**Notes of GCR CGE Development Chat**

The Glasgow City Region (GCR) IO tables were regionalised from the Scottish tables using both GVA regional data and the composition of jobs at the time (2016 data).

GCR Computable General Equilibrium (CGE) model is the standard AMOS model (“A model of Scotland”). This was originally developed by academics at the University of Strathclyde to model the Scottish economy. Paper found below:



*Key characteristics*

* Only models the Glasgow economy (however does contain trade with the rest of Scotland and rest of world. This means there are no second order effects; i.e. any change in Glasgow’s economy has no effect on outside economies, and so no second round impacts from this are included in modelling results.)
* AMOS is a dynamic model that includes endogenous investment and capital accumulation. This means ‘shocks’ to the economy affect the user cost of capital and the steady state level of capital in the economy.
* Government closures – changes in spending only reflects the spending power of Glasgow City Council. If funding higher government expenditure, this must be funded through council tax (as this is the only lever to generate income).
* Standard labour market closures – several closures the user can choose from, including fixed (exogenous) nominal wages, fixed (endogenous) real wages (nominal wages will adjust to ensure fixed real wages in the economy), fixed labour supply (i.e. external shocks directly affect nominal wages with labour supply holding constant).
* Net Migration between Scotland and rUK/ROW is assumed to be determined by differences in real wages and populations between Scotland and rUK.
* No environmental extensions – difficult to get data for Glasgow

*Historic & Future Context*

* Model was originally developed in 2018 to help address the UK Government’s ‘Levelling up’ agenda. It was supposed to be finalised in early 2020 but was disrupted by the COVID-19 Pandemic.
* While the model is currently functional, it has not been used since its original development.
* The GCR Intelligence Hub hopes to start using the model in the coming months to help estimate economic impacts of various infrastructure projects in Glasgow.
* Any modelling using their CGE model will likely produce much more significant economic impacts than their static Business Case Economic Model (BCEM). This is because the CGE model assumes dynamic effects such as changes in investment and the labour market.