

2 The CGE Model Among Other Models

We start this section with the next analytical question: How will a tax increase on petrol/gasoline impact the Polish economy? A tax of this kind would probably affect petrol/gasoline prices and might affect transport costs, car cost, the CPI, and hence, wages and employment. Traditional econometric models would have difficulty answering this question seeing the complexity of response channels tax shock would imply on the whole economic system. CGE models are useful whenever we wish to estimate the effect of changes in one part of the economy upon the rest of the economy. They are being used widely to analyse trade policy. More recently, the CGE has been a popular device to estimate the economic effects of measures to reduce greenhouse gas emissions. Many research centres and central banks (including the Polish Central Bank) build stochastic dynamic CGE models which encompass the financial sphere of the economy.

A CGE model consists of behavioural equations describing model variables consistent with a relatively detailed database of economic information. The standard CGE tends to be neoclassical in spirit by assuming cost-minimizing behaviour by producers, average-cost pricing, and household demands based on optimizing behaviour. Thus, CGE models are built based on the theoretical model of competitive general equilibrium. Its original structure was developed during the second half of the 19th century by neoclassical economists. Among them, four should be mentioned here, the German Gossen (1853), the British Stanley Jevons (1879), the Austrian Menger (1871), and the French Walras. Due to the dominance of his contributions to its conceptualization, the model bears the name of the last author, the *Walrasian general system*.