Office for Budget Responsibility

6 March 2025

Supplementary forecast information release

Migration analysis in September 2024 *Fiscal risks and sustainability report*

1.1 The OBR is releasing the information below to provide further detail on the methodology and assumptions underlying the 'representative migrant' analysis (Chart 4.13 and paragraphs 4.31 to 4.34) in the September 2024 *Fiscal risks and sustainability report* (*FRS*).

Background

1.2 This analysis aims to provide order-of-magnitude estimates for the net fiscal impact of a typical migrant compared to a typical UK resident, and illustrate some key sensitivities with respect to age, earnings and length of stay. These impacts are highly uncertain and conditional on a set of stylised assumptions. They are not a detailed assessment of the overall fiscal impact of recent or expected flows of migration.

Input data

1.3 The first key input into this analysis is the tax and spending profiles by age that underlie our long-term projections (see Chart 4.6 in the September 2024 *FRS*, also in the annex below). These profiles represent the tax and spending contributions of the average UK resident, at the individual level, for a given age. The per-person estimates are consistent with the UK population and economic and fiscal aggregates in the final year of our March 2024 Economic and fiscal outlook, which was 2028-29. In practice, this means our forecast for total taxes paid and total government spending in 2028-29 equals the tax and spending profiles by age multiplied by the forecast number of people at each age. The resulting profiles therefore do not represent any particular individual, but an 'average' person of each age in 2028-29 (i.e. participating in the labour market at an average rate, earning an average wage, and split between male and female in proportion to the population).

1.4 The second key input to this analysis is earnings data, sourced from the ONS Labour Force Survey (LFS). These are used to construct our UK resident, average-, low- and high-wage 'representative migrant' profiles, based on the earnings levels of UK and migrant workers. For UK residents and migrants, we look at: gross weekly earnings at main job, including full-time and part-time workers, and across all ages. For migrants, we use earnings in the first year of arrival in the UK, across all migration routes. The data covers the period 2021-2023, which is more representative of the migration system after Brexit.

Tax contributions

1.5 To estimate the tax contributions of representative average-, high- and low-wage migrants, we take the following steps:

- First, we compare the earnings of migrants to the UK average earnings in the LFS data. For the average-wage migrant, we assume they earn UK average wages.[1] For the low-wage migrant, we assume a level of earnings equal to the 25th percentile of the earnings distribution of migrants, as defined in paragraph 1.4 (i.e. those in the first year of arrival across all migration routes). This is around 50 per cent lower than the UK average in the same LFS data. For the high-wage migrant, we assume a level of earnings equal to the 75th percentile of the earning distribution of migrants as defined in paragraph 1.4. This is around 30 per cent above the UK average.

- Second, we make an adjustment to these earnings ratios to account for the progressivity of the income tax system, meaning that higher earners face higher tax rates. We estimate those rates using our standard OBR ready reckoners for income tax and National Insurance contributions, which account for just over 40 per cent of overall tax revenue in 2028-29 in our March 2024 forecast. While the tax system as a whole is not as progressive as income tax, we apply this adjustment to all taxes. Based on this approach, we assume the low-wage migrant pays a comprehensive effective tax rate that is equal to 44 per cent of the UK average overall effective tax rate, while the high-wage migrant pays an effective tax rate that is 111 per cent of the UK average. Accounting for both different levels of earnings calculated in the first step and different tax rates, this means that we assume low-wage migrants pay 22 per cent of all the taxes paid by an average UK resident, while high-wage migrants pay 144 per cent. For the average wage migrant, we assume they earn the UK average wage and face the UK average effective tax rate, so their tax profile by age is the same as a UK resident.

- Third, we use these resulting tax ratios to adjust the taxes paid by the typical migrant – relative to an average UK resident of the same age – and in a way that depends on their relative wages. This is applied to all taxes rather than just income taxes paid largely by those in work. We do this uniformly across the age range, thereby assuming that the relative differences in earnings, and therefore the adjustment to total tax paid described above, continue throughout the hypothetical lifetime of a migrant. For example, a low-wage migrant that arrives at age 25 is assumed to earn 50 per cent below the UK average upon arrival (and pay taxes at 22 per cent of the UK average). They will still earn 50 per cent below the UK average at age 50 (and pay taxes at 22 per cent of the UK average), although the level of earnings (and tax paid) for both the UK representative person and the migrant will have increased at this age.

- Lastly, we assume migrants pay a total of £12,500 in visa fees and health care charges, until they leave or get settlement in the UK.

[1] In the LFS data we used, as described in paragraph 1.4, the average earnings of migrants in the first year of arrival, over the 2021-2023 period, are slightly higher than the UK average. Similar evidence by The Migration Observatory, based on HMRC admin-based data, suggest migrants' earnings are slightly below the UK average in the first year of arrival, but then quickly increase with length of stay (see: Upward mobility? Earnings trajectories for recent immigrants - Migration Observatory - The Migration Observatory).

Spending

1.6 For public spending, we use the average UK spending profiles described in paragraph 1.3 above, with the following adjustments for migrants, as explained in the 2024 *FRS*. This means that, aside from these specific adjustments, we assume that a migrant of a particular age makes the same use of public services as a UK resident of the same age:

- There is no public spending on education associated with a representative migrant throughout their lifetime. That is because we assume the representative migrant arrives at age 25 (the average age for a newly arrived migrant in the UK) and that they pay fees for any education thereafter, for example at university.

- There is no welfare spending for the first five years after the representative migrant's arrival in the UK at age 25, because most migrants are not eligible for it under the *no recourse to public funds* condition of most visas.

- We impose a £20,000 rise in public spending at their year of arrival, to maintain a constant public sector capital stock per person. We do not apply this adjustment to the representative UK resident as births and deaths are roughly equal in our baseline projection, and so this cost is not required to maintain the public sector capital stock per person at a constant level.

Net fiscal impact

1.7 The net fiscal impacts of the representative migrants on average, low, and high wages described above are then calculated simply as the difference between tax and spending at each age. The cumulative net fiscal impact shown in Chart 4.13 in the *FRS* totals these annual figures from the representative migrants' arrival at age 25.

Other assumptions and clarifications

1.8 In these profiles, aside from earnings, we do not make any other assumptions about the characteristics of migrants, such as their participation rates. So, we assume that all other characteristics of migrants are exactly the same as the UK average included in our tax and spending profiles by age.

1.9 Our tax and spending profiles, and by consequence the estimated net fiscal impacts, refer to all residents rather workers specifically. They also refer to individuals rather than households or families. Because of this we do not make any assumptions about the average number of dependants per migrant, and therefore implicitly assume (by not directly capturing the net fiscal impacts of dependents in our comparison) that the profile of dependents does not differ between typical migrant workers and UK residents.

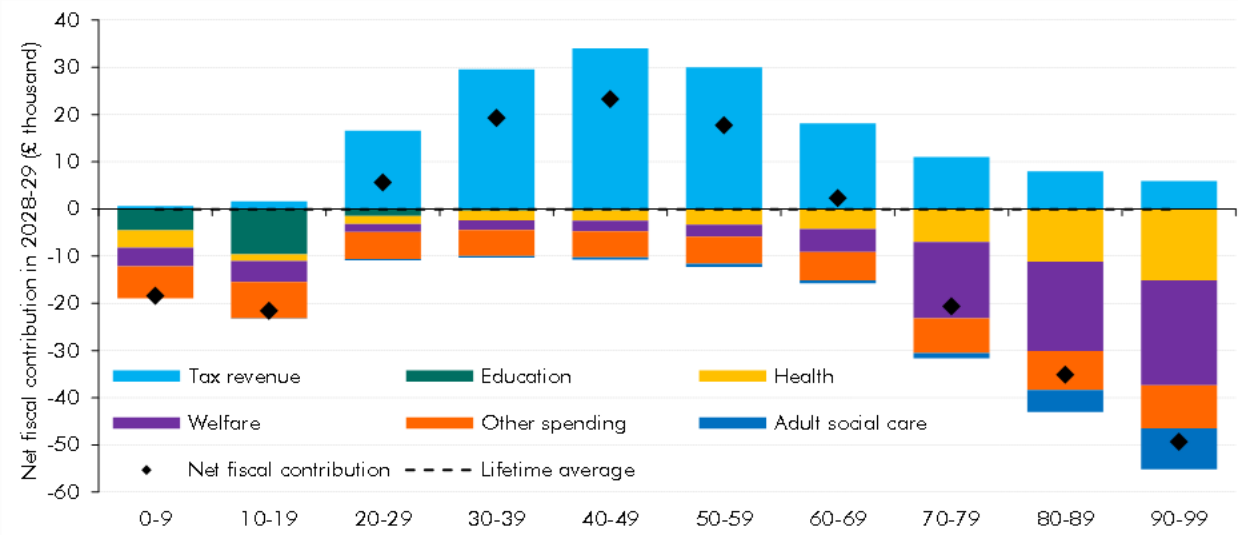
1.10 Lastly, we assume the representative migrant arrives at the age of 25, for all wage scenarios, which is based on the average age of the net inflow of migrants in the ONS 2021-based interim population projections we are using.[2]

1.11 The analysis therefore shows the balance between tax and spending for an individual migrant: arriving at the age of 25; not explicitly including the tax and spending implications of any dependants; participating in the labour market at the same rate as the UK average; consistently over their lifetime earning more, less, or in line with the UK average (and therefore paying more, less, or the same tax); and, with the adjustments to welfare and capital spending described above. In this illustrative analysis there are no other differences in the characteristics of migrants compared to the average UK resident, for example they use public services at the same rate.

[2] ONS, *National population projections: 2021-based interim*, January 2024.

Annex

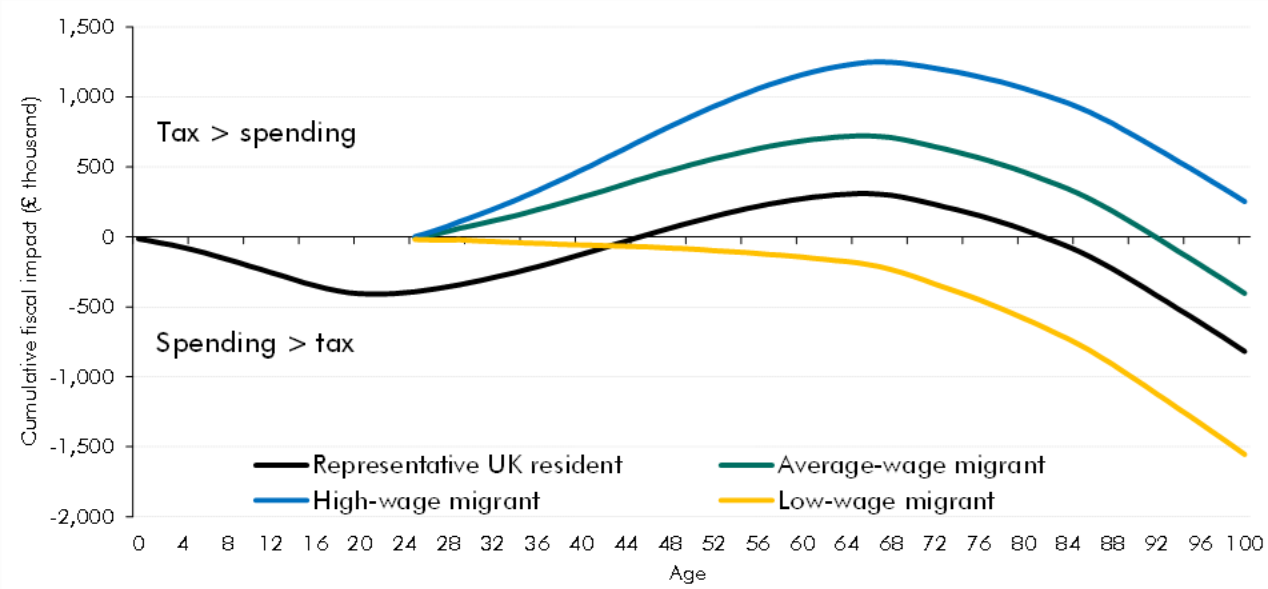
Chart A.1: Chart 4.6 in Chapter 4 (corrected on 14 November 2024)[3]



Note: These profiles are constructed on the basis that aggregate primary spending and receipts are broadly in balance, as is the case on average over the medium term in our March 2024 *EFO*. Therefore they do not capture the fiscal impact of major economic shocks on public spending and receipts. The impact of such shocks on long-run fiscal sustainability is explored in the debt shock scenarios presented later in this chapter.

Source: OBR

Chart A.2: Chart 4.13 in Chapter 4 (corrected on 14 November 2024)



Note: Cumulative fiscal impact include the cost of a skilled work visa, NHS surcharge, indefinite leave to remain and immigration skills charges for employers. Figures for migrants includes the fiscal spending required to keep public capital stock per person constant.

Source: OBR

[3] Correction slip: Fiscal risks and sustainability report - September 2024