consistent with the large investment required for the transition towards a zero-carbon economy.

As noted earlier, there are likely to be substantial investment needs in the coming years. These are driven by infrastructure shortfalls in certain areas, such as housing, health, and transport. In addition, substantial investment is required for the transition to a zero-carbon economy. Resolving these infrastructural deficits may be key to ensuring that productivity growth can be maintained in the medium term. Doing this, while the economy is operating at or above capacity, could be challenging.

Box A: Where will additional construction workers come from?

Ireland needs construction workers to address the housing crisis, to address infrastructural deficits and to meet climate transition targets. Addressing infrastructural deficits is key to ensuring sustained productivity growth and maintaining competitiveness internationally.

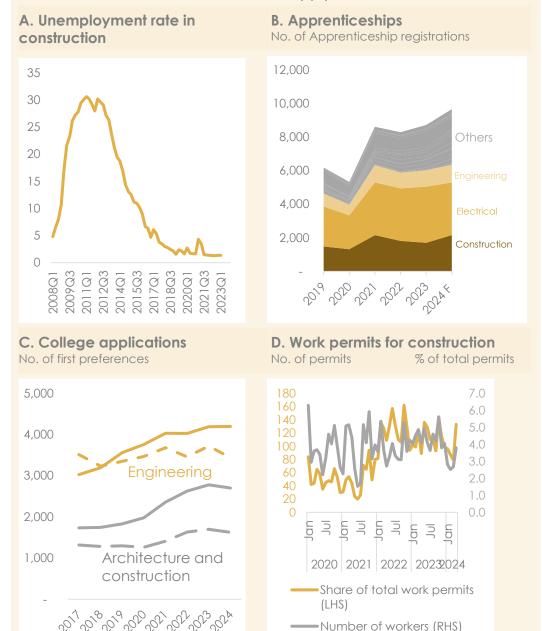
At a time when housing needs are acute, there is also a need to retrofit the existing housing stock to meet climate targets. This will place significant demands on the construction sector which will require increased numbers of construction workers. This box explores where these workers might come from.

There are both domestic sources of additional labour supply and international sources. On the domestic front, further labour supply could come from:

- 1) Unemployed or inactive workers: Figure N°150.A show the unemployment rate for workers in the construction sector. Unemployment in construction is at very low levels, under 1.5%, much lower than in the broader economy. As a result, this is unlikely to be a source of many workers over the medium term.
 - While there has been a large increase in the inflow of refugees since 2022, at present, it seems that this is unlikely to add to the potential labour force for the construction sector given the skills and training required. For instance, 5.7% of Ukrainian refugees who are employed in Ireland, are employed in the construction sector. This is a marginally lower share of construction employees than for the economy as a whole (6.2% in 2023).
- 2) A switch from commercial real estate activity to residential and civil activity: Since the onset of the Covid-19 pandemic and the resultant changing work patterns, there has been a big fall-off in the demand for office space. This has resulted in a slowdown in construction in the commercial real estate sector. As activity in this sector moderates, there is the potential for workers who had been employed building commercial real estate to switch to building residential properties or other civil engineer projects. This reallocation of workers might help to address the additional labour needs.
- 3) Apprenticeship and college courses: Given the skills required in construction, it seems unlikely that people already in the labour force would switch sectors to the construction sector, without partaking in an apprenticeship or other training course.
 - The government has a target of 10,000 apprenticeship registrations per annum by 2025. A large proportion of these would be in areas outside of construction. In 2023, there were 8,712 registrations, with almost 70% of these in construction, electrical and civil engineering (N°15.B). The growing

numbers on apprenticeship programmes should add to the domestic labour supply over the medium term provided that the apprentices do not emigrate once they complete their training.¹¹

N°15 Additional construction labour supply looks limited



Sources: CSO; Central Applications Office (CAO); Department of Enterprise, Trade and Employment; National Apprenticeship Office; and Fiscal Council workings.

Notes: In panel C, solid lines represent first preferences for level 8 courses, dashed lines represent first preferences for level 6 and 7 courses. Get the data.

Outside of apprenticeships, another way to learn the skills necessary to work in the constructions sector is through college courses. Figure N°150.C shows the number of first preferences listed on CAO applications for third-level courses for engineering

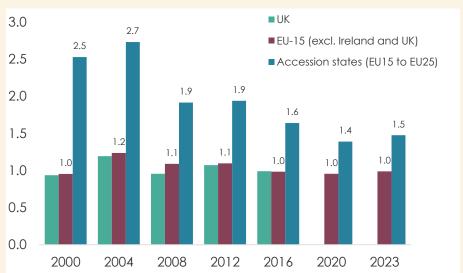
¹¹ A recent paper by officials at the Department of Public Expenditure discusses the trends in apprenticeships in more detail (Department of Public Expenditure, 2024).

and architecture and construction. There were around 6,000 level 8 first preferences for these courses. However, first preference does not equal places in college courses.

On the international side: International labour supply channel:

- 1) Wage differentials: In the early 2000s Ireland's construction sector benefited from a large inward supply of migrants from other EU countries, particularly after the 2004 accession of an additional 10 countries to the EU. Part of the pull factor for this inward migration was the wage differential between these EU countries and Ireland. This differential has reduced substantially, by almost half since 2004 (N°16).
- 2) Work permits: The other potential source of emigration is from non-EU countries. In recent years, this has been a very limited source of construction workers. Since 2020, on average only 85 work permits per month have been issued (0.D). This is a very low proportion of total work permits, with the share of work permits issued in construction averaging 3.8% per month. This is a relatively low share as construction employment made up on 6.1% on average over the same period.
- 3) Returning workers from abroad. Previous work by Conefrey & McIndoe-Calder (2018) showed that many of Ireland's construction workers emigrated after the property bubble burst. Given this, there is a large stock of Irish construction workers abroad that may return. However, given the lapse in time since then, it is likely these workers are now settled, and it is unlikely that a large proportion of them will return in the near future.

lreland is not as attractive as it once was for construction workers Construction wage differentials. Hourly wages, Ireland relative to region specified, PPS adjusted



Sources: Eurostat; Department of Enterprise, Trade and Employment; and Fiscal Council workings. Get the data.

Conclusion

According to the recent Report on the Analysis of Skills for Residential Construction & Retrofitting 2023–2030 (Department of Further and Higher Education, 2023), Ireland needs over 50,000 new construction workers to meet its retrofitting and housing targets between 2023 and 2030. However, this is before any increase to the housing targets—which will require additional workers—and it does not include the need for

construction workers for other badly needed infrastructure projects. ¹² There is clearly an acute need for more construction workers.

However, taken together, there is not a large stock of unused domestic labour supply. While apprenticeship numbers and CAO applications in construction-related activities are growing, these numbers are still relatively small.

Internationally, the attractiveness of Ireland as destination for intra-EU migration has fallen substantially over the past two decades, meaning that this is unlikely to be a major channel. In addition, the number of work permits issued to non-EU workers in construction is very low. However, this may be one policy lever that could be used to increase the labour supply of construction workers.

Potential output growth slowing

The Department of Finance uses a range of models to estimate potential output and the output gap. The midpoint of these estimates shows a positive output gap of over 3% in 2022, which then declines gradually in 2023 and 2024 (N°17). A positive output gap of less than 1% is forecast for 2025-2030. This would be consistent with an economy operating at or just above its potential capacity.

The Department estimates potential output growth to be an average of 2.2% over 2025-2030. As employment growth slows, labour makes less of a contribution. This means that capital deepening and productivity growth are the main drivers of potential output growth.

 $^{^{12}}$ The report assumes that housing completions average 34,500 each year from 2025 to 2030. Actual housing need is likely to be higher than this.