An Input-output Interpretation of Price Relationships in China

Topic: Input-output and prices

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In China, CPI indices by commodity, PPI indices by industry and other price indices are published monthly. These price indices could measure the change in price of commodities at all stages from processing to selling. From the theoretical point, the change in price of certain commodity will either be transmitted forward by cost-pushing mechanism or be transmitted backward by demand-driving mechanism. Many papers have been done to empirically examine price relationship by using econometric models as VAR, Granger casual test, cointegration analysis and so on. For this issue, a major weak point of econometric models lies in that these models could examine whether or not there be significant relationship between two price indexes and could test casual relationship and estimate lead and lag relationships but they can not explain those results. Based on the Input-output model, this paper introduces both the forward linkage coefficients and backward linkage coefficients as the explanatory variables to predict association relationship among some important price indexes. This paper also introduces APLs, a indicator of measuring lengths of product chain, as the explanatory variables to predict lead and lag relationships among some important price indices. The empirical analysis has been done by using the price indices of China and 2007 IO table.