds from Scottish income tax levied on non-savings, non-dividend income (earnings).
23. For the individual Scottish taxpayer, Scottish income tax rates, determined by the Scottish Government, will be factors to consider; as will the UK corporation tax rate at 19%, determined by Westminster.

## **IR35 – the use of personal companies**

24. Under existing rules, HMRC does not have sufficient resource to police all one-man companies; however incoming 'IR35' rules put the onus on the 'employing' company, which may lead to more conservative decisions, and lead to more contractors being within payroll. This would benefit the Exchequer and would help prevent incorporations of disguised employees.

## **Identification of Welsh taxpayers is key**

25. The identification of [Scottish and] Welsh taxpayers is essential if public funding derived from devolved taxes is to be optimised in each devolved jurisdiction. The Welsh Government should not assume that the data is correct and people have been correctly identified to the lowest possible margin of error. HMRC is ultimately responsible for ensuring that all Welsh taxpayers are correctly identified.

## **Migration**

26. There are tensions and challenges arising from the size, shape and potential mobility of the Scottish income tax base, or the Welsh income tax base, which need to be factored in when developing tax policy, particularly if there is increasing divergence from the rest of the UK.
27. The tensions inherent in a more progressive tax system may be potentially twofold: the desire to encourage inward migration and discourage outward migration.
28. In the main, tax is seen as a cost by both businesses and individuals in any evaluation of whether somewhere is deemed an attractive location. To inform taxpayers' decision making there should be clear explanations of how the various taxes work and how they link to public expenditure as well as other factors tied to locating in that jurisdiction. There is also a need to consider the cumulative effect on individuals and businesses of the different taxes, such as income tax, council tax, business rates and land taxes.
29. It is important that existing Welsh taxpayers understand and support their contribution to public finances.



## Better data

30. There have clearly been issues around aspects of the forecasting of Scottish income tax, as discussed in the November 2018 Scottish Parliament's Finance and Constitution Committee report '[Pre-budget scrutiny report](#)' (a 2019 report is awaited). There seems to be a lack of sound data, as revealed by the differences between the forecast and actual numbers of higher and additional rate taxpayers in Scotland (paragraph 73, page 17 of the report).
31. We would encourage the development of better data than is currently available in order to assist with analysis of taxpayers and their behaviour. HMRC's identification of Scottish and Welsh taxpayers is a basic example of an area where accurate and comprehensive information flow is essential to the Scottish and Welsh governments. Clearly, the information flow should be barrier-free and mutually recognised as beneficial, to ensure that tax revenues on both sides can be optimised and any potential loopholes identified and resolved expeditiously.
32. Easy access to high quality, transparent, complete and understandable information is an essential tool to enhance accountability, scrutiny and to support effective decision making on public finances. This is increasingly important in the context of devolved powers and increasing volatility of revenue.
33. Finally, ICAS has been working with the Chartered Institute of Taxation, under the banner of 'The Scottish Taxes Policy Forum', and published a paper "[Devolution Taxes across the UK: Learning from the Scottish Experience](#)". In that paper, we made a number of observations regarding the impact of variations in national and sub national income tax in the context of the Scottish experience however, the points are also pertinent to the interaction of income tax policy across Wales and the rest of the UK.

## **Papur tystiolaeth ysgrifenedig i ymchwiliad y Pwyllgor Cyllid i effaith amrywiadau mewn treth incwm genedlaethol ac is-genedlaethol**

### **Crynodeb**

1. Mae'r Pwyllgor Cyllid wedi gwahodd y Gweinidog Cyllid a'r Trefnydd i roi tystiolaeth ar lafar fel rhan o'i ymchwiliad i effaith amrywiadau mewn treth incwm genedlaethol ac is-genedlaethol. Cyn hynny, mae'r papur hwn yn rhoi ymateb ysgrifenedig i'r ymchwiliad. I grynhoi, mae'n nodi'r canlynol:
  - cyn cyflwyno Cyfraddau Treth Incwm Cymru, gwnaeth Llywodraeth Cymru waith ymchwil a oedd yn ystyried astudiaethau sydd eisoes yn trafod y mater hwn. Cyhoeddwyd crynodeb o'i chanfyddiadau yn Adroddiad ar Bolisi Trethi 2018;
  - nid oes unrhyw dystiolaeth o ran ymatebion ymfudo o ganlyniad i newidiadau mewn treth incwm yn y DU. Fodd bynnag, bydd y newidiadau diweddar i dreth incwm yn yr Alban yn rhoi sail dystiolaeth ar gyfer y DU unwaith y bydd y data perthnasol ar gael;
  - gan edrych ymhellach, nodir ymatebion ymfudo mewn astudiaethau rhyngwladol o ganlyniad i newidiadau mewn cyfraddau treth incwm o fewn gwledydd;
  - mae'r ymatebion hyn ar lefel gymharol fach ar y cyfan, ond tueddir i weld lefel uwch ymhlith trethdalwyr sydd ag incwm uwch;
  - mae astudiaethau rhyngwladol sy'n edrych ar ranbarthau cymharol fach ond integredig, a allai fod yn fwyaf perthnasol i Gymru, yn dueddol o ddangos ymateb ymfudo uwch ar gyfer trethdalwyr sydd ag incwm uchel. Gallai'r effaith hon fod yn ddigon mawr i gael effaith sylweddol ar refeniw yn sgil newid posibl i'r cyfraddau treth sy'n effeithio ar y trethdalwyr sydd â'r incwm uchaf yng Nghymru;
  - mae'r ffordd y caiff treth incwm ei datganoli i Gymru a'r amgylchiadau daearyddol yn golygu mai ychydig iawn o astudiaethau rhyngwladol sy'n debygol o fod yn uniongyrchol berthnasol i'r sefyllfa yng Nghymru. Bydd hyd yn oed angen rhoi ystyriaeth ofalus i'r sail dystiolaeth sy'n deillio o newidiadau i dreth incwm yn yr Alban cyn y gellir dysgu unrhyw wersi a fydd yn berthnasol i Gymru.

### **Cyflwyniad**

2. Mae Llywodraeth Cymru wedi gwneud gwaith ymchwil helaeth ar effeithiau posibl ymfudo yn sgil cyfraddau treth incwm gwahanol yng Nghymru a Lloegr. Cyhoeddwyd crynodeb o'r gwaith hwn yn yr Adroddiad ar Bolisi Trethi ym mis Hydref 2018<sup>1</sup>. Daw llawer o gynnwys y papur hwn o'r ddogfen honno ac fe'i diweddarwyd, lle y bo'n bosibl, gan ddefnyddio canfyddiadau o astudiaethau mwy diweddar.
3. Gan fod datganoli treth incwm yn ffenomenon diweddar yn y DU, nid oes data ar gael eto i ragamcanu effeithiau ymfudo o fewn y Deyrnas Unedig. Gwelwyd

<sup>1</sup> Gweler adroddiad Polisi Trethi Llywodraeth Cymru 2018 sydd ar gael yn;

<https://llyw.cymru/sites/default/files/publications/2018-10/adroddiad-ar-bolisi-trethi-cymru-2018.pdf>

yr amrywiadau cyntaf yn y drefn treth incwm yn y DU yn 2017-18 pan osododd Llywodraeth yr Alban drothwy is ar gyfer cyfradd uwch y dreth incwm na rhannau eraill yn y DU. Yn 2018-19, cyflwynodd Llywodraeth yr Alban ddau fand treth newydd – mae un yn gostwng y dreth ar gyfer y trethdalwyr â'r incwm isaf ac mae'r llall yn fand canolradd rhwng y gyfradd sylfaenol a'r gyfradd uwch. Gwelwyd cynnydd hefyd yn y cyfraddau treth ar gyfer y ddau fand treth uchaf<sup>2</sup>. Ni welwyd newidiadau i'r cyfraddau na'r bandiau hyn yn 2019-20. Fodd bynnag, cafodd y trothwy cyfradd uwch ei rewi ar yr un lefel ag a welwyd yn 2018-19, er iddo gynyddu mewn rhannau eraill o'r DU.

4. Efallai ei bod yn bosibl mesur effeithiau ymfudo o fewn y DU o 2017-18, ond maent yn debygol o fod yn fwy amlwg o 2018-19 yn dilyn y newidiadau mwy diweddar yn yr Alban. Mae oediad hir rhwng y flwyddyn dan sylw ac argaeledd y data sydd eu hangen i ddadansoddi ymddygiad ymfudo o fewn y DU o ganlyniad i newidiadau i dreth incwm ddatganoledig. Ni chaiff set ddata 2017-18 ei chyhoeddi tan 2020.

### **Y sefyllfa o ran y ffin rhwng Cymru a Lloegr**

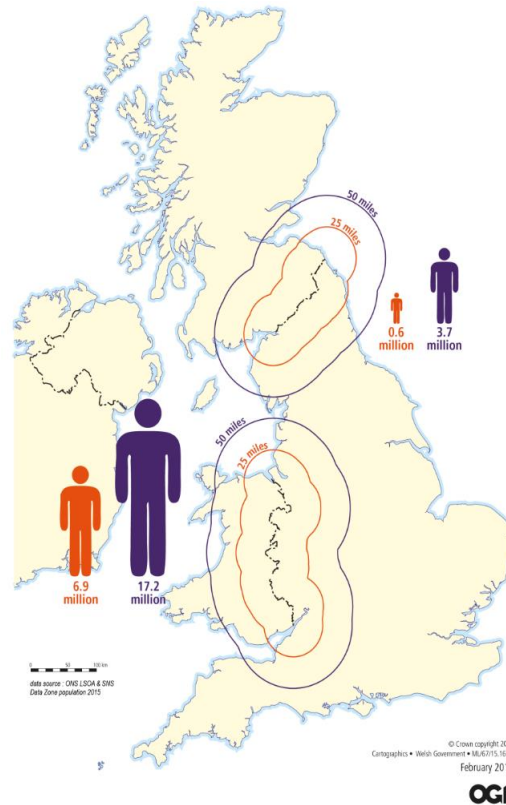
5. Hyd yn oed pan fydd data ar dreth incwm sy'n cwmpasu'r newidiadau diweddar yn yr Alban ar gael, bydd angen rhoi ystyriaeth ofalus i ba mor berthnasol yw'r gwersi a ddysgwyd i Gymru. Mae'r ffin rhwng Cymru a Lloegr yn llawer hwy na'r ffin rhwng yr Alban a Lloegr ac mae ardal y gororau yn llawer mwy poblog. Gan fod treth incwm ddatganoledig yn y DU yn seiliedig ar breswylfan, byddai pobl yn gallu symud pellter cymharol fyr a newid eu gwlad breswyllo at ddibenion treth incwm, a pharhau â'u swyddi a'u rhwydweithiau cymdeithasol ar yr un pryd.
6. Dengys Ffigur Un fod bron 7 miliwn o bobl yn byw o fewn 25 milltir i'r ffin rhwng Cymru a Lloegr, ond dim ond 0.6 miliwn sy'n byw o fewn 25 milltir i'r ffin rhwng yr Alban a Lloegr. Felly, mae'n fwy tebygol y byddai ymfudo rhwng yr Alban a Lloegr yn golygu newid swydd a rhwydweithiau cymdeithasol o gymharu ag ymfudo rhwng Cymru a Lloegr.

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<sup>2</sup> Mae manylion llawn ar gael yn:

<https://www.gov.scot/Topics/Government/Finance/scottishapproach/Scottishincometax2018-2019>

## Ffigur un – Poblogaethau Cymru a Lloegr o fewn 25 a 50 milltir i Ffiniau Cenedlaethol



Ffynhonnell: Llywodraeth Cymru (2017)

7. Gwelir cymhlethdodau pellach yn sgil maint cymharol y sylfaen drethu yng Nghymru a Lloegr. Mae'n debygol y byddai effaith cynnydd mewn treth yng Nghymru ar ymfudo yn wahanol i'r effaith pe bai gostyngiad mewn treth. Mae cynnydd yn y dreth yng Nghymru yn debygol o effeithio ar ymddygiad ymfudo trigolion Cymru yn bennaf. I'r gwrthwyneb, gallai gostyngiad yn y dreth yng Nghymru gael effaith ar ymfudo yn Lloegr a allai, er yn fach yng nghyd-destun y sylfaen drethu yn Lloegr, fod yn sylweddol o gymharu â'r sylfaen drethu yng Nghymru.
8. Rhaid hefyd ystyried pobl sydd â chartrefi yng Nghymru a Lloegr. Gallai fod yn bosibl iddynt newid eu preswylfan at ddibenion treth heb fod angen iddynt wneud fawr ddim newidiadau eraill i'w bywydau. Byddai hyn yn cael ei ystyried yn ymateb ymfudo er na fyddai'n cael unrhyw effaith economaidd wirioneddol, heblaw am yr effaith ar referniw datganoledig / annatganoledig. Am y rheswm hwnnw, cyfeirir at y math hwn o effaith weithiau fel ymateb afreal. Mae'n un o nodweddion pwysig astudiaethau o wledydd sydd â systemau treth incwm sy'n seiliedig ar breswylfan, fel yr Eidal<sup>3</sup>, ond nid systemau sy'n seiliedig ar weithle, fel yr Unol Daleithiau<sup>4</sup>.

<sup>3</sup> Gweler Rubolino (2019) *The Efficiency and distributive effects of local taxes: Evidence from the Italian Municipalities* ISER Cyfres papurau gwaith rhif 2019-02.

<sup>4</sup> Gyda systemau sy'n seiliedig ar weithle, gallai cwmnïau gael eu denu i awdurdodaethau â threth incwm is er mwyn apelio at ddarpar weithwyr. Gyda threthi sy'n seiliedig ar breswylfan, tybir y bydd y gweithgarwch hwn ryw faint yn wannach oherwydd bod gweithwyr yn gallu cymudo rhwng

9. Disgwylir i'r gallu i newid preswylfan dreth drwy symud cartref gael ei weld fwyaf ymhlith trethdalwyr sydd ar incwm cymharol uchel, gan ei bod yn fwy tebygol bod ganddynt sawl cartref.
10. Gall newid preswylfan drwy symud cartref fod yn ymateb cyfreithiol a chyfreithlon i rai. Fodd bynnag, mae datganoli treth incwm yn cyflwyno agwedd ychwanegol bosibl arall ar osgoi treth nad oedd yn nodwedd o system dreth y DU yn flaenorol. Gan mai CThEM sy'n parhau i weinyddu treth incwm yng Nghymru, mae'n bosibl y bydd angen iddo fonitro'r sefyllfa hon os cyflwynir cyfraddau treth incwm gwahanol yng Nghymru a Lloegr.
11. Fel yr eglurwyd uchod, mae diffyg tystiolaeth a data y gellir eu defnyddio i ystyried ymfudo o fewn y DU yn sgil newidiadau i'r dreth incwm. Felly, mae'r adran nesaf yn ystyried yr hyn y gellir ei ddysgu o astudiaethau rhyngwladol. Mae'n werth sôn am astudiaeth sy'n defnyddio cyfraddau treth gyngor gwahanol mewn ardaloedd gwahanol yn y DU i nodi effeithiau treth incwm ar ymfudo. Yn ôl yr astudiaeth hon, mae mwy o ymatebion ymfudo ymhlith y sawl sy'n talu cyfraddau treth uwch ac ychwanegol, ac ychydig iawn o ymatebion, os o gwbl, ymhlith y sawl sy'n talu'r gyfradd sylfaenol<sup>5</sup>. Fodd bynnag, gan fod yr astudiaeth yn defnyddio sylfaen drethu wahanol iawn, casgliadau anuniongyrchol yw'r rhai a nodir.

### **Tystiolaeth ryngwladol**

12. Ceir amrywiadau is-genedlaethol mewn cyfraddau treth incwm mewn nifer o wledydd. Er enghraifft, mae taleithiau yn yr Unol Daleithiau, cymunedau ymreolaethol yn Sbaen, taleithiau yng Nghanaada, rhanbarthau yn yr Eidal a chantonau yn y Swistir, wedi amrywio cyfraddau treth incwm yn ddiweddar. Roedd y profiadau hyn yn gyfle i ymchwilyddwyr arsylwi a rhagamcanu'r effeithiau ymddygiadol a ddeilliodd ohonynt, gan gynnwys ymfudo o fewn y gwledydd hyn.
13. Canolbwyntiodd adolygiad Llywodraeth Cymru ar astudiaethau a oedd yn fwy tebygol o ddangos cydberthynas achosol rhwng newidiadau i dreth incwm ac ymfudo, ac ynysu'r effaith hon oddi wrth ffactorau eraill sy'n dylanwadu ar ymfudo. Mae hyn yn bwysig wrth ystyried perthnasedd astudiaethau rhyngwladol i Gymru, gan fod y ffactorau eraill hynny sy'n dylanwadu ar ymddygiad ymfudo yn debygol o amrywio'n sylweddol rhwng gwledydd.
14. Wrth adolygu'r llenyddiaeth, gwelir nad oes unrhyw astudiaethau y gellir cymhwyso eu canlyniadau yn hwylus i ragamcanu ymfudo rhwng gwledydd y DU o ganlyniad i newidiadau i'r cyfraddau treth incwm datganoledig. Mae hefyd yn anodd cyffredinol rhwng yr astudiaethau i greu rhagamcan cyfunol neu gyfartalog.

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awdurdodaethau treth gwahanol, sy'n nodwedd arall ar y gydberthynas economaidd rhwng Cymru a Lloegr.

<sup>5</sup> Foreman-Peck a Zhou (2019) *Devolving fiscal policy: migration and tax yields* Regional Studies. 1-10. 10.1080/00343404.2019.1602256

15. Fodd bynnag, mae'r llenyddiaeth yn cadarnhau'n gyffredinol berthynas rhwng newidiadau i'r gyfradd dreth ac ymfudo. Dengys y berthynas hon, pan fydd y cyfraddau treth yn cynyddu, fod tebygolrwydd allfudo neu lefel allfudo yn cynyddu, ac mae'r gwrthwyneb hefyd yn wir.
16. Gwelir bod maint cyffredinol yr effaith yn fach, yn enwedig ar gyfer y trethdalwr cyffredin neu'r aelwyd gyffredin (er enghraifft gweler Liebig, Puhani a Sousa-Poza (2007)<sup>6</sup>, a Cebula a Nair-Reichert (2012)<sup>7</sup>).
17. Mae'n debygol y bydd y canlyniad hwn hefyd yn berthnasol i'r DU. Yn 2019-20, mae'r gyfradd dreth sylfaenol yn gymwys i incwm o rhwng £12,501 a £50,000. Felly, bydd newid o un geiniog neu un pwynt canran yn y gyfradd dreth sylfaenol yn newid bil treth person hyd at £375 y flwyddyn. Mae enillion llawn amser cyfartalog (canolrifol) yng Nghymru yn cyfateb i tua £28,000 y flwyddyn (ASHE 2019). Ymddengys yn debygol mai dim ond os byddai newidiadau sylweddol i'r gyfradd sylfaenol y gwelid ymateb ymfudo sylweddol ymhlith trethdalwyr sydd ar incwm cyfartalog.
18. Mae corff cynyddol o lenyddiaeth wedi canolbwyntio ar unigolion sydd ar incwm uchel (gweler er enghraifft Agrawal a Foremny (2018)<sup>8</sup>, Cohen, Lai a Steindel (2014)<sup>9</sup>, Kleven, Landais a Saez (2013)<sup>10</sup>, Kleven, Landais, Saez a Schultz (2014)<sup>11</sup>, Lai, Cohen a Steindel (2011)<sup>12</sup>, Rauh a Shyu (2019)<sup>13</sup> a Young a Verner (2011)<sup>14</sup>).
19. Yn gyffredinol, mae'r astudiaethau hyn yn canfod perthynas rhwng ymfudo a chyfraddau treth incwm, gyda rhai yn dangos mwy o effaith ar unigolion sydd ar incwm cymharol uchel. Dengys rhai astudiaethau, er bod unigolion sydd ar incwm uwch yn ymfudo rhwng taleithiau yn llai aml na'r rhai mewn grwpiau incwm is, maent yn fwy tebygol o ymfudo mewn ymateb i newidiadau i'r dreth incwm<sup>15</sup>. O ystyried pwysigrwydd cymharol enillwyr incwm uchel ar gyfer referniw treth yn gyffredinol, gall ymatebion cymharol fach ymhlith yr enillwyr incwm uchaf gael effeithiau gweddol sylweddol o ran referniw. Serch hynny,

<sup>6</sup> Liebig, Puhani, a Sousa-Poza (2007) *Taxation and internal migration - evidence from the Swiss census using community-level variation in income tax rates* Journal of Regional Science 47, rhif 4 (2007): 807-836.

<sup>7</sup> Cebula a Nair-Reichert (2012) *Migration and Public Policies: A Further Empirical Analysis* Journal of Economics and Finance Cyfrol 36 Argraffiad 1, (Ionawr 2012): 238-248.

<sup>8</sup> Agrawal a Foremny (2018) *Relocation of the Rich: Migration in Response to Top Tax Rate Changes from Spanish Reforms* (1 Ebrill, 2018). Ar gael yn SSRN: <https://ssrn.com/abstract=2796472>

<sup>9</sup> Cohen, Lai a Steindel (2014) *Comment on Millionaire Migration and State Taxation of Top Incomes: Evidence from a Natural Experiment* Public Finance Review 2014 1-20.

<sup>10</sup> Kleven, Landais a Saez (2013) *Taxation and international migration of superstars: Evidence from the European football market* The American Economic Review 103, rhif 5 (2013): 1892-1924.

<sup>11</sup> Kleven, Landais, Saez a Schultz (2014) *Migration and wage effects of taxing top earners: evidence from the foreigners' tax scheme in Denmark* The Quarterly Journal of Economics, 333-378.

<sup>12</sup> Lai, Cohen a Steindel (2011) *The Effects of Marginal Tax Rates on Interstate Migration in the US* New Jersey Department of Treasury, Hydref 2011.

<sup>13</sup> Rauh a Shyu (2019) *Behavioural Responses to State Income Taxation of High Earners: Evidence from California* NBER Papur Gwaith Rhif 26349

<sup>14</sup> Young a Varner (2011) *Millionaire migration and state taxation of top incomes: Evidence from a natural experiment* National Tax Journal 64, rhif 2: 255.

<sup>15</sup> Young, Varner, Lurie a Prisinzano (2016) *Millionaire Migration and Taxation of the Elite: Evidence from Administrative Data* American Sociological Review 2016, Cyfrol 81(3) 421- 446

mae yna wahaniaethau sylweddol yn y llenyddiaeth o ran graddau'r effeithiau hyn.

20. Yn y DU, byddai newid y gyfradd dreth uwch un geiniog neu un pwynt canran yn arwain at newid mewn treth o hyd at £1,000 i'r trethdalwr. Mae hon yn effaith fwy o bosibl na'r newid o un geiniog yn y gyfradd sylfaenol, ond gall fod angen newid sylweddol i'r gyfradd uwch o hyd er mwyn gweld effaith ymfudol amlwg sydd â goblygiadau sylweddol o ran refeniw.
21. Mae tystiolaeth ryngwladol yn dueddol o ganolbwyntio ar enillwyr sydd ar incwm uchel iawn. Nodir mai'r enillwyr hyn yw'r rhai sydd fwyaf sensitif i newidiadau i'r gyfradd dreth. Mae hyn yn awgrymu mai newidiadau i'r gyfradd dreth ychwanegol yng Nghymru sydd fwyaf tebygol o arwain at ymateb ymfudo.
22. Mae maint cyfredol y sylfaen drethu bresennol sy'n ddarostyngedig i'r gyfradd dreth ychwanegol yng Nghymru yn gymharol fach, er ei bod yn bwysig ar gyfer refeniw. Efallai fod astudiaethau sy'n dadansoddi'r effaith ar refeniw mewn ardaloedd â sylfaen drethu incwm uchel cymharol fawr, fel y rhai sy'n edrych ar filiwnyddion yn New Jersey (er enghraifft Cohen, Lai a Steindel (2014)<sup>16</sup>, Young a Varner (2011)<sup>17</sup> Lai, Cohen a Steindel (2011)<sup>18</sup>), yn llai perthnasol i Gymru.
23. Mae astudiaethau sy'n edrych ar ranbarthau cymharol fach ond integredig yn debygol o fod yn fwy perthnasol i Gymru. Mae'r rhain yn cynnwys y rhai sy'n edrych ar gantonau yn y Swistir (Liebig (2007)<sup>19</sup> a Martinez (2017)<sup>20</sup>, bwrdeistrefi yn yr Eidal (Rubolino (2019))<sup>21</sup> neu ranbarthau ymreolaethol yn Sbaen (Agrawal a Foremny (2018))<sup>22</sup>. Mae'r rhain yn canfod ymatebion ymfudo cymharol fawr yn gyffredinol, er ei bod yn anodd cymharu astudiaethau gan eu bod yn defnyddio metrigau gwahanol i nodi eu rhagamcanion.

### **Asesu'r effaith ariannol ar refeniw CTIC yn sgil pennu cyfraddau treth gwahanol**

24. Un ffordd o ddangos yr effaith y gallai ymfudo ei chael ar refeniw yw asesu effaith gymharol effeithiau ymddygiadol ymfudo o'r llenyddiaeth berthnasol a chymharu'r rhagamcanion hyn â'r newid mewn refeniw yn sgil y newidiadau i gyfraddau treth yng Nghymru cyn ystyried effeithiau ymddygiadol.

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<sup>16</sup> Cohen, Lai a Steindel (2014) *Comment on Millionaire Migration and State Taxation of Top Incomes: Evidence from a Natural Experiment* Public Finance Review 2014 1-20

<sup>17</sup> Young a Varner (2011) *Millionaire migration and state taxation of top incomes: Evidence from a natural experiment* National Tax Journal 64, rhif 2: 255

<sup>18</sup> Lai, Cohen a Steindel (2011) *The Effects of Marginal Tax Rates on Interstate Migration in the US* New Jersey Department of Treasury, Hydref 2011

<sup>19</sup> Liebig, Puhani, a Sousa-Poza (2007) *Taxation and internal migration—evidence from the Swiss census using community-level variation in income tax rates* Journal of Regional Science 47, rhif 4 (2007): 807-836

<sup>20</sup> Martinez (2017) *Beggar-Thy-Neighbour Tax Cuts: Mobility after a Local Income and Wealth Tax Reform in Switzerland* Cyfres o Bapurau Gwaith Economeg o Brifysgol St. Gallen, Ysgol Economeg a Gwyddor Wleidyddol Rhif 1608 2017

<sup>21</sup> Rubolino (2019) *The Efficiency and distributive effects of local taxes: Evidence from the Italian Municipalities* ISER Cyfres papurau gwaith rhif 2019-02

<sup>22</sup> Agrawal a Foremny (2018) *Relocation of the Rich: Migration in Response to Top Tax Rate Changes from Spanish Reforms* (1 Ebrill, 2018). Ar gael yn SSRN: <https://ssrn.com/abstract=2796472>



25. Mae yna ddwy brif elfen ar gyfer costio newidiadau posibl mewn polisi. Cyfeirir yn gyffredin at y rhain fel yr effaith statig a'r effaith ymddygiadol. Yr effaith statig yw'r effaith y mae newidiadau i gyfraddau treth yn ei chael ar refeniw, gan dybio nad oes unrhyw newid i'r sylfaen drethu. Caiff yr hen gyfradd dreth a'r gyfradd dreth newydd eu cymhwyso at y sylfaen drethu gyfredol a'r gwahaniaeth rhyngddynt yw cost statig y polisi.
26. Daw'r ansicrwydd mwyaf o ragamcanu'r ail elfen, sef yr effaith ymddygiadol. Mae'r effaith hon yn cynnwys llawer o ffactorau posibl a allai newid y sylfaen drethu o ganlyniad i newid mewn polisi treth, gan gynnwys ymfudo.
27. Er nad yw'n bosibl llunio rhagamcan manwl gywir ar gyfer effaith ymddygiadol ymfudo, mae'n bosibl edrych i weld a yw'r effeithiau a gasglwyd o'r llenyddiaeth berthnasol yn fwy na'r effaith statig.
28. Un nodwedd sylweddol ar y ffordd y caiff treth incwm ei datganoli yng Nghymru yw bod y sylfaen drethu yn cael ei rhannu â Llywodraeth y DU. Dim ond refeniw o 10c o dreth ym mhob band sy'n ariannu Llywodraeth Cymru. Byddai Llywodraeth Cymru yn gweld effaith statig lawn unrhyw newid i gyfraddau Cymru, ond dim ond rhan o'r effaith ymddygiadol, a fyddai'n gymwys i'r sylfaen drethu gyfan a rennir. Felly, byddai angen i'r effaith ymddygiadol, gan gynnwys ymfudo, fod yn gymharol fawr i wrthbwysu'r effaith statig. Mae'r broses o ddatganoli treth incwm yn rhannol yng Nghymru yn lleihau'r effaith gyllidebol y mae ymfudo oherwydd trethu yn ei chael ar Lywodraeth Cymru.
29. Mae'r drafodaeth yma yn canolbwyntio ar newidiadau i'r gyfradd dreth ychwanegol, gan fod rhagamcanion o astudiaethau rhyngwladol perthnasol yn awgrymu mai'r trethdalwyr hyn sy'n debygol o ymateb fwyaf.
30. Er mwyn dadansoddi'r effaith bosibl ar ymfudo yng Nghymru, defnyddir adroddiad a gyhoeddwyd gan Ganolfan Polisi Cyhoeddus Cymru (2018), *Y Sylfaen Drethu Gymreig: Risgiau a Chyfleoedd ar ôl Datganoli Cyllidol*<sup>23</sup>. Darperir y goblygiadau refeniw sy'n deillio o amrywiaeth o newidiadau i gyfraddau treth incwm Cymru yn yr adroddiad, gan gynnwys rhagamcanion o effeithiau ymddygiadol nad ydynt yn ymwneud ag ymfudo. Yna dangosir nifer y trethdalwyr y byddai angen iddynt ymfudo o fewn ffiniau'r DU er mwyn gwrthdroi'r effaith ar refeniw, gan sicrhau bod y gost o ran y polisi yn niwtral yn gyffredinol.
31. Gellir edrych ar ystod o bolisiâu sy'n newid y gyfradd dreth ychwanegol un geiniog neu bum ceiniog yn fwy neu'n llai, a llunio o dablau 4.1 a 4.2 yn yr adroddiad ystod o amcangyfrifon ar gyfer ymddygiad i ragamcanu maint yr ymateb ymfudo a fyddai'n gwrthbwysu'r effaith statig. Amcangyfrifir yr effeithiau mewn ffyrdd gwahanol er mwyn sicrhau y gellir eu cymharu â'r holl ffyrdd y mesurwyd ac yr adroddwyd ar y rhagamcanion yn y llenyddiaeth.

<sup>23</sup> Am ragor o fanylion ewch i: <https://www.wcpp.org.uk/cy/cyhoeddi/y-sylfaen-drethu-gymreig-risgiau-a-chyfleoedd-ar-ol-datganoli-cyllidol/>



32. Amcangyfrifir bod yr effeithiau ymddygiadol sy'n angenrheidiol er mwyn gwrthbwysu'r costau statig yn sylweddol o gymharu â'r amcangyfrifon o'r llenyddiaeth ar drethdalwyr incwm uchel (gweler Cohen, Lai a Steindel (2014)<sup>24</sup>, Young a Varner (2011)<sup>25</sup>, Young, Varner, Lurie a Prisinzano (2016)<sup>26</sup>, Kleven, Landais a Saez (2013)<sup>27</sup>, Kleven, Landais, Saez a Schultz (2014)<sup>28</sup>, Martinez (2017)<sup>29</sup>, Rauh a Shyu (2019)<sup>30</sup> ac Agrawal a Foremny (2018)<sup>31</sup>.
33. Ar sail astudiaethau sy'n edrych ar effaith ymfudo oherwydd trethu o fewn gwledydd, mae hyn yn awgrymu nad yw'r effeithiau ymfudo ar Gymru yn debygol o fod yn fwy na'r effaith statig. Serch hynny, gan fod mwyafrif y llenyddiaeth am y mater hwn yn canolbwyntio ar dreth incwm yn yr Unol Daleithiau, efallai na fydd y rhagamcanion ymddygiadol cymharol fach hyn yn nodweddiadol o Gymru.
34. Mae un astudiaeth, sy'n canfod effaith ymddygiadol lawer mwy, yn seiliedig ar bolisi mewn canton yn y Swistir (Martinez 2017)<sup>32</sup>. Efallai fod yr astudiaeth hon yn fwy perthnasol i Gymru na'r rhan fwyaf o'r astudiaethau eraill oherwydd daearyddiaeth a maint y sylfaen drethu a ddadansoddwyd. Byddai'r rhagamcanion a ganfyddir yn yr astudiaeth hon yn creu effaith ymddygiadol sy'n ddigon mawr i wrthdroi effaith statig newid i'r dreth ychwanegol yng Nghymru. Mae'r astudiaeth hon yn edrych ar effeithiau gostyngiad mewn treth. Mae'n ansicr a fyddai effaith mor sylweddol yn berthnasol i gynnydd mewn treth.
35. Mae'r astudiaeth hon hefyd yn cynnwys pob math o incwm, ond dim ond incwm nad yw'n deillio o gynilion na difidendau sy'n ddarostyngedig i'r gyfradd dreth ddatganoledig yng Nghymru. Disgwylir i hyn olygu y bydd llai o effaith ymddygiadol ymfudo yng Nghymru, oherwydd gall incwm o gynilion a difidendau gael ei ddatgan yn fwy annibynnol ar leoliad o gymharu ag incwm o gyflogaeth. Cadarnheir hyn yn y dystiolaeth ryngwladol, sy'n nodi bod effaith

<sup>24</sup> Cohen, Lai a Steindel (2014) *Comment on Millionaire Migration and State Taxation of Top Incomes: Evidence from a Natural Experiment* Public Finance Review 2014 1-20

<sup>25</sup> Young a Varner (2011) *Millionaire migration and state taxation of top incomes: Evidence from a natural experiment* National Tax Journal 64, rhif 2: 255

<sup>26</sup> Young, Varner, Lurie a Prisinzano (2016) *Millionaire Migration and Taxation of the Elite: Evidence from Administrative Data* American Sociological Review 2016, Cyfrol 81(3) 421–446

<sup>27</sup> Kleven, Landais a Saez (2013) *Taxation and international migration of superstars: Evidence from the European football market* The American Economic Review 103, rhif 5 2013: 1892-1924

<sup>28</sup> Kleven, Landais, Saez a Schultz (2014) *Migration and wage effects of taxing top earners: evidence from the foreigners' tax scheme in Denmark* The Quarterly Journal of Economics, 333–378.

<sup>29</sup> Martinez (2017) *Beggar-Thy-Neighbour Tax Cuts: Mobility after a Local Income and Wealth Tax Reform in Switzerland* Cyfres o Bapurau Gwaith Economeg o Brifysgol St. Gallen, Ysgol Economeg a Gwyddor Wleidyddol Rhif 1608 2017

<sup>30</sup> Rauh a Shyu (2019) *Behavioural Responses to State Income Taxation of High Earners: Evidence from California* NBER Papur Gwaith Rhif 26349

<sup>31</sup> Agrawal a Foremny (2018) *Relocation of the Rich: Migration in Response to Top Tax Rate Changes from Spanish Reforms* (1 Ebrill, 2018). Ar gael yn SSRN: <https://ssrn.com/abstract=2796472>

<sup>32</sup> Martinez (2017) *Beggar-Thy-Neighbour Tax Cuts: Mobility after a Local Income and Wealth Tax Reform in Switzerland* Cyfres o Bapurau Gwaith Economeg o Brifysgol St. Gallen, Ysgol Economeg a Gwyddor Wleidyddol Rhif 1608 2017

ymfudo yn fwy mewn perthynas ag incwm buddsoddi o gymharu â mathau eraill o incwm (Young a Varner (2011)<sup>33</sup>).

36. Mater arall o ran yr effaith bosibl ar reffeniw yw amseru unrhyw ymateb ymfudo. Mae rhai astudiaethau'n ystyried ymatebion dros nifer o flynyddoedd, er enghraifft Rubolino (2019)<sup>34</sup>, tra bod eraill yn canolbwyntio ar yr effeithiau mwy sydyn ar reffeniw a chyllidebau, yn gyson â'r canfyddiadau yn Rauh a Shyu (2019)<sup>35</sup>.
37. Mae cyflymder yr ymatebion i newidiadau mewn treth yn debygol o ddibynnu ar y math o ymfudo (ymatebion real neu afreal) a hyblygrwydd y farchnad lafur a'r farchnad dai. Mae'r rhain hefyd yn ffactorau sy'n debygol o amrywio yn ôl lleoliad – ac yn sicrhwydd gwledydd. Bydd hyn yn achosi ansicrwydd pellach ynghylch sut y gallai rhagamcanion o astudiaethau rhyngwladol fod yn berthnasol i Gymru.

### **Y camau nesaf**

38. Bydd Llywodraeth Cymru yn parhau i adolygu'r llenyddiaeth ryngwladol sy'n trafod effeithiau ymddygiadol ymfudo.
39. Bydd Llywodraeth Cymru hefyd yn ceisio dysgu o unrhyw dystiolaeth sy'n gysylltiedig â'r DU yn dilyn datganoli treth incwm a newidiadau i'r dreth incwm yn yr Alban. Bydd Llywodraeth Cymru yn parhau i weithio gyda CThEM, y Swyddfa Cyfrifoldeb Cyllidebol, Comisiwn Cyllidol yr Alban, Llywodraeth yr Alban ac academyddion i ddeall mwy am effeithiau ymfudo o ganlyniad i dreth er mwyn sicrhau y gall unrhyw benderfyniadau ar gyfraddau treth incwm a'u rhagolygon fod yn seiliedig ar y dystiolaeth orau a mwyaf cyfredol sydd ar gael.

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<sup>33</sup> Young a Varner (2011) *Millionaire migration and state taxation of top incomes: Evidence from a natural experiment* National Tax Journal 64, rhif 2: 255

<sup>34</sup> Rubolino (2019) *The Efficiency and distributive effects of local taxes: Evidence from the Italian Municipalities* ISER Cyfres papurau gwaith rhif 2019-02

<sup>35</sup> Rauh a Shyu (2019) *Behavioural Responses to State Income Taxation of High Earners: Evidence from California* NBER Papur Gwaith Rhif 26349

## **Written evidence paper to the Finance Committee inquiry on the impact of variations in national and sub-national income tax**

### **Summary**

1. The Finance Committee has invited the Minister for Finance and Trefnydd to provide oral evidence as part of its inquiry into the impact of variations in national and sub-national income tax. Ahead of this, this paper provides a written response to the inquiry. In summary, it says:
  - ahead of the introduction of the Welsh Rates of Income Tax, the Welsh Government undertook research looking at existing studies on this issue. A summary of its findings were published in the Tax Policy Report 2018;
  - there is no evidence on migratory responses from income tax changes within the UK. However, the recent changes to income tax in Scotland will provide a UK evidence base once the relevant data becomes available;
  - looking further afield, migratory responses are found to occur in international studies as a result of income tax rate changes within countries;
  - these response are generally quite small, but tend to be larger for higher income tax payers;
  - international studies based on relatively small but integrated regions, which might be most relevant to Wales, tend to show a higher migration response for high income tax payers. This effect might be sufficiently large to have a significant impact on the revenue effects from a potential tax rate change affecting the top income tax payers in Wales;
  - the way that income tax is devolved to Wales and its geographical circumstances mean that very few international studies are likely to be directly applicable to the situation in Wales. Even the evidence base arising from income tax changes in Scotland will need careful consideration before any lessons can be learnt for Wales.

### **Introduction**

2. The Welsh Government has undertaken extensive research into the potential migration effects arising from different income tax rates in Wales and England. A summary of this work was published as part of the Tax Policy Report October 2018<sup>1</sup>. Much of the content in this paper is taken from that document, updated where possible with findings from more recent studies.
3. As income tax devolution is a recent phenomenon in the UK, data is not yet available to enable the estimation of migration effects within the UK. Variations in the income tax regime within the UK first occurred in 2017-18 when the Scottish Government applied a lower threshold for the higher rate of income tax than elsewhere in the UK. In 2018-19, the Scottish Government introduced two new tax bands – one reduces tax for the lowest income taxpayers and the other is an intermediate band between the basic and the higher rate. There were also

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<sup>1</sup> See Welsh Government Tax Policy report 2018 available from;  
<https://gov.wales/sites/default/files/publications/2018-10/welsh-tax-policy-report-2018.pdf>

increases to the tax rates for the top two tax bands<sup>2</sup>. These rates and bands were maintained in 2019-20. However the higher rate threshold was frozen at the same level as in 2018-19, while it was increased elsewhere in the UK.

4. Intra-UK migration effects may be measurable from 2017-18, but they are likely to be more evident from 2018-19 following the more recent changes in Scotland. There is a long lag between the year in question and the availability of data required to analyse intra-UK migration behaviour from devolved income tax changes. The 2017-18 dataset will only be published in 2020.

#### **Wales-England border circumstances**

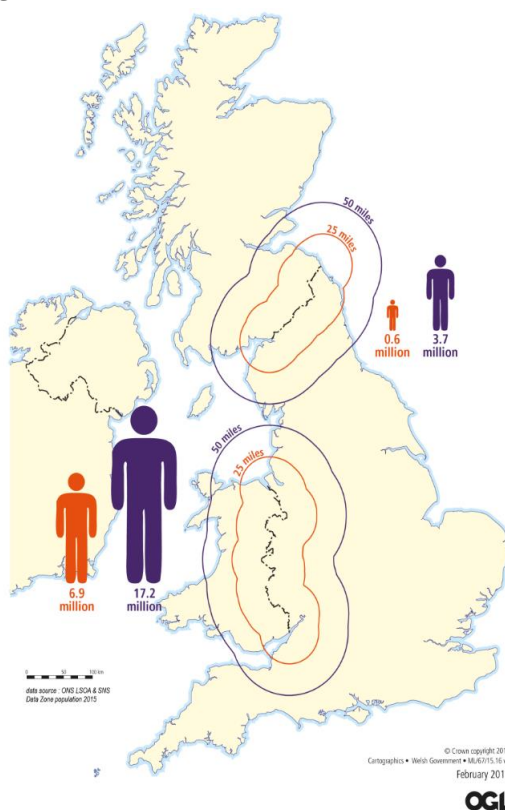
5. Even once income tax data is available which covers the recent changes in Scotland, careful consideration will need to be given to how applicable any lessons learned are to Wales. The Wales-England border is much longer than the Scotland-England border and the border area is much more heavily populated. As devolved income tax in the UK is residence-based, people would be able to move relatively short distances and change their country of residence for income tax purposes, whilst remaining in their existing jobs and social networks.
6. Figure one shows that nearly 7 million people live within 25 miles of the Wales-England border, while only 0.6 million live within 25 miles of the Scotland-England border. Therefore migration between Scotland and England is more likely to require a change of job and social networks than migration between Wales and England.

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<sup>2</sup> For full details see:

<https://www.gov.scot/Topics/Government/Finance/scottishapproach/Scottishincometax2018-2019>

**Figure one – Populations of Wales and England within 25 and 50 miles buffer of National Boundaries**



Source: Welsh Government (2017)

7. Further complications arise from the relative size of the tax bases in Wales and England. It is likely that the migration impact of a tax increase in Wales would be different from the impact of a decrease. A tax increase in Wales is mainly likely to affect the migration behaviour of Welsh residents. In contrast, a tax reduction in Wales could generate a migration effect in England which, while small in the context of the English tax base, could be substantial relative to the Welsh tax base.
8. An additional consideration relates to people with homes in both Wales and England. It might be possible for them to alter residency for tax purposes with few other changes in their lives. This would be captured as a migratory response although, aside from the impact on devolved / non-devolved revenues, there would be no real economic effect. For that reason this type of effect is sometimes referred to as an unreal response. It is an important feature for studies from countries with residence-based income tax systems, such as Italy<sup>3</sup>, but not workplace-based systems, like the US<sup>4</sup>.

<sup>3</sup> See Rubolino (2019) *The Efficiency and distributive effects of local taxes: Evidence from the Italian Municipalities* ISER Working paper series no. 2019-02.

<sup>4</sup> With workplace-based systems, firms might be attracted to lower income tax jurisdictions in order to appeal to potential workers. With residence-based taxes, this activity is assumed to be weakened somewhat due to the ability for workers to commute between different tax jurisdictions, another feature of the Wales-England economic relationship.

9. The ability for a tax payer to switch tax residency between homes is expected to be concentrated amongst relatively high income tax payers, as they are more likely to have multiple homes.
10. Switching residency between homes may be a legal and legitimate response for some. However, income tax devolution does raise a potential additional aspect of avoidance which was not previously a feature in the UK tax system. As HMRC continues to administer income tax in Wales, this will be a potential issue for HMRC to monitor should income tax rates differ between Wales and England.
11. As explained above, there is a lack of evidence and data which can be used to look at migration within the UK from income tax changes. The next section therefore looks at what can be learned from international studies. It is worth noting that there is a UK study which infers income tax migration effects using the impact of different council tax rates in different areas. This indicates larger migration responses amongst higher and additional rate tax payers, with limited or no response amongst basic rate payers<sup>5</sup>. However, as it uses a very different tax base, the inferences from this study are somewhat indirect.

### **International evidence**

12. Sub-national variations in income tax rates exist in a number of countries. For example, states in the US, autonomous communities of Spain, provinces in Canada, regions of Italy and the cantons of Switzerland have had some recent experiences of varying income tax rates. These experiences have provided opportunities for researchers to observe and estimate the resulting behavioural effects, including intra-country migration.
13. The Welsh Government's review focused on studies which were more likely to demonstrate a causal relationship between income tax changes and migration, and isolate this impact from other influences on migration. This is important when considering the relevance of international studies to Wales, as those other influences on migration behaviour are likely to be vary considerably between countries.
14. A review of the literature finds that there is no study, the results from which can be readily applied to estimate intra-UK migration as a result of changes to the devolved rates of income tax. It is also difficult to generalise across studies to generate an average or consolidated estimate.
15. However, the literature generally confirms that there is a relationship between tax rate changes and migration. This relationship shows that when tax rates increase, the probability or level of out-migration increases, and vice versa.

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<sup>5</sup> Foreman-Peck and Zhou (2019) *Devolving fiscal policy: migration and tax yields* Regional Studies. 1-10. 10.1080/00343404.2019.1602256

16. The size of the effect is generally found to be small, especially for the average taxpayer or household (for example see Liebig, Puhani, and Sousa-Poza (2007)<sup>6</sup>, and Cebula and Nair-Reichert (2012)<sup>7</sup>).
17. It seems likely that this result will also apply in the UK. In 2019-20, the basic rate of tax applies to income between £12,501 and £50,000. Therefore a one pence or one percentage point change in the basic rate of tax will alter a person's tax bill by a maximum of £375 per year. Average (median) full-time earnings in Wales are around £28,000 per year (ASHE 2019). It seems likely that only with substantial changes to the basic rate would there be a significant migration response amongst average income tax payers.
18. A growing body of literature has focused on high income individuals (see for example Agrawal and Foremny (2018)<sup>8</sup>, Cohen, Lai and Steindel (2014)<sup>9</sup>, Kleven, Landais and Saez (2013)<sup>10</sup>, Kleven, Landais, Saez and Schultz (2014)<sup>11</sup>, Lai, Cohen and Steindel (2011)<sup>12</sup>, Rauh and Shyu (2019)<sup>13</sup> and Young and Verner (2011)<sup>14</sup>).
19. These studies generally find a relationship between migration and income tax rates, with some showing a bigger effect on relatively high income individuals. Some US studies show that, while higher income individuals migrate between states less frequently than those in lower income groups, they are more likely to migrate in response to income tax changes<sup>15</sup>. Given the relative importance of high income earners for tax revenues overall, relatively small responses amongst the highest earners can have fairly large revenue effects. However, there are considerable differences in the literature on the scale of these effects.
20. In the UK, a one pence or one percentage point change in the higher rate of tax would generate a maximum change in tax of £1,000 for the taxpayer. This is a bigger potential impact than a one pence change in the basic rate, but there

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<sup>6</sup> Liebig, Puhani, and Sousa-Poza (2007) *Taxation and internal migration - evidence from the Swiss census using community-level variation in income tax rates* Journal of Regional Science 47, no. 4 (2007): 807-836.

<sup>7</sup> Cebula and Nair-Reichert (2012) *Migration and Public Policies: A Further Empirical Analysis* Journal of Economics and Finance Vol. 36, Iss. 1, (January 2012): 238-248.

<sup>8</sup> Agrawal and Foremny (2018) *Relocation of the Rich: Migration in Response to Top Tax Rate Changes from Spanish Reforms* (April 1, 2018). Available at SSRN: <https://ssrn.com/abstract=2796472>

<sup>9</sup> Cohen, Lai and Steindel (2014) *Comment on Millionaire Migration and State Taxation of Top Incomes: Evidence from a Natural Experiment* Public Finance Review 2014 1-20.

<sup>10</sup> Kleven, Landais and Saez (2013) *Taxation and international migration of superstars: Evidence from the European football market* The American Economic Review 103, no. 5 (2013): 1892-1924.

<sup>11</sup> Kleven, Landais, Saez and Schultz (2014) *Migration and wage effects of taxing top earners: evidence from the foreigners' tax scheme in Denmark* The Quarterly Journal of Economics, 333-378.

<sup>12</sup> Lai, Cohen and Steindel (2011) *The Effects of Marginal Tax Rates on Interstate Migration in the US* New Jersey Department of Treasury, October 2011.

<sup>13</sup> Rauh and Shyu (2019) *Behavioural Responses to State Income Taxation of High Earners: Evidence from California* NBER Working Paper No. 26349

<sup>14</sup> Young and Varner (2011) *Millionaire migration and state taxation of top incomes: Evidence from a natural experiment* National Tax Journal 64, no. 2: 255.

<sup>15</sup> Young, Varner, Lurie and Prisinzano (2016) *Millionaire Migration and Taxation of the Elite: Evidence from Administrative Data* American Sociological Review 2016, Vol. 81(3) 421- 446



may still need to be a substantial change to the higher rate to illicit a noticeable migratory effect with significant revenue implications.

21. Existing international evidence tends to concentrate on very high earners. These earners are found to be most sensitive to tax rate changes. This suggests that changes in the additional rate of tax in Wales are most likely to generate a migration response.
22. The current size of the tax-base subject to the additional tax rate in Wales, although important for revenue, is relatively small. Studies which analyse the revenue impact in areas with relatively large high income tax-bases, such as those looking at millionaires in New Jersey (for example Cohen, Lai and Steindel (2014)<sup>16</sup>, Young and Varner (2011)<sup>17</sup> Lai, Cohen and Steindel (2011)<sup>18</sup>), may be less relevant to Wales.
23. Studies which look at relatively small but integrated regions are likely to be more relevant to Wales. These include those looking at the cantons in Switzerland (Liebig (2007)<sup>19</sup> and Martinez (2017)<sup>20</sup>, municipalities in Italy (Rubolino (2019))<sup>21</sup> or the autonomous regions of Spain (Agrawal and Foremny (2018))<sup>22</sup>. These generally find relatively large migration responses, although comparisons across studies are difficult as they report their estimates using different metrics.

### **Assessing the monetary impact on WRIT revenue with varying levels of tax rate divergence**

24. One way of demonstrating the potential size of the migration effect on revenues is by assessing the relative impact of migration behavioural effects from the relevant literature and comparing these estimates to the revenue change due to the change to tax rates in Wales before taking account of behavioural effects.
25. There are two main elements for costing potential policy changes. These are commonly referred to as the static effect and the behavioural effect. The static effect is the impact on revenues from a change in tax rates assuming there is

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<sup>16</sup> Cohen, Lai and Steindel (2014) *Comment on Millionaire Migration and State Taxation of Top Incomes: Evidence from a Natural Experiment* Public Finance Review 2014 1-20

<sup>17</sup> Young and Varner (2011) *Millionaire migration and state taxation of top incomes: Evidence from a natural experiment* National Tax Journal 64, no. 2: 255

<sup>18</sup> Lai, Cohen and Steindel (2011) *The Effects of Marginal Tax Rates on Interstate Migration in the US* New Jersey Department of Treasury, October 2011

<sup>19</sup> Liebig, Puhani, and Sousa-Poza (2007) *Taxation and internal migration—evidence from the Swiss census using community-level variation in income tax rates* Journal of Regional Science 47, no. 4 (2007): 807-836

<sup>20</sup> Martinez (2017) *Beggar-Thy-Neighbour Tax Cuts: Mobility after a Local Income and Wealth Tax Reform in Switzerland* Economics Working Paper Series from University of St. Gallen, School of Economics and Political Science No 1608 2017

<sup>21</sup> Rubolino (2019) *The Efficiency and distributive effects of local taxes: Evidence from the Italian Municipalities* ISER Working paper series no. 2019-02

<sup>22</sup> Agrawal and Foremny (2018) *Relocation of the Rich: Migration in Response to Top Tax Rate Changes from Spanish Reforms* (April 1, 2018). Available at SSRN: <https://ssrn.com/abstract=2796472>



no change to the tax base. The old and new tax rates are applied to the current tax base and the difference between them is the static cost of the policy.

26. The greater uncertainty applies to the second element, the behavioural effect. This effect includes many potential factors which may alter the tax-base as a result of a change in tax policy, including migration.
27. While it is not possible to produce a precise estimate of the migration behavioural effect, it is possible to look at whether the effects inferred from the relevant literature are larger than the static effect.
28. One of the significant features of the way income tax is devolved in Wales is that the tax base is shared with the UK Government. Revenues from just 10p of tax in each band fund the Welsh Government. The Welsh Government would incur the full static effect from a change in the Welsh rates, but only part of the behavioural effect, which would apply to the whole shared tax base. Therefore the behavioural effect, including migration, would need to be relatively large to offset the static effect. The partial devolution of income tax in Wales dampens the budgetary effect on the Welsh Government from tax-induced migration.
29. The discussion here focuses on changes to the additional tax rate, as estimates from relevant international studies suggests these tax payers are likely to be the most responsive.
30. To analyse the possible migration effect in Wales, a report published by the Wales Centre for Public Policy (2018), *The Welsh Tax Base: Risks and Opportunities after Fiscal Devolution*<sup>23</sup> is used. The revenue implications of a range of changes to the Welsh rates of income tax are provided in the report, including estimates of the non-migration behavioural effects. It then shows the number of taxpayers who would need to migrate within the UK to reverse the revenue effect, thereby making the policy cost neutral overall.
31. Looking at a range of policies which alter the additional tax rate by plus or minus one pence or five pence, a range of behavioural estimates can be derived from tables 4.1 and 4.2 in the report to estimate the size of migration response which would offset the static effect. The effects are estimated in different ways to ensure they are comparable with the range of ways estimates have been measured and reported in the literature.
32. The behavioural effects required to offset the static costings are estimated to be large compared to the estimates in the literature found in studies looking at high-income taxpayers (see Cohen, Lai and Steindel (2014)<sup>24</sup>, Young and

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<sup>23</sup> For more details see: <https://www.wcpp.org.uk/publication/the-welsh-tax-base-risks-and-opportunities-after-fiscal-devolution/>

<sup>24</sup> Cohen, Lai and Steindel (2014) *Comment on Millionaire Migration and State Taxation of Top Incomes: Evidence from a Natural Experiment* Public Finance Review 2014 1-20

Verner (2011)<sup>25</sup>, Young Varner, Lurie and Prisinzano (2016)<sup>26</sup>, Kleven, Landais and Saez (2013)<sup>27</sup>, Kleven, Landais, Saez and Schultz (2014)<sup>28</sup>, Martinez (2017)<sup>29</sup>, Rauh and Shyu (2019)<sup>30</sup> and Agrawal and Foremny (2018)<sup>31</sup>.

33. This implies that, based on studies looking at the intra-national effect of tax-induced migration, the migration effects in Wales are unlikely to be larger than the static effect. However, as most of the literature about this issue focuses on income tax in the US, these relatively small behavioural estimates may not be typical for Wales.
34. One study, which does find a much larger behavioural effect, is based on a policy in a Swiss canton (Martinez 2017)<sup>32</sup>. This study may be more relevant to Wales than most others due to the geography and size of the tax-base analysed. The estimates in this study would generate a sufficiently large behavioural effect to reverse the static effect of a change in the additional rate in Wales. This study looks at the effects of a tax decrease. It is uncertain whether such a large effect would apply to a tax increase.
35. This study also includes all forms of income. Whereas only non-savings and non-dividend income is subject to the devolved rate of tax in Wales. This is expected to reduce the migration behavioural effect in Wales, as savings and dividend income can be declared more independently of location than employment income. This is confirmed in the international evidence, where the migration effect is found to be larger with investment income than other forms of income (Young and Varner (2011)<sup>33</sup>).
36. Another issue with regards to the potential revenue impact is the timing of any migration response. Some studies look at responses over a number of years, for example Rubolino (2019)<sup>34</sup>, while others focus on more instantaneous

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<sup>25</sup> Young and Varner (2011) *Millionaire migration and state taxation of top incomes: Evidence from a natural experiment* National Tax Journal 64, no. 2: 255

<sup>26</sup> Young, Varner, Lurie and Prisinzano (2016) *Millionaire Migration and Taxation of the Elite: Evidence from Administrative Data* American Sociological Review 2016, Vol. 81(3) 421– 446

<sup>27</sup> Kleven, Landais and Saez (2013) *Taxation and international migration of superstars: Evidence from the European football market* The American Economic Review 103, no. 5 2013: 1892-1924

<sup>28</sup> Kleven, Landais, Saez and Schultz (2014) *Migration and wage effects of taxing top earners: evidence from the foreigners' tax scheme in Denmark* The Quarterly Journal of Economics, 333–378.

<sup>29</sup> Martinez (2017) *Beggar-Thy-Neighbour Tax Cuts: Mobility after a Local Income and Wealth Tax Reform in Switzerland* Economics Working Paper Series from University of St. Gallen, School of Economics and Political Science No 1608 2017

<sup>30</sup> Rauh and Shyu (2019) *Behavioural Responses to State Income Taxation of High Earners: Evidence from California* NBER Working Paper No. 26349

<sup>31</sup> Agrawal and Foremny (2018) *Relocation of the Rich: Migration in Response to Top Tax Rate Changes from Spanish Reforms* (April 1, 2018). Available at SSRN: <https://ssrn.com/abstract=2796472>

<sup>32</sup> Martinez (2017) *Beggar-Thy-Neighbour Tax Cuts: Mobility after a Local Income and Wealth Tax Reform in Switzerland* Economics Working Paper Series from University of St. Gallen, School of Economics and Political Science No 1608 2017

<sup>33</sup> Young and Varner (2011) *Millionaire migration and state taxation of top incomes: Evidence from a natural experiment* National Tax Journal 64, no. 2: 255

<sup>34</sup> Rubolino (2019) *The Efficiency and distributive effects of local taxes: Evidence from the Italian Municipalities* ISER Working paper series no. 2019-02

effects on revenues and budgets, consistent with the findings in Rauh and Shyu (2019)<sup>35</sup>.

37. The speed of responses to tax changes is likely to depend on the type of migration (real or unreal responses) and the flexibility of labour and housing markets. These are also factors which are likely to vary by location – and certainly across countries. This will cause further uncertainty over how estimates from international studies might be applicable to Wales.

### **Next steps**

38. The Welsh Government will continue to review the international literature regarding migration behavioural effects.
39. The Welsh Government will also look to learn from any UK-based evidence following income tax devolution and changes to income tax in Scotland. The Welsh Government will continue to work with HMRC, OBR, the Scottish Fiscal Commission, Scottish Government and academia to further the understanding of tax-induced migratory effects so that any decisions on tax income rates and their forecasts can be based on the best and most-to-date evidence available.

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<sup>35</sup> Rauh and Shyu (2019) *Behavioural Responses to State Income Taxation of High Earners: Evidence from California* NBER Working Paper No. 26349



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## **The Finance Committee of the National Assembly for Wales**

### **Inquiry: Impact of variations in national and sub-national income tax**

#### **Joint Response by the Chartered Institute of Taxation (CIOT) and the Low Incomes Tax Reform Group (LITRG)**

## **1 Introduction**

- 1.1 The Chartered Institute of Taxation and the Low Incomes Tax Reform Group (LITRG) sets out below its joint response to the Finance Committee of the National Assembly for Wales' inquiry<sup>1</sup> on the 'Impact of variations in national and sub-national income tax'.
- 1.2 The inquiry, published on 14 October 2019 and closing on 15 January 2020, raises questions in respect of the possible impact of different income tax rates across the Wales-England border. The terms of reference of the inquiry are:
  - To examine the effects of sub-national income tax variations in international tax systems on the behaviour of low, medium and high income earners, particularly migration and tax avoidance.
  - To understand how low, medium and high income earners may respond to income tax rate divergence for each tax band between Wales and England.
  - To understand the level of divergence in income tax rates that could trigger a behavioural change in low, medium and high income earners in Wales and England.
  - To assess the monetary impact on WRIT revenue with varying levels of tax rate divergence.
- 1.3 In our response we concentrate on income tax, but it should be noted that there are many other factors that will affect where an individual, and their family, live, which we touch on below. We

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<sup>1</sup> <http://senedd.assembly.wales/mgIssueHistoryHome.aspx?IId=26476>

suspect, for the vast majority of individuals, variations in income tax are unlikely to affect their behaviour (unless those variations are very significant).

- 1.4 Our response also draws on our experience of the variations in income tax rates and bands in Scotland.

## **2 About us**

- 2.1 The Chartered Institute of Taxation (CIOT) is the leading professional body in the United Kingdom concerned solely with taxation. The CIOT is an educational charity, promoting education and study of the administration and practice of taxation. One of our key aims is to work for a better, more efficient, tax system for all affected by it – taxpayers, their advisers and the authorities. The CIOT's work covers all aspects of taxation, including direct and indirect taxes and duties.
- 2.2 The CIOT draws on our members' experience in private practice, commerce and industry, government and academia to improve tax administration and propose and explain how tax policy objectives can most effectively be achieved. We also link to, and draw on, similar leading professional tax bodies in other countries. The CIOT's comments and recommendations on tax issues are made in line with our charitable objectives: we are politically neutral in our work.
- 2.3 The CIOT's 19,000 members have the practising title of 'Chartered Tax Adviser' and the designatory letters 'CTA', to represent the leading tax qualification.
- 2.4 The Low Incomes Tax Reform Group (LITRG) is an initiative of the Chartered Institute of Taxation to give a voice to the unrepresented. Since 1998 LITRG has been working to improve the policy and processes of the tax, tax credits and associated welfare systems for the benefit of those on low incomes. Everything we do is aimed at improving the tax and benefits experience of low income workers, pensioners, migrants, students, disabled people and carers.
- 2.5 LITRG works extensively with HM Revenue & Customs (HMRC) and other government departments, commenting on proposals and putting forward our own ideas for improving the system. Too often the tax and related welfare laws and administrative systems are not designed with the low-income user in mind and this often makes life difficult for those we try to help.

## **3 Overview**

- 3.1 It is not possible in the time available to respond to this consultation to undertake the research we believe should be undertaken to ascertain awareness of the devolution of income tax powers to Wales amongst those living in Wales (and close to Wales) and what these powers mean to Welsh taxpayers both in respect of paying tax to Wales and in respect of what those taxes pay for (the 'social contract'). For example, in Scotland the social contract has been a strong supporting narrative which resonates well. A document has been published on the role of income tax in Scotland's budget: <https://www.gov.scot/publications/role-income-tax-scotlands-budget/>.

- 3.2 We think that it will be important to undertake further work and research looking at different types of taxpayer and their attitude to paying more or less tax in return for greater or less social funding. For example, to what extent free education, free prescriptions, free social care, increased local authority funding etc could affect willingness (or otherwise) to pay or accept paying more income tax.
- 3.3 The research should also consider geographical differences, such as proximity to work, ease of travel across the Wales-England border, effect of house prices, rental costs and cost of living generally on individual choices as regards where they live and work, and to what extent changes in tax rates may influence decisions (as compared to other factors).
- 3.4 Another aspect to consider is whether income tax rates divergence might encourage or discourage migration to or from Wales and what effect that may have on house prices and rental costs in Wales (and whether that effect would be short or long term). For example, if a decrease in income tax rates were to encourage migration to Wales, would that in turn increase housing costs affecting the flow of migration?
- 3.5 Additionally, we think the research should look at how much increases in income tax rates would actually increase the tax take (because the increase in revenue from taxpayers who remain in Wales and continue to report high incomes is offset for example, by more Welsh taxpayers migrating to England to work because of the higher Welsh rates). It is even possible that such behavioural effects could exceed the direct increase from raising the rate, which although an extreme possibility, does highlight the importance of such research. (For similar reasons, it should not be assumed that reductions in the rate would reduce revenue pro rata.) One of the difficulties to be addressed is that researchers tend (and are maybe constrained) to aggregate behavioural effects to produce a single composite estimate of the sensitivity of reported income to the tax rate, though in real life its different components call for very different responses: for example, increased under-reporting can be addressed by enforcement action, other types of behavioural response such as tax-driven incorporation of businesses – see para 5.10 below - (or potentially in the future, migrating from Wales to escape a social care levy and migrating back later in life to benefit from better social care) can potentially be addressed by design features of the system. It is also possible that individuals will choose to extract more income that is not liable to the Welsh rates of income tax (such as investment income) or realise capital gains to meet their ‘income’ needs – see further below. In addition, reactions to increased tax rates can be emotional as well as practical and this may be influenced by a perception of what the extra money is spent on and whether that commands support.
- 3.6 We note that an additional rate of income tax of 50 per cent for incomes over £150,000 was introduced in the UK in April 2010. The additional rate was subsequently reduced to 45 per cent with effect from April 2013. HMRC’s report in March 2012 ‘The Exchequer effect of the 50 per cent additional rate of income tax’<sup>2</sup> concluded that there was a considerable behavioural response to the rate change, including a substantial amount of short term forestalling: around £16 billion to £18 billion of income was estimated to have been brought forward to 2009-10 to avoid the

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<sup>2</sup> <https://webarchive.nationalarchives.gov.uk/20140206181159/http://www.hmrc.gov.uk/budget2012/excheq-income-tax-2042.pdf>

introduction of the additional rate of tax. However, the report indicated that determining the true (longer term) underlying behavioural response to the additional rate was more challenging. The conclusion drawn from the 2010/11 Self-Assessment data was that the underlying yield from the additional rate was much lower than originally forecast, and that it was quite possible that it could be negative. The report points to difficulties in quantifying the longer term effect of the additional rate because of the perception that it was a temporary increase<sup>3</sup>. This issue remains politically and academically controversial – see for example <https://fullfact.org/economy/did-cutting-50p-rate-tax-raise-8-billion/> - but one clear point is short-term effects including forestalling and more enduring effects can be very different in both their scale and nature.

- 3.7 It is also worth noting that the power to vary income tax rates in Wales applies only to non-savings and non-dividend income,<sup>4</sup> i.e. ‘earned’ income which leaves Wales particularly exposed to potential increases in tax-motivated incorporation. Variations in income tax rates internationally and in most sub-national systems (for example, the United States of America) apply to all income and not solely earned income. Additionally, in many international and sub-national systems, the ‘states’ are significantly larger than the four United Kingdom ‘states’. The Swiss cantons are probably closer to the size of Wales than the average American state. A comparison of the federal with the cantonal systems in Switzerland might therefore repay study<sup>5</sup>.
- 3.8 Direct comparisons with other international and sub-national tax systems may be limited given that (i) the sources of income subject to tax in those systems will be different and (ii) the proximity of the Wales-England border to a large number of the populace of Wales may be more significant than in other systems.<sup>6</sup>
- 3.9 This said, there can be variations in the rates of state and local income tax rates in the USA which are understood to affect behaviour. For example, residents of New York City may pay substantial state and city tax, but, we understand, commuters from Connecticut may pay much more modest levels. Similarly, many high earning Americans retire to Florida which does not impose personal income tax. The USA’s states all have their own residence rules, and US citizens have to file tax returns, so day-counting is required, as well as identifying other factors which are used to determine residence – some of which may be considered manipulable (such as changing of driving licence details). At the extreme, this could lead to claims of residence in income-tax-free states on the basis of residences that might be considered holiday homes. We would expect some research to have been undertaken by the Congressional Business Office (CBO) or equivalent State-level bodies around these issues, which may provide the Finance Committee with some reasonable studies, albeit of a very different tax system.

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<sup>3</sup> The increase was really only in place for one potentially unaffected year (2011/12) as 2010/11 was the first year of the increase making evaluation difficult for that year, while 2012/13 was affected by the announcement the new rate would end.

<sup>4</sup> Non-savings and non-dividend income includes employment income, self-employment profits, rental profits and pension income (including the state pension).

<sup>5</sup> Recent research on cantons levy wealth taxes at different rates is at <https://www.cesifo.org/en/publikationen/2019/working-paper/behavioral-responses-wealth-taxes-evidence-switzerland>

<sup>6</sup> It should be noted that Scotland and Wales are significantly different both in terms of the length of border relative to the size of the country and density of population along either side of the border.



- 3.10 It may be worth looking at variations in Ireland between taxation in the Republic of Ireland and Northern Ireland and the effect of living in an area of lower cost of living in Northern Ireland but working in say, Dublin where wages are generally higher. In particular, it is more beneficial for higher earners to be working in the UK compared to Ireland largely due to the Universal Social Charge (USC) in Ireland which is not payable in the UK.
- 3.11 As the Committee may be aware, a useful study has already been published by the Wales Centre for Public Policy<sup>7</sup>. This sets out some information in relation to demographics and geography, and looks at the implications for setting income tax rates. This may therefore provide a basis for further research.
- 3.12 With income tax only partially devolved, and the allowances, base and reliefs all being decided at a UK level, there is always the potential for unforeseen consequences or interactions – some will be administrative, others will be behavioural. Devolution in this partial manner, which is also the case for Scotland, creates considerable complexity, for example, many Scottish taxpayers cannot easily work out their own tax liability now.
- 3.13 The CIOT has carried out work to examine the consequences and interactions that arise as a result of the partial devolution of income tax to Scotland. In conjunction with the Institute of Chartered Accountants of Scotland, we formed the Scottish Taxes Policy Forum. This published the paper *Devolving Taxes across the UK: Learning from the Scottish Experience* in October 2018, alongside the results of a poll of Scottish adults commissioned by the CIOT.<sup>8</sup> The CIOT also commissioned a further poll in 2019,<sup>9</sup> which again focused on the public's understanding and awareness. We think the Committee could usefully examine the paper and the results of the two polls as part of this inquiry.

#### **4 Response to the consultation - To examine the effects of sub-national income tax variations in international tax systems on the behaviour of low, medium and high income earners, particularly migration and tax avoidance.**

- 4.1 For the majority of people non-tax factors such as family ties and responsibilities, cost of housing (buying or renting), availability of work (and travel links to work), cost of living, schools and social services are likely to be greater influences on where the individual lives than small variations in income tax. However, tax changes may have an impact at the margin, especially for high earners, influencing longer term decisions about whether or not to move in the context of 'a life event' when say, a taxpayer changes jobs or downsizes. It is important to disentangle the effects of different taxes, for example Land Transaction Tax.
- 4.2 To the extent that variations in income tax rates affect behaviour we would suggest that the effect would be largely focussed on higher earners. Although whether small variations in income tax rates

<sup>7</sup> *The Welsh Tax Base: Risks and Opportunities after Fiscal Devolution* – Dr EG Poole, G Ifan (2 July 2018):

<https://www.wcpp.org.uk/publication/the-welsh-tax-base-risks-and-opportunities-after-fiscal-devolution/>

<sup>8</sup> <https://www.tax.org.uk/media-centre/press-releases/press-release-new-poll-discovers-more-four-fifths-scots-lack>

<sup>9</sup> <https://www.tax.org.uk/media-centre/press-releases/press-release-poll-scots-still-failing-understand-devolved-taxes-support>



alone would cause a person to leave a location to which they are intrinsically linked is questionable, for those individuals that are 'mobile' as regards to choosing where they live and work, it is a factor that may be taken into account (amongst many others). Lower earners are often less likely to be 'mobile' in relation to these options.

- 4.3 Furthermore, while we would not expect to see tax avoidance schemes arising from small variations in income tax rates, differing rates across Wales, Scotland and the rest of the UK do present a compliance burden. That burden falls not just on the individuals but also on their employers, pension providers and HM Revenue & Customs (HMRC).
- 4.4 Individuals need to establish whether they are resident in Wales, Scotland or the rest of the UK for income tax purposes. Section 116E of the Government of Wales Act 2006 defines who is a Welsh taxpayer, the key elements being:

**116E Welsh taxpayers**

(1) For any tax year, a Welsh taxpayer is an individual (T)—

- (a) who is resident in the UK for income tax purposes for that year (see Schedule 45 to the Finance Act 2013), and
- (b) who, for that year, meets condition A, B or C.

(2) T meets condition A if T has a close connection with Wales (see section 116G).

(3) T meets condition B if—

- (a) T does not have a close connection with England, Scotland or Northern Ireland (see section 116G), and
- (b) T spends more days of that year in Wales than in any other part of the UK (see section 116H).

(4) T meets condition C if, for the whole or any part of the year, T is—

- (a) a member of Parliament for a constituency in Wales,
- (b) a member of the European Parliament for Wales, or
- (c) an Assembly member.

- 4.5 The provisions for determining who is a Scottish taxpayer are set out in section 80D of the Scotland Act 1998 and operate in an equivalent manner to the Welsh provisions. It is, in theory, impossible therefore for a UK resident individual to be considered (say) both a Welsh and an English taxpayer, or indeed neither. This is because the rules first require the individual to be a UK taxpayer (UK resident), and then move that person from the UK rules into the Welsh or Scottish rules (where that individual has earned income).
- 4.6 However, whilst there should be little scope for manipulation of the rules (at least without significant change to living – and therefore in most cases, working – patterns), there can be significant compliance effects. For individuals in employment HMRC has to notify the individual and their employer where they assess the individual to be resident. The employer then has to deduct income tax at differing rates and amounts depending on where the individual is resident (and not where the employer is resident or where the employee works). In theory, employers

simply have to operate the tax code that applies, so in terms of everyday processing of pay, the different rates arising from sub-national regimes is not an issue. Although the responsibility for identification of an individual's residence status is that of HMRC, and it is up to the taxpayer to question HMRC's decision if they disagree (so the employers' role is simply to operate the PAYE code they are given), in practice, we find that employers (and payroll operators) are contacting HMRC and employees in relation to Scottish taxpayer status issues, for example if they think an employee should have an S or C code, but they do not. For individuals, it is important that they have sufficient awareness and understanding about their PAYE code such that they realise it is their responsibility to contact HMRC if it is incorrect.

- 4.7 Dealing with different tax rates and regimes can lead to errors and complications, which in turn creates additional burdens on all parties. For example, if employers process PAYE Settlement Agreements (PSA), they have to calculate the appropriate tax depending on taxpayer status – UK / Scottish / Welsh. In relation to childcare voucher schemes, however, they have to apply the UK thresholds to all taxpayers. Although that means some aspects are simple, there is the complexity and burden of having to learn and remember or work out when they need to separate out taxpayers of different residence status and when they can treat them all the same.
- 4.8 Complexity arising from income tax rates (and, in particular, tax bands) divergence is a real concern for many. While it may be tempting to think that 'software' will work it all out, our experience of the Scottish income tax variations is that it is now more difficult to work out a Scottish resident's tax liability and be sure that it is correct than before Scotland varied its income tax rates and bands. Also, not everyone has access to software and it is generally accepted that taxpayers should not have to pay for software to work out their sub-national income taxes.
- 4.9 There are also many situations where even HMRC's software is unable to correctly compute the tax due without manual intervention. For example, we were originally told that there would be no exclusions from Self-Assessment online filing that arise purely because a taxpayer has Scottish status. However, there is now a long list of exclusions that apply to Scottish taxpayers<sup>10</sup> and we are not convinced that the current exclusions list captures all the instances in which HMRC's software does not calculate correctly income tax liabilities for Scottish taxpayers. Some of the exclusions seem to be connected with the interaction of Scottish rates and bands for earnings, and UK rates and bands for savings income. So, part of the issue is definitely related to the UK personal savings allowance (and also dividend allowance). This suggests that Self-Assessment is not able to cope with the partial devolution of income tax at present, particularly with all the other current inherent complexities in the income tax system.
- 4.10 This said, in terms of PAYE and different rates and bands, we understand HMRC's system can cope with hundreds of different rates and bands, so this should not be a problem of itself, although we understand there were difficulties with inserting Scotland's 19% starting rate between the personal allowance and the basic rate band.

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<sup>10</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/761697/2017-18-exc-indi-v3.0.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/761697/2017-18-exc-indi-v3.0.pdf)

- 4.11 In terms of compliance with Scottish taxpayer status, we think this is yet to be tested, because divergence has not yet been significant enough to drive artificial behaviour in terms of trying to demonstrate residence in England rather than Scotland (for example, if you have two properties). An increase in such artificial behaviour would demand a rise in compliance activity from HMRC, placing a burden on resource.
- 4.12 Also, creating differing sub-national income tax systems causes problems not just for tax authorities in identifying where a taxpayer is resident but also for 'mobile' individuals. For example, is a university student resident at their university living space or their parental home living space (counting days of residence will result in very different outcomes for different students)?
- 4.13 Establishing the residence status of each individual, even where there is no income tax divergence, will be extremely important for the UK and Welsh governments, as it determines the allocation of tax receipts.

## **5 Response to the consultation - To understand how low, medium and high income earners may respond to income tax rate divergence for each tax band between Wales and England.**

- 5.1 We note that research undertaken by the Institute of Fiscal Studies (IFS) found that fewer than twenty of Scotland's richest top earners would have to switch their main residence to England for Scotland to lose out on £20m of tax revenue. The IFS's research<sup>11</sup> also indicates that higher income individuals can be particularly responsive to tax increases. Variations in tax rates in the main affect high earners who are also mobile. It should be remembered that not only is this a question of high earners leaving the country, but also of high earners choosing not to come to the country. We understand that there are only four thousand additional rate taxpayers in Wales, with 85 per cent of taxpayers paying the basic rate. Wales only has control over 10p within each band with no powers over thresholds. So, for example, if Wales were to introduce a 1p reduction in the additional rate, it would not have much of an impact on that small tax base and would not encourage much by way of behavioural change in terms of its effects on Welsh revenues.
- 5.2 While genuine cross-border migration is costly, it is likely to be easier for those with multiple residences to change their tax residence within the UK. It is also notable that commuting for work (either way) between Scotland and England is likely to be more difficult than commuting between Wales and England. Thus, a divergence in income tax rates between Wales and England may have a greater marginal effect, particularly amongst middle and higher earners, than that between Scotland and England. This is an aspect that would need further research.

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<sup>11</sup> <https://www.ifs.org.uk/publications/12903>

- 5.3 It is also worth considering to what extent people would actually notice and understand a small change in income tax rates? For example, the 2019 poll of Scottish public understanding and awareness of devolved taxes<sup>12</sup> referred to above (see section 3) is quite illustrative. This found:
- 91 per cent said they had little or no understanding of the definition of a Scottish taxpayer, an increase of 7 percentage points compared to 2018 – This may be because little was done to publicise Scottish taxpayer status since the original notification letters from HMRC in December 2015.
  - 86 per cent think they need better information about how taxes are decided in Scotland. While this figure was broadly similar with the 84 per cent who gave a similar response in 2018, there was a net drop of six percentage points in the number of Scots who said that the relationship between Scottish and UK taxes was ‘easy to understand’
  - There has been a decline in the number of people who can correctly identify that responsibility for income tax was shared between Holyrood and Westminster, down from 34 per cent in 2018 to 26 per cent this year. Nearly half of Scots (48%, up from 41% in 2018) now think income tax is set wholly by the Scottish Parliament
- 5.4 Similarly, research published in September by Deloitte found a lack of awareness on issues related to tax across the UK (see <https://www2.deloitte.com/uk/en/pages/tax/articles/tax-education-gap.html> for details). In addition to this lack of awareness, there is also a proportion of individuals who do not support any devolution of tax at all (see for examples response to question 6 of the CIOT poll) and if, due to complexity, that proportion grows, one (unforeseen) consequence of devolution might be lower compliance and less buy-in to the tax system generally.
- 5.5 Key to acceptance of Welsh taxpayer status and any divergence in income tax rates will, we think, be based around how well the changes are publicised, how accessible clear guidance is, and how well-targeted any communications are. It will be essential that people actually notice the communications.
- 5.6 The experience from Scotland is that to date there is no clear evidence of significant behavioural effects in terms of migration (note since April 2018 there have been 5 rates and bands in Scotland (19%/20%/21%/41%/46%)) - although whether this is because of a lack of awareness of income tax in Scotland is another matter.
- 5.7 Another aspect that needs to be considered is how the self-employed (sole traders and partners in partnerships) could respond to a divergence in income tax rates. With earned income being liable to sub-national variations but dividend income (and corporation tax) being liable to UK national income tax rates, a variation in income tax rates between Wales and England could lead to some self-employed individuals incorporating their business to change the basis of taxation on themselves and their earnings (i.e. so that they pay corporation tax on the profits and dividend savings income tax on the withdrawal of profits from the business rather than Welsh income tax on

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<sup>12</sup> The polling was commissioned by the CIOT and undertaken by Mark Diffley Consulting & Research using the ScotPulse survey. 1,122 adults were interviewed between 24 and 26 September 2019. An analysis of the findings and comparison with the survey undertaken in 2018 can be found at <https://www.tax.org.uk/file/chartered-institute-taxation-2019-topline-71019docx>

the profits of a self-employed business). Of course, other factors will influence whether incorporation of a business is the 'right' thing to do; tax is just one of many factors. A further feature is that some of these people (self-employed / partnerships) will be employers. Incorporation should not change the number of employees, but if the business were to move to England, that could reduce employment in Wales.

- 5.8 Other behavioural effects are likely to include: making more pension contributions / Gift Aid donations (both of these extend the basic rate band so giving relief from higher / additional rate tax); choosing not to take a pay rise / a promotion / increase work hours. These are more likely to affect middle or high earners. We expect these behaviours are more likely to be occurring in Scotland already, because they are easier than moving house, but research would be required to determine to what degree they are happening. There is not the data at present to enable this to be determined. In all cases other factors, such as those described above, would play a role too.
- 5.9 Although those on lower incomes are less likely to be able to respond to income tax divergence, they may nevertheless be affected. This may particularly be the case for individuals who pay income tax and who are also in receipt of welfare benefits, such as Universal Credit. For example, in theory, when the Scottish starter rate of 19% was introduced in April 2018, this was stated to mean that all those Scottish taxpayers with incomes up to £24,000 would pay £20 less tax over the course of the tax year than taxpayers living in the rest of the UK on the same level of income. However, Scottish taxpayers who were also in receipt of a means-tested benefit such as Universal Credit that depends on net income after tax, found that their benefit was reduced, cancelling out all or part of the tax reduction.<sup>13</sup>

## **6 Response to the consultation - To understand the level of divergence in income tax rates that could trigger a behavioural change in low, medium and high income earners in Wales and England.**

- 6.1 We believe that research will be needed to understand what may trigger behavioural changes.
- 6.2 Factors that would need to be considered would be the age of the individuals (new to work, retiring), their family status (single, in a relationship, children), whether the divergence is a short term proposal or is supported by all political parties as a long term measure (locating in one state or another for a one or two year tax 'boost' is unlikely to affect the behaviour of many).
- 6.3 For example, short term divergences could easily trigger increased pension contributions or Gift Aid donations, but are less likely to drive behaviour that is more long term. Equally, a short term divergence (provided the public knew it was short term) might not cause, for example, someone to incorporate a business or refuse a promotion. In our opinion, divergences would probably have to be significant and long-term to result in migration out of a state. Migration into a state may be affected differently.

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<sup>13</sup> The taper rate for Universal Credit was 63% in 2018/19, so for every £1 increase in net income due to the lower Scottish starter rate, a Scottish Universal Credit claimant saw a reduction of 63p in their Universal Credit award, meaning they would only see £7.40 of the £20 tax reduction in net terms over the course of the tax year. (Note that this is a simplified example).

- 6.4 The Scottish Fiscal Commission have included modelling for their forecasts, see <http://www.fiscalcommission.scot/publications/occasional-papers/how-we-forecast-behavioural-responses-to-income-tax-policy-march-2018/>, but it is very difficult to forecast what level of divergence may trigger behaviour changes.
- 6.5 Consideration needs to be given as to whose behaviour is changing, how it will be changed and the proportion of revenue they bring in. For example, if all the additional rate taxpayers in Wales left for England that would make a significant dent in Wales' revenue. Equally, if all higher rate taxpayers upped their pension contributions that would also have a significant impact, but their basic rate of Welsh income tax would still be received by Wales.
- 6.6 Anecdotally, we think that a 5% to 10% long term variation in income tax rates may be needed to have any significant effect on people's choices of residence. But, as noted above, we recommend further research in this area.
- 7 Response to the consultation - To assess the monetary impact on WRIT revenue with varying levels of tax rate divergence**
- 7.1 We are not best placed to answer this question. We think that further research on this aspect will be needed. It is not simply a case of a decrease in income tax rates will result in less revenue for Wales, as a decrease (coupled with other factors) may result in more taxpayers residing in Wales. Similarly, an increase in income tax rates will not necessarily lead to an increase in revenue for Wales as it could lead to more people, particularly higher earners, deciding to reside elsewhere.
- 7.2 Equally, the timing of a policy change may affect when a behavioural change takes place. For example, an announcement of a change that is to have almost immediate effect is unlikely to have an immediate behavioural effect (except, perhaps, on someone who was in the process of deciding whether to relocate to or from Wales) but could have a longer term behavioural effect. Equally, a policy change that is announced significantly in advance of being implemented could result in behaviour changes to mitigate the effects of that policy change but, equally, adverse effects could be costed and mitigated (eg by promoting the benefits of the policy change). Overall, we think it is difficult to predict behavioural changes following a policy change and extremely difficult to cost future policy options.
- 7.3 The agreement between the Welsh Government and the United Kingdom Government on the Welsh Government's fiscal framework (December 2016) provides for behavioural effects to be accounted for in exceptional circumstances, where the effects are material and demonstrable, and only where both governments agree that it is appropriate to do so.
- 7.4 It is also worth noting that while Wales gains or loses from the full mechanical effect of changes in income tax, it only bears the behavioural effects on its proportion of the income tax rate. Hence, if the Welsh Government increases the top rate from 10% to 15%, it would retain the extra revenue raised from the additional 5% whereas in terms of behavioural response, the Welsh Government would only bear (in the absence of any inter-governmental agreement) the effect of that response

on its share of the income tax rates (now 10%, 10% and 15%). The impacts on revenues from the rest of income tax (10%, 30%, 35%) and other taxes such as NICs would be felt by the UK government. This means the revenue losses (or gains) as a result of behavioural change following increases (decreases) in tax rates are smaller in Wales than if income tax and other taxes were devolved.

## **8 Acknowledgement of submission**

- 8.1 We would be grateful if you could acknowledge safe receipt of this submission, and ensure that the Chartered Institute of Taxation is included in the List of Respondents when any outcome of the inquiry is published.

The Chartered Institute of Taxation and The Low Incomes Tax Reform Group

14 January 2020

## **Response to the National Assembly for Wales' Finance Committee's Inquiry into the impact of variations in national and sub-national income tax**

This is a response by David Phillips, an Associate Director at the Institute for Fiscal Studies (IFS). The views and opinions here are those of the author only; the IFS has no corporate views. The response does not seek to provide an exhaustive review of the evidence, but instead highlight key conceptual and empirical evidence, and relate these to the Welsh context (including the specific form of partial tax devolution in place).

### **Background: the Welsh Rates of Income Tax**

Income tax is partially, not fully devolved to Wales. In particular, the tax rates set by the UK government are reduced by 10 percentage points (to 10%, 30% and 35%) for non-savings non-dividends (NSND) income. The Welsh Government has the power to levy tax rates on top of these (reduced) UK government tax bands, and has so far chosen rates of 10% in each case (so that the total income tax rates of 20%, 40% and 45% remain the same as in England and Northern Ireland). The fact that the Welsh Government receives revenue only from its 10 percentage points of each band, and its rates apply to NSND income only has important implications for the revenue effects of behavioural responses to taxation.

### **Evidence on the responsiveness to changes in and variations in income tax**

A summary measure of how responsive people are to income tax rate is the elasticity of taxable income or ETI. It measures the percentage change in reported taxable income when the share of each £1 someone keeps after tax changes by 1%. It is typically positive – people report more taxable income when they get to keep more of each pound – and larger values mean people are more responsive. A given elasticity can capture both “real” responses to taxation such as changes in how much and how hard people work and whether they migrate or not, as well as effects on tax avoidance and evasion. The nature of the response can matter for the economic and revenue effects of changes in income tax rates.

A large number of studies seek to estimate the ETI for different population groups in different countries – although there are none for Wales specifically, and only a relatively small number focused on sub national income taxes.

Key findings of this literature<sup>1</sup> are:

1. High income taxpayers have higher ETIs than middle and low income taxpayers, potentially reflecting the greater scope they have to make use of tax avoidance mechanisms or migrate to other jurisdictions, and perhaps the greater role of effort/performance (as opposed to hours of work) in determining their income.
2. Responsiveness seems to be especially high for particular sub-sets of high income people like star inventors and professional sports people, where the labour market is global, and where there is therefore more opportunity for migration responses.

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<sup>1</sup> A review of work up until around 2010 can be found in Saez, E., Slemrod, J., and Giertz, S. H. (2012), ‘*The Elasticity of Taxable Income with Respect to Marginal Tax Rates: A Critical Review*’, Journal of Economic Literature, Vol, 50, No. 1, pp 3 – 50. Recent evidence from the UK includes two studies by authors at the IFS: Browne and Phillips (2017), available at <https://www.ifs.org.uk/publications/9675>; and Miller, Pope and Smith (2019), available at <https://www.ifs.org.uk/publications/14475>.



3. Those approaching retirement are generally more responsive to changes in income tax rates than those earlier in their careers. This may reflect the fact that older people have an additional margin of response – retirement –, while younger people have an incentive to be in the workforce to maintain and build up experience.
4. Capital income (esp. dividends income) is much more responsive to changes in income tax rates than labour income (a large majority of NSND income). In principle this could reflect those individuals who have significant capital income being more responsive than those who do not. In practise though, much of this seems to be due to the fact that there are more opportunities to avoid taxation of capital income – especially by retaining income within a business and taking advantage of lower tax rates later (especially on capital gains).
5. When changes in tax rates apply to some forms of income but not others, responses tend to be especially large if taxpayers have scope to change the form of income in which they take their remuneration. For example, company owner-managers could take more of their income in dividends or capital gains, if taxes are increased on NSND income – and employees and self-employed individuals could incorporate to take advantage of these opportunities.
6. The migration decisions of foreigners are more responsive to taxation than the migration decisions of native-born citizens. This may reflect the latter being more likely to have long standing ties to an area (e.g. family, culture), which means that the “cost” of moving in response to changes or differences in tax rates are larger than for foreigners.
7. Estimated ETIs are often larger for “big” reforms than for “small” reforms. This does not just mean that people respond more to larger reforms. It means that estimated elasticities are often bigger, i.e. the percentage change in taxable income *for each* percent change in the share of each £ someone retains after tax is bigger. This is one of several pieces of evidence which suggest people face significant costs on responding to changes or differences in tax rates that attenuate their responsiveness, especially in the short term. For example, for migration responses, these costs include the physical cost of moving (e.g. costs of buying/selling houses), information costs (e.g. on where taxes are lower, on where and which jobs are available), and psychological costs (e.g. missing family and friends). For avoidance it includes the effort and cost of seeking professional advice and taking decisions based on this. Given these costs it may only be worth making the effort to respond at all once tax changes/differentials are a sufficient size – although what that size is is likely to be very context specific. It may be lower where one has to move less far to avoid a tax, for instance – because it might be easier to find out information about properties and jobs (or even keep the same job), still see family and friends regularly, etc. And it may be lower for those already in receipt of professional advice on their tax affairs.

### **Evidence on responsiveness to variation in sub-national income taxes**

As discussed, a number of papers look specifically at responsiveness of taxpayers to changes in and variation in sub-national income taxes. A related literature looks at migration responses to taxation – although many of these look at national, rather than sub-national income tax.<sup>2</sup>

Some studies find relatively little effect of variations in sub-national taxes on behaviour and hence tax bases. For example, Yang and Heim (2017)<sup>3</sup> find that counties’ tax bases in Indiana, USA, were

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<sup>2</sup> See [http://econ.lse.ac.uk/staff/clandais/cgi-bin/Articles/JEP\\_Mobility.pdf](http://econ.lse.ac.uk/staff/clandais/cgi-bin/Articles/JEP_Mobility.pdf).

<sup>3</sup> See [http://www.ntanet.org/NTJ/70/2/A05\\_Yang.pdf?v=%CE%B1](http://www.ntanet.org/NTJ/70/2/A05_Yang.pdf?v=%CE%B1).

unaffected by the tax rate charged by the county in the period 1997 and 2013: the estimated ETI is 0.06, which is not statistically significant. However, the levels and changes in tax rates used for identifying these effects are small – about 0.3%. As discussed above, adjustment costs may mean the responses to such small tax changes are attenuated, especially in the short run, leading to downwardly biased estimates of the scale of response to larger differences. However, Bruce, Fox, and Yang (2010) look at the effect of state-level income taxes on state tax bases in the USA and find similar results for states, where tax rate changes are larger. And while Gius (2011) finds state-level taxes have a statistically significant impact on migration for most demographic groups in the US, the magnitude of those effects is relatively modest. Moreover, Young and Varner (2011) find little evidence of migration responses among millionaires in New Jersey when the state income tax was increased, with retirees and those relying on capital (as opposed to earned) income being more responsive than average.<sup>4</sup>

A number of other studies find larger responses though – especially for subsets of the population. For example, Moretti and Wilson (2017) and Akcigit et al (2018) show that star scientists and inventors in the US are highly responsive to state income (and corporate income) tax rates. They argue this is important as there are more likely to be positive spillovers from this type of high income individual – although this is an untested assertion. Follow-up work by Zhang and Hewings (2019) suggest that scientists in the US are more responsive to larger changes in tax rates – perhaps reflecting the adjustment costs issue discussed above.<sup>5</sup>

Agrawal and Foremny (2019) find that high income taxpayers in Spain are highly responsive to sub-national income taxes, with an estimated elasticity of 0.85 for the number of top income taxpayers in a region. However, at the rates charged by regions, even with this relatively large response, the mechanical increase in tax revenue when rates are increased is larger than the loss as a result of migration out of the region.

Evidence from Switzerland is mixed, with some studies suggesting little migration response (Liebig and Sousa-Poza)<sup>6</sup>, while others suggest significant responses and hence substantial tax competition between Swiss Cantons (Feld and Kirchgassner), especially for higher income residents.<sup>7</sup> One study also suggests that young graduates are more responsive than the wider population (Liebig et al)<sup>8</sup>.

Evidence from Scandinavia is also mixed, but suggests that decisions on whether to migrate relatively short distances may be more affected by tax competition – as the adjustment costs may be smaller, because people can keep the same job.

### **Implications for Wales**

There are several lessons for Wales, despite the mixed evidence on how responsive migration decisions are to variation and changes in sub-national income taxes:

1. Responsiveness to taxes, both in terms of migration and other behaviour (such as avoidance) is likely to be greater for high income individuals than for the rest of the population. The

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<sup>4</sup> See <http://web.stanford.edu/~cy10/public/NTJ-millionaire-migration-state-taxation.pdf>.

<sup>5</sup> See <https://link.springer.com/article/10.1007/s00168-019-00902-5>.

<sup>6</sup> See <https://academic.oup.com/cje/article-abstract/30/2/235/1730009>.

<sup>7</sup> See <https://www.sciencedirect.com/science/article/abs/pii/S0166046200000843>.

<sup>8</sup> See <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-9787.2007.00529.x>.

empirical evidence on this is what has led both HMRC (and the OBR) and the Scottish Government (and Scottish Fiscal Commission) to use substantially higher ETIs for people subject to the additional rate of income tax than for the higher and basic rates, when analysing and making tax policy decisions. Such an approach makes sense for Wales too.

2. While the appropriate *ranking* for scale of ETIs is fairly clear, it is less clear what should be assumed about the absolute size of ETIs. The HMRC and the OBR typically assume an ETI of about 0.45 for people subject to the additional rate of income tax rate. The Scottish Government and Fiscal Commission assume a similar value, effectively assuming that factors that could mean the appropriate ETI assumption for the Scottish Rates of Income Tax (SRIT) are higher or lower than for the UK rates offset each other:
  - a. On the one hand, the fact that the SRIT and the WRIT apply only to NSND income, which is generally found to be less responsive to changes in tax rates (potentially because of less opportunity to avoid tax on this type of income), would tend to suggest the ETI would be lower for devolved income tax and UK income tax.
  - b. On the other hand, the fact that devolved income applies only to NSND income means changes in devolved tax rates lead to changes in the relative taxes on NSND and savings and dividends income. This offers an additional margin of response – shifting income between these forms – which would tend to lead to a higher ETI.
  - c. And, one might expect that people are more likely to be migrate between constituent parts of the UK (especially where the distances involved are relatively small, such as in border areas, which are relatively densely populated in the case of England and Wales) than to migrate between the UK and overseas. This would again suggest a higher ETI for changes in devolved income taxes.
  - d. But, the characteristics of high earners in Wales – more likely to work in the public sector, less likely to be foreign – could offset at least part of this.

Ultimately, until there is analysis of variation in income tax between Wales and England, there will be very significant uncertainty about just how these factors interact to determine the responsiveness of the Welsh income tax base (and even then, identifying the effects of differences in income tax per se, in the context of many other economic and policy differences will be a difficult task). If there are income tax policy changes in Wales, the Welsh Government should consider commissioning research on its impacts – covering a period of several years to look at short and longer-term responses. But, in the meantime, starting from the assumptions used by HMRC/OBR and SG/SFC would be reasonable.

3. It is important to note though, that unless migration responses are very large indeed, the set-up of income tax devolution in Wales means that it is very highly likely that increases in tax rates, even the additional rate, would increase Welsh Government revenues.<sup>9</sup> Conversely, reductions in tax rates would reduce revenues, unless behavioural responses were very large. This is because whilst the Welsh Government gains or loses the full ‘mechanical’ effect of the tax rate change, it only bears a portion of the behavioural effect.

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<sup>9</sup> The Wales Governance Centre have previously calculated how large migration responses would have to be to offset the increases (decreases) in revenue as a result of a tax increase (cut). I believe they will be updating these figures for their submission to this inquiry.

For instance, consider the case of an increase in the WRIT applied to the additional rate band from 10% to 11%. The Welsh Government would retain all the extra revenue raised from increasing that rate from 10% to 11%. But if the tax base fell, it would only bear the share of that fall that relates to its 11 percentage points of income tax; the impact on the UK government's 35 percentage points of income tax on this tax band in Wales would be borne by the UK government. This means it is much less likely that reductions in revenues from the falls in the tax base would be big enough to offset the increased revenues as a result of the higher tax rate than if all income tax revenues and rates were devolved to Wales.

This means compared to a situation in which income tax were fully devolved to Wales, increases in income tax rates are relatively more attractive (and decreases relatively less attractive) from a revenue perspective.

4. Of course, when making tax policy decisions, it is not just the effects of those decisions on revenues that the Welsh Government would want to consider. An increase in the additional rate of tax might yield revenue due to the fact the Welsh Govt bears only a portion of the migration and avoidance effect on the size of the Welsh tax base. But the Welsh Govt may still decide it does not want to do this if it is concerned with the welfare of additional tax rate payers appropriately, or it thinks there could be spillovers on the wider Welsh population (e.g. lower wages or fewer employment opportunities) if there is a reduction in the number of additional rate taxpayers in Wales. Any research commissioned in future would likely want to consider spillover effects on the wider Welsh population – although these can be difficult to identify empirically.
5. The scale of response to a significant change in tax rates could be more than proportionally bigger than the scale of response to a small change in tax rates. For example, one might expect a 5 percentage point change in tax rates to lead to a more-than 5 times as large a response as a 1 percentage point change in tax rate. This is because adjustment costs can attenuate the responses to small changes or differences in tax policy. This means that the scope for learning how taxpayers may respond to a big tax change from how they responded to a small tax change may be limited. This should be recognised in any future research.



Dadansoddi  
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Wales Fiscal  
Analysis

# Modelling behavioural responses to changes in Welsh Rates of Income Tax

Written evidence submission to National Assembly for Wales' Finance Committee inquiry into 'Impact of variations in national and sub-national income tax'

**Wales Fiscal Analysis**

JANUARY 2020

# Modelling behavioural responses to changes in Welsh Rates of Income Tax

22 JANUARY 2019

1. This evidence submission draws upon relevant sections from our 2018 report, *The Welsh Tax Base: Risks and Opportunities after Fiscal Devolution*, with updated modelling results.<sup>1</sup> We focus on assessing the monetary impact on devolved income tax revenues of varying levels of tax rate divergence.
2. Our main findings are:
  - a. The extent and effects of behavioural change to be expected is highly uncertain, though it must be considered when setting income tax policy. High income earners are assumed to be the most responsive to income tax rate changes, because they have the largest incentive and the greatest means to change their behaviour in response to tax policy.
  - b. Since only a portion of income tax is devolved, the Welsh Government would be relatively shielded from the behavioural response of taxpayers if it decided to change income tax rates. For example, a 1p increase in the basic rate would raise around £190 million in revenue in the absence of a behavioural response; this additional revenue would reduce only marginally to £186 million even under an assumption of large behavioural responses to changes in marginal tax rates.
  - c. Taxpayers may also decide to migrate to and from Wales as a result differences in average income tax rates. There is some evidence that differences in tax rates within a country can encourage taxpayers to relocate or shift income between jurisdictions, though Wales' circumstances make it hard to draw conclusions from other countries. We therefore present estimates of the migration levels required for the revenue effect of a tax change to reverse (e.g. for inward migration of taxpayers to offset the cost of a tax cut). Migration by Additional Rate taxpayers (those earning over £150,000 a year) has the highest likelihood of materially affecting the revenue effects of Welsh Government tax rate changes.
  - d. It would take a substantial migration response from very high earners to have a material positive budgetary effect if the additional rate was cut by 5p in Wales. If 1,100 taxpayers relocated the cost of the tax cut would reduce to zero, while a doubling of Wales' share of UK additional rate taxpayers (with over 6,000 migrating) would boost the Welsh budget by approximately £129 million.

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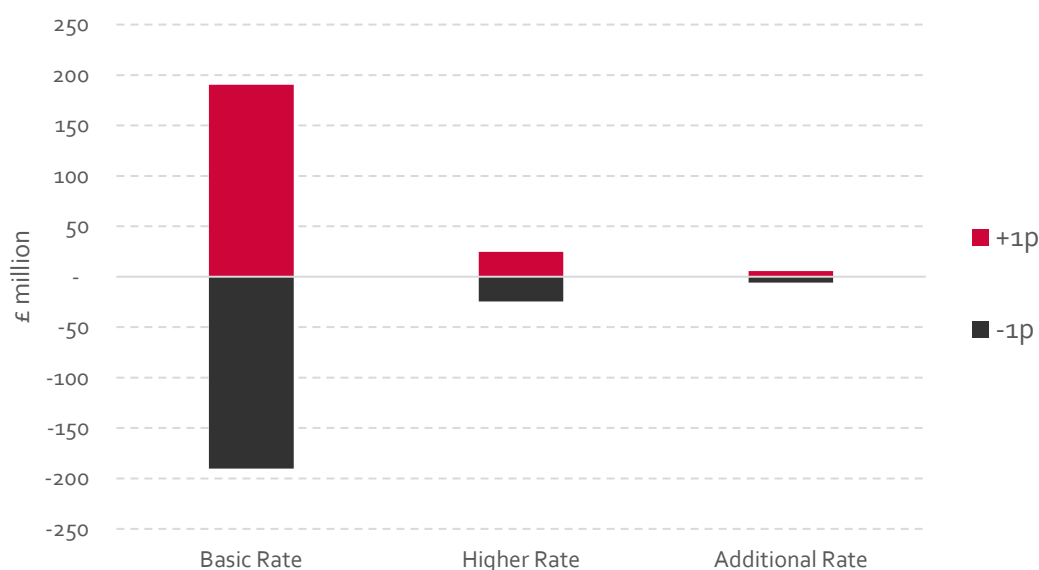
<sup>1</sup> Ifan and Poole (2018), available at: [https://www.cardiff.ac.uk/\\_data/assets/pdf\\_file/0008/1287008/The-Welsh-Tax-Base- WCPP-Final-180627.pdf](https://www.cardiff.ac.uk/_data/assets/pdf_file/0008/1287008/The-Welsh-Tax-Base- WCPP-Final-180627.pdf)

## Setting income tax rates in Wales

- From April 2019, UK Government income tax rates for Welsh taxpayers decreased by 10p in the pound, allowing the Welsh Government to set its own income tax rates in each band. Varying tax rate away from 10p in each band will have a direct effect on the Welsh Government budget, as well as potentially changing the behaviour of Welsh taxpayers.
- As can be seen from **Figure 1**, by far the largest revenue effect would result from a change in the basic rate in Wales; a 1p change in 2020-21 would increase or decrease the Welsh budget by approximately £190 million. Varying the higher and additional rates would result in a smaller increase or decrease in tax receipts and affect fewer taxpayers.

**Figure 1**

Revenue effect of changing each rate by 1p in the pound, with no behavioural response



Source: Office for Budget Responsibility (2019) and authors' calculations

- The Welsh Government tax rates will apply to taxable earned income determined by UK Government allowances, thresholds and reliefs. This restriction limits some of the scope for innovative income tax policy, such as the significant restructuring of Scottish tax bands that came into force in April 2018.

## Behavioural response to a tax rate change

- Were the Welsh Government to change income tax rates in Wales, there would likely be some behavioural response from Welsh taxpayers. Possible behavioural responses include greater use

of tax planning, tax avoidance or evasion, individuals seeking different jobs or changing the number of hours worked, and/or migration into and out of Wales. The extent and effects of behavioural change to be expected is highly uncertain, though it must be considered when setting income tax policy.

7. High-income earners are assumed to be the most responsive to income tax rate changes, because these taxpayers have the largest incentive and the greatest means to change their behaviour in response to tax policy. Although the Welsh tax base is less dependent on the incomes of high-earners compared with the rUK, such earners will account for a large share of the Welsh Government's income tax revenue. The top one per cent of taxpayers in Wales will contribute over 10% of devolved income tax revenue (more than the lowest-earning 40 per cent of taxpayers), and the top 10 per cent will contribute more than the lowest-earning 70 per cent (Ifan and Poole 2018: 22).
8. Although HM Treasury varied income tax rates on incomes over £150,000 in 2010 and 2012 (firstly from 40p to 50p, then to 45p), estimates of the revenue effects of these change are still highly uncertain, because of the significant forestalling of incomes in response to the changes being pre-announced. Forthcoming change in Scottish income tax rates may provide further evidence of taxpayer behavioural response in a devolved setting, though relevant detailed income tax data will not be available for some time.
9. In the academic literature, the extent of behavioural change in response to tax changes are often captured by estimated Taxable Income Elasticities (TIEs). TIEs are an estimate of the percentage change in total taxable incomes in response to a one per cent change in the net-of-tax rate (the share of income retained after tax). Available evidence suggests a very broad range of TIEs, which vary by income levels, time, type of policy change and country (see table 4.2 of Scottish Fiscal Commission 2018).
10. As an initial exploration of the Welsh Government's income tax policy options, **Figure 2** presents the revenue effect of changing each Welsh Government tax rate away from 10p in the pound in 2020-21, using a micro-simulation model outlined in Ifan and Poole (2018), updated for a later year. Our central estimate for the behavioural response of taxpayers uses a different assumed TIE for taxpayers at each marginal rate; namely 0.1 for basic rate taxpayers, 0.2 for higher rate taxpayers, and 0.5 for additional rate taxpayers. These closely match the assumed TIEs used by the Scottish Fiscal Commission (2018) in their income tax forecasts for Scotland. An alternative estimate assuming a larger behavioural response uses TIEs towards the upper end of estimate from available studies. These TIEs capture behavioural change in response to change in the **Marginal Effective Tax Rate** faced by the taxpayer (i.e. how much of a £1 rise in gross earnings is lost in tax).
11. The estimate presented in **Figure 2** demonstrate that the Welsh Government would be relatively shielded from the behavioural response of Welsh taxpayers if it decided to change income tax rates. Note that the 'mechanical' effect of a tax rate change (with no behavioural change) are relatively close to the revenue effects that assume a behavioural response. For instance, a 1p increase at the basic rate would raise around £190 million in revenue in the absence of a



behavioural response; these receipts would reduce only marginally to £186 million even under an assumption of large income elasticities.

12. While the Welsh Government would bear all the mechanical effect of a tax rate change, it would largely be insulated from much of the behavioural response, since only a portion of income tax is devolved. Any change in earned income because of a Welsh Government tax rate change would have a greater effect on UK government reserved revenue from income tax and national insurance contributions. For example, lowering the additional rate in Wales by 5p in the pound would cost the Welsh Government approximately £28 million (assuming no behavioural response). But any positive effect on the taxable earned income of high earners would primarily go to the UK government through higher income tax and NICs. Even assuming a high TIE, the estimate cost for the Welsh Government would still be around £26 million.
13. However, as well as responding to change in their marginal effective tax rates, taxpayers may also respond to changes in their average effective tax rate (the proportion of a taxpayer's total income which is paid in tax). This type of behavioural response includes leaving or entering employment, and importantly in Wales' case, **migration** to another tax jurisdiction. **Figure 2** also presents the change in tax liability for an average taxpayer at each marginal rate resulting from a Welsh Government tax change. The subsequent column shows how many taxpayers would need to migrate from Wales to the rUK (or vice versa) for the revenue effect of a given tax rate change to reverse.<sup>2</sup>
14. For example, a 5p increase in the higher rate of income tax would cost the average higher rate taxpayer in Wales £1,067, and it would take over 17,000 higher rate taxpayers in Wales to leave Wales to offset the additional £118 million raised by the tax change. Any change in the additional rate in Wales would have the largest effect on a taxpayers' average effective tax rate and hence present the largest incentive for migration for higher income earners. The required level of migration to offset the revenue effect of an additional tax rate increase is relatively small, but still significant in the context of the number of additional rate taxpayers in Wales.
15. In contrast to Scotland's devolved tax system, a distinctive feature of the Welsh model is that the UK government will not be able to respond in kind to a decision to cut income tax by the Welsh Government. Because any UK government tax cut will also apply in Wales (to the reserved portion of income tax), any differential between income tax rate in Wales and the rUK cannot close unless the Welsh Government so chooses.
16. There is some evidence that differences in tax rate within a country can encourage taxpayers to relocate or shift their income between jurisdictions (as explored in other evidence submissions). However, migration responses are likely to be very context-specific, and Wales' particular circumstances make it hard to draw conclusions from other countries and tax jurisdictions.

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<sup>2</sup> It should be noted that the average tax rate faced by higher and additional rate taxpayers are also influenced by changes in the basic rate. Therefore, the migration effect to a basic rate cut could include taxpayers who are on higher marginal rates.



**Figure 2**

Revenue effect of devolved income tax policy options in 2020-21

Welsh Government tax policy - change from 10p	Basic rate				Higher rate				Additional rate						
	Mechanical effect (£m)	With behavioural response (£m)		Difference in tax for average basic rate earner (£)	Migration required for revenue effect to be reversed	Mechanical effect (£m)	With behavioural response (£m)		Difference in tax for average higher rate earner (£)	Migration required for revenue effect to be reversed	Mechanical effect (£m)	With behavioural response (£m)		Difference in tax for average basic rate earner (£)	Migration required for revenue effect to be reversed
		Central TIE=0.1	High TIE=0.2				Central TIE=0.2	High TIE=0.4				Central TIE=0.5	High TIE=0.7		
+5p	951	936	919	566	551,439	123	118	113	1,067	17,018	28	24	21	4,810	830
+4p	761	749	737	453	473,185	99	95	91	854	14,088	23	20	17	3,848	694
+3p	571	563	555	339	382,892	74	71	69	640	10,939	17	15	13	2,886	544
+2p	381	376	371	226	276,787	49	48	46	427	7,563	11	10	9	1,924	380
+1p	190	188	186	113	151,391	25	24	23	213	3,921	6	5	5	962	199
No change	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-1p	-190	-188	-186	-110	189,582	-25	-24	-23	-281	3,998	-6	-5	-5	-2,104	153
-2p	-381	-377	-374	-221	426,560	-49	-48	-47	-563	8,403	-11	-11	-10	-4,209	330
-3p	-571	-566	-559	-331	732,585	-74	-73	-71	-844	13,295	-17	-16	-15	-6,313	536
-4p	-761	-756	-748	-442	1,140,618	-99	-97	-95	-1,126	18,753	-23	-21	-21	-8,418	777
-5p	-951	-946	-938	-552	1,712,990	-123	-122	-120	-1,407	24,856	-28	-27	-26	-10,522	1,062

Note: average earnings for taxpayers in Wales used for tax increase calculations; average earnings for taxpayers in rUK used for tax decrease calculations. Changes from Table 4.1 in Ifan and Poole (2018:67) reflect latest data (Survey of Personal Income 2015-16) and changes in modelled tax thresholds.



17. An obvious factor will be the already large migration and commuting flows across the Welsh-English border outlined in section 3.4 of Ifan and Poole (2018). It is possible that the decisions of those already planning on moving may be influenced by income tax differentials. With several large English cities within commutable distance of the Welsh border, individuals who do not have to change jobs after moving may have a greater incentive to migrate to Wales to take advantage of lower tax rates. There are also a significant number of second homes in Wales and England which are owned by residents of the other country. Changing their primary residence to these addresses may allow some taxpayers to take advantage of lower income tax rate, without incurring the costs of relocation. These decisions would also be influenced by the second-home council tax premiums charged by some local authorities in Wales.
18. Converting income between dividend income (still taxed at the UK government rate) and earned income will also be an additional behavioural response available to some taxpayers. Taxpayers with total incomes over the additional rate threshold in Wales received around £200 million of dividend income in 2014-15. Tax-motivated incorporations have been increasing in recent years, and any income tax rate change in Wales may affect the relative trend in incorporations.

## **Modelled effect of an additional rate cut in Wales**

19. The estimates presented in Figure 2 suggests that any migration response from Additional Rate taxpayers will have a high likelihood of materially affecting the revenue effects of Welsh Government tax rate change. Since the UK government could not respond to a Welsh Government tax cut, it is worthwhile to consider the incentive the Welsh Government will have to abolish the additional rate in Wales, by implementing a 5p cut. While it is impossible to accurately predict the resulting migratory response, we can crudely calculate the revenue effect of a given hypothetical migratory response.
20. There are an estimated 435,000 additional rate taxpayers in the UK.<sup>3</sup> Only around 6,000 (1.4 per cent) of these taxpayers currently live in Wales. A third live in London, while another third live in the South East of England and the East of England. Around 66,000 are resident in the three regions of England which have borders with Wales, and around 78 per cent of the population of these regions live within 50 miles of the Welsh border.
21. We estimate that The average NS-ND income of taxpayers earning over £150,000 will be approximately £360,000 in 2020-21. The average additional rate taxpayer would therefore save over £10,500 per year through migrating in response to a Welsh Government tax cut. Assuming an offsetting positive behavioural response outlined above, our modelling suggests that reducing the additional rate in Wales would incur a budget cost to the Welsh Government of

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<sup>3</sup> HMRC (2019) Table 2.2 Number of income taxpayers, by country, Available at:

<https://www.gov.uk/government/statistics/number-of-individual-income-taxpayers-by-marginal-rate-gender-and-age-by-country#history>

approximately £27 million in 2020-21. The cost of maintaining this tax cut would grow slowly over time as taxable income over the fixed additional rate threshold of £150,000 grows.

22. **Figure 3** presents projections of different levels of migration of additional rate taxpayers, and the estimated effect these would have on the Welsh Government budget. If around 407 taxpayers (0.1 per cent of rUK taxpayers with incomes over £150,000) migrate to Wales, the cost of the tax cut would fall to £17 million. If 1,100 average additional rate taxpayers migrated, the cost of the tax cut would reduce to zero, while a stronger migratory response would provide a boost for the Welsh Government budget. A substantial effect on the Welsh Government budget however would require a very strong migratory response. For example, if over 6,000 additional rate taxpayers migrated, then the Welsh Government budget would increase by £129 million. This would amount to a doubling of the share of UK additional rate taxpayers living in Wales.

### Figure 3

Modelling a 5p cut in the additional rate in Wales: revenue effects of varying migratory responses from additional rate (AR) taxpayers from the rest of the UK

Share of rUK AR taxpayers migrating to Wales	Number of AR taxpayers migrating to Wales	Number of AR taxpayers in Wales	Welsh share of all UK AR taxpayers	Budget effect of migratory response (£ million)	Budget change after tax cut (£ million)
0.0%	0	6,000	1.4%	0	-27
0.1%	407	6,407	1.5%	10	-17
0.5%	2,035	8,035	1.8%	52	25
1.0%	4,070	10,070	2.3%	104	77
1.5%	6,105	12,105	2.8%	156	129
2.0%	8,140	14,140	3.3%	208	181
2.5%	10,175	16,175	3.7%	260	233
3.0%	12,210	18,210	4.2%	312	285

Note: Changes from Table 4.2 in Ifan and Poole (2018) reflect updated estimates of Additional Rate taxpayers and their incomes.

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