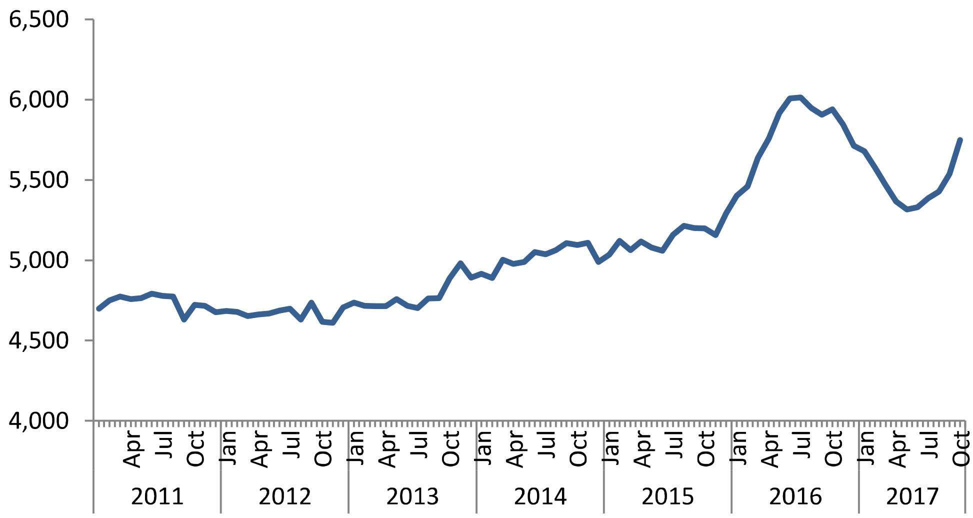
"other" – as shown in Figure 3.6 – mainly reflects stamp duty receipts, which are projected to grow from €1.2 billion to €1.7 billion (40 per cent). This largely reflects the increase in the rate of stamp duty charged on non-residential property from 2 per cent to 6 per cent introduced in *Budget* 2018. The measure is expected to yield €376 million in 2018; however, there may be questions over the assumptions underpinning these estimates for the medium term (Box F).

Excise duties are forecast to grow at a slower pace (1.5 per cent) in 2018 because some front-loading of tobacco payments is expected by the Department this year. This front-loading is believed to be linked to the anticipated implementation of plain packaging for tobacco products, which came into effect on 30th September 2017.[66] Figure 3.7 suggests that an increasing trend has followed in recent months of 2017, which is expected to slow in 2018. It also suggests that a spike in excise duty was also driven by similar expectations in 2016 (ultimately the move to plain packaging did not occur as originally anticipated).

Figure 3.7: Excise Duty Revenues 2011-2017

12-month moving sum, € million



Sources: Department of Finance; and internal IFAC calculations.

Box F: Examining the Quality of Discretionary Tax Measures

Discretionary tax measures (policy-induced changes in taxation) are an important part of budgetary policy. Accurate costings of these are essential to determine the impact that policy changes have on budgetary outcomes and the Government's broader fiscal stance.

This box focuses on the quality of costings underpinning a number of discretionary measures introduced as part of *Budget 2017* and *Budget 2018*. It examines reductions in the Universal Social Charge (USC) in *Budget 2017* and several revenue-raising measures in *Budget 2018* including Capital Allowances on Intangible Assets, changes to non-residential Stamp Duties, and Compliance Measures.

[66] It is worth noting that the tobacco products that were produced before that date – which were therefore unaffected by the implementation of the plain packaging – are allowed to be marketed for a period of one year (i.e., 30th September 2018).

There are questions over the assumptions underpinning some of the costings, particularly for some revenue-raising measures introduced as part of *Budget 2018*. In particular, it is unclear whether these costings are valid over the long-run, even though estimates of yields may be accurate for the short-run. In keeping with the spirit of the new budgetary framework, permanent expenditure increases should be funded by revenue-raising measures that can be considered sustainable over the long-run. While forecasting the underlying yields and costs from discretionary revenue measures can be challenging, it is important that the assumptions behind these estimates are well-founded, and that the behavioural responses are appropriately addressed.

1. Reduced USC: *Budget 2017*

The USC was first introduced in *Budget 2011* and replaced Income and Health Levies. This was intended to increase the tax yield as well as to broaden the tax base and to simplify the taxation structure.

Several budgets have introduced changes to the USC. One such change, which was introduced in *Budget 2017,* represented a cut amounting to an estimated impact of -€335 million in the level of receipts for 2017. However, receipts to date in 2017 have been weaker than expected, even after including the expected impact of the USC cut. In particular, the provisional figures of USC receipts to end-October for the PAYE and Schedule D components point at a shortfall of €95 million relative to expectations, with net receipts amounting to €2,737 million.[67] It is not clear whether the shortfall relative to expectations for 2017 thus far is due to (i) a weakness in economic conditions, or (ii) the result of mis-estimation or other factors. Given the strong labour market data, it would seem that the latter factor is more likely to account for any shortfall. If it is a result of mis-estimation, this could be due to either a mis-specification of the elasticity to income growth or, similarly, it could be due to a mis-estimation of the impact of previous cuts to the USC.[68]

Considering the large panel of administrative data containing information on individual income changes from previous years, it might have been expected that the accuracy of estimates could have been improved at an earlier stage. Recent joint research carried out by the ESRI and the Department for Finance suggested that the USC elasticity was actually lower than initially assumed.[69] It is worth noting that the calculations of USC receipts for 2017 are based on an earlier estimate of the sensitivity to income changes of 2.15, as opposed to the adjusted one, which is estimated at a much lower 1.2. A back-casting exercise shows how forecast USC revenue might vary depending on the sensitivity (or elasticity) used. Table F1 shows that applying the updated elasticity would yield USC receipts of the PAYE component that are €85 million lower for 2017 than if the earlier estimate of elasticity was to be used.

Table F1: Projected USC (PAYE) receipts in 2017 using different elasticity estimates
€ million

	Projected USC (PAYE) Revenue 2017
Using the ESRI and DoF elasticity of 1.2	3,163
Using the earlier DoF elasticity of 2.15	3,248

Sources: Department of Finance (DoF).

[67] For 2017, the expected impact of USC reductions in *Budget 2017* was split between employees (PAYE) and self-employed (Schedule D) at €263 and €72 million, respectively. However, analysis carried out at a later stage suggested that the split should have been €311 and €24 million, respectively. PQ [23363/17] https://www.kildarestreet.com/wrans/?id=2017-05-18a.24 . While the total impact is the same (€335 million), there are important timing effects which may explain the shortfall in overall income tax (which includes USC) for the year-to-date. This reflects the fact that self-employed receipts are primarily received in November.

[68] Appendix E shows the most important factors influencing USC for *Budget 2018* forecasts.

[69] Acheson *et al* (2017).

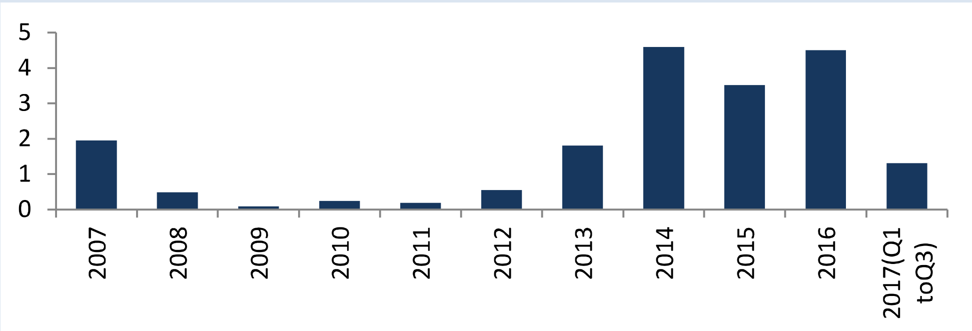
2. Revenue-Raising Measures: *Budget 2018*

A number of questions arise in relation to the quality of several revenue-raising measures introduced in *Budget 2018*. In particular, it is worth asking whether or not the estimated yield in 2018 for stamp duty changes introduced in the Budget will be sustained over the long run.

- **Stamp Duty Rates Increase for Non-Residential Property**
  The stamp duty rate on non-residential property was increased from 2 to 6 per cent in *Budget 2018* and is estimated to bring in an additional €376 million in 2018. However, it is questionable that this measure will deliver the predicted gains for the subsequent years given that non-residential activity appears to have been higher than usual in recent years.

  A key part of forecasting the expected tax yield from a new measure is the starting point considered. However, it would appear that the assumptions underpinning the expected yield from changes to stamp duties on non-residential property introduced in *Budget 2018* were based solely on activity levels evident in 2016 and early-2017. Data from the professionals in the sector would suggest that part of the assumptions correspond to a highly exceptional period of activity that has taken place in recent years (Figure F1).[70] In addition, these activity levels may already have corrected to lower levels. Taken together, this suggests that the huge volumes of commercial property investment that took place in recent years are likely to fall to lower levels than may be assumed in budget calculations. While the *Budget 2018* forecasts may have imposed some downward judgement on forecast receipts based on actual tax collection data, this may not be enough to account for a sizeable downward correction in activity levels.

Figure F1: Irish Commercial Property Investment Turnover
€ billion



Source: CBRE Research.

- **Capital Allowances for Intangible Assets**
  Budget 2018 introduced an 80 per cent cap on the amount of capital allowances that can be used in a single year against income stemming from capital expenditure incurred on intangible assets (and other interest-related expenses). This cap, which applies for assets acquired after the day of the announcement of this measure, is estimated to generate a yield of €150 million in 2018. The estimated yield appears to be based on the expectation that the on-shoring seen in 2016 (€35 billion) and the first half of 2017 (€11 billion) will continue in 2018. The factors involving on-shoring activities are highly volatile given the nature of companies, the prediction of future behaviours and the amounts of expenditures involved, which implies that judgement plays an important role in the estimation of the expected yields.

  In any event, there may be some inconsistencies between the macro forecasts used by the

[70] KPMG; CBRE Ireland; and Savills Ireland. Savills Ireland noted that with €1.3 billion traded in investments in the first 9 months of 2017, there would be at best €2.25 billion likely to trade in 2017 as a whole, versus €4.5 billion last year.

Department and the estimated yield of this budget measure. For example, an additional yield of €150 million on corporation tax for 2018 would require – at the 12.5 per cent corporate tax rate – €1.2 billion additional taxable profits. Given that up to 80 per cent of the capital allowance and related interest expense in a tax year is deductible against any relevant income, this would imply €6 billion of gross trading profits for the calendar year.[71] The €6 billion increase in gross trading profits roughly equates to a €6 billion increase in Gross Operating Surplus, equating to a €6 billion rise in nominal GDP for 2018. However, this would appear high in the context of an overall €12.7 billion nominal GDP increase forecast by the Department for 2018 (i.e., the €6 billion increase would represent almost half of the increase in nominal GDP forecast for 2018).

In addition, there are timing-related issues that are to be considered. In particular, if the 80 per cent limit is binding, any capital allowances that could not be claimed in a given year can be claimed in subsequent years. This shows that the measure does not reduce the overall capital allowances that can be claimed on intangible assets, but simply limits the amount that can be claimed in any one year. Instead of raising additional revenues for 2018 and all subsequent years, it may merely imply a shift in timing (i.e., bringing forward the timing of receipts rather than increasing the overall amount of receipts over the lifetime of the income-producing asset).

- **Compliance Measures**
  Budget 2018 notes that "improved compliance measures" will have an impact of +€100 million on the fiscal position for 2018. This amount is to be raised in three different areas: employment PAYE; e-Commerce and online business; tax avoidance and base erosion capacity.[72] There are difficulties involved in assessing the quality of estimates underpinning additional revenues from compliance measures and such estimates tend to be discounted. An additional document published with *Budget 2018* (Walsh *et al*, 2017) outlines the higher-than-stated receipts arising from compliance measures proposed in *Budget 2016* as a way of showing the relatively conservative projections estimated in the past. Nevertheless, the Department highlights the "difficulty [in separating] the impacts of such measures with other actions taken by Revenue, behavioural changes by taxpayer and general economic activity". In any case, the methodology behind the projections used is unclear, and only year 2018 is included as part of the package, leaving aside a sound medium-term forecast.[73]

  From a methodological perspective, the inclusion of tax-raising compliance measures should be based on sound forecasting and on administrative initiatives. It is also important to apply the same forecasting discipline as for policy changes (i.e., specifying the precise initiative that is to be initiated, the resources needed to implement such measures, a realistic measure of the expected revenue outturn, including when the cash flows are to be received, etc.). Another important point is to factor in the analysis of costs that underpin the expected gains.

[71] Applying gross profit margins (i.e., the ratio between gross profits and revenues) on the assets in the range of 10 to 25 per cent requires asset purchases of between €24 billion and €60 billion.

[72] The associated cost of this measure is €7 million.

[73] As an illustrative example of a detailed compliance plan, it is worth mentioning the Australian case. Taking the Australian *Budget 2012-2013* (Australian Department of Finance, 2012) as a reference, different points should be highlighted. Overall, it contains accurate details on the investment in tax compliance and their expected returns, not only for the very short term, but also for a time horizon comprising four years. These returns are disaggregated yearly and categorised according to the proposed policy decisions. Furthermore, they provide detail on the qualitative improvements expected from such policy decisions. In addition, the Budget includes compliance threats within the risk framework, placing it as one of the highest risks for 2012-2013. In general terms, the Australian case reflects an approach to compliance that substantially differs from what is considered in Irish Budget.