Math 300

Section 2.6 The Leontief Input-Output Model

Model Assumptions and Terminology

1. The economy in question is divided into sectors. Each sector produces and consumes goods or services except for the open sector, which only consumes goods and services.
2. A production vector $\mathbf{x}$ lists the output of each sector. A final demand vector $\mathbf{d}$ lists the values of the goods and services demanded from the other sectors by the open sector.
3. As they produce output, the sectors make intermediate demands for inputs from each sector. These intermediate demands are described by the consumption matrix.
4. As the sectors strive to produce enough goods to meet the final demand vector $\mathbf{d}$, they make further intermediate demands for inputs from each sector.

The Input-Output Table

The description of the economy begins with a collection of data called an input-output table (or an exchange table) for an economy. This table lists the value of the goods produced by each sector and how much of that output is used by each sector.

Calculating the Equilibrium Production Levels

The equilibrium levels of production are the production levels which will just meet the intermediate demands of the sectors of the economy plus the final demands of each sector.