S8. Tax forecasts decomposed

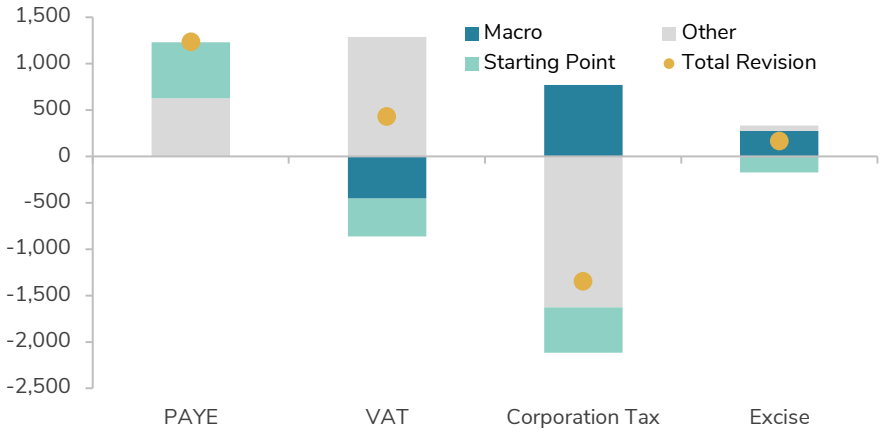
This section examines the official Department of Finance forecasts of the main tax heads. It compares the latest set of forecasts with previous forecasts. This section also decomposes the projected changes in tax receipts to better understand how the forecasts are arrived at.

Changes to forecasts since Budget 2021

This section first looks at the revisions to the Department's tax forecasts for 2021 compared to *Budget 2021* forecasts. The revisions are assessed in terms of: (1) the change in the "**macro**" economic outlook relevant for each tax head; (2) the error arising from an incorrect "**starting point**" estimate of 2020, which biases the 2021 forecast (a positive starting point means that the 2020 outturn was actually higher than expected at budget time); and (3) an "**other**" source of revision, caused by use of incorrect estimates of any other component of the forecast.

Tax forecast revisions in 2021.

€ million, SPU 2021 - *Budget 2021*



Sources: Department of Finance; and internal Fiscal Council workings.
Note: The chart breaks down the total revision to the Department's official tax forecasts into the "macro" component—the part driven by changes to economic growth—, the starting point, component, and the "other" component. As described in the text, there are issues with how the macroeconomic environment is reflected in in PAYE forecasts. As a result, revisions to PAYE are broken into just two categories here, starting point and other.

As an example of how to interpret this, the upward revision to VAT is entirely driven by factors (including judgement) that are unrelated to macro drivers or the revised starting point: the 2020 outturn was lower than forecast in *Budget 2021*. Judgment pushing up the forecasts may be explained by the impact of a policy measure of tax warehousing depressing the base (2020) level, as well as incorporating strong receipts in 2021Q1.

Analysing tax forecasts

The second part of this section looks at the latest official tax forecasts. It shows the yearly changes expected for receipts from VAT, corporation tax, excise duties, and the PAYE and USC components of income tax.[73] The annual changes are attributed to a number of components:

1) "**macro**" is the part of the forecast driven by growth in the relevant macro driver (such as wage growth, recognising the sensitivity of income tax growth to this driver)
2) "**one-offs**" — non-recurring items that effect expected receipts
3) "**policy**" changes, such as tax cuts or tax increases
4) "**warehousing**" the impact of lower taxes in (e.g. in 2020 and 2021) due to warehousing with higher receipts in later years.
5) "**carryover**" effects — policy impacts carried over from previous years
6) "**other**" — other potential elements affecting the forecasts, including judgment applied by the Department of Finance. It is calculated as the difference between the Fiscal Council's internal forecasting exercise and the Department of Finance's own forecasts.

Warehousing of PAYE receipts has boosted receipts in 2021 for two reasons. First, 2020 receipts are understated, due to the warehousing of €865 million of income tax. Second, 15 per cent of the liabilities are assumed to be paid in 2021, then increasing in 2022 and 2023, before falling to zero. VAT forecasts are similarly influenced by warehousing.

Large positive judgement is applied in 2022, as the impacts of an improving economy and labour market are not captured by the methodology employed. Negative judgement is applied in 2025 as tax growth is believed

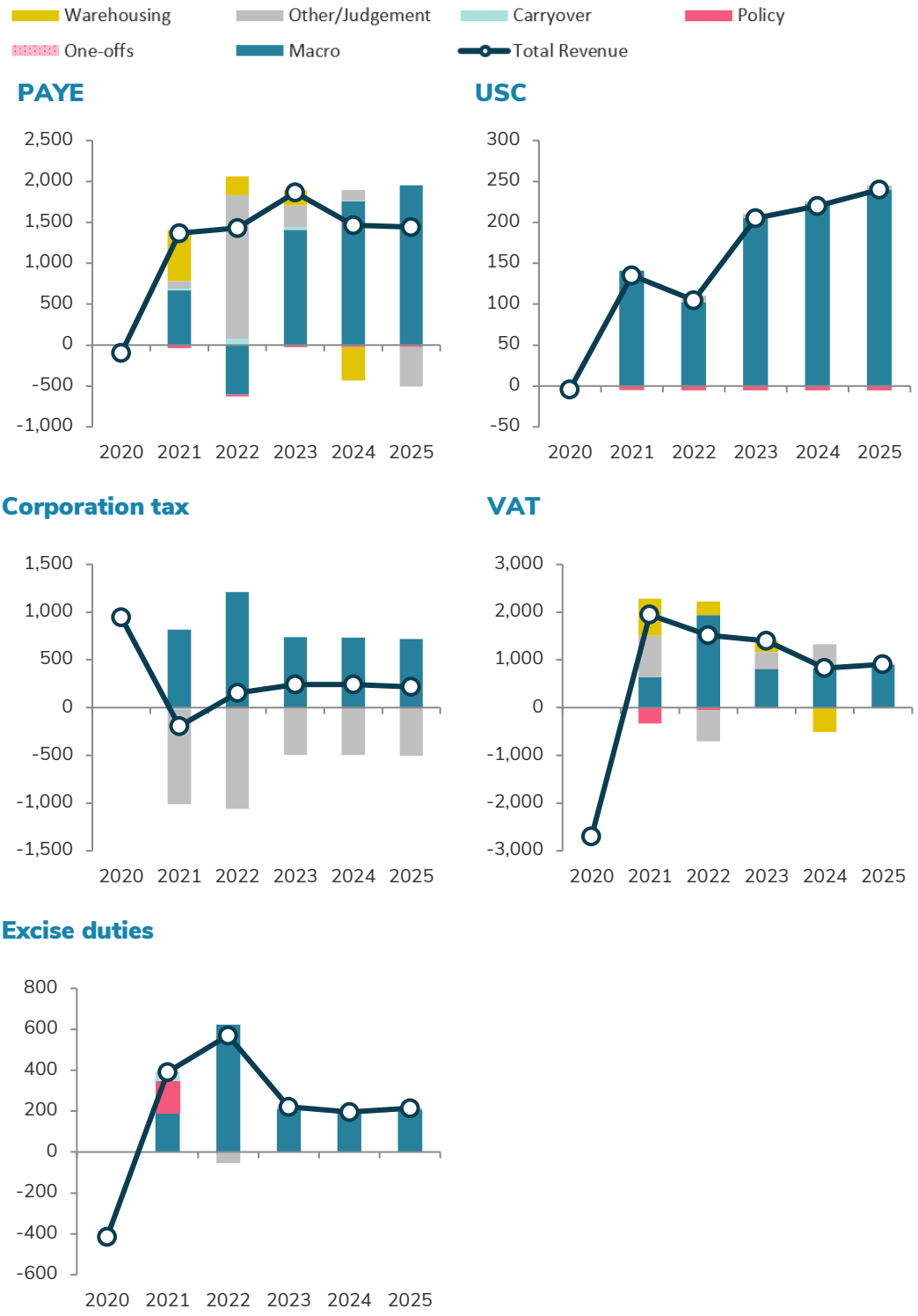
[73] The generic formula applied by the Department of Finance to forecast revenue is given by: $\mathrm{Rev}_{t+1} = (\mathrm{Rev}_t - \mathrm{T}_t) * (1 + \mathrm{B}_{t+1} * \mathrm{E}) + \mathrm{T}_{t+1} + \mathrm{M}_{t+1} + \mathrm{M}_t + \mathrm{J}_{t+1}$,

where revenue forecasts (Rev_{t+1}) depend on their lag stripped of one-off items (T_t); one-off items in the current period (T_{t+1}); the macro drivers (B_{t+1}) and their associated elasticity (E), current policy (M_{t+1}) and carryover policy impacts (M_t), and judgement (J_{t+1}). See Hannon (2014) for a discussion of this approach. Rewriting the formula in terms of annual changes yields: $\Delta\mathrm{Rev}_{t+1} = \mathrm{Rev}_t * \mathrm{B}_{t+1} * \mathrm{E} - \mathrm{T}_t * \mathrm{B}_{t+1} * \mathrm{E} + \Delta\mathrm{T}_{t+1} + \mathrm{M}_{t+1} + \mathrm{M}_t + \mathrm{J}_{t+1}$. In this way, yearly revenue changes for each tax head are attributed to the addition of: (i) the macro driver, which covers the parts of the formula affected by B_{t+1}; (ii) changes in one-off items, as shown in ΔT_{t+1}; (iii) current and previous policy changes ($M_{t+1}$and M_t, respectively); and other adjustments, mainly judgement, as covered in the component J_{t+1}. For a detailed description of the Fiscal Council's forecast replication model, see Hannon (2014).

to be too high in these years, due to the elasticity being too high (elasticity of 2.1 applied to pay per employee growth).

Tax forecasts decomposed

€ million, year-on-year change



Sources: Department of Finance; and internal Fiscal Council workings.