

Chapter 3 A Multi-Sectoral Econometric Model of China*

Summary

CDM has two different effects; one is an economic effect as an investment project and another is an effect on environment. This chapter examines two effects using the revised multi-sectoral econometric model of China. For the scenario analysis, we conduct CDM simulation in comparison with the baseline forecast. We confirm net effects of CDM reducing CO₂ and SO₂ emissions in the simulation. Although our simulation is on nationwide base, the results here are consistent with those in the previous chapter.

3-1 Introduction

Main purpose of this chapter is to report the revised multi-sectoral econometric model of China, which was originally developed by M. Yamada (2004). We also incorporate recent fruits of research works into the model and discuss the economic impacts of the improvement of energy efficiency by using our model.

In section 3-2, we briefly explain outline of the model. In section 3-3, we show estimation results of the revised model and its performance. Then, we compile baseline forecast of the Chinese economy through 2020 and conduct scenario analysis (CDM simulation) in section 3-4. Finally, we investigate quality index of China which can assess the environmental policy in China. In the Appendix, full equations of the revised model are listed.

3-2 Outline of Multi-Sectoral Econometric Model of China

Our multi-sectoral econometric model of China is based on a Keynes-Leontief type framework. In the model, Chinese economy is classified into 15 industry sectors, in which energy-related industries include three sectors such as (1) coal, (2) oil and natural gas, and (3) electricity generation and heat supply. Estimation of the model basically covers time-series data 1980 through 2003. As industry sectoral data are not available in 15 industry base, we generated sectoral time-series data using the information of I-O tables in various years¹.

We use seven I-O tables to create time-series data for sectoral output. Industrial outputs for 15 sectors are interpolated by linking two points linearly. On the other hand, corresponding price indexes for 15 sectors are available from China Statistical Year Book (CSYB).

Our model includes determination mechanism of sectoral outputs and prices². Here, we assume \mathbf{X} is a product vector, \mathbf{D} a domestic demand vector, \mathbf{E} an export vector, and \mathbf{M} an import vector. Also, \mathbf{A} is an input coefficient matrix, and \mathbf{FD} is a domestic final demand vector. Output levels are determined in the following equation.

$$\mathbf{X} = \mathbf{D} + \mathbf{E} - \mathbf{M}$$

$$\mathbf{X} = \mathbf{A}\mathbf{X} + \mathbf{F}\mathbf{D} + \mathbf{E} - \mathbf{M}$$

On the other hand, the structure of price determination is expressed as follows.

$$\mathbf{P} = \mathbf{A}\mathbf{D}'\mathbf{P} + \mathbf{A}\mathbf{M}'\mathbf{P}\mathbf{M} + \mathbf{V}$$

$$\mathbf{V} = \hat{\mathbf{X}}^{-1}\hat{\mathbf{L}}\mathbf{W} + \mathbf{O}$$

where \mathbf{P} is a price vector, $\mathbf{P}\mathbf{M}$ an import price vector, \mathbf{V} a value added ratio vector, $\mathbf{A}\mathbf{D}'$ a transpose of a domestic input coefficient matrix, and $\mathbf{A}\mathbf{M}'$ a transpose of an import-input coefficient matrix. $\hat{\mathbf{X}}^{-1}$ means the inverse of the diagonal matrix, whose diagonal elements are of the production vector. $\hat{\mathbf{L}}$ is a diagonal matrix, whose diagonal elements are labor inputs by sector. \mathbf{W} is a wage rate vector, $\hat{\mathbf{X}}^{-1}\hat{\mathbf{L}}\mathbf{W}$ is a unit wage cost vector and \mathbf{O} is a vector that represents other costs including operating surplus and net-indirect tax.

In order to simplify the model and avoid keeping it away from becoming large, only one input-output table is used. In the base year (here, 1995), the above relations holds strictly, though are not maintained for the other years. We therefore need some adjustment mechanism to explain the discrepancies between the actual domestic demand, $\mathbf{D} = \mathbf{A}\mathbf{X} + \mathbf{F}\mathbf{D}$, and the computed domestic demand, $\mathbf{D}^0 = \mathbf{A}^0\mathbf{X} + \mathbf{F}\mathbf{D}^0$, which is gained by assuming that the input coefficient and the distribution ratio of the domestic demand are fixed at the base year value year to year. These discrepancies are mainly explained by the change of relative prices in our model.

Also, prices are determined by the sum of the intermediate input cost and unit value added cost. However, if we apply a base-year fixed input coefficient to this relation, differences appear between actual price and the price explained from the costs. In such case, we apply a regression of actual price on the computed price.

Structure of the model is shown in the flow chart of Figure 3-1. We explain determination mechanism of the model bloc by bloc in the following section.

3-2-1 Macro bloc

In this bloc, GDP and its components, wage level, general price level, government finance, and balance of payments are determined. We briefly explain determination mechanism focusing our attention mainly on final demand, wage and prices.

Real private consumption (CP) is estimated by real income and its own lag. As a proxy of real income, we use net national income that is defined as the sum of value added by industry (VVT) less total depreciation ($CPVT$). Also net national income is adjusted by deflator for private consumption (PCP). Real government consumption (CG) is simply explained by real GDP and its own lag.

$$CP = f((VVT - CPVT) / PCP, CP(-1))$$

$$CG = f(GDP, CG(-1))$$

Investment includes nonresidential and residential investment. Real domestic

fixed investment, which subtracts government investment ($CGINV$) and foreign direct investment ($IFDFV$) from total fixed investment, is explained by real GDP and its own lag. Here, PIF is deflator for domestic investment.

$$IF - (CGINV + IFDFV) / PIF = f(GDP, IF(-1))$$

Total exports (EG) and imports (MG) of goods and services are explained by the bridge equations of corresponding sum of exports (E_i) and imports (M_i) by sectors.

$$EG = f(\sum E_i)$$

$$MG = f(\sum M_i)$$

Real GDP is the sum of components of final demand. J is change in inventory and EPS is statistical discrepancy.

$$GDP = CP + CG + IF + J + EG - MG + EPS$$

Wage income per worker (WVT) is explained by mainly labor productivity (GDP/LET).

$$WVT = f(GDP / LET, WVT(-1))$$

In order to link general price index in consistent with sectoral prices, consumer price index (CPI), deflator for private consumption (PCP) and deflator for government consumption (PCG) are explained by average output price (P_i) weighted by distribution ratio of consumption vector in the base year I-O table.

$$CPI = f(\sum c_i^0 P_i)$$

Also, deflator for fixed investment (PIF) and producer price index (PPI) are explained by average output price weighted by distribution ratio of investment (ip_i^0) and production vectors (x_i^0) respectively in the base year I-O table.

$$PIF = f(\sum ip_i^0 P_i)$$

$$PPI = f(\sum x_i^0 P_i)$$

Deflator for exports (PEG) and imports (PMG) in macro level are explained as an implicit deflator for exports (PE_i) and imports (PM_i) by sector.

$$PEG = f\left(\frac{\sum PE_i \times E_i}{\sum E_i}\right)$$

$$PMG = f\left(\frac{\sum PM_i \times M_i}{\sum M_i}\right)$$

3-2-2 Demand-Supply Balance

Demand and supply balance in the input-output model can be written as follows.

$$\mathbf{X} = \mathbf{D} + \mathbf{E} - \mathbf{M} = \mathbf{A}\mathbf{X} + \mathbf{FD} + \mathbf{E} - \mathbf{M}$$

We assume production in j -th sector as X_j , private consumption as CP , government consumption as CG and investment as I . In the base year (1995), if we express input coefficient as a_{ij}^0 , i -th commodity distribution ratio in private consumption as c_i^0 , i -th commodity distribution ratio in government consumption as g_i^0 , and i -th commodity distribution ratio in investment as ip_i^0 , computed domestic demand can be written as

$$D_i^0 = \sum a_{ij}^0 X_j + c_i^0 CP + g_i^0 CG + ip_i^0 I$$

This computed value is not equal to the actual value (D_i) except for the base year. We explain this discrepancy by the computed domestic demand and relative prices of domestic demand (PD_i) with average domestic demand (PD).

$$D_i = f(D_i^0, PD_i / PD)$$

Exports (E_i) are basically treated as exogenous variables, while imports (M_i) are explained by domestic demand by sector and corresponding relative prices. Then, sectoral output (X_i) is determined by the following identity.

$$M_i = f(D_i, PM_i / PD_i)$$

$$X_i = D_i + E_i - M_i$$

However, it should be noted that this output determination is modified in two sectors such as agriculture and energy-related industries. Agriculture output is mainly explained by labor productivity in the sector. Thus, the above identity is changed as

$$M_1 = D_1 + E_1 - X_1$$

This means that excess demand for agriculture sector should meet with foreign supply (imports). On the other hand, real output in energy sector is explained by its physical output determined in the energy bloc. Thus, the above production identity is modified as

$$D_i = X_i + M_i - E_i$$

In other words, domestic demand for energy sector in the I-O framework is determined through energy bloc.

3-2-3 Price-Cost Structure

Price-cost structure in the I-O model is expressed as follows.

$$\mathbf{P} = \mathbf{AD}'\mathbf{P} + \mathbf{AM}'\mathbf{PM} + \hat{\mathbf{X}}^{-1}\hat{\mathbf{L}}\mathbf{W} + \mathbf{O}$$

Sectoral output price (P_i) is explained by wage income per worker (W_i) and intermediate input price (PR_i), which is defined as the sum of domestic input price (P_j) and import price (PM_j) weighted with base-year domestic input coefficient and import input coefficient respectively.

$$P_i = f(PR_i, W_i)$$

$$PR_i = \sum a_{ji}^0 P_j + \sum am_{ji}^0 PM_j$$

Export deflator by sector (PE_i) is explained by sectoral output price and exchange rate (EXR), while import deflator by sector is determined by average dollar import price ($PM\$$) and exchange rate. Finally sectoral domestic demand price (PD_i) is determined as the following identity.

$$PE_i = f(P_i, EXR)$$

$$PM_i = f(PM\$ \times EXR)$$

$$PD_i = (P_i \times X_i + PM_i \times M_i - PE_i \times E_i) / (X_i + M_i - E_i)$$

3-2-4 Employment, Wage and Value Added

Sectoral wage (W_i) is explained by average wage in the macro level (W) and its own lag. Employment by sector (LE_i) is a function of activity level, real wage and its own lag. Employment in agriculture sector (LE_1) is determined as a residual subtracting non-agriculture employment from total employment (LET).

$$W_i = f(W, W_i(-1))$$

$$LE_i = f(X_i, W_i / P_i, LE_i(-1))$$

$$LE_1 = LET - \sum_{i>1} LE_i$$

Depreciation by sector (DP_i) is explained by nominal output (XV_i). Value added by sector (VV_i) is a function of nominal output and terms of trade (output price vs. input price).

$$DP_i = f(XV_i, DP_i(-1))$$

$$VV_i = f(XV_i, P_i / PR_i)$$

3-2-5 Energy Bloc

Next, we explain the feature of energy bloc in our multi-sectoral model. In this bloc, we deal with four energy sectors: (1) coal, (2) oil, (3) natural gas, and (4) electricity, though oil and natural gas are treated as one sector in the input-output sector.

Energy-related variables are listed in Table 3-2. For coal and oil, almost all entries for energy balance table are filled: domestic production, exports, imports, inventory change, conversion (including power generation, heat supply, coking, gas production and losses), sectoral demand and household sector. For natural gas, as data for energy conversion is not available in CSYB, variables to be dealt with in this model are limited to production, exports, sectoral demand and household demand. For electricity, we deal with power generation (including hydro, thermal, nuclear etc.), exports, imports, energy losses, sectoral demand and household demand. Energy bloc also includes overall energy balance.

All energy-related variables except electricity are expressed in terms of standard coal equivalent (sce) ton, common way in China's energy statistics. Causal

relation in the energy bloc is outlined in Figure 3-2.

We start with the explanation of electricity sector. Total power generation ($EELX$) is explained by total demand ($EELD$) and net exports. We assume exports ($EELE$) and imports ($EELM$) as exogenous variables because they are in small amounts. Total demand for electricity ($EELD$) is calculated as the sum of industrial demand ($EELD_i$) and household demand ($EELDH$).

$$EELX = EELD - (EELM - EELE)$$

$$EELD = \sum EELD_i + EELDH$$

Each industrial demand for electricity is a function of corresponding production (X_i) or domestic demand (DD_i) and relative prices of electricity ($PEEL$) with output price (P_i). Household demand is also determined by consumption and relative prices of electricity with consumption deflator (PCP). A trend factor ($TREND$) is added in some equations.

$$EELD_i = f(X_i \text{ or } DD_i, PEEL/P_i, TREND)$$

$$EELDH = f(CP_i, PEEL/PCP, TREND)$$

Power generation consists of hydraulic, thermal and other power generation including nuclear electric power. Nuclear power generation ($EELXN$) is treated as exogenous. Hydraulic power generation ($EELXH$) is considered to be a function of total power generation and trend factor. By using trend factor, some part of power generation is assumed to be filled by hydro power. A remaining part of power generation comes from thermal power generation ($EELXT$).

$$EELXH = f(EELX, TREND)$$

$$EELXT = EELX - (EELXH + EELXN)$$

Then, we explain coal. Assuming exports ($ECLE$) and imports ($ECLM$) for coal as exogenous, coal products ($ECLX$) are explained by total demand ($ECLD$) with adjustment of inventory ($ECLJ$) and net exports. Total demand for coal is the sum of industrial demand ($ECLD_i$) and household demand ($ECLDH$).

$$ECLX = ECLD + ECLJ - (ECLM - ECLE)$$

$$ECLD = \sum ECLD_i + ECLDH$$

There are also some coal demands in energy conversion. Coal demand for power generation ($ECLPG$) is explained as follows. First, we calculate thermal power generation with coal by multiplying total thermal power generation ($EELXT$) in terms of sce by coal thermal generation ratio ($ECLXTSC$). Then, we divide it by fuel efficiency in coal power generation ($ECLPGER$). Data for coal thermal ratio and efficiency for coal thermal power generation is obtained from IEA energy database.

$$ECLPG = (EELXT / 0.814) \times ECLXTSC / ECLPGER$$

We estimate household demand ($ECLDH$) and each industrial demand ($ECLD_i$)

for coal as a function of activity level and relative prices of coal (*PECL*) with output or consumption (*PCP*). It should be noted that industrial demand for coal is in terms of total consumption, not final consumption.

$$ECLD_i = f(X_i, or DD_i, PECL/P_i, TREND)$$

$$ECLDH = f(CP, PECL/PCP, TREND)$$

Oil and natural gas sectors have almost the same structure as coal sector, with some difference.

Finally, CO₂ and SO₂ emissions are explained from the sum of coal, oil, and natural gas, multiplied by corresponding emission factors. Activities in physical base in the energy sector are linked to real product in the energy-related sectors.

3-3 Estimation Results of the Revised Model and Its Performance

Our data base basically covers the period 1980 through 2003. Macro variables cover the periods 1980 through 2003, while energy-related variables from 1985 to 2002. The estimation methods are mainly OLS. Some equations are estimated with autocorrelation in error terms. The estimation with restricted coefficient is also applied to some equations.

Our model consists of 556 endogenous variables and 166 exogenous variables. Variables and equations are listed in the Appendix.

3-3-1 Estimation Results

In order to understand the model structure, we examine the estimation results of the revised model, focusing on sectoral domestic demand, output price, labor demand and energies. Estimation results are summarized in Table 3-3 through Table 3-9. In the tables, coefficients and their t-values for major explanatory variables are summarized. Coefficients mean the elasticity of variables. Constant terms and coefficients of dummy variables are excluded in the tables.

(1) Domestic Demand and Output by Sector

Table 3-3 shows the estimation results of domestic demand by sector. For non-energy sectors, sectoral domestic demand is a function of computed domestic demand with input coefficient in the base year and relative prices. Functions are estimated in logarithm form. For chemical product and non-metallic mineral product sectors, we assumed the elasticity of domestic demand as unity. We successfully estimated the demand gap due to change in input coefficients by the relative prices. For energy-related three sectors, corresponding output is bridged by corresponding energy output in physical base.

(2) Output Price and Labor Demand by Sector

Table 3-4 and table 3-5 show the estimation results of output price and labor demand by sector. In the estimation of output price by sector, we take three factors

into consideration. They are input price, wage per worker and its own lags. Individual input price is a weighted average of domestic output price and import price by sector. Weights are input coefficients in the base year I-O table.

Input prices are significant for all industry in a statistical sense but wage and own lags are significant only for limited industries. Wage factor is significant for construction, services, coal, and electricity sectors, in which share of compensation of employee is believed to be higher than other sectors. The sum of coefficients of import price and wage centers around one.

Labor demand by sector is a function of output level, real wage and its own lag. For food, textile product, chemical product, non-metallic mineral product, primary metal and coal industries, we assume coefficient of output as one. Real wage is not significant for mining, metal product and machinery, transportation and communication, services, oil and natural gas, and electricity industries.

(3) Electricity Demand by Sector

Table 3-6 shows the estimation results of individual industry and household demands for electricity. Individual industry demand for electricity is explained by its output level and relative prices. Household demand for electricity is a function of consumption level and relative prices. Relative prices are significant for many industries and household.

(4) Coal Demand by Sector

The estimation results of individual industry and household demands for coal are shown in Table 3-7. We estimated coal demand function mainly by real output and relative prices. We failed to estimate the price effects for many industries. Coal demand is likely to be substituted by oil and electricity. Thus, we use the sum of electricity and oil as a proxy variable so that we take this substitution process into consideration. For those sectors, substitution effect is estimated successfully to be negative. We use the same specification for household demand for coal.

(5) Oil Demand by Sector

Table 3-8 is the estimation results of oil demand function by sector. For some sectors, price effects are insignificant. But for many sectors, real output and relative prices are significant. For household sector, oil demand function was not successfully estimated in a conventional form. Thus, we estimated oil demand per household consumption by electricity demand per consumption and time trend. Coefficient of time trend stood at 0.0392, meaning household oil demand grew 3.9% other than consumption factor.

(6) Natural Gas Demand by Sector

Heavy natural gas consuming sectors are chemical product and oil and natural gas industries. We estimated natural gas demand functions for the two sectors and

household. The price effect was not significant in chemical product, and oil and natural gas but significant in household (see, Table 3-9).

For other sectors, natural gas demand is determined by multiplying natural gas intensity by activity level. As natural gas demand for other sectors is small and fluctuates very much, natural gas intensity is assumed as exogenous variable.

3-3-2 Model Performance

We estimated multi-sectoral model using time series data, which covers the period from 1980 to 2003 for macro variables, and 1985 through 2002 for energy sector.

Table 3-10 depicts the performance of our model in terms of the mean absolute percentage errors (MAPE). A dynamic simulation was conducted from 1987 to 2002. MAPE appears to be relatively small except some variables. For example, real GDP is 2.7%, total of real product is 3.4%, total of nominal value added is 4.3%, GDP deflator is 4.6%, and total employment is 0.2%. Thus, roughly speaking, our model is tolerable to the prediction.

3-4 Baseline Forecast and Scenario Analysis

In this section, we show a baseline forecast from 2002 to 2020. Using this baseline forecast, we conduct a scenario analysis which assesses macro impact of CDM project compared with a baseline forecast.

3-4-1 Assumption

Assumptions for exogenous variables are listed in Table 3-11 for major macro variables and in Table 3-12 for energy variables. These assumed values are generated by reflecting recent trends.

We assume that real exports will grow 15.2% for the first seven years and 8.7% for the second 10 years. Import price will increase at 3% and exchange rate is fixed at level in 2003. Population growth rate is assumed to be 0.8-0.6%. We also assume that coal imports and natural gas exports will grow as fast as in the past. Electricity exports and imports will be constant at 2002 level. The intensity of natural gas is set almost as constant at 2002 level.

Table 3-13 shows the composition of thermal power generation and fuel efficiency from 2003 to 2020 based on IEA's outlook. Coal thermal power generation keeps dominant share even in 2020, while natural gas thermal power generation grows gradually. Fuel efficiency of coal improves 4 points in some twenty years. Fuel efficiency of natural gas also increases 3 points, while that for oil is almost unchanged.

3-4-2 Feature of Baseline Forecast

Baseline forecasts for major variables are listed in Table 3-14a and 14b. Actual growth rates from 1995 to 2003 are also shown in the tables. Real GDP growth

rate is 6.8% for the first seven years and 5.2% for the second ten years. Figures are slightly lower than the growth rate in the 1990's. They also should be compared with the reference forecast of IEA in Table 3-14b. The growth rate of real GDP is 6.4% for 2002 through 2010 and 4.9% from 2010 to 2020. Our forecast is slightly higher than that of IEA.

Figure 3-3, 3-4, and 3-5 shows the amount of real product, real domestic demand, and the number of employment by sector respectively. Table 3-15 summarizes composition of real product and real exports by sector. Because we assume faster expansion of exports in metal product and machinery sector, this industry will enjoy higher output growth than other sectors. However, reflecting productivity growth difference, employment structure gives us a different picture. Employment in service sector explained 43.5% of the total in 2003 and is expected to be 54.5% in 2020 (see Figure 3-5). The share of employment in agriculture was 43.3% in 2003 and will be 34.7% in 2020. A shift of employment from agriculture sector to service sector will be seen.

Table 3-16a and 3-16b show average growth rates of energy-related variables. Also, Figure 3-6, 3-7, 3-8, and 3-9 show composition of primary energy supply, primary energy demand, composition of power generation, and natural gas product by sector respectively. Total primary energy will grow at 4.3% in the first period (2003-2010) and at 3.4% in the second period (2010-2020). IEA's forecast suggests that total primary energy grows at 3.4% in 2002-2010 and 2.5% in 2010-2020 respectively. Our estimate of the elasticity to GDP is 0.63 and 0.65, while IEA's estimate is 0.53 and 0.51 respectively.

Total primary energy supply is projected to be 2.855 billion sce tons in 2020 in our model, while IEA's is 2.960 billion sce tons. Total amount of power generation in our model is 3942 Twh in 2020, while that of IEA is 4018 Twh. Generally speaking our estimates are slightly lower than IEA's. Difference may partly come from the assumption in a baseline forecast. This should be examined further.

Table 3-17 expresses our forecasts of CO₂ and SO₂ emissions corresponding to economic activity. CO₂ emission grows to 1422.5.1 million carbon tons in 2010 and to 2058.6 million carbon tons in 2020, though it was 1047.6 million carbon tons in 2003. CO₂ increases at a 4.5% annual growth in the first seven years and at 3.8% in the second ten years. SO₂ emission increases to 39.0 million tons in 2010 and to 54.6 million tons in 2020. Its average annual growth in the first period is 4.1% and 3.4% in the second period respectively.

3-4-3 Scenario Analysis

As discussed in the previous chapter, CDM has two different effects; one is an economic effect as an investment project and another is an effect on environment. Chapter 2 examines two effects from the view of the optimal site location of the

project.

Instead, here, we examined the effects on national base using multi-sectoral model. We consider CDM project in coal thermal power generating industry through technological transfer from Japan to China. The estimation procedure has two steps in the simulation.

(1) Investment construction phase

We assume that CDM project starts in 2003 (the first year of the baseline forecast). Assumed investment amount in that year is listed in Table 3-18. Total amount of investment is 11.203 billion yuan and is mainly disbursed to three sectors such as metal product and machinery, construction, and transportation and communication. In the simulation, 11.203 billion yuan is added to final demand only for 2003.

(2) Efficiency improvement in power generation by CDM project

We assume a 9,000 MW class coal thermal power plant construction as CDM project. Constructing new power plant improves its efficiency by 25%. The reading is based on hearing from electric power company. Since the CDM project does not replace the whole capacity of power generation, we need to adjust the efficiency improvement rate by the relative size of CDM and the whole capacity. 9,000 MW class power plants generate 0.8% of total electricity. On nationwide base, improvement in efficiency is only 0.21%. In the simulation, we raise efficiency in coal thermal power plant (*ECLPGRA*) by 0.21% points. We assume the operating (or credit) period of CDM would be ten years from 2004 to 2013. Thus, efficiency increases from 2004, reducing coal input necessary to generate electricity.

Table 3-19 shows the simulation results of CDM project. In the first year of the simulation, real GDP increases 12.4 billion yuan from the baseline due to an 11.2 billion yuan increase in investment. Plant construction ends in one year and since then multiplier effect will fade away. Expansion of economic activity increases CO₂ and SO₂ by 80 thousand ton-c and 3 thousand ton in the first year. As new power plants start to operate, efficiency in coal thermal power plant start to increase from the second year. CO₂ decrease by 0.8-1.35 million ton-c or by 0.07% from the baseline. SO₂ also decrease by 27-47 thousand ton or by 0.1% from the baseline. In remaining years, net effect of CO₂ reduction accumulates to 10.78 million ton-c and that of SO₂ to 371 thousand ton.

3-5 Quality Index of China

Environmental issue is closely related with quality of life. How to evaluate the environmental policy? One answer to this question is to build a social index which includes environmental variables. Klein and Ozmuur (2003) challenged to construct this social index.

First, they consulted studies by A.L. Nagar and his colleagues in India, who recommended an approach based on principal components. Nagar and his associates constructed indicators that were similar to those used for constructing the Human Development Index of the UNDP. It should be noted that those data are used in cross-country analysis to compare countries' performance in a relative sense (Nagar and Basu (1999), Nagar and Rahman (2002)). In contrast, Klein and Ozmuur used time-series data to construct the index.

Following Nagar, *et.al.*, Klein and Ozmuur have done principal component analyses using 5 common indicators. They are

- CO₂ emissions (metric tons per capita) (inverted)
- Secondary school enrollments (% gross)
- Physicians (per 1000 people)
- Infant survival rate (per 100 live births)
- Life expectancy at birth (years)

All data, except CO₂ emission, come from World Development Indicators by the World Bank. The sample periods are 1980-2000. In each case, they extracted five principal components and averaged them into an index, by forming a weighted average, with the weights being the respective eigen values. They say that the index denotes "quality of life" – a latent variable. Their estimation results are listed in Table 3-20 and 3-21.

This is an interim result but it is good social index to assess environmental policy. We plan to apply this method to the multi-sectoral model in order to evaluate the environmental policy.

The quality index can tell not only the impact of each principal component but also that of each indicator (e.g. CO₂). The latter is to calculate the partial derivative of quality index with respect to each indicator.

Suppose weights of corresponding principal components in the index as (d₁ , d₂ , ..., d_k), and weights in the Eigenvectors as

$$\begin{pmatrix} a_{1,1}a_{1,2} \dots a_{1,k} \\ a_{2,1}a_{2,2} \dots a_{2,k} \\ \dots \dots \dots \\ a_{k,1}a_{k,2} \dots a_{k,k} \end{pmatrix} .$$

Let us focus on the first economic indicator (x_1). If x_1 changes other variables being equal, net effect of x_1 on the index (y) can be calculated as the equation below. This is the partial derivative of y with respect to x_1 .

$$\frac{\partial y}{\partial x_1} = d_1 a_{1,1} + d_2 a_{1,2} + \dots + d_k a_{1,k}$$

Calculating the above way, we show the net impact (partial derivative of x_i) of each indicator such as CO₂ on the quality index.

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Endnotes

- * Authors appreciate very much for helpful support from Prof. Yamada to revise the model.
- 1 Seven I-O tables are available in the following years. They are in 1985, 1987, 1990, 1992, 1995, 1997 and 2000. We aggregate each industry into 15 industrial sectors. Sectoral classification is listed in the Table 3-1.
- 2 Explanation here owes to Yamada (2004).

Table 3-1 Sector Classification

33 sectors		15 sectors	
1	Agriculture	1	Agriculture
2	Coal mining	13	Coal
3	Crude petroleum and natural gas production	14	Oil and Natural Gas
4	Metal ore mining	2	Mining
5	Other mining	2	Mining
6	Food manufacturing	3	Food
7	Manufacturing of textile	4	Textile Product
8	manufacturing of wearing apparel, leather and products of leather and fur	4	Textile Product
9	Sawmills and manufacture of furniture	9	Other Manufacturing
10	Manufacture of paper, cultural and education articles	9	Other Manufacturing
11	Electricity, steam and hot water production and supply	15	Electric Power and Heat Supply
12	Petroleum refineries	14	Oil and Natural Gas
13	Coking, manufacture of gas and coal products	13	Coal
14	Chemical Industries	5	Chemical Product
15	Manufacture of building materials and other non-metallic mineral products	6	Non-Metallic Mineral Product
16	Primary metal manufacturing	7	Iron and Steel, and Non-Ferrous Metal
17	Manufacture of metal products	8	Metal Product and Machinery
18	Manufacture of machinery	8	Metal Product and Machinery
19	Manufacture of transport equipment	8	Metal Product and Machinery
20	Manufacture of electric machinery and instrument	8	Metal Product and Machinery
21	Manufacture of electronic and communication equipment	8	Metal Product and Machinery
22	Manufacture of instruments, meters and other measuring equipment	8	Metal Product and Machinery
23	Maintenance and repair of machinery and equipment	8	Metal Product and Machinery
24	Industries not elsewhere classified	9	Other Manufacturing
25	Construction	10	Construction
26	Freight transport and communication	11	Transportation and Communication
27	Passenger transport	11	Transportation and Communication
28	Commerce	12	Service
29	Restaurants	12	Service
30	Public utilities and services to household	12	Service
31	Cultural, education, health and scientific research institutions	12	Service
32	Finance and insurance	12	Service
33	Public administration	12	Service
34	Total intermediate inputs	16	Total intermediate inputs

Table 3-2 Energy Variables

	Overall Energy 10000 tons of sce	Oil 10000 tons of sce	Coal 10000 tons of sce	Natural Gas 10000 tons of sce	Electricity 100 million kWh
Product	EEOX	EPLX	ECLX	ENGX	EELX
Recovery of Energy	EEOR				
Hydraulic Power Generation					EELXH
Thermal Power Generation					EELXT
Power Generation, Nuclear and Others					EELXN
Import	EEOM	EPLM	ECLM		EELM
Export	EEOE	EPLE	ECLC	ENGE	EELE
Stock Change	EEOJ	EPLJ	ECLJ		
Demand	EEOD	EPLD	ECLD	ENGD	EELD
Energy Conversion		EPLCT	ECLCT		
Power Generation		EPLPG	ECLPG		
Heating		EPLHT	ECLHT		
Coking		EPLCK	ECLCK		
Gas Product		EPLGP	ECLGP		
Loss		EPLLS	ECLLS		EELLS
Balance	EEOB	EPLB	ECLB		
Agriculture		EPLD01	ECLD01	ENGD01	EELD01
Mining		EPLD02	ECLD02	ENGD02	EELD02
Food		EPLD03	ECLD03	ENGD03	EELD03
Textile Product		EPLD04	ECLD04	ENGD04	EELD04
Chemical Product		EPLD05	ECLD05	ENGD05	EELD05
Non-Metallic Mineral Product		EPLD06	ECLD06	ENGD06	EELD06
Iron and Steel, and Non-Ferrous Metal		EPLD07	ECLD07	ENGD07	EELD07
Metal Product and Machinery		EPLD08	ECLD08	ENGD08	EELD08
Other Manufacturing		EPLD09	ECLD09	ENGD09	EELD09
Construction		EPLD10	ECLD10	ENGD10	EELD10
Transportation and Communication		EPLD11	ECLD11	ENGD11	EELD11
Service		EPLD12	ECLD12	ENGD12	EELD12
Coal		EPLD13	ECLD13	ENGD13	EELD13
Oil and Natural Gas		EPLD14	ECLD14	ENGD14	EELD14
Electric Power and Heat Supply		EPLD15	ECLD15	ENGD15	EELD15
Total		EPLDT	ECLDT	ENGDT	EELDT
Household		EPLDH	ECLDH	ENGDH	EELDH

Table 3-3 Domestic Demand by Sector

	Sector	Domestic Demand	Relative Price	RRJ	SE	DW
01	Agriculture	0.7409 53.46	-0.4943 -4.80	0.9942	0.0267	1.5440
02	Mining	1.0410 22.08	-1.0165 -9.56	0.9722	0.0826	1.8322
03	Food	1.0449 14.93	-0.8765 -1.53	0.9760	0.0812	0.6687
04	Textile Product	0.8827 9.84	-0.8798 -1.59	0.9536	0.1183	1.6002
05	Chemical Product	1.0000	-0.6839 -10.38	0.8832	0.0339	1.6990
06	Non-Metallic Mineral Product	1.0000	-1.4646 -3.99	0.6885	0.1008	2.3645
07	Iron and Steel, and Non-Ferrous Metal	0.8052 64.09	-	0.9967	0.0300	2.1000
08	Metal Product and Machinery	0.9313 53.07	-1.2335 -13.59	0.9975	0.0383	1.5264
09	Other Manufacturing	1.0654 20.46	-0.3696 -1.94	0.9901	0.0682	2.5437
10	Construction	0.7958 53.18	-	0.9968	0.0310	0.9895
11	Transportation and Communication	1.1161 35.15	-	0.9894	0.0708	1.3665
12	Service	1.1812 54.28	-	0.9942	0.0424	1.5201

Note: Figures in lower cases are t-values.

Table 3-4 Output Price by Sector

	Sector	Input Price	Wage Rate	Lag	AR(1)	RRJ	SE	DW
01	Agriculture	1.0555 118.75	-	-	-	0.9989	0.0142	1.3580
02	Mining	0.7196 11.03	0.2956 8.27	-	-	0.9971	0.0333	2.1841
03	Food	0.9394 120.53	-	-	-	0.9990	0.0127	1.3618
04	Textile Product	1.1314 26.09	-	-	0.9225 16.12	0.9988	0.0126	1.8812
05	Chemical Product	1.1348 8.84	-	-	0.9737 13.47	0.9882	0.0333	2.0245
06	Non-Metallic Mineral Product	0.9718 46.24	-	-	-	0.9925	0.0369	1.2473
07	Iron and Steel, and Non-Ferrous Metal	1.0233 38.69	-	-	-	0.9898	0.0516	1.1487
08	Metal Product and Machinery	0.7742 37.75	-	-	-	0.9879	0.0316	1.2519
09	Other Manufacturing	0.7987 12.23	-	-	0.5367 2.79	0.9869	0.0340	2.0074
10	Construction	0.6754 14.27	0.3538 13.18	-	-	0.9974	0.0267	2.0019
11	Transportation and Communication	0.9172 70.52	-	-	-	0.9964	0.0243	1.8196
12	Service	0.8337 28.21	0.1861 9.08	-	-	0.9981	0.0196	1.5364
13	Coal	1.1126 9.15	0.1158 2.24	-	0.4584 2.43	0.9932	0.0471	1.4410
14	Oil and Natural Gas	1.0119 6.60	-	0.3605 3.71	-	0.9908	0.0850	1.2406
15	Electric Power and Heat Supply	0.9243 5.10	0.1614 2.16	-	0.6231 2.38	0.9930	0.0523	1.4753

Note: Figures in lower cases are t-values.

Table 3-5 Labor Demand by Sector

	Sector	Output	Real Wage	Lag	RRJ	SE	DW
02	Mining	0.0362 1.51	-	0.8733 22.69	0.9908	0.0274	2.8361
03	Food	1.0000	-0.1837 -3.20	0.7907 9.26	0.9822	0.0868	1.3929
04	Textile Product	1.0000	-0.4635 -3.78	0.5491 3.92	0.9832	0.1032	1.7221
05	Chemical Product	1.0000	-0.5738 -4.52	0.4344 3.13	0.9897	0.0831	1.8025
06	Non-Metallic Mineral Product	1.0000	-0.4760 -7.89	0.6502 11.26	0.9919	0.0696	1.5192
07	Iron and Steel, and Non-Ferrous Metal	1.0000	-0.3981 -3.48	0.6180 4.36	0.9868	0.0720	1.3477
08	Metal Product and Machinery	-1.1005 -46.67	-	0.1342 6.54	0.9982	0.0503	2.5404
09	Other Manufacturing	1.0000	-0.2570 -2.23	0.7688 6.69	0.9848	0.1088	1.0394
10	Construction	0.1890 6.91	-0.1612 -3.40	0.5968 11.09	0.9930	0.0171	2.2871
11	Transportation and Communication	0.0653 4.56	-	0.6035 10.90	0.9914	0.0150	2.4423
12	Service	0.3561 11.21	-	-	0.9786	0.0552	1.4409
13	Coal	1.0000	-0.3887 -5.31	0.6450 6.94	0.9813	0.0526	2.7331
14	Oil and Natural Gas	-0.1230 -1.04	-	0.9983 8.25	0.8928	0.0899	2.2955
15	Electric Power and Heat Supply	0.0118 0.75	-	0.9368 25.80	0.9984	0.0103	2.2379

Note: Figures in lower cases are t-values.

Left hand side variables in the equation No.3, 4, 5, 6, 7, 8, 9, 13, 14 are in the form of LOG(LE_i/X_i), otherwise LOG(LE_i).

Table 3-6 Electricity Demand by Sector

Sector		Output	Domestic Demand	Real Consumption	Relative Price	RRJ	SE	DW
01	Agriculture	1.1044 21.76	-	-	-0.4012 -5.98	0.9862	0.0332	2.4215
02	Mining	0.6339 16.19	-	-	-0.5941 -6.64	0.9651	0.0616	2.1778
03	Food	0.9311 16.17	-	-	-0.4695 -4.28	0.9790	0.0536	1.7953
04	Textile Product	0.6743 23.11	-	-	-0.2023 -3.79	0.9888	0.0335	2.7285
05	Chemical Product	0.5939 20.88	-	-	-0.1903 -3.38	0.9903	0.0371	2.0190
06	Non-Metallic Mineral Product	0.7368 19.70	-	-	-0.1309 -1.63	0.9831	0.0534	1.8567
07	Iron and Steel, and Non-Ferrous Metal	0.9016 33.80	-	-	-0.2558 -4.86	0.9901	0.0426	1.8314
08	Metal Product and Machinery	1.0000	-	-	-0.8312 -11.33	0.9646	0.1105	2.1867
09	Other Manufacturing	1.0801 35.39	-	-	-	0.9866	0.0838	2.2891
10	Construction	0.7529 18.17	-	-	-	0.9699	0.0776	1.1994
11	Transportation and Communication	0.8481 34.59	-	-	-	0.9885	0.0582	1.7606
12	Service	1.1604 28.15	-	-	-	0.9841	0.0767	1.8644
13	Coal	-	0.4248 23.83	-	-0.4178 -5.05	0.9837	0.0277	1.7535
14	Oil and Natural Gas	-	1.0282 12.10	-	-0.3206 -1.93	0.9871	0.0607	1.9802
15	Electric Power and Heat Supply	-	0.7269 17.50	-	-	0.9516	0.0742	1.5015
	Household	-	-	1.0575 2.34	-0.2367 -2.15	0.9972	0.0378	1.6135

Note: Figures in lower cases are t-values.
Left hand side variable in the equation No.8 is in the form of
LOG(EELDi/Xi),
otherwise LOG(EELDi).

Table 3-7 Coal Demand by Sector

Sector		Output	Substitute Demand	Relative Price	Other	Trend	Lag	RRJ	SE	DW
01	Agriculture	0.4382 1.93	-	-0.4063 -3.92	-	-0.0405 -3.25	-	0.9513	0.0294	2.3236
02	Mining	0.3811 10.94	-	-0.2056 -4.14	-	-0.0276 -8.02	-	0.9664	0.0261	3.1441
03	Food	-	-0.1301 -3.19	-	-	-	0.9134 11.04	0.9320	0.0390	2.0312
04	Textile Product	-	-0.1663 -2.96	-	-	-	0.5515 6.59	0.9368	0.0600	2.7325
05	Chemical Product	0.0662 2.70	-	-	-	-	0.5517 8.77	0.9653	0.0384	2.3976
06	Non-Metallic Mineral Product	0.1412 3.23	-	-0.4026 -3.20	-	-	-	0.8440	0.0550	2.1267
07	Iron and Steel, and Non-Ferrous Metal	0.1394 3.21	-	-0.3615 -4.37	-	-	0.7288 9.93	0.9640	0.0410	2.1356
08	Metal Product and Machinery	-	-0.3648 -8.27	-	-	-	-	0.8660	0.0516	2.8835
09	Other Manufacturing	0.1593 4.70	-	-	-	-	-	0.9447	0.0776	2.3354
10	Construction	1.0000	-	-	-	-0.0892 -22.75	-	0.9714	0.0787	0.9797
11	Transportation and Communication	-	-0.5000 -25.89	-	-	-	-	0.9879	0.0326	1.7320
12	Service	-	-0.1055 -3.52	-	-	-	0.8269 14.33	0.9729	0.0507	2.5409
13	Coal	-	-	-	0.3695 9.25	-	-	0.9201	352.7537	1.0747
14	Oil and Natural Gas	-	-	-	9.3134 13.01	-	-	0.9308	431.8847	2.3287
15	Electric Power and Heat Supply	-	-	-	1.0000	-28.0991 -1.39	-	0.9641	405.6527	1.6673
	Household	-	-2.0913 -29.64	-	-	-	-	0.9846	0.0868	1.8600

Note: Figures in lower cases are t-values.
Left hand side variable in the equation No.10 is in the form of
LOG(ECLDi/Xi),
otherwise LOG(ECLDi).

Table 3-8 Oil Demand by Sector

Sector		Output	Domestic Demand	Relative Price	Other	Trend	Lag	RRJ	SE	DW
01	Agriculture	0.8600 13.56	-	-0.2190 -4.29	-	-	-	0.9820	0.0295	1.8226
02	Mining	0.2059 4.51	-	-0.1179 -1.79	-	-	-	0.8087	0.0483	2.5118
03	Food	1.0000	-	-0.2207 -9.14	-	-	-	0.9310	0.0465	2.0228
04	Textile Product	1.0000	-	-0.0681 -1.44	-	-	-	0.7800	0.0987	1.5524
05	Chemical Product	0.4524 10.31	-	-0.2037 -3.86	-	-	-	0.9593	0.0417	1.7404
06	Non-Metallic Mineral Product	0.4563 25.86	-		-	-	-	0.9827	0.0323	2.5121
07	Iron and Steel, and Non-Ferrous Metal	0.4992 8.47	-	-0.3623 -5.38	-	-	-	0.9141	0.0548	2.3521
08	Metal Product and Machinery	0.3164 19.89	-	-	-	-	-	0.9715	0.0452	1.8919
09	Other Manufacturing	0.8897 17.55	-	-	-	-	-	0.9683	0.1315	2.1928
10	Construction	0.3473 5.78	-	-0.5012 -4.93	-	-	-	0.9482	0.0377	1.2777
11	Transportation and Communication	0.2253 3.78	-	-	-	-	0.7209 9.21	0.9914	0.0480	2.5232
12	Service	0.3489 5.22	-	-	-	-	0.6438 10.60	0.9910	0.0496	2.5637
13	Coal	-	-	-	0.0165 2.12	-	0.8007 19.31	0.9786	1.1714	2.6534
14	Oil and Natural Gas	-	0.2001 3.19	-	-	-	0.6406 6.68	0.9920	0.0248	1.8889
15	Electric Power and Heat Supply	-	-	-	1.0050 163.86	-	-	0.9994	4.8921	1.4522
	Household	-	-	-	-0.4703 -2.46	0.0392 3.04	-	0.9487	0.0610	2.4798

Note: Figures in lower cases are t-values.
Left hand side variables in the equation No.3 and 4 are in the form of LOG(EPLDi/Xi), otherwise LOG(EPLDi).

Table 3-9 Natural Gas Demand by Sector

	Sector	Output	Domestic Demand	Relative Price	Real Consumption	RRJ	SE	DW
05	Chemical Product	0.2968 18.93	-	-	-	0.9756	0.0367	2.3351
14	Oil and Natural Gas	-	0.4503 9.82	-	-	0.9547	0.0521	2.1590
	Household	-	-	-0.6857 -2.51	1.1510 3.18	0.9526	0.1270	1.9291

Note: Figures in lower cases are t-values.

Table 3-10 Performance of the Model

Macro Variables	MAPE(%)	Real Product	MAPE(%)
Real GDP	2.7	Agriculture	2.4
Real Consumption	1.1	Mining	9.7
Real Government Consumption	3.6	Food	6.2
Real Investment	3.2	Textile Product	10.1
Real Export	1.9	Chemical Product	6.2
Real Import	8.1	Non-Metallic Mineral Product	7.6
Nominal GDP	4.0	Iron and Steel, and Non-Ferrous Metal	6.4
Nominal Consumption	3.4	Metal Product and Machinery	7.2
Nominal Government Consumption	2.9	Other Manufacturing	9.0
Nominal Investment	4.3	Construction	2.0
Nominal Export	6.3	Transportation and Communication	5.8
Nominal Import	6.3	Service	4.1
GDP Deflator	4.6	Coal	2.0
Producer's Price Index	5.1	Oil and Natural Gas	1.8
Consumer's Price Index	3.2	Electric Power and Heat Supply	1.8
Employment, Total	0.2	Total	3.4

Product Deflator	MAPE(%)	Employment	MAPE(%)
Agriculture	6.3	Agriculture	1.3
Mining	3.6	Mining	2.5
Food	6.4	Food	22.4
Textile Product	5.0	Textile Product	16.4
Chemical Product	6.7	Chemical Product	6.8
Non-Metallic Mineral Product	3.7	Non-Metallic Mineral Product	12.1
Iron and Steel, and Non-Ferrous Metal	8.9	Iron and Steel, and Non-Ferrous Metal	8.3
Metal Product and Machinery	5.2	Metal Product and Machinery	3.7
Other Manufacturing	6.3	Other Manufacturing	12.0
Construction	3.9	Construction	1.3
Transportation and Communication	4.5	Transportation and Communication	0.9
Service	3.5	Service	2.9
Coal	5.0	Coal	5.1
Oil and Natural Gas	0.0	Oil and Natural Gas	19.3
Electric Power and Heat Supply	5.6	Electric Power and Heat Supply	0.6
Total	4.6	Total	0.2

Value Added	MAPE(%)	Energy Variables	MAPE(%)
Agriculture	7.1	Overall Energy Production	1.7
Mining	5.5	Overall Energy Export	3.9
Food	9.0	Overall Energy Import	5.9
Textile Product	10.5	Overall Energy Demand	1.9
Chemical Product	3.3	Coal Product	2.0
Non-Metallic Mineral Product	6.4	Coal Demand	1.9
Iron and Steel, and Non-Ferrous Metal	11.2	Coal Demand, Industry	1.7
Metal Product and Machinery	4.7	Coal Demand, Household	7.8
Other Manufacturing	11.8	Coal Demand, Power Generation	1.9
Construction	5.7	Oil Product	1.8
Transportation and Communication	7.4	Oil Demand	2.2
Service	5.2	Oil Demand, Industry	2.2
Coal	4.9	Oil Demand, Household	5.2
Oil and Natural Gas	6.4	Oil Demand, Power Generation	2.2
Electric Power and Heat Supply	6.8	Natural Gas Product	2.5
Total	4.3	CO2 Emission	1.7
		SO2 Emission	1.8

Table 3-11 Assumed Values of the Exogenous Variables

Variables	03/10	10/20
Real Export		
Agriculture	10.00	5.00
Mining	0.50	2.00
Food	5.00	3.00
Textile Product	7.00	4.00
Chemical Product	8.00	5.00
Non-Metallic Mineral Product	1.50	1.00
Iron and Steel, and Non-Ferrous Metal	5.00	3.00
Metal Product and Machinery	11.00	8.00
Other Manufacturing	9.00	4.00
Construction	6.49	5.00
Coal	10.00	5.00
Oil and Natural Gas	0.00	0.00
Electric Power and Heat Supply	2.00	1.00
Total	15.17	8.74
Foreign Direct Investment, Net	9.98	10.00
Import Price (dollar base)	3.00	3.00
International Oil Price (dollar base)	3.00	3.00
Exchange Rate (Yuan/dollar)	0.00	0.00
Government Debt from Foreign Countries	-	-
Government Investment	10.00	8.00
Government Income Outside Taxation	17.47	10.00
Average Tax Rate	0.00	0.00
Population	0.79	0.62

Note: Figures are average annual growth rate(%).

Table 3-12 Assumed Values of the Energy Variables

Variables	02/10	10/20
Coal Import	4.98	5.02
Power Export	0.00	0.00
Power Import	0.00	0.00
Power Generation, Others	5.01	4.98
Natural Gas Intensity		
Agriculture	0.00	1.23
Mining	0.00	1.23
Food	0.00	1.23
Textile Product	0.00	1.23
Chemical Product	0.00	1.23
Non-Metallic Mineral Product	0.00	1.23
Iron and Steel, and Non-Ferrous Metal	0.00	1.23
Metal Product and Machinery	0.00	1.23
Other Manufacturing	0.00	1.23
Construction	0.00	1.23
Transportation and Communication	0.00	1.23
Service	0.00	1.23
Coal	0.00	1.23
Natural Gas Export	8.00	5.00

Note: Figures are average annual growth rate(%).

Table 3-13 Assumptions on Thermal Electric Generation

		Unit: %		
		2003	2010	2020
Power Generation Composition	Coal	90.37	89.44	88.13
	Oil	8.21	7.58	6.76
	Natural Gas	1.48	2.98	5.11
Power Generation Efficiency	Coal	33.26	35.26	37.34
	Oil	33.96	33.65	34.97
	Natural Gas	47.03	50.00	50.00

Table 3-14a Average Growth Rates of Macro Variables

	95-03	03-10	10-20
Real GDP	8.31	6.84	5.23
Real Government Consumption	9.19	7.65	6.18
Real Private Consumption	7.55	6.17	4.77
Real Investment	11.04	6.47	4.63
Real Export	16.63	9.08	6.62
Real Import	15.98	9.32	6.05
Nominal GDP	9.09	11.73	9.95
Nominal Consumption	8.74	10.56	9.14
Nominal Government Consumption	10.40	12.11	10.61
Nominal Investment	12.27	11.82	9.58
Nominal Export	13.46	12.56	9.80
Nominal Import	14.45	11.56	8.22
GDP Deflator	0.72	4.57	4.48
Producer's Price Index	-0.32	3.86	4.09
Consumer's Price Index	1.26	4.21	4.22
Employment, Total	1.12	1.09	0.96

Note: Figures are average annual growth rate(%).

Table 3-14b Comparison of Real GDP

Predictions of Our Model	Average Growth Rate(%)		
	1995-2003	2003-2010	2010-2020
Real GDP	8.31	6.84	5.23
Population	0.81	0.79	0.62

IEA World Energy Outlook 2004	Average Growth Rate(%)		
	1995-2003	2002-2010	2010-2020
Real GDP	8.31	6.40	4.90
Population	0.81	0.70	0.50

Source: World Energy Outlook 2004, IEA.

Table 3-15 Composition of Product and Export by Sector

Unit: %

Real Product	1995-2003	2003-2010	2010-2020
Agriculture	11.00	8.79	8.89
Mining	1.06	0.79	0.63
Food	6.04	5.97	6.11
Textile Product	7.38	5.99	5.39
Chemical Product	8.62	9.27	10.12
Non-Metallic Mineral Product	3.78	3.05	2.49
Iron and Steel, and Non-Ferrous Metal	4.99	4.48	3.97
Metal Product and Machinery	19.03	23.18	24.30
Other Manufacturing	4.03	3.74	3.83
Construction	8.59	8.93	7.48
Transportation and Communication	8.86	9.51	10.27
Service	11.84	12.39	13.29
Coal	0.85	0.56	0.47
Oil and Natural Gas	2.01	1.57	1.16
Electric Power and Heat Supply	1.93	1.79	1.60
Total	100.00	100.00	100.00

Real Export	1995-2003	2003-2010	2010-2020
Agriculture	3.59	3.51	3.17
Mining	0.23	0.07	0.04
Food	4.14	2.93	2.06
Textile Product	18.41	13.50	10.61
Chemical Product	8.20	6.62	5.64
Non-Metallic Mineral Product	1.25	0.74	0.42
Iron and Steel, and Non-Ferrous Metal	2.33	1.67	1.18
Metal Product and Machinery	43.89	59.88	64.97
Other Manufacturing	6.24	4.41	3.67
Construction	0.06	0.02	0.02
Transportation and Communication	6.17	4.10	5.74
Service	3.94	1.84	1.98
Coal	0.55	0.37	0.33
Oil and Natural Gas	0.90	0.32	0.16
Electric Power and Heat Supply	0.11	0.03	0.02
Total	100.00	100.00	100.00

Table 3-16a Average Growth Rate of Energy Variables

	1995-2002	2002-2010	2010-2020
Overall Energy Product	2.04	4.31	3.43
Overall Energy Export	9.14	7.01	4.08
Overall Energy Import	15.26	8.90	6.63
Overall Energy Demand	2.61	4.61	3.89
Coal Product	1.38	4.61	3.51
Coal Export	18.18	10.00	5.00
Coal Demand	1.06	3.95	3.25
Coal Demand, Industry Total	1.62	3.82	3.13
Coal Demand, Household	-5.47	5.99	4.82
Coal Demand, Conversion	4.77	4.61	3.80
Coal Demand, Power Generation	6.11	4.55	3.72
Oil Product	2.40	2.27	2.25
Oil Export	1.49	0.00	0.00
Oil Import	15.40	9.90	6.95
Oil Demand	6.59	6.16	5.17
Oil Demand, Industry Total	6.30	5.83	4.76
Oil Demand, Household	11.95	10.40	9.00
Oil Demand, Conversion	2.57	5.07	4.33
Oil Demand, Power Generation	0.08	4.52	2.88
Electric Product	7.18	5.50	4.44
Electric Product, Hydraulic	5.88	5.15	4.24
Electric Product, Thermal	7.44	5.58	4.47
Electric Demand	7.20	5.52	4.45
Electric Demand, industry total	6.75	5.41	4.40
Electric Demand, Household	10.71	6.26	4.74
Natural Gas Product	9.14	5.58	4.82
Natural Gas Demand	7.35	5.13	4.71
Natural Gas Demand, industry total	6.11	4.19	4.04
Natural Gas Demand, Household	13.36	7.95	6.33
CO2 Emission	2.13	4.47	3.77
CO2 Emission, Coal	1.06	3.95	3.25
CO2 Emission, Oil	6.59	6.16	5.17
CO2 Emission, Natural Gas	7.35	5.13	4.71
SO2 Emission	1.95	4.12	3.42
SO2 Emission, Coal	1.65	3.95	3.25
SO2 Emission, Oil	6.76	6.16	5.17
SO2 Emission, Natural Gas	9.87	5.11	4.72

Note: Figures are average annual growth rate(%)

Table 3-16b Composition of Primary Energy Supply

Predictions of Our Model

	Million Ton-Oil Equivalent			Million Ton-Coal Equivalent			Average Growth Rate(%)	
	2002	2010	2020	2002	2010	2020	2002-2010	2010-2020
Total Primary Energy	1062	1427	1999	1516.88	2038	2855.1	4.31	3.43
Coal	759	1040	1469	1084.33	1486.32	2099.2	4.61	3.51
Oil	181	212	265	258.96	302.95	378.29	2.27	2.25
Natural Gas	35	51	81	49.36	72.18	115.58	5.58	4.82
Others	87	124	183	124.23	176.55	262.03	5.15	4.03
Electricity	(100 million Kwh)							
	17555	25538	39421	215.66	313.73	484.29	5.50	4.44

IEA World Energy Outlook 2004

	Million Ton-Oil Equivalent			Million Ton-Coal Equivalent			Average Growth Rate(%)	
	2002	2010	2020	2002	2010	2020	2002-2010	2010-2020
Total Primary Energy	1242	1622	2072	1774.29	2317.14	2960.00	3.39	2.48
Coal	713	904	1119	1018.57	1291.43	1598.57	3.01	2.16
Oil	247	375	503	352.86	535.71	718.57	5.36	2.98
Natural Gas	36	59	107	51.43	84.29	152.86	6.37	6.13
Others	248	286	343	354.29	408.57	490.00	1.80	1.83
Electricity	(100 million Kwh)							
	16750	26530	40180	205.77	325.92	493.61	5.92	4.24

Source: World Energy Outlook 2004, IEA.

Table 3-17 Comparison of CO2 and SO2 Emission

Predictions of Our Model

	Million Ton-CO2			Million Ton-C			Average Growth Rate(%)	
	2003	2010	2020	2003	2010	2020	2003-2010	2010-2020
CO2 Emission	3841.1	5215.7	7548.0	1047.6	1422.5	2058.6	4.47	3.77
Coal	2951.1	3870.4	5326.7	804.9	1055.6	1452.8	3.95	3.25
Oil	821.5	1248.1	2067.1	224.1	340.4	563.8	6.16	5.17
Natural Gas	68.5	97.3	154.2	18.7	26.5	42.0	5.13	4.71

	Million Ton			Average Growth Rate(%)	
	2003	2010	2020	2003-2010	2010-2020
SO2 Emission	29.4	39.0	54.6	4.12	3.42
Coal	27.3	35.8	49.3	3.95	3.25
Oil	2.1	3.2	5.2	6.16	5.17
Natural Gas	0.0	0.0	0.1	5.11	4.72

IEA World Energy Outlook 2004

	Million Ton-CO2			Million Ton-C			Average Growth Rate(%)	
	2002	2010	2020	2002	2010	2020	2002-2010	2010-2020
CO2 Emission	3307.0	4386.0	5708.0	901.9	1196.2	1556.8	3.6	2.7
Coal	2621.0	3381.0	4243.0	714.8	922.1	1157.2	3.2	2.3
Oil	618.0	883.0	1233.0	168.6	240.8	336.3	4.6	3.4
Natural Gas	69.0	122.0	231.0	18.8	33.3	63.0	7.4	6.6

Source: World Energy Outlook 2004, IEA.

Table 3-18 Investment amount of CDM projects

	Sectors	100 Million Yuan	Share(%)
1	Agriculture	0.00	0.0
2	Mining	0.00	0.0
3	Food	0.00	0.0
4	Textile Product	0.00	0.0
5	Chemical Product	0.00	0.0
6	Non-Metallic Mineral Product	0.03	0.0
7	Iron and Steel, and Non-Ferrous Metal	0.00	0.0
8	Metal Product and Machinery	64.76	57.8
9	Other Manufacturing	0.00	0.0
10	Construction	34.71	31.0
11	Transportation and Communication	12.53	11.2
12	Service	0.00	0.0
13	Coal	0.00	0.0
14	Oil and Natural Gas	0.00	0.0
15	Electric Power and Heat Supply	0.00	0.0
	Total	112.03	100.0

Table 3-19 Effect of CDM projects

	GDP(100 Million Yuan)		CO ² Emission(10000Ton-C)		SO ² Emission(10000Ton)	
	Deviation	Deviation Rate (%)	Deviation	Deviation Rate (%)	Deviation	Deviation Rate (%)
2003	124.0	0.12	8	0.01	0.3	0.01
2004	1.0	0.00	-80	-0.07	-2.7	-0.09
2005	-3.0	0.00	-87	-0.07	-3.0	-0.09
2006	-3.0	0.00	-93	-0.07	-3.2	-0.10
2007	-2.0	0.00	-99	-0.07	-3.4	-0.10
2008	-2.0	0.00	-106	-0.07	-3.5	-0.10
2009	-1.0	0.00	-111	-0.07	-3.7	-0.10
2010	-1.0	0.00	-118	-0.07	-4.0	-0.10
2011	-1.0	0.00	-125	-0.07	-4.5	-0.11
2012	0.0	0.00	-132	-0.07	-4.7	-0.11
2013	0.0	0.00	-135	-0.07	-4.7	-0.11
SUM			-1078		-37.1	

Table 3-20. Principal Components – China (1980-2000)

	Comp 1	Comp 2	Comp 3	Comp 4	Comp 5
Eigenvalue	4.362	0.295	0.259	0.072	0.011
Variance Prop.	0.872	0.059	0.052	0.014	0.002
Cumulative Prop.	0.872	0.931	0.983	0.998	1.000

Eigenvectors:

Variable	Vector 1	Vector 2	Vector 3	Vector 4	Vector 5
LIFEEXPECTANCY	0.471	-0.259	-0.101	-0.201	-0.813
SURVIVALINFANT	0.435	-0.693	0.315	0.329	0.352
PHYSICIANS	0.466	0.095	-0.151	-0.745	0.442
SCHOOLSECONDARY	0.423	0.605	0.649	0.169	-0.070
CO2 (RECIPROCAL)	-0.439	-0.279	0.668	-0.518	-0.121

Table 3-21. Index of Quality of Life (1980=100)

Year	
1980	100.0
1981	100.9
1982	102.4
1983	102.1
1984	103.4
1985	104.1
1986	104.5
1987	104.9
1988	105.9
1989	106.5
1990	106.8
1991	107.3
1992	107.7
1993	108.4
1994	109.3
1995	110.3
1996	111.0
1997	110.5
1998	110.9
1999	111.8
2000	112.3

Figure 3-1 Structure of the Model

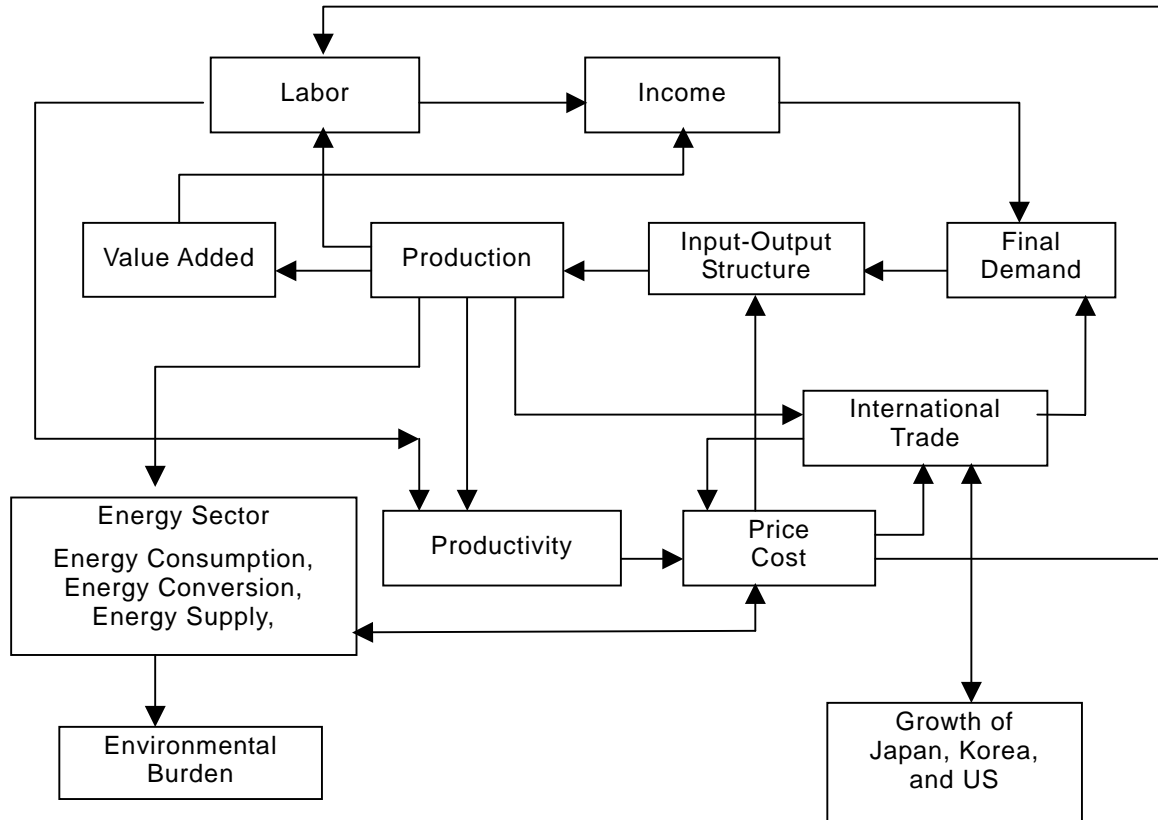


Figure 3-2 Flow Chart of the Energy Sector

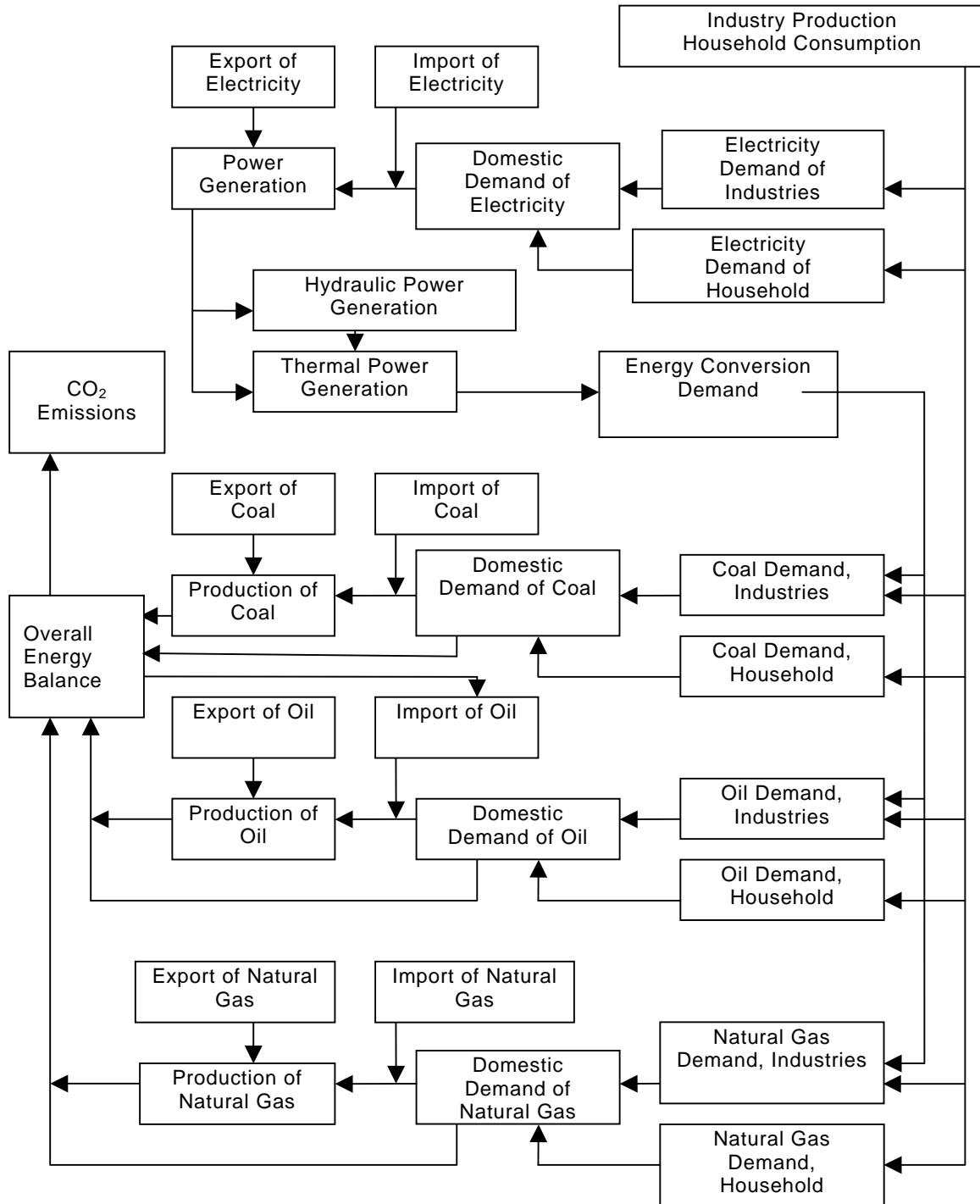


Figure 3-3 Real Product by Sector

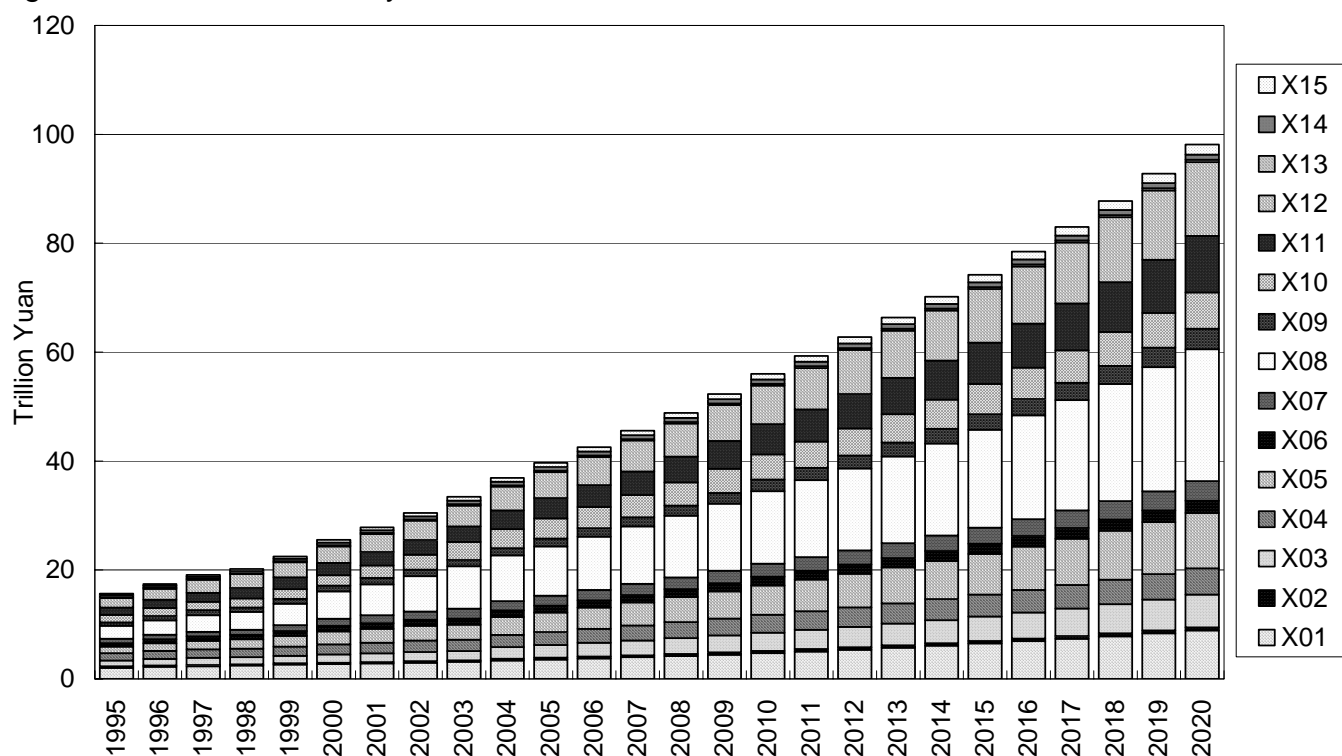


Figure 3-4 Real Domestic Demand by Sector

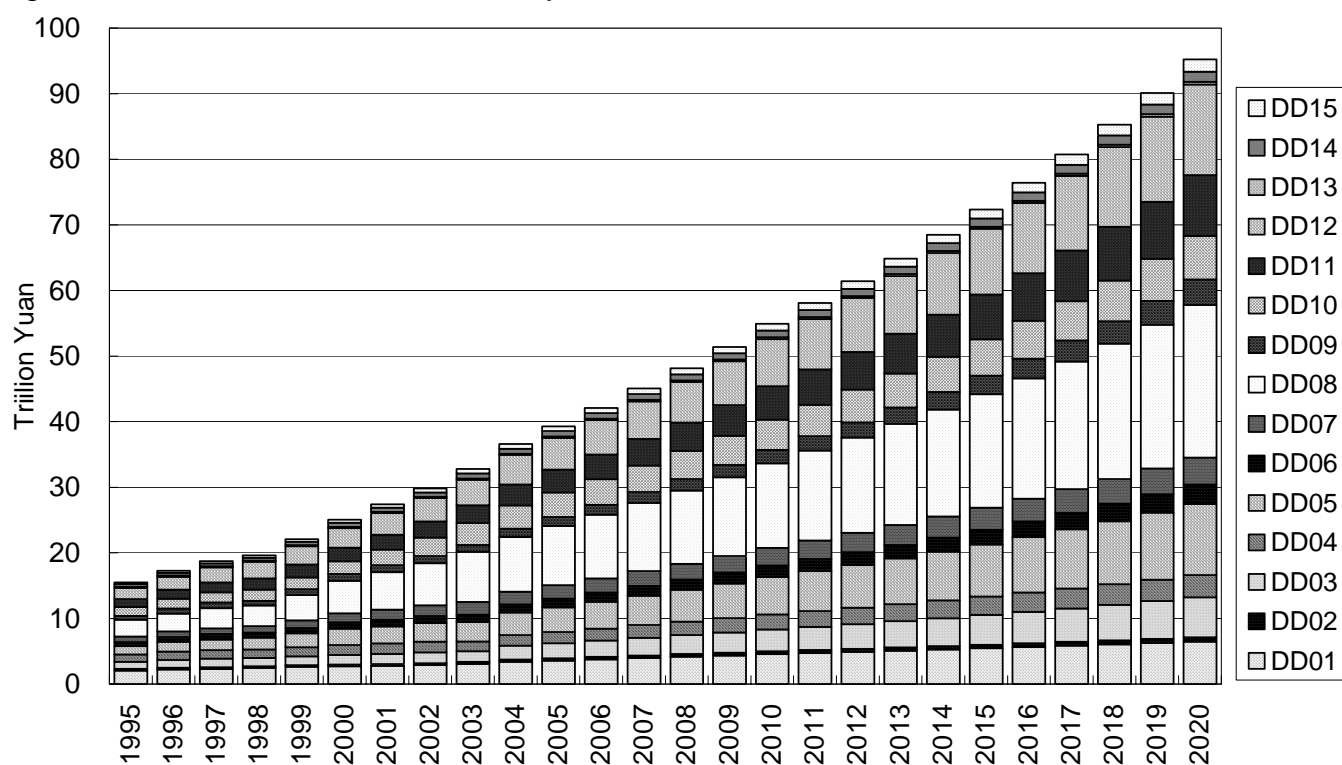


Figure 3-5 Employment by Sector

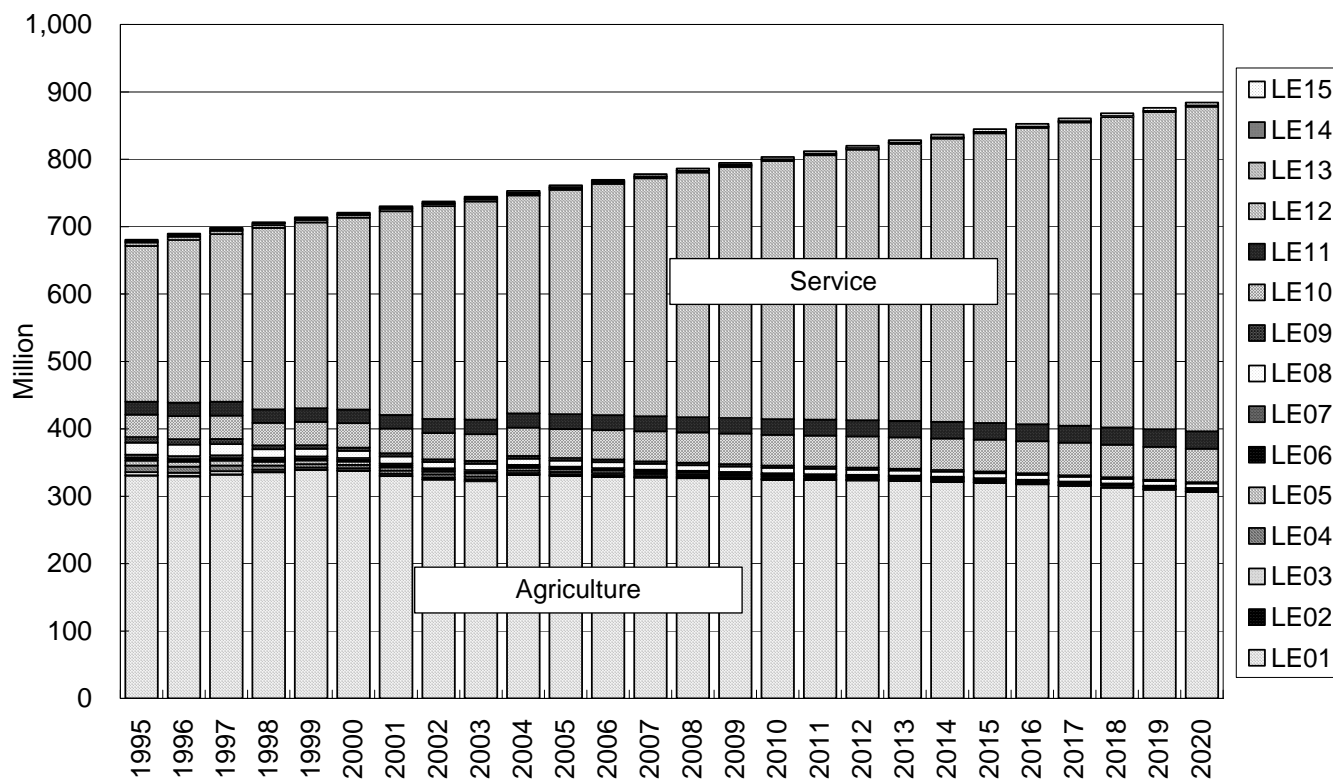


Figure 3-6 Composition of Primary Energy Supply

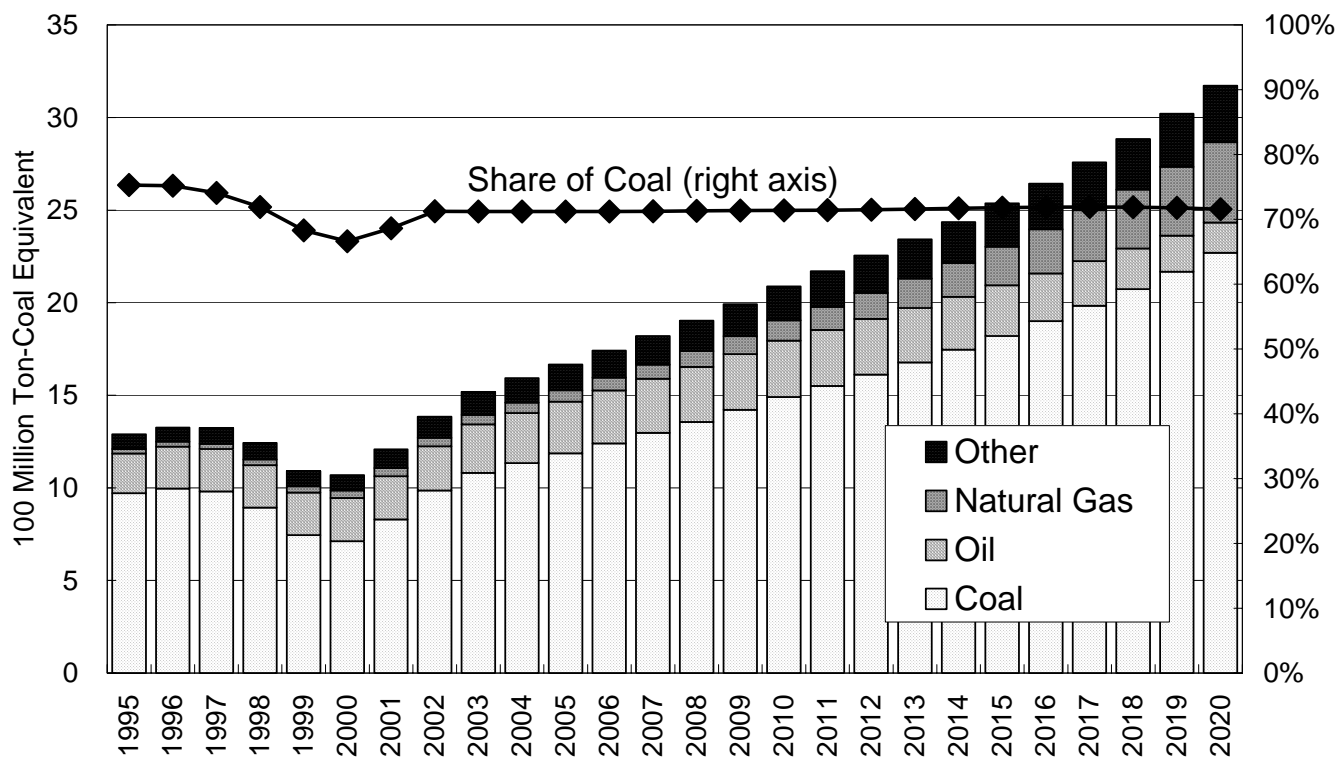


Figure 3-7 Primary Energy Demand

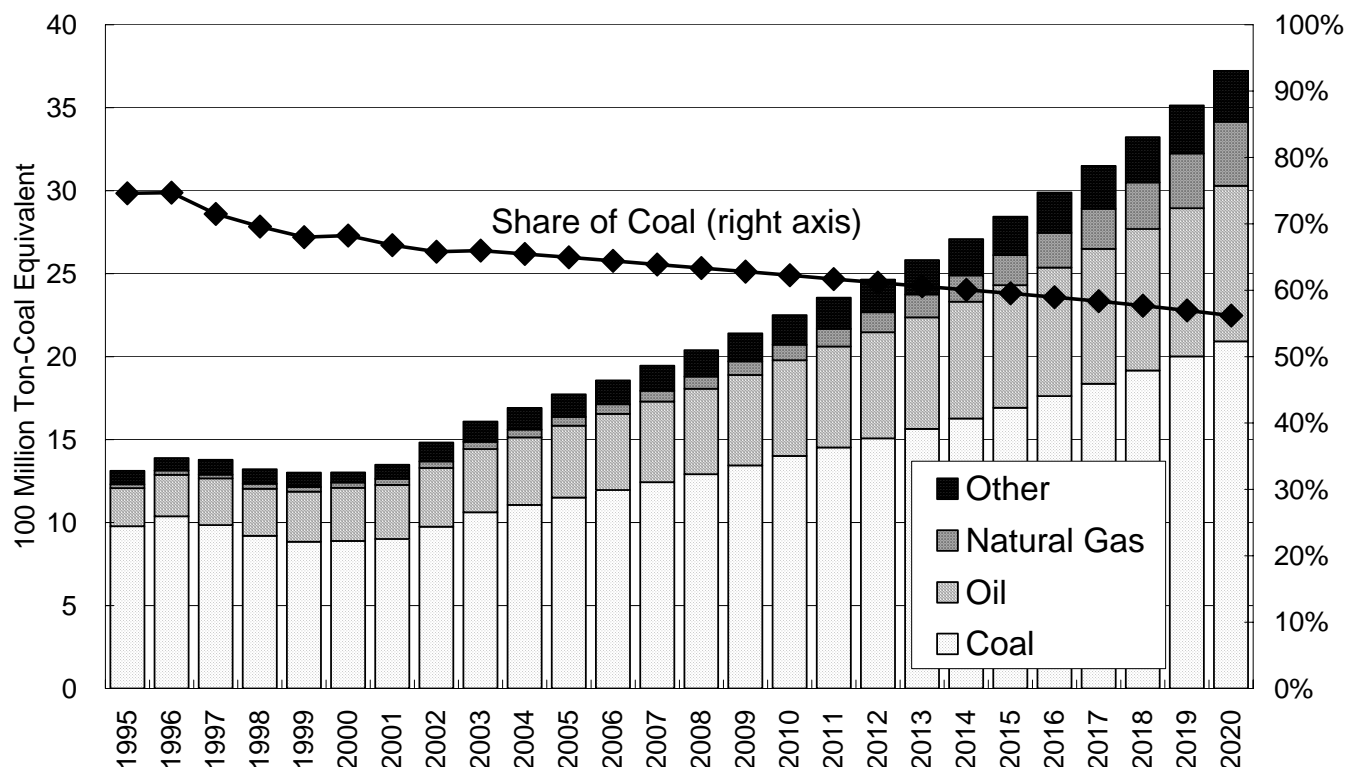


Figure 3-8 Composition of Power Generation

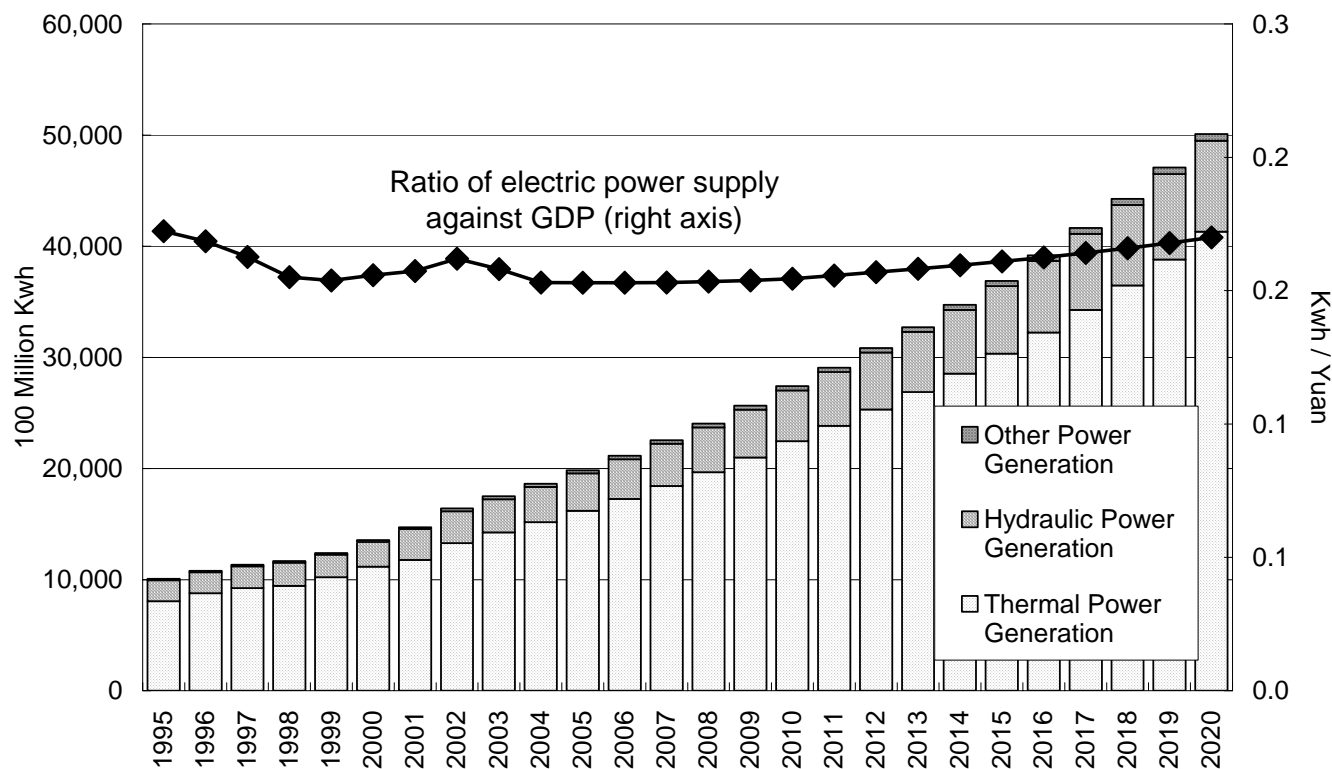


Figure 3-9 Natural Gas Product and Domestic Demand

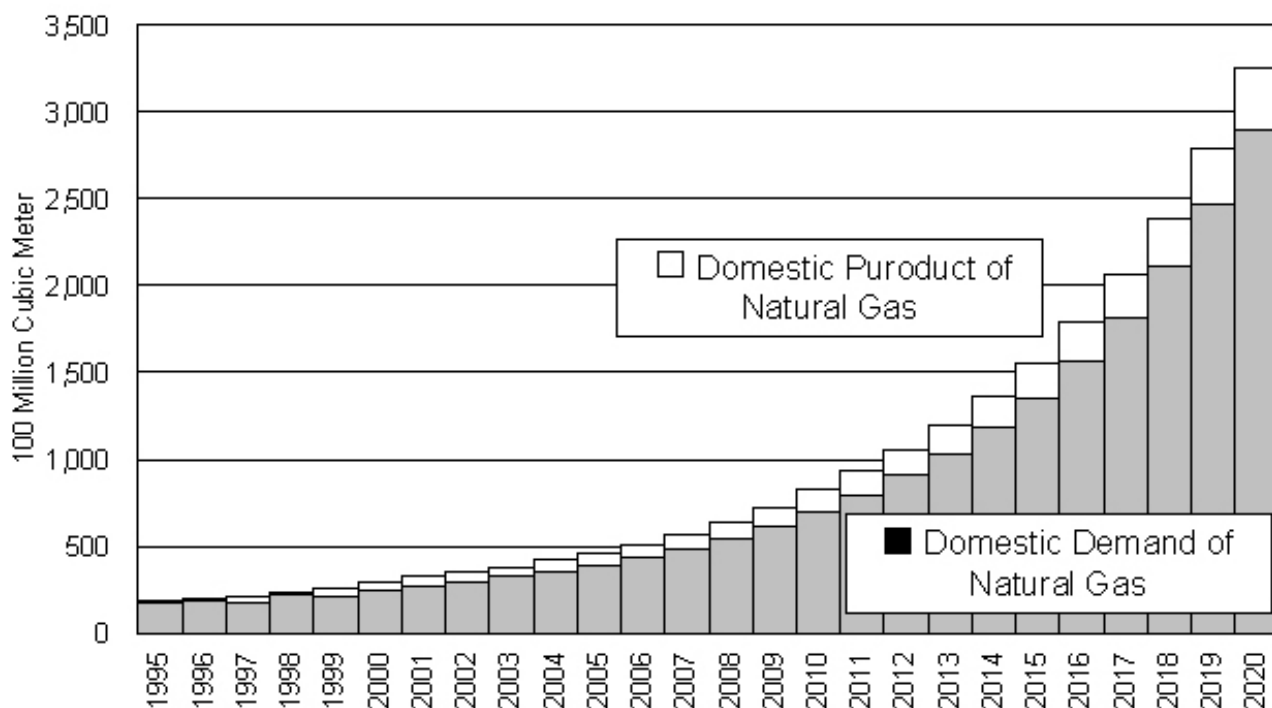


Figure 3-10 CO₂ Emissions

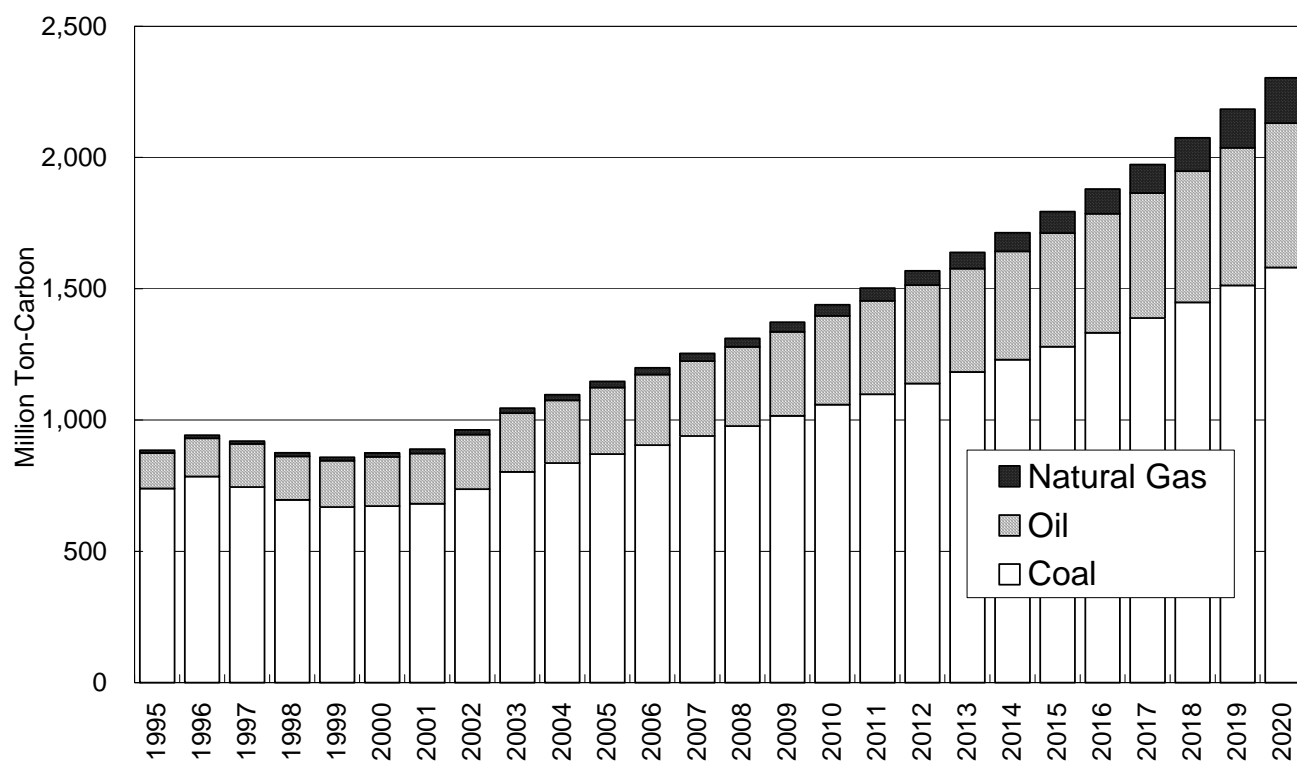


Figure 3-11 CO₂ Intensity (Ratio of CO₂ to GDP)

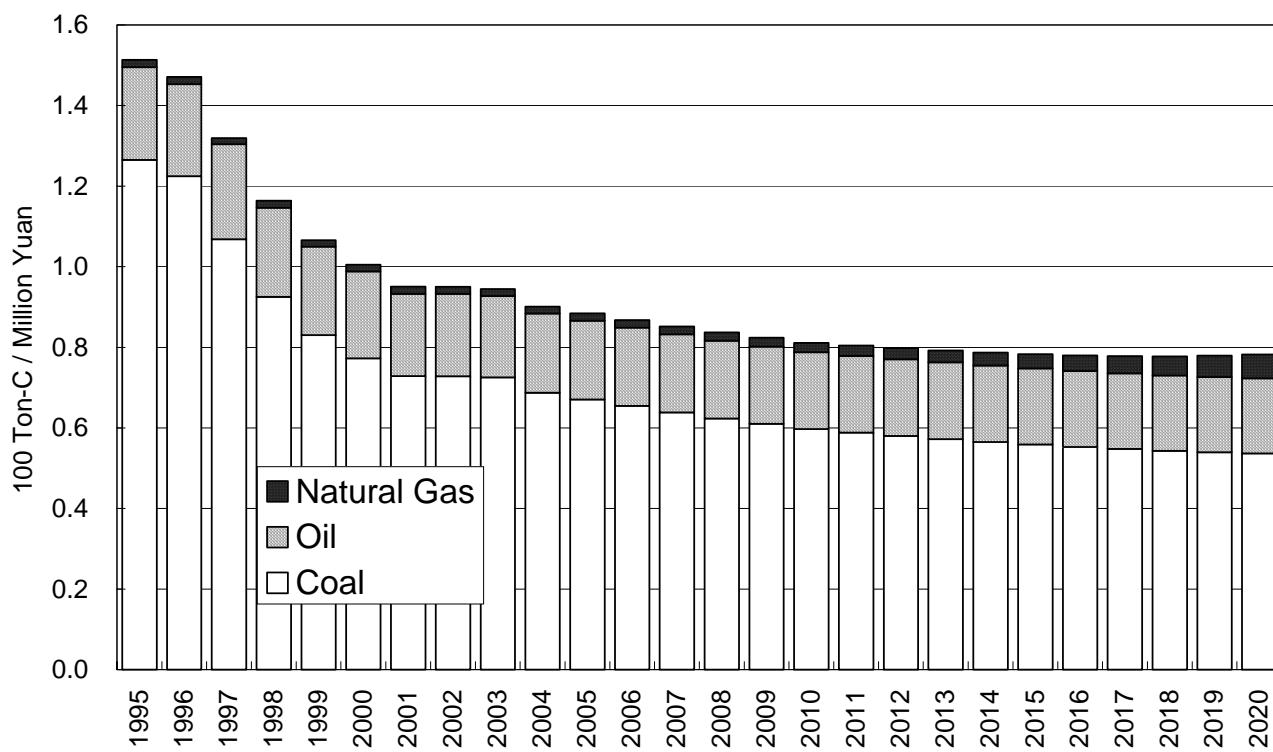


Figure 3-12 SO₂ Emissions

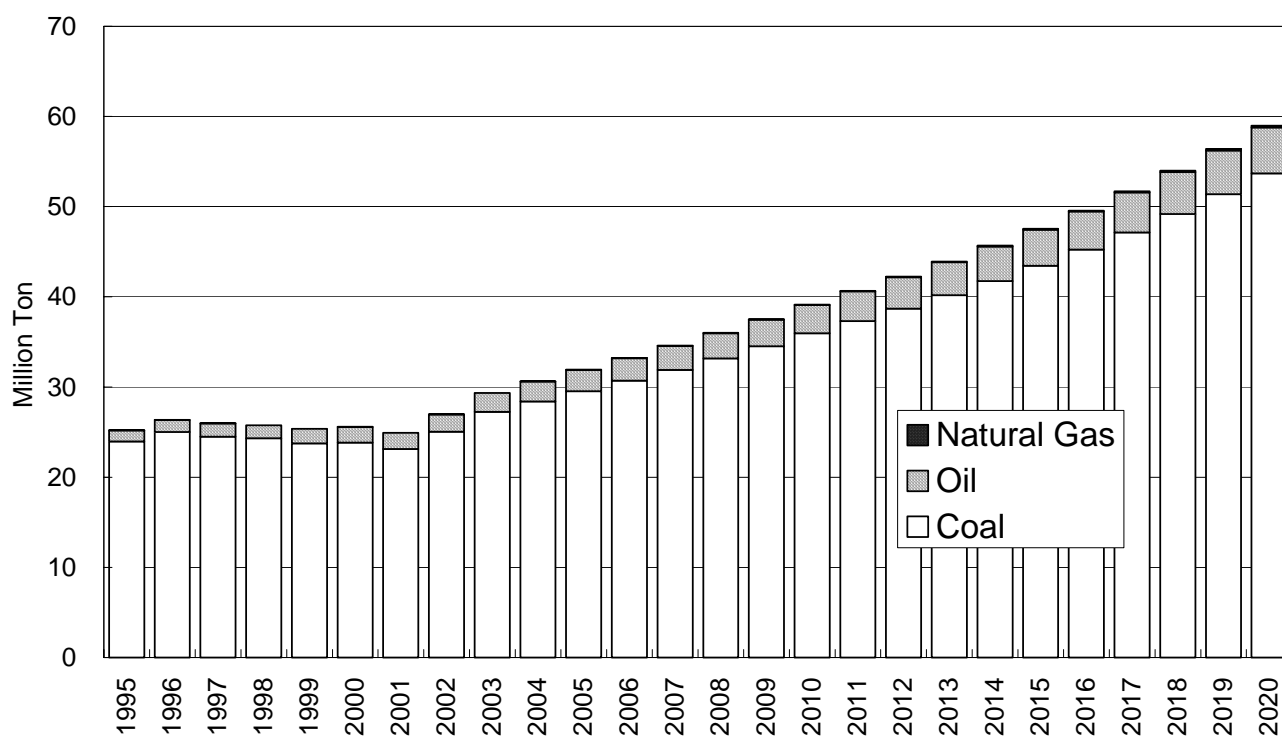
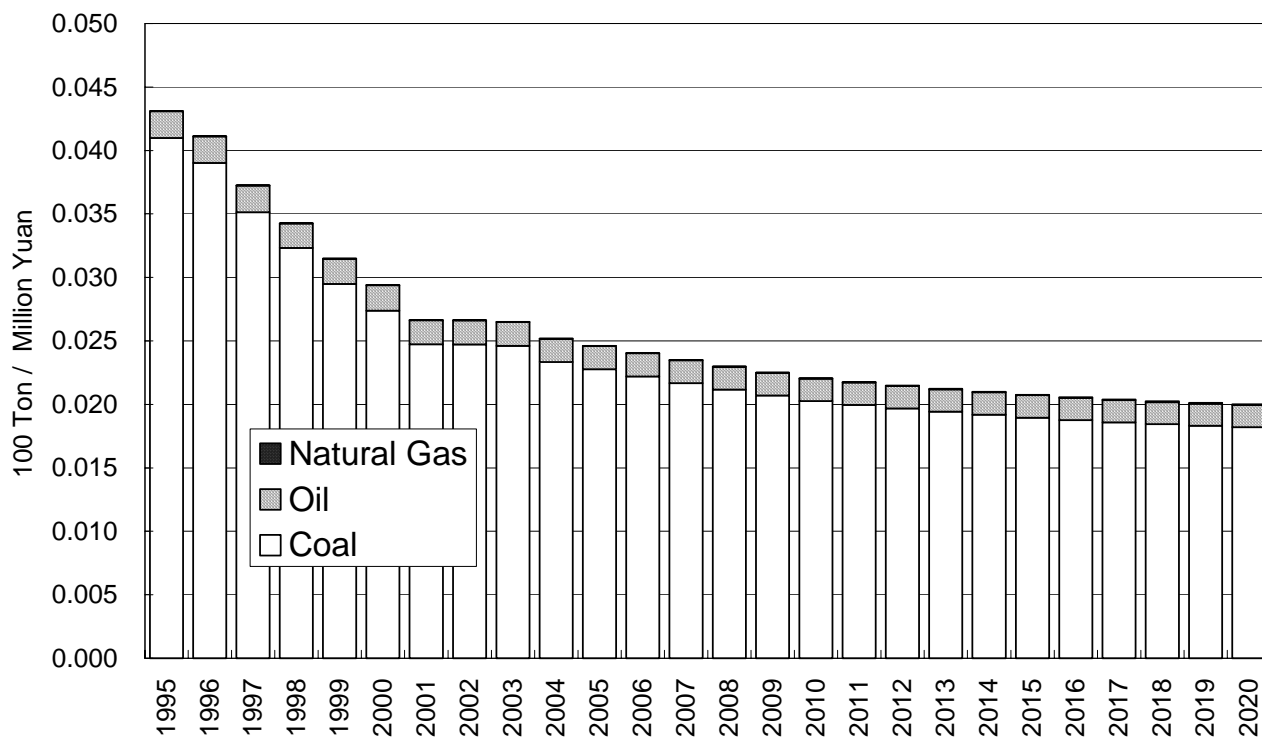


Figure 3-13 SO₂ Intensity (Ratio of SO₂ to GDP)



Appendix 1 Equation List

[Macro Block]

[1] GDP Real GDP

$$\text{GDP} = \text{CP} + \text{CG} + \text{IF} + \text{J} + \text{EG} - \text{MG} + \text{EPS} + \text{SW1} * \text{SIF} + \text{SW3} * \text{ZIF}$$

[2] CP : OLSQ, Sample < 1985-2003 > Real Private Consumption

$$\begin{aligned} \text{CP/POP} &= 0.009747 + 0.23128 * ((\text{VVT-DPVT})/\text{POP})/100/\text{PCP}*100 + 0.567617 * \text{CP}(-1)/\text{POP}(-1) + -0.020594 * \text{D94} + 0.0082 * \\ &(\text{D99}+\text{D00}) \\ &(3.977096) (5.281038) (6.144464) (-4.75533) (3.438514) \\ &<< \text{RR: } 0.998974, \text{RRADJ: } . 0.99868, \text{STER: } 0.002945, \text{D-W: } 1.801677 >> \end{aligned}$$

[3] CG : OLSQ, Sample < 1981-2003 > Real Government Consumption

$$\begin{aligned} \text{CG} &= 33.74852 + 0.017496 * \text{GDP} + 0.928082 * \text{CG}(-1) + 523.9383 * (\text{D91}+\text{D92}) + -990.4937 * \text{D95} \\ &(0.321711) (1.446888) (8.288953) (3.357458) (-4.526849) \\ &<< \text{RR: } 0.997042, \text{RRADJ: } 0.996385, \text{STER: } 208.8539, \text{D-W: } 1.21119 >> \end{aligned}$$

[4] IF : OLSQ, Sample < 1981-2003 > Real Fixed Investment

$$\begin{aligned} \text{IF} &= -2550.777 + 0.189875 * \text{GDP} - 1394.43 * \text{D89} + 1254.56 * \text{D93} + 2289.961 * \text{D02} + 5589.404 * \text{D0320} + 0.34892 * \\ \text{IF}(-1) &+ \text{GINV} / \text{PIF} * 100 + \text{IFDFV} / \text{PIF} * 100 \\ &(-5.57312) (3.374927) (-2.581049) (2.156998) (3.636402) (7.297647) (2.171914) \\ &<< \text{RR: } 0.998221, \text{RRADJ: } . 0.997554, \text{STER: } 504.3676, \text{D-W: } 1.482522 >> \end{aligned}$$

[5] J : OLSQ, Sample < 1981-2003 > Change in Real Inventory

$$\begin{aligned} \text{J} &= 1052.105 + 1.326919 * (\text{KJ}(-1) / \text{GDP}(-1) * \text{GDP} - \text{KJ}(-1)) - 0.112145 * \text{KJ}(-1) + 2619.74 * (\text{D89} + \text{D90} + \text{D91}) + 1498.26 \\ &* (\text{D96} + \text{D97}) \\ &(5.533032) (6.95198) (-6.783956) (8.167634) (4.041736) \\ &<< \text{RR: } 0.853086, \text{RRADJ: } 0.822157, \text{STER: } 473.124, \text{D-W: } 1.94014 >> \end{aligned}$$

[6] EG : OLSQ, Sample < 1985-2003 > Real Exports of Goods & Services

$$\begin{aligned} \text{EG} &= 3004.159 + 0.852683 * \text{ET} / 100 - 880.2066 * \text{D96} + 1722.244 * \text{D00} + 2002.781 * \text{D01} + 4122.261 * \text{D02} + 2926.762 \\ &* \text{D0320} \\ &(15.29433) (46.9051) (-2.126837) (3.332317) (3.643356) (6.282988) (3.501646) \\ &<< \text{RR: } 0.999298, \text{RRADJ: } 0.998947, \text{STER: } 391.2235, \text{D-W: } 2.383993 >> \end{aligned}$$

[7] MG : OLSQ, Sample < 1981-2003 > Real Imports of Goods & Services

$$\begin{aligned} \text{MG} &= 1168.012 + 0.947677 * \text{MT} / 100 - 6030.845 * \text{D89} - 4334.175 - 6215.31 * (\text{D92} + \text{D93}) \\ &(2.327514) (30.43872) (-3.861736) (-5.478993) \\ &<< \text{RR: } 0.980405, \text{RRADJ: } 0.97731, \text{STER: } 1523.983, \text{D-W: } 1.036074 >> \end{aligned}$$

[8] KJ Real Inventory

$$\text{KJ} = \text{KJ}(-1) + \text{J}$$

[9] GNP : OLSQ, Sample < 1980-2003 > Real Gross National Products

$$\begin{aligned} \text{GNP} &= -66.463 + 1.001057 * (\text{GNPV} / \text{PGDP} * 100) + 0.6705737 * \text{AR}(1) \\ &(-4.131934) (3548.181.) (1.016601) \\ &<< \text{RR: } 0.999999, \text{RRADJ: } 0.999999, \text{STER: } 30.42824, \text{D-W: } 1.857247 >> \end{aligned}$$

[10] IFDFV : OLSQ, Sample < 1984-2003 > Nominal Foreign Investment

$$\begin{aligned} \text{IFDFV} &= 135.6117 + 0.488063 * \text{CINFDI} * \text{EXR} / 100 + 727.6228 * (\text{D95}+\text{D96}+\text{D97}+\text{D98}) \\ &(2.357357) (20.17653) (7.004801) \\ &<< \text{RR: } 0.976947, \text{RRADJ: } 0.974235, \text{STER: } 166.8206, \text{D-W: } 2.169165 >> \end{aligned}$$

[11] GDPV Nominal GDP

$$\text{GDPV} = \text{CPV} + \text{CGV} + \text{IFV} + \text{JV} + \text{EGV} - \text{MGV} + \text{EPSV} + \text{SW1} * \text{SIF} * \text{PIF} / 100 + \text{SW3} * \text{ZIF} * \text{PIF} / 100$$

[12] CPV Nominal Private Consumption

$$\text{CPV} = \text{CP} * \text{PCP} / 100$$

[13] CGV Nominal Government Consumption

$$\text{CGV} = \text{CG} * \text{PCG} / 100$$

[14] IFV Nominal Fixed Investment

$$\text{IFV} = \text{IF} * \text{PIF} / 100$$

[15] JV Change in Nominal Inventory

$$\text{JV} = \text{J} * \text{PJ} / 100$$

[16] EGV Nominal Exports of Goods & Services

$$\text{EGV} = \text{EG} * \text{PEG} / 100$$

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[17] MGV Nominal Imports of Goods & Services
 MGV = MG * PMG / 100

[18] GNPV : ORC, Sample < 1980-2003 > Nominal GNP
 GNPV = 33.29603 + 0.989831 * GDPV + 0.735393 * AR(1)
 (0.097896) (175.2013) (3.388868)
 << RR: 0.999955, RRADJ: 0.999951, STER: 258.2159, D-W: 1.604865 >>

[19] WVT : OLSQ, Sample < 1985-2003 > Average Wage Income per Worker
 WVT = exp(1.193708 + 0.538466 * log(GDP / LET) + 0.704378 * log(WVT(-1)) + 0.20789 * (D94 + D95 + D96))
 (3.330787) (2.997852) (7.463418) (6.508241)
 << RR: 0.994969, RRADJ: 0.993293, STER: 0.046228, D-W: 2.366631 >>

[20] PPI : ORC, Sample < 1985-2003 > Producer Price Index
 PPI = -4.380455 + 1.041915 * (0.181235747 * PX01 + 0.023358537 * PX02 + 0.095486496 * PX03 + 0.121736018 * PX04
 + 0.107678589 * PX05 + 0.05542805 * PX06 + 0.071371075 * PX07 + 0.212356826 * PX08 + 0.056383736 * PX09 +
 0.015367955 * PX13 + 0.033456336 * PX14 + 0.026140635 * PX15) + 0.580649 * AR(1)
 (-3.433503) (68.90944) (3.12516)
 << RR: .9981442, RRADJ: .9978587, STER: 1.273859, D-W: .7624652 >>

[21] CPI : OLSQ, Sample < 1985-2003 > Consumer Price Index
 CPI = -1.697665 + 0.776169 * PCCT + 0.286707 * CPI(-1)
 (-2.460356) (22.18931) (9.285087)
 << RR: 0.999224, RRADJ: 0.999127, STER: 0.911129, D-W: 1.044711 >>

[22] PCP : OLSQ, Sample < 1985-2003 > Deflator for Private Consumption
 PCP = -0.271602 + 0.731547 * PCCT + 0.311141 * PCP(-1)
 (-0.271523) (15.16419) (7.077438)
 << RR: 0.998047, RRADJ: 0.997803, STER: 1.406978, D-W: 0.632571 >>

[23] PCG : OLSQ, Sample < 1985-2003 > Deflator for Government Consumption
 PCG = -0.271602 + 0.731547 * PCCT + 0.311141 * PCG(-1)
 (-0.271523) (15.16419) (7.077438)
 << RR: 0.998047, RRADJ: 0.997803, STER: 1.406978, D-W: 0.632571 >>

[24] PIF : ORC, Sample < 1985-2003 > Deflator for Fixed Investment
 PIF = 11.70829 + 0.877131 * PICT + 5.206719 * (D92 + D93 + D94)
 (11.75907) (75.08162) (5.399182)
 << RR: 0.997172, RRADJ: 0.996818, STER: 1.531075, D-W: 1.718008 >>

[25] PEG : OLSQ, Sample < 1985-2003 > Deflator for Exports of Goods & Services
 PEG = -27.6753 + 1.296226 * PET
 (-11.81932) (41.22063)
 << RR: 0.990094, RRADJ: 0.989511, STER: 3.063198, D-W: 1.317417 >>

[26] PJ Deflator for Inventory Change
 PJ = PPI

[27] PEGD Deflator for Exports of Goods & Services
 PEGD = PEG / EXR * 835.07

[28] PMG : OLSQ, Sample < 1985-2003 > Deflator for Imports of Goods & Services
 PMG = 20.7349 + 0.778476 * PMT - 16.89891 * (D85 + D86 + D87) + 12.39125 * (D92 + D93)
 (7.190399) (21.72854) (-6.067109) (3.998131)
 << RR: 0.984401, RRADJ: 0.981281, STER: 3.659655, D-W: 2.084953 >>

[29] PGDP Deflator for GDP
 PGDP = GDPV / GDP * 100

[30] LF : OLSQ, Sample < 1980-2003 > Labor Force
 LF = -3592.267 + 0.093309 * POP + 0.899137 * LF(-1) + 0.899137 * D90
 (-1.674722) (2.84804) (32.5505) (32.21) (32.53295)
 << RR: .9996843, RRADJ: 0.999603, STER: 227.0105, D-W: 2.479044 >>

[31] GBL Government Finance: Balance
 GBL = GREV - GEXP

[32] GREV Government Finance: Total Revenues
 GREV = GTAX + GNTAX

[33] GTAX Government Finance: Taxes
 GTAX = RGTAX * GNPV / 100

[34] GEXP Government Finance: Total Expenditures
 GEXP = GCC + GINV

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[35] GCC : OLSQ, Sample < 1981-2003 > Government Finance: Expenditure
 GCC = - 51.89851 + 0.015631 * PCG *(CG - CG(-1)) + 1319.469 * D95 + 1539.626 * D92 + GCC(-1)
 (-0.575476) (10.38615) (11.43) (-7.70) (4.178)
 << RR: 0.900523, RRADJ: 0.884817, STER: 283.8324, D-W: 1.077102 >>

[36] GDEB : OLSQ, Sample < 1981-2003 > Government Finance: Total Government Debts
 GDEB = 14.57527 + 0.549688 *(GINV - GINV(-1)) -(GBL - GBL(-1))) + 267.507 *(D96 + D97 + D98) -442.4211 *(D99 + D00) + 601.9242 * D02 + GDEB(-1)
 (0.463958) (6.370886) (3.895647) (-3.215163) (5.213253)
 << RR: 0.903533, RRADJ: 0.882096, STER: 100.1596, D-W: 2.119061 >>

[37] GDEBD Government Finance: Domestic Debts
 GDEBD = GDEB - GDEBF

[38] M2 : OLSQ, Sample < 1985-2003 > Money Supply
 M2 = -514.1957 + 13.73018 *(GDEBD - GDEBD(-1)) + 1.248803 *(GDPV - GDPV(-1)) -9192.896 *(D94+D95) + 9923.394 * D01 + 16786.58 * D0320 + M2(-1)
 (-0.507841) (8.116098) (5.542613) (-4.28627) (4.485502) (6.285855)
 << RR: 0.968429, RRADJ: 0.956287, STER: 2020.217, D-W: 2.76503 >>

[39] TBL Balance of Payments: Goods & Services Balance
 TBL = EGDV - MGDV

[40] EGDV Balance of Payments: Exports of Goods & Services in dollar basis
 EGDV = EGD * PEGD / 100

[41] MGDV Balance of Payments: Imports of Goods & Services in dollar basis
 MGDV = MGD * PMGD / 100

[42] CINT Balance of Payments: Balance on Capital Account
 CINT = CINL + CINFDI + CINOF

[43] CINRES Balance of Payments:
 CINRES = - TBL - CINT

[44] EGD Real Exports of Goods & Services in dollar basis
 EGD = EG / 8.3507

[45] MGD Real Imports of Goods & Services in dollar basis
 MGD = MG / 8.3507

[--- Input-Output Block (a) --- fixed coefficient in 1995 economic structure]

Intermediate Domestic Demand by Sector

[46] DDA01 Intermediate Domestic Demand for Sector 1
 DDA01 = 0.172338 * X01 + 0.025385 * X02 + 0.402345 * X03 + 0.112205 * X04 + 0.044555 * X05 + 0.012052 * X06 + 0.000224 * X07 + 0.001074 * X08 + 0.076990 * X09 + 0.004280 * X10 + 0.003938 * X11 + 0.023559 * X12 + 0.003800 * X13 + 0.000065 * X14 + 0.000170 * X15

[47] DDA02 Intermediate Domestic Demand for Sector 2
 DDA02 = 0.001772 * X01 + 0.070778 * X02 + 0.001250 * X03 + 0.001225 * X04 + 0.021757 * X05 + 0.036844 * X06 + 0.077928 * X07 + 0.008800 * X08 + 0.019199 * X09 + 0.040149 * X10 + 0.004047 * X11 + 0.005791 * X12 + 0.020605 * X13 + 0.004779 * X14 + 0.007373 * X15

[48] DDA03 Intermediate Domestic Demand for Sector 3
 DDA03 = 0.050424 * X01 + 0.000284 * X02 + 0.116350 * X03 + 0.009733 * X04 + 0.019484 * X05 + 0.000656 * X06 + 0.000277 * X07 + 0.000405 * X08 + 0.001031 * X09 + 0.000227 * X10 + 0.030840 * X11 + 0.030822 * X12 + 0.000884 * X13 + 0.000253 * X14 + 0.000332 * X15

[49] DDA04 Intermediate Domestic Demand for Sector 4
 DDA04 = 0.003422 * X01 + 0.021741 * X02 + 0.003237 * X03 + 0.449089 * X04 + 0.043984 * X05 + 0.025951 * X06 + 0.009211 * X07 + 0.011162 * X08 + 0.099158 * X09 + 0.008861 * X10 + 0.008651 * X11 + 0.009441 * X12 + 0.009659 * X13 + 0.003779 * X14 + 0.004522 * X15

[50] DDA05 Intermediate Domestic Demand for Sector 5
 DDA05 = 0.070618 * X01 + 0.050767 * X02 + 0.038923 * X03 + 0.088420 * X04 + 0.385776 * X05 + 0.053506 * X06 + 0.015425 * X07 + 0.055785 * X08 + 0.067593 * X09 + 0.023997 * X10 + 0.015161 * X11 + 0.044367 * X12 + 0.042591 * X13 + 0.024139 * X14 + 0.009620 * X15

[51] DDA06 Intermediate Domestic Demand for Sector 6
 DDA06 = 0.006519 * X01 + 0.040700 * X02 + 0.005622 * X03 + 0.001372 * X04 + 0.010361 * X05 + 0.118563 * X06 + 0.029730 * X07 + 0.020541 * X08 + 0.008179 * X09 + 0.203851 * X10 + 0.012213 * X11 + 0.020565 * X12 + 0.029827 * X13 + 0.022410 * X14 + 0.016976 * X15

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[52] DDA07 Intermediate Domestic Demand for Sector 7

$$\text{DDA07} = 0.000300 * X01 + 0.019213 * X02 + 0.002190 * X03 + 0.000685 * X04 + 0.015657 * X05 + 0.041880 * X06 + 0.284355 * X07 + 0.151772 * X08 + 0.029710 * X09 + 0.108803 * X10 + 0.010390 * X11 + 0.004211 * X12 + 0.028720 * X13 + 0.012390 * X14 + 0.010156 * X15$$

[53] DDA08 Intermediate Domestic Demand for Sector 8

$$\text{DDA08} = 0.023107 * X01 + 0.126012 * X02 + 0.014337 * X03 + 0.020108 * X04 + 0.033958 * X05 + 0.074627 * X06 + 0.076537 * X07 + 0.339467 * X08 + 0.048991 * X09 + 0.148563 * X10 + 0.059881 * X11 + 0.077614 * X12 + 0.120941 * X13 + 0.085291 * X14 + 0.087335 * X15$$

[54] DDA09 Intermediate Domestic Demand for Sector 9

$$\text{DDA09} = 0.004459 * X01 + 0.008350 * X02 + 0.013258 * X03 + 0.008909 * X04 + 0.020008 * X05 + 0.052886 * X06 + 0.007487 * X07 + 0.015287 * X08 + 0.256320 * X09 + 0.033541 * X10 + 0.022784 * X11 + 0.041710 * X12 + 0.010556 * X13 + 0.003521 * X14 + 0.007342 * X15$$

[55] DDA10 Intermediate Domestic Demand for Sector 10

$$\text{DDA10} = 0.000191 * X01 + 0.005496 * X02 + 0.000341 * X03 + 0.000191 * X04 + 0.000196 * X05 + 0.000452 * X06 + 0.000991 * X07 + 0.000425 * X08 + 0.000214 * X09 + 0.008412 * X10 + 0.006081 * X11 + 0.014171 * X12 + 0.000953 * X13 + 0.000546 * X14 + 0.001914 * X15$$

[56] DDA11 Intermediate Domestic Demand for Sector 11

$$\text{DDA11} = 0.033001 * X01 + 0.081438 * X02 + 0.024562 * X03 + 0.071535 * X04 + 0.058727 * X05 + 0.089083 * X06 + 0.117164 * X07 + 0.088861 * X08 + 0.087744 * X09 + 0.099787 * X10 + 0.087132 * X11 + 0.055461 * X12 + 0.085701 * X13 + 0.135171 * X14 + 0.094000 * X15$$

[57] DDA12 Intermediate Domestic Demand for Sector 12

$$\text{DDA12} = 0.024167 * X01 + 0.036041 * X02 + 0.018342 * X03 + 0.024355 * X04 + 0.022359 * X05 + 0.029811 * X06 + 0.017794 * X07 + 0.027566 * X08 + 0.026472 * X09 + 0.015601 * X10 + 0.114934 * X11 + 0.095051 * X12 + 0.029454 * X13 + 0.013089 * X14 + 0.022452 * X15$$

[58] DDA13 Intermediate Domestic Demand for Sector 13

$$\text{DDA13} = 0.000710 * X01 + 0.006858 * X02 + 0.002773 * X03 + 0.002150 * X04 + 0.009892 * X05 + 0.028468 * X06 + 0.031613 * X07 + 0.002752 * X08 + 0.003483 * X09 + 0.000438 * X10 + 0.002077 * X11 + 0.002711 * X12 + 0.089948 * X13 + 0.000928 * X14 + 0.126930 * X15$$

[59] DDA14 Intermediate Domestic Demand for Sector 14

$$\text{DDA14} = 0.008421 * X01 + 0.017523 * X02 + 0.003352 * X03 + 0.002376 * X04 + 0.032260 * X05 + 0.025465 * X06 + 0.023108 * X07 + 0.005366 * X08 + 0.007123 * X09 + 0.012427 * X10 + 0.049729 * X11 + 0.024219 * X12 + 0.032843 * X13 + 0.260132 * X14 + 0.099079 * X15$$

[60] DDA15 Intermediate Domestic Demand for Sector 15

$$\text{DDA15} = 0.002830 * X01 + 0.058688 * X02 + 0.010566 * X03 + 0.007195 * X04 + 0.023974 * X05 + 0.080136 * X06 + 0.040138 * X07 + 0.011086 * X08 + 0.014440 * X09 + 0.000614 * X10 + 0.003590 * X11 + 0.012697 * X12 + 0.051398 * X13 + 0.024919 * X14 + 0.027300 * X15$$

Final Demand by Sector

[61] DDF01 Final Domestic Demand for Sector 1

$$\text{DDF01} = (0.220009 * (\text{CP} + \text{CG}) + 0.023674 * \text{IF}) * 100$$

[62] DDF02 Final Domestic Demand for Sector 2

$$\text{DDF02} = (0.004992 * (\text{CP} + \text{CG}) + 0.000000 * \text{IF}) * 100$$

[63] DDF03 Final Domestic Demand for Sector 3

$$\text{DDF03} = (0.176784 * (\text{CP} + \text{CG}) + 0.000000 * \text{IF}) * 100$$

[64] DDF04 Final Domestic Demand for Sector 4

$$\text{DDF04} = (0.088283 * (\text{CP} + \text{CG}) + 0.000000 * \text{IF}) * 100$$

[65] DDF05 Final Domestic Demand for Sector 5

$$\text{DDF05} = (0.030804 * (\text{CP} + \text{CG}) + 0.000000 * \text{IF}) * 100$$

[66] DDF06 Final Domestic Demand for Sector 6

$$\text{DDF06} = (0.018787 * (\text{CP} + \text{CG}) + 0.000000 * \text{IF}) * 100$$

[67] DDF07 Final Domestic Demand for Sector 7

$$\text{DDF07} = (0.002046 * (\text{CP} + \text{CG}) + 0.000000 * \text{IF}) * 100$$

[68] DDF08 Final Domestic Demand for Sector 8

$$\text{DDF08} = (0.059744 * (\text{CP} + \text{CG}) + 0.294617 * \text{IF}) * 100$$

[69] DDF09 Final Domestic Demand for Sector 9

$$\text{DDF09} = (0.028938 * (\text{CP} + \text{CG}) + 0.003057 * \text{IF}) * 100$$

[70] DDF10 Final Domestic Demand for Sector 10

$$\text{DDF10} = (0.000000 * (\text{CP} + \text{CG}) + 0.635840 * \text{IF}) * 100$$

[71] DDF11 Final Domestic Demand for Sector 11
 $DDF11 = (0.044113 * (CP + CG) + 0.017805 * IF) * 100$

[72] DDF12 Final Domestic Demand for Sector 12
 $DDF12 = (0.301658 * (CP + CG) + 0.025007 * IF) * 100$

[73] DDF13 Final Domestic Demand for Sector 13
 $DDF13 = (0.007558 * (CP + CG) + 0.000000 * IF) * 100$

[74] DDF14 Final Domestic Demand for Sector 14
 $DDF14 = (0.002488 * (CP + CG) + 0.000000 * IF) * 100$

[75] DDF15 Final Domestic Demand for Sector 15
 $DDF15 = (0.013796 * (CP + CG) + 0.000000 * IF) * 100$

Domestic Demand

[76] DDB01 Domestic Demand for Sector 1
 $DDB01 = DDA01 + DDF01$

[77] DDB02 Domestic Demand for Sector 2
 $DDB02 = DDA02 + DDF02$

[78] DDB03 Domestic Demand for Sector 3
 $DDB03 = DDA03 + DDF03$

[79] DDB04 Domestic Demand for Sector 4
 $DDB04 = DDA04 + DDF04$

[80] DDB05 Domestic Demand for Sector 5
 $DDB05 = DDA05 + DDF05$

[81] DDB06 Domestic Demand for Sector 6
 $DDB06 = DDA06 + DDF06$

[82] DDB07 Domestic Demand for Sector 7
 $DDB07 = DDA07 + DDF07$

[83] DDB08 Domestic Demand for Sector 8
 $DDB08 = DDA08 + DDF08$

[84] DDB09 Domestic Demand for Sector 9
 $DDB09 = DDA09 + DDF09$

[85] DDB10 Domestic Demand for Sector 10
 $DDB10 = DDA10 + DDF10$

[86] DDB11 Domestic Demand for Sector 11
 $DDB11 = DDA11 + DDF11$

[87] DDB12 Domestic Demand for Sector 12
 $DDB12 = DDA12 + DDF12$

[88] DDB13 Domestic Demand for Sector 13
 $DDB13 = DDA13 + DDF13$

[89] DDB14 Domestic Demand for Sector 14
 $DDB14 = DDA14 + DDF14$

[90] DDB15 Domestic Demand for Sector 15
 $DDB15 = DDA15 + DDF15$

Domestic Input Price

[91] PRD01 Domestic Input Price for Sector 1
 $PRD01 = 0.167115 * PX01 + 0.001619 * PX02 + 0.048686 * PX03 + 0.003093 * PX04 + 0.060070 * PX05 + 0.006414 * PX06 + 0.000271 * PX07 + 0.018463 * PX08 + 0.004046 * PX09 + 0.000191 * PX10 + 0.032941 * PX11 + 0.023371 * PX12 + 0.000707 * PX13 + 0.007513 * PX14 + 0.002830 * PX15$

[92] PRD02 Domestic Input Price for Sector 2
 $PRD02 = 0.024616 * PX01 + 0.064670 * PX02 + 0.000274 * PX03 + 0.019653 * PX04 + 0.043184 * PX05 + 0.040050 * PX06 + 0.017369 * PX07 + 0.100684 * PX08 + 0.007576 * PX09 + 0.005496 * PX10 + 0.081292 * PX11 + 0.034854 * PX12 + 0.006829 * PX13 + 0.015633 * PX14 + 0.058685 * PX15$

[93] PRD03 Domestic Input Price for Sector 3
 $PRD03 = 0.390150 * PX01 + 0.001142 * PX02 + 0.112342 * PX03 + 0.002926 * PX04 + 0.033110 * PX05 + 0.005532 * PX06 + 0.000271 * PX07 + 0.018463 * PX08 + 0.004046 * PX09 + 0.000191 * PX10 + 0.032941 * PX11 + 0.023371 * PX12 + 0.000707 * PX13 + 0.007513 * PX14 + 0.002830 * PX15$

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PX06 + 0.001980 * PX07 + 0.011455 * PX08 + 0.012030 * PX09 + 0.000341 * PX10 + 0.024518 * PX11 + 0.017738 *
 PX12 + 0.002761 * PX13 + 0.002991 * PX14 + 0.010565 * PX15

[94] PRD04 Domestic Input Price for Sector 4

PRD04 = 0.108804 * PX01 + 0.001120 * PX02 + 0.009397 * PX03 + 0.405952 * PX04 + 0.075213 * PX05 + 0.001350 *
 PX06 + 0.000620 * PX07 + 0.016066 * PX08 + 0.008084 * PX09 + 0.000191 * PX10 + 0.071406 * PX11 + 0.023553 *
 PX12 + 0.002141 * PX13 + 0.002120 * PX14 + 0.007194 * PX15

[95] PRD05 Domestic Input Price for Sector 5

PRD05 = 0.043205 * PX01 + 0.019879 * PX02 + 0.018813 * PX03 + 0.039759 * PX04 + 0.328156 * PX05 + 0.010196 *
 PX06 + 0.014154 * PX07 + 0.027133 * PX08 + 0.018155 * PX09 + 0.000196 * PX10 + 0.058621 * PX11 + 0.021623 *
 PX12 + 0.009850 * PX13 + 0.028780 * PX14 + 0.023972 * PX15

[96] PRD06 Domestic Input Price for Sector 6

PRD06 = 0.011687 * PX01 + 0.033664 * PX02 + 0.000634 * PX03 + 0.023458 * PX04 + 0.045514 * PX05 + 0.116669 *
 PX06 + 0.037859 * PX07 + 0.059627 * PX08 + 0.047988 * PX09 + 0.000452 * PX10 + 0.088923 * PX11 + 0.028829 *
 PX12 + 0.028347 * PX13 + 0.022718 * PX14 + 0.080131 * PX15

[97] PRD07 Domestic Input Price for Sector 7

PRD07 = 0.000217 * PX01 + 0.071203 * PX02 + 0.000268 * PX03 + 0.008326 * PX04 + 0.013121 * PX05 + 0.029255 *
 PX06 + 0.257053 * PX07 + 0.061154 * PX08 + 0.006794 * PX09 + 0.000991 * PX10 + 0.116953 * PX11 + 0.017208 *
 PX12 + 0.031479 * PX13 + 0.020615 * PX14 + 0.040136 * PX15

[98] PRD08 Domestic Input Price for Sector 8

PRD08 = 0.001041 * PX01 + 0.008040 * PX02 + 0.000391 * PX03 + 0.010090 * PX04 + 0.047453 * PX05 + 0.020212 *
 PX06 + 0.137200 * PX07 + 0.271234 * PX08 + 0.013871 * PX09 + 0.000425 * PX10 + 0.088701 * PX11 + 0.026658 *
 PX12 + 0.002741 * PX13 + 0.004787 * PX14 + 0.011085 * PX15

[99] PRD09 Domestic Input Price for Sector 9

PRD09 = 0.074657 * PX01 + 0.017543 * PX02 + 0.000995 * PX03 + 0.089633 * PX04 + 0.057497 * PX05 + 0.008049 *
 PX06 + 0.026858 * PX07 + 0.039144 * PX08 + 0.232584 * PX09 + 0.000214 * PX10 + 0.087586 * PX11 + 0.025600 *
 PX12 + 0.003468 * PX13 + 0.006355 * PX14 + 0.014440 * PX15

[100] PRD10 Domestic Input Price for Sector 10

PRD10 = 0.004150 * PX01 + 0.036684 * PX02 + 0.000219 * PX03 + 0.008010 * PX04 + 0.020413 * PX05 + 0.200594 *
 PX06 + 0.098356 * PX07 + 0.118702 * PX08 + 0.030435 * PX09 + 0.008412 * PX10 + 0.099607 * PX11 + 0.015087 *
 PX12 + 0.000436 * PX13 + 0.011086 * PX14 + 0.000614 * PX15

[101] PRD11 Domestic Input Price for Sector 11

PRD11 = 0.003819 * PX01 + 0.003698 * PX02 + 0.029778 * PX03 + 0.007820 * PX04 + 0.012896 * PX05 + 0.012018 *
 PX06 + 0.009393 * PX07 + 0.047845 * PX08 + 0.020675 * PX09 + 0.006081 * PX10 + 0.086975 * PX11 + 0.111149 *
 PX12 + 0.002068 * PX13 + 0.044365 * PX14 + 0.003590 * PX15

[102] PRD12 Domestic Input Price for Sector 12

PRD12 = 0.022845 * PX01 + 0.005291 * PX02 + 0.029760 * PX03 + 0.008534 * PX04 + 0.037740 * PX05 + 0.020236 *
 PX06 + 0.003806 * PX07 + 0.062014 * PX08 + 0.037847 * PX09 + 0.014171 * PX10 + 0.055361 * PX11 + 0.091921 *
 PX12 + 0.002699 * PX13 + 0.021607 * PX14 + 0.012696 * PX15

[103] PRD13 Domestic Input Price for Sector 13

PRD13 = 0.003684 * PX01 + 0.018827 * PX02 + 0.000854 * PX03 + 0.008731 * PX04 + 0.036229 * PX05 + 0.029351 *
 PX06 + 0.025963 * PX07 + 0.096632 * PX08 + 0.009578 * PX09 + 0.000953 * PX10 + 0.085546 * PX11 + 0.028484 *
 PX12 + 0.089567 * PX13 + 0.029301 * PX14 + 0.051395 * PX15

[104] PRD14 Domestic Input Price for Sector 14

PRD14 = 0.000063 * PX01 + 0.004367 * PX02 + 0.000244 * PX03 + 0.003416 * PX04 + 0.020534 * PX05 + 0.022052 *
 PX06 + 0.011201 * PX07 + 0.068147 * PX08 + 0.003195 * PX09 + 0.000546 * PX10 + 0.134928 * PX11 + 0.012658 *
 PX12 + 0.000924 * PX13 + 0.232075 * PX14 + 0.024918 * PX15

[105] PRD15 Domestic Input Price for Sector 15

PRD15 = 0.000164 * PX01 + 0.006737 * PX02 + 0.000321 * PX03 + 0.004087 * PX04 + 0.008183 * PX05 + 0.016705 *
 PX06 + 0.009181 * PX07 + 0.069781 * PX08 + 0.006663 * PX09 + 0.001914 * PX10 + 0.093830 * PX11 + 0.021712 *
 PX12 + 0.126391 * PX13 + 0.088393 * PX14 + 0.027298 * PX15

Import Input Price

[106] PRM01 Import Input Price for Sector 1

PRM01 = 0.005223 * PM01 + 0.000153 * PM02 + 0.001737 * PM03 + 0.000329 * PM04 + 0.010548 * PM05 + 0.000104 *
 PM06 + 0.000029 * PM07 + 0.004645 * PM08 + 0.000413 * PM09 + 0.000000 * PM10 + 0.000059 * PM11 + 0.000796 *
 PM12 + 0.000003 * PM13 + 0.000908 * PM14 + 0.000000 * PM15

[107] PRM02 Import Input Price for Sector 2

PRM02 = 0.000769 * PM01 + 0.006108 * PM02 + 0.000010 * PM03 + 0.002088 * PM04 + 0.007583 * PM05 + 0.000650 *
 PM06 + 0.001845 * PM07 + 0.025328 * PM08 + 0.000773 * PM09 + 0.000000 * PM10 + 0.000147 * PM11 + 0.001187 *
 PM12 + 0.000029 * PM13 + 0.001890 * PM14 + 0.000004 * PM15

[108] PRM03 Import Input Price for Sector 3

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$$\begin{aligned} \text{PRM03} &= 0.012195 * \text{PM01} + 0.000108 * \text{PM02} + 0.004008 * \text{PM03} + 0.000311 * \text{PM04} + 0.005814 * \text{PM05} + 0.000090 * \\ \text{PM06} &+ 0.000210 * \text{PM07} + 0.002882 * \text{PM08} + 0.001228 * \text{PM09} + 0.000000 * \text{PM10} + 0.000044 * \text{PM11} + 0.000604 * \\ \text{PM12} &+ 0.000012 * \text{PM13} + 0.000362 * \text{PM14} + 0.000001 * \text{PM15} \end{aligned}$$

[109] PRM04 Import Input Price for Sector 4

$$\begin{aligned} \text{PRM04} &= 0.003401 * \text{PM01} + 0.000106 * \text{PM02} + 0.000335 * \text{PM03} + 0.043138 * \text{PM04} + 0.013207 * \text{PM05} + 0.000022 * \\ \text{PM06} &+ 0.000066 * \text{PM07} + 0.004042 * \text{PM08} + 0.000825 * \text{PM09} + 0.000000 * \text{PM10} + 0.000129 * \text{PM11} + 0.000802 * \\ \text{PM12} &+ 0.000009 * \text{PM13} + 0.000256 * \text{PM14} + 0.000000 * \text{PM15} \end{aligned}$$

[110] PRM05 Import Input Price for Sector 5

$$\begin{aligned} \text{PRM05} &= 0.001350 * \text{PM01} + 0.001878 * \text{PM02} + 0.000671 * \text{PM03} + 0.004225 * \text{PM04} + 0.057620 * \text{PM05} + 0.000166 * \\ \text{PM06} &+ 0.001503 * \text{PM07} + 0.006826 * \text{PM08} + 0.001853 * \text{PM09} + 0.000000 * \text{PM10} + 0.000106 * \text{PM11} + 0.000736 * \\ \text{PM12} &+ 0.000042 * \text{PM13} + 0.003479 * \text{PM14} + 0.000001 * \text{PM15} \end{aligned}$$

[111] PRM06 Import Input Price for Sector 6

$$\begin{aligned} \text{PRM06} &= 0.000365 * \text{PM01} + 0.003180 * \text{PM02} + 0.000023 * \text{PM03} + 0.002493 * \text{PM04} + 0.007992 * \text{PM05} + 0.001894 * \\ \text{PM06} &+ 0.004021 * \text{PM07} + 0.015000 * \text{PM08} + 0.004897 * \text{PM09} + 0.000000 * \text{PM10} + 0.000161 * \text{PM11} + 0.000982 * \\ \text{PM12} &+ 0.000121 * \text{PM13} + 0.002747 * \text{PM14} + 0.000005 * \text{PM15} \end{aligned}$$

[112] PRM07 Import Input Price for Sector 7

$$\begin{aligned} \text{PRM07} &= 0.000007 * \text{PM01} + 0.006725 * \text{PM02} + 0.000010 * \text{PM03} + 0.000885 * \text{PM04} + 0.002304 * \text{PM05} + 0.000475 * \\ \text{PM06} &+ 0.027302 * \text{PM07} + 0.015384 * \text{PM08} + 0.000693 * \text{PM09} + 0.000000 * \text{PM10} + 0.000211 * \text{PM11} + 0.000586 * \\ \text{PM12} &+ 0.000134 * \text{PM13} + 0.002492 * \text{PM14} + 0.000002 * \text{PM15} \end{aligned}$$

[113] PRM08 Import Input Price for Sector 8

$$\begin{aligned} \text{PRM08} &= 0.000033 * \text{PM01} + 0.000759 * \text{PM02} + 0.000014 * \text{PM03} + 0.001072 * \text{PM04} + 0.008332 * \text{PM05} + 0.000328 * \\ \text{PM06} &+ 0.014572 * \text{PM07} + 0.068232 * \text{PM08} + 0.001416 * \text{PM09} + 0.000000 * \text{PM10} + 0.000160 * \text{PM11} + 0.000908 * \\ \text{PM12} &+ 0.000012 * \text{PM13} + 0.000579 * \text{PM14} + 0.000001 * \text{PM15} \end{aligned}$$

[114] PRM09 Import Input Price for Sector 9

$$\begin{aligned} \text{PRM09} &= 0.002333 * \text{PM01} + 0.001657 * \text{PM02} + 0.000036 * \text{PM03} + 0.009525 * \text{PM04} + 0.010096 * \text{PM05} + 0.000131 * \\ \text{PM06} &+ 0.002853 * \text{PM07} + 0.009847 * \text{PM08} + 0.023735 * \text{PM09} + 0.000000 * \text{PM10} + 0.000158 * \text{PM11} + 0.000872 * \\ \text{PM12} &+ 0.000015 * \text{PM13} + 0.000768 * \text{PM14} + 0.000001 * \text{PM15} \end{aligned}$$

[115] PRM10 Import Input Price for Sector 10

$$\begin{aligned} \text{PRM10} &= 0.000130 * \text{PM01} + 0.003465 * \text{PM02} + 0.000008 * \text{PM03} + 0.000851 * \text{PM04} + 0.003584 * \text{PM05} + 0.003257 * \\ \text{PM06} &+ 0.010447 * \text{PM07} + 0.029861 * \text{PM08} + 0.003106 * \text{PM09} + 0.000000 * \text{PM10} + 0.000180 * \text{PM11} + 0.000514 * \\ \text{PM12} &+ 0.000002 * \text{PM13} + 0.001340 * \text{PM14} + 0.000000 * \text{PM15} \end{aligned}$$

[116] PRM11 Import Input Price for Sector 11

$$\begin{aligned} \text{PRM11} &= 0.000119 * \text{PM01} + 0.000349 * \text{PM02} + 0.001062 * \text{PM03} + 0.000831 * \text{PM04} + 0.002264 * \text{PM05} + 0.000195 * \\ \text{PM06} &+ 0.000998 * \text{PM07} + 0.012036 * \text{PM08} + 0.002110 * \text{PM09} + 0.000000 * \text{PM10} + 0.000157 * \text{PM11} + 0.003785 * \\ \text{PM12} &+ 0.000009 * \text{PM13} + 0.005364 * \text{PM14} + 0.000000 * \text{PM15} \end{aligned}$$

[117] PRM12 Import Input Price for Sector 12

$$\begin{aligned} \text{PRM12} &= 0.000714 * \text{PM01} + 0.000500 * \text{PM02} + 0.001062 * \text{PM03} + 0.000907 * \text{PM04} + 0.006627 * \text{PM05} + 0.000329 * \\ \text{PM06} &+ 0.000404 * \text{PM07} + 0.015600 * \text{PM08} + 0.003862 * \text{PM09} + 0.000000 * \text{PM10} + 0.000100 * \text{PM11} + 0.003130 * \\ \text{PM12} &+ 0.000011 * \text{PM13} + 0.002612 * \text{PM14} + 0.000001 * \text{PM15} \end{aligned}$$

[118] PRM13 Import Input Price for Sector 13

$$\begin{aligned} \text{PRM13} &= 0.000115 * \text{PM01} + 0.001778 * \text{PM02} + 0.000030 * \text{PM03} + 0.000928 * \text{PM04} + 0.006361 * \text{PM05} + 0.000477 * \\ \text{PM06} &+ 0.002758 * \text{PM07} + 0.024309 * \text{PM08} + 0.000977 * \text{PM09} + 0.000000 * \text{PM10} + 0.000154 * \text{PM11} + 0.000970 * \\ \text{PM12} &+ 0.000381 * \text{PM13} + 0.003542 * \text{PM14} + 0.000003 * \text{PM15} \end{aligned}$$

[119] PRM14 Import Input Price for Sector 14

$$\begin{aligned} \text{PRM14} &= 0.000002 * \text{PM01} + 0.000412 * \text{PM02} + 0.000009 * \text{PM03} + 0.000363 * \text{PM04} + 0.003605 * \text{PM05} + 0.000358 * \\ \text{PM06} &+ 0.001190 * \text{PM07} + 0.017143 * \text{PM08} + 0.000326 * \text{PM09} + 0.000000 * \text{PM10} + 0.000244 * \text{PM11} + 0.000431 * \\ \text{PM12} &+ 0.000004 * \text{PM13} + 0.028057 * \text{PM14} + 0.000002 * \text{PM15} \end{aligned}$$

[120] PRM15 Import Input Price for Sector 15

$$\begin{aligned} \text{PRM15} &= 0.000005 * \text{PM01} + 0.000636 * \text{PM02} + 0.000011 * \text{PM03} + 0.000434 * \text{PM04} + 0.001437 * \text{PM05} + 0.000271 * \\ \text{PM06} &+ 0.000975 * \text{PM07} + 0.017554 * \text{PM08} + 0.000680 * \text{PM09} + 0.000000 * \text{PM10} + 0.000169 * \text{PM11} + 0.000739 * \\ \text{PM12} &+ 0.0000538 * \text{PM13} + 0.010686 * \text{PM14} + 0.000002 * \text{PM15} \end{aligned}$$

Input Price

[121] PR01 Input Price for Sector 1
 $\text{PR01} = (\text{PRD01} + \text{PRM01}) / 0.402280$

[122] PR02 Input Price for Sector 2
 $\text{PR02} = (\text{PRD02} + \text{PRM02}) / 0.569275$

[123] PR03 Input Price for Sector 3
 $\text{PR03} = (\text{PRD03} + \text{PRM03}) / 0.657448$

[124] PR04 Input Price for Sector 4

$$PR04 = (PRD04 + PRM04) / 0.799548$$

[125] PR05 Input Price for Sector 5
 $PR05 = (PRD05 + PRM05) / 0.742949$

[126] PR06 Input Price for Sector 6
 $PR06 = (PRD06 + PRM06) / 0.670380$

[127] PR07 Input Price for Sector 7
 $PR07 = (PRD07 + PRM07) / 0.731983$

[128] PR08 Input Price for Sector 8
 $PR08 = (PRD08 + PRM08) / 0.740347$

[129] PR09 Input Price for Sector 9
 $PR09 = (PRD09 + PRM09) / 0.746648$

[130] PR10 Input Price for Sector 10
 $PR10 = (PRD10 + PRM10) / 0.709549$

[131] PR11 Input Price for Sector 11
 $PR11 = (PRD11 + PRM11) / 0.431448$

[132] PR12 Input Price for Sector 12
 $PR12 = (PRD12 + PRM12) / 0.462389$

[133] PR13 Input Price for Sector 13
 $PR13 = (PRD13 + PRM13) / 0.557879$

[134] PR14 Input Price for Sector 14
 $PR14 = (PRD14 + PRM14) / 0.591413$

[135] PR15 Input Price for Sector 15
 $PR15 = (PRD15 + PRM15) / 0.515499$

[136] PCCTD Domestic Consumer Goods Price
 $PCCTD = 0.213341 * PX01 + 0.004561 * PX02 + 0.170694 * PX03 + 0.079803 * PX04 + 0.026203 * PX05 + 0.018487 * PX06 + 0.001849 * PX07 + 0.047735 * PX08 + 0.026258 * PX09 + 0.000000 * PX10 + 0.044034 * PX11 + 0.291724 * PX12 + 0.007526 * PX13 + 0.002220 * PX14 + 0.013795 * PX15$

[137] PCCTM Imported Consumer Goods Price
 $PCCTM = 0.006668 * PM01 + 0.000431 * PM02 + 0.006090 * PM03 + 0.008480 * PM04 + 0.004601 * PM05 + 0.000300 * PM06 + 0.000196 * PM07 + 0.012008 * PM08 + 0.002680 * PM09 + 0.000000 * PM10 + 0.000079 * PM11 + 0.009934 * PM12 + 0.000032 * PM13 + 0.000268 * PM14 + 0.000001 * PM15$

[138] PCCT Consumer Goods Prices
 $PCCT = PCCTD + PCCTM$

[139] PICTD Domestic Investment Goods Price
 $PICTD = 0.022956 * PX01 + 0.000000 * PX02 + 0.000000 * PX03 + 0.000000 * PX04 + 0.000000 * PX05 + 0.000000 * PX06 + 0.000000 * PX07 + 0.235399 * PX08 + 0.002774 * PX09 + 0.635840 * PX10 + 0.017773 * PX11 + 0.024184 * PX12 + 0.000000 * PX13 + 0.000000 * PX14 + 0.000000 * PX15$

[140] PICTM Imported Investment Goods Price
 $PICTM = 0.000718 * PM01 + 0.000000 * PM02 + 0.000000 * PM03 + 0.000000 * PM04 + 0.000000 * PM05 + 0.000000 * PM06 + 0.000000 * PM07 + 0.059217 * PM08 + 0.000283 * PM09 + 0.000000 * PM10 + 0.000032 * PM11 + 0.000824 * PM12 + 0.000000 * PM13 + 0.000000 * PM14 + 0.000000 * PM15$

[141] PICT Investment Goods Price
 $PICT = PICTD + PICTM$

[--- Input-Output Block (b) --- time series data]

Domestic Demand by Sector

[142] DD01 : OLSQ, Sample < 1985-2003 > Domestic Demand for Sector 1
 $DD01 = \exp(3.821601 + 0.740874 * \log(DDB01) - 0.494306 * \log(PDD01 / PDDT) - 0.115742 * D94 + SW1 * SIFD01 * 100 + SW3 * ZIFD01 * 100$
(19.23006) (53.46086) (-4.799655) (-4.12135)
<< RR: 0.99515, RRADJ: 0.99418, STER: 0.026688, D-W: 1.544 >>

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[143] DD02 : OLSQ, Sample < 1985-2003 > Domestic Demand for Sector 2
 $DD02 = \exp(-0.719565 + 1.041006 * \log(DDB02) - 1.016529 * \log(PDD02 / PDDT) + 0.381693 * D91 + 0.243152 * (D94 + D95 + D96)) + SW1 * SIFD02 * 100 + SW3 * ZIFD02 * 100$
 (-1.243862) (22.07986) (-9.557069) (4.257277) (4.542102)
 << RR: 0.978379, RRADJ: 0.972201, STER: 0.082592, D-W: 1.832162 >>

[144] DD03 : OLSQ, Sample < 1985-2003 > Domestic Demand for Sector 3
 $DD03 = \exp(-0.626376 + 1.044879 * \log(DDB03) - 0.876468 * \log(PDD03 / PDDT) + 0.227329 * D91 - 0.246935 * D93) + SW1 * SIFD03 * 100 + SW3 * ZIFD03 * 100$
 (-0.651575) (14.93016) (-1.533583) (2.690682) (-2.831568)
 << RR: 0.981339, RRADJ: 0.976008, STER: 0.08123, D-W: 0.668729 >>

[145] DD04 : OLSQ, Sample < 1985-2003 > Domestic Demand for Sector 4
 $DD04 = \exp(1.541266 + 0.882733 * \log(DDB04) - 0.879827 * \log(PDD04 / PDDT) - 0.395834 * D93 - 0.235423 * D0320) + SW1 * SIFD04 * 100 + SW3 * ZIFD04 * 100$
 (1.257219) (9.844256) (-1.592034) (-2.993665) (-1.810131)
 << RR: 0.963949, RRADJ: . 0.953648, STER: 0.118283, D-W: 1.600194 >>

[146] DD05 : OLSQ, Sample < 1985-2003 > Domestic Demand for Sector 5
 $DD05 = \exp(0.001864 + 1.0000000 * \log(DDB05) - 0.683911 * \log(PDD05 / PDDT) - 0.09431 * D86 + 0.110445 * D91 - 0.159518 * D93) + SW1 * SIFD05 * 100 + SW3 * ZIFD05 * 100$
 (0.219013) (0.000) (-10.37878) (-2.679955) (2.998916) (-4.564982)
 << RR: 0.909127, RRADJ: 0.883163, STER: 0.033889, D-W: 1.698995 >>

[147] DD06 : OLSQ, Sample < 1985-2003 > Domestic Demand for Sector 6
 $DD06 = \exp(-0.004564 + 1.0000000 * \log(DDB06) - 1.464578 * \log(PDD06 / PDDT) - 0.236674 * (D85 + D86 + D87) + 0.42279 * D91 - 0.273379 * (D02 + D0320)) + SW1 * SIFD06 * 100 + SW3 * ZIFD06 * 100$
 (-0.153467) (0.000) (-3.992525) (-3.578293) (4.035079) (-3.23128)
 << RR: 0.757752, RRADJ: 0.688538, STER: 0.100831, D-W: 2.364537 >>

[148] DD07 : OLSQ, Sample < 1985-2003 > Domestic Demand for Sector 7
 $DD07 = \exp(2.653125 + 0.805213 * \log(DDB07) + 0.207817 * (D85 + D86) + 0.205984 * D91 + 0.163741 * (D93 + D94) - 0.127466 * D97) + SW1 * SIFD07 * 100 + SW3 * ZIFD07 * 100$
 (15.43726) (64.0926) (7.720662) (6.135522) (7.129229) (-4.083014)
 << RR: 0.997588, RRADJ: 0.99666, STER: 0.030019, D-W: 2.099975 >>

[149] DD08 : OLSQ, Sample < 1985-2003 > Domestic Demand for Sector 8
 $DD08 = \exp(1.070207 + 0.931271 * \log(DDB08) - 1.233455 * \log(PDD08 / PDDT) - 1.116351 * D91 + 0.169698 * D94) + SW1 * SIFD08 * 100 + SW3 * ZIFD08 * 100$
 (4.216096) (53.07233) (-13.59263) (-18.94657) ()
 << RR: 0.998053, RRADJ: 0.997497, STER: 0.038292, D-W: 1.526355 >>

[150] DD09 : OLSQ, Sample < 1985-2003 > Domestic Demand for Sector 9
 $DD09 = \exp(-0.803523 + 1.065435 * \log(DDB09) - 0.369582 * \log(PDD09 / PDDT) - 0.507749 * D91 - 0.174777 * (D02 + D0320)) + SW1 * SIFD09 * 100 + SW3 * ZIFD09 * 100$
 (-1.17341) (20.4591) (-1.935282) (-7.068737) (-1.19)
 << RR: 0.992327, RRADJ: 0.990135, STER: 0.068169, D-W: 2.543709 >>

[151] DD10 : OLSQ, Sample < 1985-2003 > Domestic Demand for Sector 10
 $DD10 = \exp(2.893856 + 0.795789 * \log(DDB10) + 0.11743 * D01 + 0.21322 * (D02 + D0320)) + SW1 * SIFD10 * 100 + SW3 * ZIFD10 * 100$
 (14.0627) (53.18412) (-1.935282) (-0.22)
 << RR: 0.997313, RRADJ: 0.996776, STER: 0.03097, D-W: 0.989457 >>

[152] DD11 : OLSQ, Sample < 1985-2003 > Domestic Demand for Sector 11
 $DD11 = \exp(-1.719733 + 1.1160643 * \log(DDB11) - 0.236093 * (D88 + D89 + D90) + 0.258304 * D93) + SW1 * SIFD11 * 100 + SW3 * ZIFD11 * 100$
 (-3.843453) (35.1473) (-4.667355) (3.499127)
 << RR: 0.991204, RRADJ: 0.989444, STER: 0.070786, D-W: 1.36647 >>

[153] DD12 : OLSQ, Sample < 1985-2000 > Domestic Demand for Sector 12
 $DD12 = \exp(-2.540864 + 1.181197 * \log(DDB12) + 0.391932 * (D88 + D89) + 0.118174 * D91) + SW1 * SIFD12 * 100 + SW3 * ZIFD12 * 100$
 (-8.150599) (54.27654) (11.51794) (2.651113)
 << RR: 0.995154, RRADJ: 0.994184, STER: 0.04235, D-W: 1.520056 >>

[154] DD13 Domestic Demand for Sector 13
 $DD13 = X13 + M13 - E13 + SW1 * SIFD13 * 100 + SW3 * ZIFD13 * 100$

[155] DD14 Domestic Demand for Sector 14
 $DD14 = X14 + M14 - E14 + SW1 * SIFD14 * 100 + SW3 * ZIFD14 * 100$

[156] DD15 Domestic Demand for Sector 15
 $DD15 = X15 + M15 - E15 + SW1 * SIFD15 * 100 + SW3 * ZIFD15 * 100$

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[157] DDT Domestic Demand Total
 $DDT = DD01 + DD02 + DD03 + DD04 + DD05 + DD06 + DD07 + DD08 + DD09 + DD10 + DD11 + DD12 + DD13 + DD14 + DD15$

Import Demand by Sector

[158] M01 Import Demand for Sector 1
 $M01 = DD01 + E01 - X01 + SW1 * SIFM01 * 100 + SW3 * ZIFM01 * 100$

[159] M02 : OLSQ, Sample < 1986-2003 > Import Demand for Sector 2
 $M02 = \exp(0.195104 + 0.466837 * \log(DD02) - 0.644292 * \log(PM02 / PDD02) + 0.403005 * \log(M02(-1)) + 0.344528 * D00) + SW1 * SIFM02 * 100 + SW3 * ZIFM02 * 100$
 (0.305802) (5.484668) (-3.618363) (3.73576) (3.504271)
 << RR: 0.970347, RRADJ: 0.961224, STER: 0.090289, D-W: 1.742591 >>

[161] M03 : OLSQ, Sample < 1986-2000 > Import Demand for Sector 3
 $M03 = \exp(-2.860895 + 0.95832 * \log(DD03) - 1.358928 * \log(PM03 / PDD03) + 0.536526 * ((D02 + D0320)) + SW1 * SIFM04 * 100 + SW3 * ZIFM04 * 100$
 (-1.524487) (6.926465) (-2.32252) (2.578991)
 << RR: 0.896564, RRADJ: 0.875877, STER: 0.250795, D-W: 2.664107 >>

[161] M04 : OLSQ, Sample < 1986-2000 > Import Demand for Sector 4
 $M04 = \exp(1.998978 + 0.096148 * \log(DD04) - 0.571732 * \log(PM04 / PDD04) + 0.71593 * \log(M04(-1)) - 0.209187 * D90 + 0.161785 * D94 - 0.147839 * D98 + SW1 * SIFM04 * 100 + SW3 * ZIFM04 * 100$
 (4.397646) (1.948876) (-2.600699) (13.13004) (-3.603501) (2.682078) (-2.642673)
 << RR: 0.991179, RRADJ: 0.986367, STER: 0.052968, D-W: 2.076328 >>

[162] M05 : OLSQ, Sample < 1986-2003 > Import Demand for Sector 5
 $M05 = \exp(-0.178048 + 0.871294 * \log(DD05) - 0.931371 * \log(PM05 / PDD05) - 0.285271 * D87 - 0.210922 * D89 + 0.295768 * (D02 + D0320)) + SW1 * SIFM05 * 100 + SW3 * ZIFM05 * 100$
 (-0.354589) (24.19175) (-2.280281) (-3.051189) (-2.063804) (4.092413)
 << RR: 0.988916, RRADJ: 0.984653, STER: 0.083633, D-W: 2.116232 >>

[163] M06 : OLSQ, Sample < 1986-2000 > Import Demand for Sector 6
 $M06 = \exp(-3.116243 + 0.454794 * \log(DD06) - 0.943521 * \log(PM06 / PDD06) + 0.686694 * \log(M06(-1)) - 0.215184 * D97 + 0.357527 * D0320) + SW1 * SIFM06 * 100 + SW3 * ZIFM06 * 100$
 (-4.84914) (5.070972) (-4.796647) (9.407827) (-2.510506) (3.79595)
 << RR: 0.994387, RRADJ: 0.992048, STER: 0.079824, D-W: 2.247955 >>

[164] M07 : OLSQ, Sample < 1986-2003 > Import Demand for Sector 7
 $M07 = \exp(-0.563293 + 0.772629 * \log(DD07) - 1.166931 * \log(PM07 / PDD07) + 0.129215 * \log(M07(-1)) + 0.681628 * D86 + 0.372834 * D0320) + SW1 * SIFM07 * 100 + SW3 * ZIFM07 * 100$
 (-0.448512) (6.605807) (-6.311804) (1.351894) (3.68252) (2.159217)
 << RR: 0.965027, RRADJ: 0.950454, STER: 0.145431, D-W: 1.454041 >>

[165] M08 : OLSQ, Sample < 1986-2003 > Import Demand for Sector 8
 $M08 = \exp(-3.346039 + 0.995627 * \log(DD08) - 0.97037 * \log(PM08 / PDD08) + 0.132324 * \log(M08(-1)) + 0.421153 * D86 + 1.357075 * D91 + 0.323114 * D0320) + SW1 * SIFM08 * 100 + SW3 * ZIFM08 * 100$
 (-3.663096) (12.76234) (-11.0736) (1.85697) (2.772139) (9.057899) (2.392853)
 << RR: 0.983235, RRADJ: 0.97409, STER: 0.113552, D-W: 1.61948 >>

[166] M09 : OLSQ, Sample < 1986-2003 > Import Demand for Sector 9
 $M09 = \exp(-2.666689 + 0.615631 * \log(DD09) - 0.697296 * \log(PM09 / PDD09) + 0.493798 * \log(M09(-1)) + 0.438738 * (D86 + D87) + 0.657116 * D91) + SW1 * SIFM09 * 100 + SW3 * ZIFM09 * 100$
 (-3.007354) (6.342669) (-3.084819) (5.163839) (5.222326) (5.930376)
 << RR: 0.973985, RRADJ: 0.963146, STER: 0.089892, D-W: 1.879926 >>

[167] M11 : OLSQ, Sample < 1986-2003 > Import Demand for Sector 11
 $M11 = \exp(-8.364088 + 1.114545 * \log(M01 + M02 + M03 + M04 + M05 + M06 + M07 + M08 + M09 + M13 + M14 + M15) + 2.182203 * (D85 + D86 + D87 + D88) - 0.955065 * D90 + 0.526532 * (D94 + D95 + D96 + D97 + D98 + D99)) + SW1 * SIFM11 * 100 + SW3 * ZIFM11 * 100$
 (-2.30057) (4.423395) (5.78303) (-1.932524) (2.299613)
 << RR: 0.840948, RRADJ: 0.795504, STER: 0.379354, D-W: 2.017445 >>

[168] M12 : OLSQ, Sample < 1986-2003 > Import Demand for Sector 12
 $M12 = \exp(-11.20653 + 1.53631 * \log(M01 + M02 + M03 + M04 + M05 + M06 + M07 + M08 + M09 + M13 + M14 + M15) - 1.35972 * (D87 + D88 + D89) + 0.652199 * (D94 + D95 + D96 + D97 + D98) - 0.740988 * D0320) + SW1 * SIFM12 * 100 + SW3 * ZIFM12 * 100$
 (-7.30723) (14.03585) (-8.625394) (5.231293) (-2.691217)
 << RR: 0.972715, RRADJ: 0.964919, STER: 0.227536, D-W: 1.600186 >>

[169] M13 Import Demand for Sector 13
 $M13 = RM13 * ECLM / 100$

[170] M14 Import Demand for Sector 14
 $M14 = RM14 * EPLM / 100$

[171] M15 Import Demand for Sector 15

$$M15 = RM15 * EELM / 100$$

[172] MT Import Demand Total

$$MT = M01 + M02 + M03 + M04 + M05 + M06 + M07 + M08 + M09 + M10 + M11 + M12 + M13 + M14 + M15$$

Export Demand by Sector

[173] E11 : OLSQ, Sample < 1986-2003 > Export Demans for Sector 11

$$E11 = 16619.58 + 0.082614 * (E01 + E02 + E03 + E04 + E05 + E06 + E07 + E08 + E09 + E13 + E14 + E15) - 47370.294 * (D87 + D88 + D89) - 61703.77 * D90 - 101267.6 * (D01 + D02) - 275623.4 * D0320$$

(1.467187) (9.050864) (-3.3522) (-2.922486) (-4.281353) (-7.051695)

<< RR: 0.941149, RRADJ: 0.918514, STER: 19686.08, D-W: 1.71198 >>

[174] E12 : OLSQ, Sample < 1986-2003 > Export Demans for Sector 12

$$E12 = \exp(0.198813 + 0.336363 * \log(E01 + E02 + E03 + E04 + E05 + E06 + E07 + E08 + E09 + E13 + E14 + E15) + 0.591184 * \log(M12) + 0.367429 * D87 - 0.430025 * (D01 + D02) - 0.868092 * D0320)$$

(0.319421) (4.535726) (12.03303) (-0.68)

<< RR: 0.991099, RRADJ: 0.987676, STER: 0.094876, D-W: 1.824716 >>

[175] ET Export Demans Total

$$ET = E01 + E02 + E03 + E04 + E05 + E06 + E07 + E08 + E09 + E10 + E11 + E12 + E13 + E14 + E15$$

Output Deflator by Sector

[176] PX01 : OLSQ, Sample < 1985-2003 > Deflator for Output in Sector 1

$$PX01 = \exp(-0.247171 + 1.055458 * \log(PR01) + 0.051586 * (D88 + D89) - 0.079275 * (D91 + D92 + D93))$$

(-6.389826) (118.7451) (4.497545) (-8.519842)

<< RR: 0.999096, RRADJ: 0.998915, STER: 0.014241, D-W: 1.35797 >>

[177] PX02 : OLSQ, Sample < 1986-2000 > Deflator for Output in Sector 2

$$PX02 = \exp(-0.762294 + 0.719649 * \log(PR02) + 0.295614 * \log(WV02) - 0.191672 * D88 - 0.738466 * D89 + 0.169432 * (D91 + D92) - 0.128833 * D94)$$

(-8.453418) (11.03467) (8.272858) (-5.196425) (-20.43106) (5.485782) (-3.506606)

<< RR: 0.998071, RRADJ: 0.997107, STER: 0.033295, D-W: 2.184149 >>

[178] PX03 : OLSQ, Sample < 1986-2000 > Deflator for Output in Sector 3

$$PX03 = \exp(0.264838 + 0.93942 * \log(PR03) - 0.027333 * (D88 + D89 + D90) - 0.033945 * D94 - 0.028629 * D0320)$$

(7.921827) (120.5252) (-3.199136) (-2.567192) (-2.132836)

<< RR: 0.999196, RRADJ: 0.998966, STER: 0.012713, D-W: 1.361792 >>

[179] PX04 : OLSQ, Sample < 1986-2003 > Deflator for Output in Sector 4

$$PX04 = \exp(-0.683277 + 1.131412 * \log(PR04) + 0.92247 * AR(1))$$

(-3.067432) (26.08949) (16.11759)

<< RR: 0.998912, RRADJ: 0.998767, STER: 0.012602, D-W: 1.881237 >>

[180] PX05 : OLSQ, Sample < 1986-2003 > Deflator for Output in Sector 5

$$PX05 = \exp(-1.247591 + 1.134759 * \log(PR05) + 0.973686 * AR(1))$$

(-0.713687) (8.839784) (13.46589)

<< RR: 0.989592, RRADJ: 0.988204, STER: 0.033333, D-W: 2.024504 >>

[181] PX06 : OLSQ, Sample < 1985-2003 > Deflator for Output in Sector 6

$$PX06 = \exp(0.018818 + 0.992819 * \log(PR06) + 0.120863 * D89 + 0.155455 * D93 - 0.075111 * (D00 + D01) - 0.111863 * (D02 + D0320))$$

(0.255535) (56.53633) (3.995895) (5.212849) (-3.207116) (-4.76669)

<< RR: 0.996738, RRADJ: 0.995484, STER: 0.028613, D-W: 1.554083 >>

[182] PX07 : OLSQ, Sample < 1986-2003 > Deflator for Output in Sector 7

$$PX07 = \exp(-0.241075 + 1.023325 * \log(PR07) + 0.182676 * (D93 + D94 + D95))$$

(-2.166604) (38.68583) (5.446479)

<< RR: 0.990924, RRADJ: 0.989789, STER: 0.051553, D-W: 1.148745 >>

[183] PX08 : OLSQ, Sample < 1985-2003 > Deflator for Output in Sector 8

$$PX08 = \exp(1.031734 + 0.774206 * \log(PR08) + 0.103252 * D89 - 0.092211 * (D02 + D0320))$$

(11.82349) (37.74522) (3.097081) (-3.784886)

<< RR: 0.98994, RRADJ: 0.987928, STER: 0.031641, D-W: 1.251909 >>

[184] PX09 : OLSQ, Sample < 1986-2003 > Deflator for Output in Sector 9

$$PX09 = \exp(0.910908 + 0.798666 * \log(PR09) + 0.536673 * AR(1))$$

(3.155611) (12.22709) (2.785813)

<< RR: 0.988402, RRADJ: 0.986855, STER: 0.03397, D-W: 2.007353 >>

[185] PX10 : OLSQ, Sample < 1986-2003 > Deflator for Output in Sector 10

$$PX10 = \exp(-0.008684 + 0.675368 * \log(PR10) + 0.353761 * \log(WV10) + 0.131829 * D85 - 0.076694 * D91)$$

(-0.078998) (14.27161) (13.18016) (4.246828) (-2.698322)

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<< RR: 0.99798, RRADJ: 0.997402, STER: 0.026731, D-W: 2.001875 >>

[186] PX11 : OLSQ, Sample < 1985-2003 > Deflator for Output in Sector 11
 PX11 = exp(0.341201 + 0.917151 * log(PR11) + 0.171253 * (D90 + D91 + D92 + D93 + D94))
 (6.053476) (70.5189) (13.41071)
 << RR: 0.99681, RRADJ: 0.996411, STER: 0.024338, D-W: 1.819645 >>

[187] PX12 : OLSQ, Sample < 1985-2003 > Deflator for Output in Sector 12
 PX12 = exp(0.208921 + 0.833701 * log(PR12) + 0.186094 * log(WV12) + 0.049629 * D91 + 0.076705 * D92)
 (2.781916) (28.2076) (9.083876) (2.25321) (3.645655)
 << RR: 0.998559, RRADJ: 0.998147, STER: 0.019565, D-W: 1.536448 >>

[188] PX13 : OLSQ, Sample < 1986-2003 > Deflator for Output in Sector 13
 PX13 = exp(-0.644766 + 0.620666 * log(PR13) + 0.537652 * log(PX13(-1)) + 0.137456 * D93 - 0.086985 * (D99 + D00))
 (-4.532749) (5.643834) (6.382537) (3.28194) (-2.991188)
 << RR: 0.997033, RRADJ: 0.99612, STER: 0.035456, D-W: 1.954705 >>

[189] PX14 : OLSQ, Sample < 1986-2003 > Deflator for Output in Sector 14
 PX14 = exp(-0.36831 + 0.2017 * log(PM14) + 0.89196 * log(PX(-1)) + 0.362401 * (D93 + D94) + 0.154127 * (D00 - D01)
 (-1.596351) (2.173693) (16.72949) (6.259733) (2.749188)
 << RR: 0.994055, RRADJ: 0.992226, STER: 0.076045, D-W: 2.861255 >>

[190] PX15 : OLSQ, Sample < 1986-2003 > Deflator for Output in Sector 15
 PX15 = exp(-0.265795 + 0.368468 * log(PR15) + 0.705484 * log(PX15(-1)) + 0.151591 * (D93 + D94))
 (-3.024778) (5.117496) (12.54334) (4.973041)
 << RR: 0.998216, RRADJ: 0.997834, STER: 0.029025, D-W: 1.399627 >>

[191] PXT Deflator for Output Total
 PXT = XVT / XT * 100

Export Deflator by Sector

[192] PE01 : OLSQ, Sample < 1985-2003 > Deflator for Export in Sector 1
 PE01 = exp(-0.013835 + 0.938664 * log(PX01) - 0.534855 * D85 + 0.280593 * (D94 + D95) - 0.205443 * (D00 + D01 + D02 + D0320))
 (-0.065954) (18.54104) (-6.600858) (4.880322) (-4.360403)
 << RR: 0.983089, RRADJ: 0.978257, STER: 0.070685, D-W: 1.923094 >>

[193] PE02 : OLSQ, Sample < 1985-2003 > Deflator for Export in Sector 2
 PE02 = exp(0.839682 + 0.804743 * log(PX02) + 0.469777 * D89 - 0.169085 * D92 - 0.34705 * D93)
 (6.679667) (28.16451) (6.078256) (-2.504501) (-5.154164)
 << RR: 0.984947, RRADJ: 0.980646, STER: 0.065304, D-W: 1.195838 >>

[194] PE03 : OLSQ, Sample < 1985-2003 > Deflator for Export in Sector 3
 PE03 = exp(-0.286049 + 1.071791 * log(PX03) + 0.200888 * D92 - 0.218888 * D93 - 0.2355 * (D00 + D01 + D02 + D0320))
 (-1.191423) (18.67809) (2.224638) (-2.437221) (-4.330778)
 << RR: 0.963563, RRADJ: 0.953152, STER: 0.086536, D-W: 2.090168 >>

[195] PE04 Deflator for Export in Sector 4
 PE04 = PX04

[196] PE05 Deflator for Export in Sector 5
 PE05 = PX05

[197] PE06 Deflator for Export in Sector 6
 PE06 = PX06

[198] PE07 : OLSQ, Sample < 1985-2003 > Deflator for Export in Sector 7
 PE07 = exp(0.647965 + 0.293862 * PDL(log(PX07), 2, 1, 2) + 0.174331 * D85 - 0.199716 * D93)
 (9.908362) (55.81702) (4.750338) (-6.004715)
 << RR: 0.995805, RRADJ: 0.994966, STER: 0.032266, D-W: 2.154307 >>

[199] PE08 : OLSQ, Sample < 1985-2003 > Deflator for Export in Sector 8
 PE08 = exp(2.105866 + 0.531281 * log(PX08) + 0.171085 * (D90 + D91 - D92 - 93) - 0.167705 * (D98 + D99 + D00 + D01 + D02 + D0320))
 (10.63854) (11.39138) (6.658862) (-6.020072)
 << RR: 0.912261, RRADJ: 0.894714, STER: 0.050787, D-W: 1.845838 >>

[200] PE09 : OLSQ, Sample < 1985-2003 > Deflator for Export in Sector 9
 PE09 = exp(-0.835364 + 1.192354 * log(PX09) + -0.313314 * (D87 + D88 + D89 + D90) - 0.228047 * D93)
 (-3.399693) (21.28694) (-6.973094) (-3.077745)
 << RR: 0.980951, RRADJ: 0.977142, STER: 0.071581, D-W: 1.755236 >>

[201] PE11 Deflator for Export in Sector 11
 PE11 = PX11

[202] PE12 Deflator for Export in Sector 12
PE12 = PX12

[203] PE13 : OLSQ, Sample < 1985-2003 > Deflator for Export in Sector 13
PE13 = exp(2.162022 + 0.47181 * log(PX13) + 0.21762 * (D90 + D91 + D92) + 0.241573 * (D94 + D95 + D96 + D97))
(17.5744) (16.31263) (5.053915) (6.114634)
<< RR: 0.965568, RRADJ: 0.958682, STER: 0.064478, D-W: 2.352136 >>

[204] PE14 : OLSQ, Sample < 1985-2003 > Deflator for Export in Sector 14
PE14 = exp(1.78617 + 0.629667 * log(PX14) + 0.307258 * (D90 + D91 + D92) - 0.280582 * (D98 + D99))
(12.52426) (18.63296) (3.929059) (-3.138572)
<< RR: 0.959557, RRADJ: 0.951468, STER: 0.115441, D-W: 2.393751 >>

[205] PE15 Deflator for Export in Sector 15
PE15 = PX15

[206] PET Deflator for Export Total
PET = EVT / ET * 100

Import Deflator by Sector

[207] PM01 : OLSQ, Sample < 1986-2003 > Deflator for Import in Sector 1
PM01 = exp(-6.920303 + 1.010455 * log(PMGD * EXR) + 0.347149 * D85 - 0.244701 * D91 + 0.121799 * (D96 + D97 + D98 + D99))
(-11.4081) (18.08167) (3.376658) (-2.759226) (2.246859)
<< RR: 0.974591, RRADJ: 0.967332, STER: 0.085441, D-W: 2.209585 >>

[208] PM02 : OLSQ, Sample < 1985-2003 > Deflator for Import in Sector 2
PM02 = exp(-6.909589 + 1.026188 * log(PMGD * EXR) + 0.294694 * (D02 + D0320))
(-13.69714) (22.08615) (4.305153)
<< RR: 0.973426, RRADJ: 0.970104, STER: 0.088875, D-W: 0.989807 >>

[209] PM03 : OLSQ, Sample < 1985-2003 > Deflator for Import in Sector 3
PM03 = exp(-4.469913 + 0.969039 * log(PMGD) + 0.682036 * log(EXR) + 0.103736 * D88 - 0.105902 * D99)
(-15.79436) (11.09944) (17.22666) (2.303648) (-2.530135)
<< RR: 0.989769, RRADJ: 0.986846, STER: 0.040078, D-W: 1.654391 >>

[210] PM04 : OLSQ, Sample < 1985-2003 > Deflator for Import in Sector 4
PM04 = exp(-4.494191 + 0.989047 * log(PMGD) + 0.67181 * log(EXR) + 0.108816 * D88 - 0.066491 * (D99 + D00 + D01 + D02 + D0320))
(-18.25635) (13.60286) (19.58446) (2.899086) (-3.419395)
<< RR: 0.992469, RRADJ: 0.990317, STER: 0.033376, D-W: 1.882243 >>

[211] PM05 : OLSQ, Sample < 1985-2003 > Deflator for Import in Sector 5
PM05 = exp(-4.324847 + 0.812074 * log(PMGD) + 0.764324 * log(EXR) - 0.146476 * (D87 - D88))
(-14.43424) (8.556922) (16.85764) (-4.439331)
<< RR: 0.986755, RRADJ: 0.984106, STER: 0.04643, D-W: 2.502087 >>

[212] PM06 : OLSQ, Sample < 1985-2003 > Deflator for Import in Sector 6
PM06 = exp(-4.34599 + 0.81059 * log(PMGD) + 0.768877 * log(EXR) - 0.146255 * (D87 - D88))
(-14.20656) (8.365657) (16.60938) (-4.341496)
<< RR: 0.986294, RRADJ: 0.983553, STER: 0.047405, D-W: 2.442932 >>

[213] PM07 : OLSQ, Sample < 1986-2003 > Deflator for Import in Sector 7
PM07 = exp(-5.539891 + 1.052394 * log(PMGD) + 0.602415 * log(EXR) + 0.286286 * log(PM07(-1)) + 0.285666 * (D88 + D89 + D90 + D91))
(-6.677446) (6.686313) (4.27606) (3.367869) (5.970306)
<< RR: 0.976968, RRADJ: 0.969881, STER: 0.069488, D-W: 2.166966 >>

[214] PM08 : OLSQ, Sample < 1986-2003 > Deflator for Import in Sector 8
PM08 = exp(-4.023749 + 0.684906 * log(PMGD * EXR) + 0.205509 * log(PM08(-1)) - 1.068507 * (D88 + D89) - 0.819975 * (D91 + D92 + D93) - 0.23729 * (D00 + D01 + D02 + D0320))
(-2.599315) (4.353036) (2.337716) (-6.782918) (-6.525937) (-2.159531)
<< RR: 0.957181, RRADJ: 0.93934, STER: 0.174124, D-W: 2.65113 >>

[215] PM09 : OLSQ, Sample < 1985-2003 > Deflator for Import in Sector 9
PM09 = exp(-5.892362 + 0.730728 * log(PMGD) + 1.017779 * log(EXR) - 0.258086 * D91 + 0.285247 * D95 + 0.098266 * (D00 + D01 + D02 + D0320))
(-15.60403) (6.495333) (19.25559) (-4.66084) (4.930165) (2.984689)
<< RR: 0.991491, RRADJ: 0.988218, STER: 0.051958, D-W: 1.341273 >>

[216] PM11 : OLSQ, Sample < 1986-2003 > Deflator for Import in Sector 11
PM11 = exp(-2.269818 + 0.391523 * log(PMGD * EXR) + 0.540567 * log(PM11(-1)) + 0.143873 * D90 + 0.134813 * D93)
(-2.526165) (2.89096) (3.874621) (2.760504) (2.922463)
<< RR: 0.99123, RRADJ: 0.988532, STER: 0.040421, D-W: 1.569649 >>

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[217] PM12 : OLSQ, Sample < 1986-2003 > Deflator for Import in Sector 12
 $PM12 = \exp(-2.145646 + 0.329912 * \log(PMGD * EXR) + 0.673583 * \log(PM12(-1))) + 0.072702 * (D88 + D89) - 0.113604 * D90$
 (-7.613105) (8.921337) (20.30253) (3.762441) (-4.819583)
 << RR: 0.998042, RRADJ: 0.997439, STER: 0.021795, D-W: 1.163821 >>

[218] PM13 : OLSQ, Sample < 1986-2003 > Deflator for Import in Sector 13
 $PM13 = \exp(-2.539431 + 0.482309 * \log(PMGD * EXR) + 0.341912 * \log(PM13(-1)) - 0.216423 * D93 + 0.194834 * (D95 + D96 + D97))$
 (-3.287784) (5.000004) (4.060082) (-2.874506) (3.821051)
 << RR: 0.974547, RRADJ: 0.966715, STER: 0.072717, D-W: 1.762201 >>

[219] PM14 : OLSQ, Sample < 1985-2003 > Deflator for Import in Sector 14
 $PM14 = \exp(-6.717 + 0.999067 * \log(PMOILD * EXR) - 0.103079 * (D90 + D91 + D92) - 0.331179 * D93 - 0.240245 * (D87 + D88 + D89))$
 (-38.55861) (65.03483) (-6.5309) (-13.40048) (-13.36315)
 << RR: 0.998167, RRADJ: 0.997643, STER: 0.023681, D-W: 2.490611 >>

[220] PM15 : OLSQ, Sample < 1986-2003 > Deflator for Import in Sector 15
 $PM15 = \exp(-1.542248 + 0.198255 * \log(PMGD * EXR) + 0.866234 * \log(PM15(-1)) + 0.211281 * (D93 + D94) + 0.067881 * D97)$
 (-5.961919) (6.531511) (44.10336) (11.43379) (2.917439)
 << RR: 0.999052, RRADJ: 0.998761, STER: 0.021953, D-W: 2.986904 >>

[221] PMT Deflator for Import Total
 $PMT = MVT / MT * 100$

Value Added by Sector

[222] VV01 : OLSQ, Sample < 1985-2003 > Value Added for Sector 1
 $VV01 = \exp(0.895061 + 0.90278 * \log(XV01) + 0.017744 * (D96 + D97 + D98))$
 (42.3111) (596.1973) (5.768575)
 << RR: 0.999962, RRADJ: 0.999957, STER: 0.00452, D-W: 2.342299 >>

[223] VV02 : OLSQ, Sample < 1985-2003 > Value Added for Sector 2
 $VV02 = \exp(0.907975 + 0.856822 * \log(XV02) - 0.320423 * D91 + 0.141229 * D93)$
 (6.208894) (69.28404) (-5.764881) (2.542941)
 << RR: 0.996983, RRADJ: 0.996379, STER: 0.053784, D-W: 1.763108 >>

[224] VV03 : OLSQ, Sample < 1985-2003 > Value Added for Sector 3
 $VV03 = \exp(-2.261096 + 1.078467 * \log(XV03) - 0.355368 * D91 + 0.202013 * (D94 + D95))$
 (-6.50329) (41.32718) (-3.507899) (2.701612)
 << RR: 0.99202, RRADJ: 0.990424, STER: 0.098068, D-W: 1.377701 >>

[225] VV04 : OLSQ, Sample < 1985-2003 > Value Added for Sector 4
 $VV04 = \exp(-1.491249 + 1.010918 * \log(XV04) + 0.440339 * AR(1))$
 (-2.130834) (19.63737) (1.728046)
 << RR: 0.986516, RRADJ: 0.98483, STER: 0.117924, D-W: 1.946357 >>

[226] VV05 : OLSQ, Sample < 1985-2003 > Value Added for Sector 5
 $VV05 = \exp(-0.043211 + 0.907772 * \log(XV05) + 0.079135 * D01 + 0.17542 * D03)$
 (-0.451933) (126.7755) (2.549648) (5.63063)
 << RR: 0.999253, RRADJ: 0.999104, STER: 0.028717, D-W: 1.861104 >>

[227] VV06 : OLSQ, Sample < 1985-2003 > Value Added for Sector 6
 $VV06 = \exp(0.146765 + 0.906582 * \log(XV06) - 0.368976 * D91 + 0.190951 * (D02 + D0320))$
 (0.961274) (75.39542) (-7.394814) (4.899315)
 << RR: 0.997871, RRADJ: 0.997445, STER: 0.048397, D-W: 1.791551 >>

[228] VV07 : OLSQ, Sample < 1985-2003 > Value Added for Sector 7
 $VV07 = \exp(2.062902 + 0.746853 * \log(XV07) + 1.840122 * \log(PX07 / PR07))$
 (7.619861) (36.99009) (5.705) (7.747263)
 << RR: 0.990575, RRADJ: 0.989396, STER: 0.084729, D-W: 1.142105 >>

[229] VV08 : OLSQ, Sample < 1985-2003 > Value Added for Sector 8
 $VV08 = \exp(0.0134070 + 0.907633 * \log(XV08) + 1.456322 * D91)$
 (0.113471) (109.511) (33.00585)
 << RR: 0.998698, RRADJ: 0.998535, STER: 0.038583, D-W: 1.063094 >>

[230] VV09 : OLSQ, Sample < 1985-2003 > Value Added for Sector 9
 $VV09 = \exp(-1.488837 + 1.029615 * \log(XV09) + 0.216703 * D91 - 0.238613 * (D92 + D93 + D94 + D95))$
 (-7.672486) (68.44245) (3.286343) (-6.85258)
 << RR: 0.99697, RRADJ: 0.996364, STER: 0.06135, D-W: 1.013104 >>

[231] VV10 : OLSQ, Sample < 1985-2003 > Value Added for Sector 10
 $VV10 = \exp(-1.046046 + 0.984854 * \log(XV10) - 0.10116 * (D85 + D86) - 0.252947 * (D01 + D02 + D0320))$
 (-6.335401) (81.08888) (-3.033058) (-8.554048)
 << RR: 0.998837, RRADJ: 0.998605, STER: 0.037395, D-W: 1.729099 >>

[232] VV11 : OLSQ, Sample < 1985-2003 > Value Added for Sector 11
 $VV11 = \exp(-0.546799 + 0.994924 * \log(XV11) + 0.731678 * AR(1))$
 (-1.303739) (33.46243) (3.406197)
 << RR: 0.999392, RRADJ: 0.999315, STER: 0.028296, D-W: 1.025942 >>

[233] VV12 : OLSQ, Sample < 1985-2003 > Value Added for Sector 12
 $VV12 = \exp(0.534172 + 0.915277 * \log(XV12) + 0.075971 * (D88 + D89 + D90))$
 (5.609531) (136.6685) (4.284497)
 << RR: 0.999234, RRADJ: 0.999138, STER: 0.026381, D-W: 1.033304 >>

[234] VV13 : OLSQ, Sample < 1986-2003 > Value Added for Sector 13
 $VV13 = \exp(1.799395 + 0.782636 * \log(XV13) + 0.976779 * \log(PX13 / PR13) + 0.499809 * AR(1))$
 (1.712668) (8.861752) (2.59366) (2.394028)
 << RR: 0.992931, RRADJ: 0.991416, STER: 0.072019, D-W: 1.220408 >>

[235] VV14 : OLSQ, Sample < 1985-2003 > Value Added for Sector 14
 $VV14 = \exp(2.425166 + 0.747022 * \log(XV14) + 0.525423 * \log(PX14 / PR14) - 0.262192 * D89 - 0.203677 * D94)$
 (3.533225) (14.05316) (3.067748) (-3.598527) (-2.884583)
 << RR: 0.996298, RRADJ: 0.99524, STER: 0.068287, D-W: 1.440455 >>

[236] VV15 : OLSQ, Sample < 1985-2003 > Value Added for Sector 15
 $VV15 = \exp(0.233937 + 0.918784 * \log(XV15) - 0.532747 * D86)$
 (1.372905) (66.36645) (-7.148829)
 << RR: 0.997229, RRADJ: 0.996882, STER: 0.066475, D-W: 1.568594 >>

[237] VVT Value Added Total
 $VVT = VV01 + VV02 + VV03 + VV04 + VV05 + VV06 + VV07 + VV08 + VV09 + VV10 + VV11 + VV12 + VV13 + VV14 + VV15$

Per-Worker Wage Income by Sector

[238] WV01 : OLSQ, Sample < 1985-2003 > Wage Income per Worker for Sector 1
 $WV01 = \exp(-0.008625 + 0.883973 * \log(WVT) + 0.563013 * AR(1))$
 (-0.051041) (19.131988) (2.564455)
 << RR: 0.992517, RRADJ: 0.991581, STER: 0.06129, D-W: 1.959552 >>

[239] WV02 : OLSQ, Sample < 1985-2003 > Wage Income per Worker for Sector 2
 $WV02 = \exp(2.989538 + 1.082694 * \log(WVT) + 0.227836 * D85 + 0.149235 * (D93 + D94 + D95) + 0.21555 * (D02 + D0320))$
 (36.9565) (46.37381) (3.374714) (3.853451) (4.162189)
 << RR: 0.995782, RRADJ: 0.994577, STER: 0.060445, D-W: 1.690708 >>

[240] WV03 : OLSQ, Sample < 1985-2003 > Wage Income per Worker for Sector 3
 $WV03 = \exp(0.062042 + 1.032054 * \log(WV03(-1) / WVT(-1)) - 0.444144 * (D91 + D92) + 0.321095 * D96 + \log(WVT))$
 (0.900255) (21.67516) (-5.63474) (2.926503)
 << RR: 0.973069, RRADJ: 0.967683, STER: 0.104245, D-W: 1.540214 >>

[241] WV04 : OLSQ, Sample < 1985-2003 > Wage Income per Worker for Sector 4
 $WV04 = \exp(-0.127563 + 0.547961 * \log(WVT) + 0.651242 * \log(WV04(-1)) - 0.237151 * (D91 + D92))$
 (-2.141063) (9.65883) (17.76236) (-6.604757)
 << RR: 0.998717, RRADJ: 0.998461, STER: 0.045233, D-W: 2.478859 >>

[242] WV05 : OLSQ, Sample < 1985-2003 > Wage Income per Worker for Sector 5
 $WV05 = \exp(-0.189162 + 0.702855 * \log(WVT) + 0.552119 * \log(WV05(-1)) - 0.317452 * D192 - 0.242011 * D97)$
 (-2.233756) (8.017409) (9.564487) (-4.473935) (-3.380779)
 << RR: 0.997227, RRADJ: 0.996435, STER: 0.067624, D-W: 2.303276 >>

[243] WV06 : OLSQ, Sample < 1985-2003 > Wage Income per Worker for Sector 6
 $WV06 = \exp(0.245936 + 0.7471 * \log(WVT) + 0.453771 * \log(WV06(-1)) - 0.199468 * D92 + 0.404081 * D96)$
 (2.830462) (5.721425) (4.984415) (-2.52) (4.749) (0.932)
 << RR: 0.996006, RRADJ: 0.994865, STER: 0.075004, D-W: 1.928795 >>

[244] WV07 : OLSQ, Sample < 1985-2003 > Wage Income per Worker for Sector 7
 $WV07 = \exp(-0.703858 + 1.566696 * \log(WVT) - 0.380772 * (D96 + D97 + D98))$
 (-5.862708) (44.55254) (3.955) (-5.471679)
 << RR: 0.992497, RRADJ: 0.991559, STER: 0.103073, D-W: 2.288073 >>

[245] WV08 : OLSQ, Sample < 1985-2003 > Wage Income per Worker for Sector 8
 $WV08 = \exp(-0.264139 + 0.688941 * \log(WVT) + 0.57883 * \log(WV08(-1)) - 0.18255 * D92 - 0.219622 * D97)$
 (-3.373225) (8.086879) (10.76448) (-3.113788) (-3.685368)
 << RR: 0.998255, RRADJ: 0.997756, STER: 0.055635, D-W: 2.067938 >>

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[246] WV09 : OLSQ, Sample < 1985-2003 > Wage Income per Worker for Sector 9
WV09 = exp(-0.077876 + 0.421599 * log(WVT) + 0.699304 * log(WV09(-1)) + 0.847232 * D96)
(-0.586877) (2.862465) (7.086122) (6.688476)
<< RR: 0.994239, RRADJ: 0.993087, STER: 0.091192, D-W: 1.834367 >>

[247] WV10 : OLSQ, Sample < 1985-2003 > Wage Income per Worker for Sector 10
WV10 = exp(0.485271 + 0.558828 * log(WVT) + 0.401247 * log(WV10(-1)) - 0.231071 * D85 + 0.197944 * D93)
(5.313013) (3.966922) (2.915829) (-3.198846) (2.86753)
<< RR: 0.99426, RRADJ: 0.99262, STER: 0.063588, D-W: 1.442217 >>

[248] WV11 : OLSQ, Sample < 1985-2003 > Wage Income per Worker for Sector 11
WV11 = exp(0.449038 + 0.439458 * log(WVT) + 0.593336 * log(WV11(-1)) + 0.122188 * D85 + 0.149009 * (D93 + D94))
(5.668859) (7.219396) (9.806366) (3.728962) (6.913253)
<< RR: 0.999038, RRADJ: 0.998763, STER: 0.026179, D-W: 1.486303 >>

[249] WV12 : OLSQ, Sample < 1985-2003 > Wage Income per Worker for Sector 12
WV12 = exp(-0.086116 + 0.853347 * log(WVT) + 0.124437 * (D85 + D86 + D87) - 0.308347 * D90)
(-0.937328) (34.7299) (2.599158) (-4.818691)
<< RR: 0.992756, RRADJ: 0.9913083, STER: 0.058502, D-W: 1.668249 >>

[250] WV13 : OLSQ, Sample < 1985-2003 > Wage Income per Worker for Sector 13
WV13 = exp(0.064704 + 0.773093 * log(WVT) + 0.39025 * log(WV13(-1)) - 0.101113 * D92 + 0.114696 * (D02 + D0320))
(1.364191) (11.2968) (7.275902) (-2.505838) (3.38327)
<< RR: 0.998821, RRADJ: 0.998484, STER: 0.037768, D-W: 2.687481 >>

[251] WV14 : OLSQ, Sample < 1985-2003 > Wage Income per Worker for Sector 14
WV14 = exp(1.192558 + 0.146971 * log(WVT) + 0.68951 * log(WV14(-1)) - 0.536007 * D91 - 1.572332 * D92)
(6.248879) (3.395256) (14.001) (-4.7086553) (-14.3992)
<< RR: 0.980958, RRADJ: 0.975517, STER: 0.10403, D-W: 2.379308 >>

[252] WV15 : OLSQ, Sample < 1985-2003 > Wage Income per Worker for Sector 15
WV15 = exp(-0.813657 + 1.556607 * log(WVT) + 0.613643 * (D85 + D86) - 0.363176 * (D94 + D95 + D96))
(-5.810185) (40.12717) (3.025) (6.753562) (-5.403483)
<< RR: 0.991857, RRADJ: 0.991857, STER: 0.104955, D-W: 2.48195 >>

Labor Input by Sector

[253] LE01 : OLSQ, Sample < 1985-2003 > Number of Labor Engaged in Sector 1
LE01 = LET - (LE02 + LE03 + LE04 + LE05 + LE06 + LE07 + LE08 + LE09 + LE10 + LE11 + LE12 + LE13 + LE14 + LE15)

[254] LE02 : OLSQ, Sample < 1985-2003 > Number of Labor Engaged in Sector 2
LE02 = exp(0.048595 + 0.036219 * log(X02) + 0.873299 * log(LE02(-1)) + 0.063688 * D95 - 0.145158 * D02)
(0.25036) (1.509276) (22.69294) (2.226778) (-4.949543)
<< RR: 0.992856, RRADJ: 0.990815, STER: 0.027357, D-W: 2.836145 >>

[255] LE03 : OLSQ, Sample < 1985-2003 > Number of Labor Engaged in Sector 3
LE03 = exp(-1.552923 - 0.183665 * log(WV03 / PX03) + 0.790723 * log(LE03(-1) / X03(-1)) - 0.326218 * D91 - 0.456984 * D94) * X03
(-2.497652) (-3.198449) (9.263279) (-3.572936) (-5.000694)
<< RR: 0.98616, RRADJ: 0.982206, STER: 0.0868, D-W: 1.392857 >>

[256] LE04 : OLSQ, Sample < 1985-2003 > Number of Labor Engaged in Sector 4
LE04 = exp(-3.066742 - 0.463487 * log(WV04 / PX04) + 0.549116 * log(LE04(-1) / X04(-1)) + 0.336188 * D91 - 0.561866 * D92 - 0.805129 * D94) * X04
(-3.230622) (-3.77811) (3.923102) (-5.11) (-6.61)
<< RR: 0.987846, RRADJ: 0.983171, STER: 0.103173, D-W: 1.722085 >>

[257] LE05 : OLSQ, Sample < 1985-2003 > Number of Labor Engaged in Sector 5
LE05 = exp(-3.958778 - 0.573849 * log(WV05 / PX05) + 0.43435 * log(LE05(-1) / X05(-1)) - 0.325114 * D92 - 0.500977 * D94) * X05
(-4.140793) (-4.517154) (3.133502) (-3.159735) (-5.605456)
<< RR: 0.992016, RRADJ: 0.989735, STER: 0.083057, D-W: 1.802497 >>

[258] LE06 : OLSQ, Sample < 1985-2003 > Number of Labor Engaged in Sector 6
LE06 = exp(-2.187582 - 0.476026 * log(WV06 / PX06) + 0.650183 * log(LE06(-1) / X06(-1)) - 0.530668 * D91 - 0.785794 * D94) * X06
(-5.84751) (-7.886508) (11.26482) (-7.25371) (-10.66695)
<< RR: 0.993734, RRADJ: 0.991944, STER: 0.069608, D-W: 1.519191 >>

[259] LE07 : OLSQ, Sample < 1985-2003 > Number of Labor Engaged in Sector 7
LE07 = exp(-2.734163 - 0.398089 * log(WV07 / PX07) + 0.617955 * log(LE07(-1) / X07(-1)) - 0.247752 * D92 - 0.348464 * D94 + 0.095487 * (D95 + D96 + D97)) * X07
(-2.73799) (-3.478519) (4.363228) (-2.889587) (-4.631478) (2.061912)
<< RR: 0.990441, RRADJ: 0.986765, STER: 0.071988, D-W: 1.347744 >>

[260] LE08 : OLSQ, Sample < 1985-2003 > Number of Labor Engaged in Sector 8
 LE08 = exp(9.636454 -1.1005 * log(X08) + 0.134247 * log(LE08(-1) / X08(-1)) - 0.211831 * (D85 + D86 + D87) + 0.20176 * D94 + 0.2767 * (D95 + D96 + D97)) * X08
 (40.30432) (-46.66604) (6.539971) (-5.807136) (3.698764) (8.422974)
 << RR: 0.9986659, RRADJ: 0.998151, STER: 0.050282, D-W: 2.540424 >>

[261] LE09 : OLSQ, Sample < 1985-2003 > Number of Labor Engaged in Sector 9
 LE09 = exp(-1.610653 - 0.256974 * log(WV09 / PX09) + 0.768768 * log(LE09(-1) / X09(-1)) + 0.621745 * (D91 - D92 + D93 - D94)) * X09
 (-2.167721) (-2.232908) (6.693718) (10.08111)
 << RR: 0.98733, RRADJ: 0.984796, STER: 0.108759, D-W: 1.039446 >>

[262] LE10 : OLSQ, Sample < 1985-2003 > Number of Labor Engaged in Sector 10
 LE10 = exp(0.556149 + 0.188967 * log(X10) - 0.161181 * log(WV10 / PX10) + 0.596846 * log(LE10(-1)) - 0.049793 * D89 + 0.062478 * D93)
 (1.558669) (6.911493) (-3.401668) (11.09032) (-2.579813) (3.391817)
 << RR: 0.994971, RRADJ: 0.993037, STER: 0.017148, D-W: 2.287146 >>

[263] LE11 : OLSQ, Sample < 1985-2003 > Number of Labor Engaged in Sector 11
 LE11 = exp(2.06988 + 0.065321 * log(X11) + 0.603478 * log(LE11(-1)) + 0.042064 * (D94 + D95 + D96 + D97))
 (8.734622) (4.562601) (10.89667) (4.762228)
 << RR: 0.992853, RRADJ: 0.991424, STER: 0.015042, D-W: 2.442322 >>

[264] LE12 : OLSQ, Sample < 1985-2003 > Number of Labor Engaged in Sector 12
 LE12 = exp(4.935247 + 0.356098 * log(X12) - 0.034028 * (D85 + D86 + D87 + D88 + D89) * log(X12))
 (10.66795) (11.20508) (-12.01834)
 << RR: 0.980965, RRADJ: 0.978585, STER: 0.055176, D-W: 1.440949 >>

[265] LE13 : OLSQ, Sample < 1985-2003 > Number of Labor Engaged in Sector 13
 LE13 = exp(- 2.076023 - 0.388674 * log(WV13 / PX13) + 0.64503 * log(LE13(-1) / X13(-1)) - 0.20085 * D94 + 0.134245 * D01) * X13
 (-3.902709) (-5.3087) (6.938192) (-3.651978) (2.270784)
 << RR: 0.98549, RRADJ: 0.981344, STER: 0.052573, D-W: 2.733069 >>

[266] LE14 : OLSQ, Sample < 1985-2003 > Number of Labor Engaged in Sector 14
 LE14 = exp(1.529851 - 0.122972 * log(X14) + 0.998317 * log(LE14(-1) / X14(-1)) + 0.255403 * D93 + 0.206669 * D95 - 0.123748 * (D98 + D99 + D00)) * X14
 (1.264846) (-1.041067) (8.252136) (2.739432) (2.172349) (-1.932152)
 << RR: 0.922575, RRADJ: 0.892796, STER: 0.089891, D-W: 2.295469 >>

[267] LE15 : OLSQ, Sample < 1985-2003 > Number of Labor Engaged in Sector 15
 LE15 = exp(0.232207 + 0.011758 * log(X15) + 0.936788 * log(LE15(-1)) + 0.02525 * D90 + 0.045622 * D94 - 0.032817 * (D98 + D99 + D00 + D01))
 (4.203857) (0.746287) (25.80107) (2.320323) (4.226019) (-4.788984)
 << RR: 0.998859, RRADJ: 0.99842, STER: 0.010303, D-W: 2.237883 >>

[268] LET : OLSQ, Sample < 1985-2003 > Total Number of Labor Engaged
 LET = exp(0.504137 + 0.953141 * log(LF) + 0.006633 * (D90 + D91 + D92 + D93 + D94 + D95 + D96 + D97))
 (15.8686) (331.8798) (8.504787)
 << RR: 0.999865, RRADJ: 0.999848, STER: 0.00163, D-W: 2.490348 >>

Depreciation by Sector

[269] DPV01 : OLSQ, Sample < 1985-2003 > Fixed Assets Depreciation in Sector 1
 DPV01 = exp(-4.900573 + 1.074197 * log(XV01) + 0.293368 * (D85 + D86) - 0.228485 * D90)
 (13.2472) (41.445) (4.740504) (-3.215957)
 << RR: 0.993969, RRADJ: 0.992763, STER: 0.066579, D-W: 1.943513 >>

[270] DPV02 : OLSQ, Sample < 1985-2003 > Fixed Assets Depreciation in Sector 2
 DPV02 = exp(0.366435 + 0.744385 * log(XV02) - 0.219443 * (D90 + D91 + D92) + 0.271093 * (D92 + D93 + D94 + D95 + D96))
 (2.268862) (54.28106) (-5.888094) (8.845608)
 << RR: 0.99592, RRADJ: 0.995104, STER: 0.057495, D-W: 1.99616 >>

[271] DPV03 : OLSQ, Sample < 1985-2003 > Fixed Assets Depreciation in Sector 3
 DPV03 = exp(-2.10685 + 0.393882 * log(XV03) + 0.69656 * log(DPV03(-1)) + 0.370852 * D94 - 0.40497 * D95)
 (-2.751145) (3.390273) (8.435671) (4.497696) (-5.595866)
 << RR: 0.997517, RRADJ: 0.996808, STER: 0.069474, D-W: 1.482499 >>

[272] DPV04 : OLSQ, Sample < 1985-2003 > Fixed Assets Depreciation in Sector 4
 DPV04 = exp(- 10.4106 + 1.458845 * log(XV04) - 0.40307 * D93 - 0.389801 * D95 + 0.220056 * (D00 + D01 + D02 + D0320))
 (-19.79487) (38.345) (5.484) (-5.90) (1.539)
 << RR: 0.99444, RRADJ: 0.992851, STER: 0.098722, D-W: 2.216371 >>

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[273] DPV05 : OLSQ, Sample < 1985-2003 > Fixed Assets Depreciation in Sector 5
 $DPV05 = \exp(-2.658998 + 0.969008 * \log(XV05) + 0.088691 * (D92 + D93) + 0.190153 * (D02 + D0320))$
 (-15.34056) (74.87707) (2.269935) (4.481248)
 << RR: 0.997899, RRADJ: 0.997479, STER: 0.051632, D-W: 1.574537 >>

[274] DPV06 : OLSQ, Sample < 1985-2003 > Fixed Assets Depreciation in Sector 6
 $DPV06 = \exp(-2.451268 + 0.964084 * \log(XV06) + 0.237135 * (D85 + D86) - 0.339797 * D91 + 0.155868 * (DD01 + D0320))$
 (-9.343548) (47.44347) (3.835478) (-4.941738) (2.904974)
 << RR: 0.996387, RRADJ: 0.995355, STER: .1308143, D-W: 1.58097 >>

[275] DPV07 : OLSQ, Sample < 1986-2003 > Fixed Assets Depreciation in Sector 7
 $DPV07 = \exp(-3.030606 + 0.995932 * \log(XV07) + 0.696027 * AR(1))$
 (-2.535377) (11.20222) (3.6933)
 << RR: 0.988042, RRADJ: 0.986547, STER: 0.114224, D-W: 1.185227 >>

[276] DPV08 : OLSQ, Sample < 1985-2003 > Fixed Assets Depreciation in Sector 8
 $DPV08 = \exp(-2.813235 + 0.9619567 * \log(XV08) + 1.568256 * D91 + 0.218241 * (D00 + D01 + D02 + D0320))$
 (-14.26846) (67.91073) (26.06145) (5.840884)
 << RR: 0.998261, RRADJ: 0.997913, STER: 0.0515, D-W: 0.808387 >>

[277] DPV09 : OLSQ, Sample < 1985-2003 > Fixed Assets Depreciation in Sector 9
 $DPV09 = \exp(-2.515269 + 0.927803 * \log(XV09) - 0.219932 * (D90 + D01 + D02 + D0320))$
 (-2.389226) (11.07434) (-15.22985)
 << RR: 0.93787, RRADJ: 0.930104, STER: 0.29518, D-W: 1.002075 >>

[278] DPV10 : OLSQ, Sample < 1986-2003 > Fixed Assets Depreciation in Sector 10
 $DPV10 = \exp(-2.298963 + 0.877862 * \log(XV10) + 0.142609 * (D92 + D93) + 0.126587 * (D99 + D00 + D01))$
 (-16.89483) (87.15283) (-1.58)
 << RR: 0.998447, RRADJ: 0.998137, STER: 0.040645, D-W: 2.303806 >>

[279] DPV11 : OLSQ, Sample < 1986-2003 > Fixed Assets Depreciation in Sector 11
 $DPV11 = \exp(-2.815201 + 1.03288 * \log(XV11) - 0.278186 * (D91 + D92 + D93 + D94))$
 (-15.56858) (77.92882) (-4.27) (-8.023771)
 << RR: 0.997394, RRADJ: 0.997068, STER: 0.061606, D-W: 1.724574 >>

[280] DPV12 : OLSQ, Sample < 1985-2003 > Fixed Assets Depreciation in Sector 12
 $DPV12 = \exp(-1.623338 + 0.949158 * \log(XV12) - 0.218112 * (D85 + D86 + D87))$
 (-7.709016) (64.69105) (-5.61465)
 << RR: 0.998303, RRADJ: 0.998091, STER: 0.043759, D-W: 1.011479 >>

[281] DPV13 : OLSQ, Sample < 1985-2003 > Fixed Assets Depreciation in Sector 13
 $DPV13 = \exp(1.321283 + 0.696949 * \log(XV13) - 0.180861 * D85 - 0.23598 * (D89 + D90 + D91))$
 (5.781286) (36.17802) (-2.691838) (-6.036397)
 << RR: 0.993037, RRADJ: 0.991645, STER: 0.057555, D-W: 2.141718 >>

[282] DPV14 : OLSQ, Sample < 1985-2003 > Fixed Assets Depreciation in Sector 14
 $DPV14 = \exp(-3.693578 + 1.115957 * \log(XV14) - 0.322608 * (D80 + D89 + D90) - 0.214358 * (D94 + D95 + D96 + D97))$
 (-14.25018) (53.87265) (-5.459274) (-4.362038)
 << RR: 0.996197, RRADJ: 0.995436, STER: 0.083796, D-W: 2.714422 >>

[283] DPV15 : OLSQ, Sample < 1985-2003 > Fixed Assets Depreciation in Sector 15
 $DPV15 = \exp(-3.274101 + 1.10353 * \log(XV15) - 0.502518 * D86 + 0.216157 * (D91 + D92 + D93) + 0.198031 * (D99 + D00 + D01))$
 (-15.09543) (61.91436) (-5.852702) (4.4104) (3.681519)
 << RR: 0.997887, RRADJ: 0.997283, STER: 0.074999, D-W: 1.916778 >>

[284] DPVT Fixed Assets Depreciation Total
 $DPVT = DPV01 + DPV02 + DPV03 + DPV04 + DPV05 + DPV06 + DPV07 + DPV08 + DPV09 + DPV10 + DPV11 + DPV12 + DPV13 + DPV14 + DPV15$

[---Input-Output Block (C) ---]

Real Output by Sector

[285] X01 : OLSQ, Sample < 1985-2003 > Real Output in Sector 1
 $X01 = \exp(-0.020461 + 1.016869 * (\log(X01(-1)) / LE01(-1))) - 0.084815 * (D88 + D89) + 0.133108 * D90 + 0.053101 * D93 + 0.045918 * (D95 + D96)) * LE01$
 (-0.338958) (68.72508) (-5.701038) (6.697764) (2.838634) (3.384299)
 << RR: 0.997994, RRADJ: 0.997222, STER: 0.017863, D-W: 1.992682 >>

[286] X02 Real Output in Sector 2
 $X02 = DD02 + E02 - M02$

[287] X03 Real Output in Sector 3
 $X03 = DD03 + E03 - M03$

[288] X04 Real Output in Sector 4
 $X04 = DD04 + E04 - M04$

[289] X05 Real Output in Sector 5
 $X05 = DD05 + E05 - M05$

[290] X06 Real Output in Sector 6
 $X06 = DD06 + E06 - M06$

[291] X07 Real Output in Sector 7
 $X07 = DD07 + E07 - M07$

[292] X08 Real Output in Sector 8
 $X08 = DD08 + E08 - M08$

[293] X09 Real Output in Sector 9
 $X09 = DD09 + E09 - M09$

[294] X10 Real Output in Sector 10
 $X10 = DD10 + E10 - M10$

[295] X11 Real Output in Sector 11
 $X11 = DD11 + E11 - M11$

[296] X12 Real Output in Sector 12
 $X12 = DD12 + E12 - M12$

[297] SIF01 Change in Real Final Demand for Sector 1: Scenario Analysis
 $SIF01 = SIFD01 + SIFM01$

[298] SIF02 Change in Real Final Demand for Sector 2: Scenario Analysis
 $SIF02 = SIFD02 + SIFM02$

[299] SIF03 Change in Real Final Demand for Sector 3: Scenario Analysis
 $SIF03 = SIFD03 + SIFM03$

[300] SIF04 Change in Real Final Demand for Sector 4: Scenario Analysis
 $SIF04 = SIFD04 + SIFM04$

[301] SIF05 Change in Real Final Demand for Sector 5: Scenario Analysis
 $SIF05 = SIFD05 + SIFM05$

[302] SIF06 Change in Real Final Demand for Sector 6: Scenario Analysis
 $SIF06 = SIFD06 + SIFM06$

[303] SIF07 Change in Real Final Demand for Sector 7: Scenario Analysis
 $SIF07 = SIFD07 + SIFM07$

[304] SIF08 Change in Real Final Demand for Sector 8: Scenario Analysis
 $SIF08 = SIFD08 + SIFM08$

[305] SIF09 Change in Real Final Demand for Sector 9: Scenario Analysis
 $SIF09 = SIFD09 + SIFM09$

[306] SIF10 Change in Real Final Demand for Sector 10: Scenario Analysis
 $SIF10 = SIFD10 + SIFM10$

[307] SIF11 Change in Real Final Demand for Sector 11: Scenario Analysis
 $SIF11 = SIFD11 + SIFM11$

[308] SIF12 Change in Real Final Demand for Sector 12: Scenario Analysis
 $SIF12 = SIFD12 + SIFM12$

[309] SIF13 Change in Real Final Demand for Sector 13: Scenario Analysis
 $SIF13 = SIFD13 + SIFM13$

[310] SIF14 Change in Real Final Demand for Sector 14: Scenario Analysis
 $SIF14 = SIFD14 + SIFM14$

[311] SIF15 Change in Real Final Demand for Sector 15: Scenario Analysis
 $SIF15 = SIFD15 + SIFM15$

[312] SIFD Total Change in Real Final Demand (Domestic Goods): Scenario Analysis
 $SIFD = SIFD01 + SIFD02 + SIFD03 + SIFD04 + SIFD05 + SIFD06 + SIFD07 + SIFD08 + SIFD09 + SIFD10 + SIFD11 + SIFD12 + SIFD13 + SIFD14 + SIFD15$

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[313] SIFM Total Change in Import Demand: Scenario Analysis

$$\text{SIFM} = \text{SIFM01} + \text{SIFM02} + \text{SIFM03} + \text{SIFM04} + \text{SIFM05} + \text{SIFM06} + \text{SIFM07} + \text{SIFM08} + \text{SIFM09} + \text{SIFM10} + \text{SIFM11} + \text{SIFM12} + \text{SIFM13} + \text{SIFM14} + \text{SIFM15}$$

[314] SIF Total Change in Real Final Demand (Imported Goods): Scenario Analysis

$$\text{SIF} = \text{SIFD} + \text{SIFM}$$

[315] ZIF01 Change in Final Demand for Sector 1: Scenario Analysis

$$\text{ZIF01} = \text{ZIFD01} + \text{ZIFM01}$$

[316] ZIF02 Change in Final Demand for Sector 2: Scenario Analysis

$$\text{ZIF02} = \text{ZIFD02} + \text{ZIFM02}$$

[317] ZIF03 Change in Final Demand for Sector 3: Scenario Analysis

$$\text{ZIF03} = \text{ZIFD03} + \text{ZIFM03}$$

[318] ZIF04 Change in Final Demand for Sector 4: Scenario Analysis

$$\text{ZIF04} = \text{ZIFD04} + \text{ZIFM04}$$

[319] ZIF05 Change in Final Demand for Sector 5: Scenario Analysis

$$\text{ZIF05} = \text{ZIFD05} + \text{ZIFM05}$$

[320] ZIF06 Change in Final Demand for Sector 6: Scenario Analysis

$$\text{ZIF06} = \text{ZIFD06} + \text{ZIFM06}$$

[321] ZIF07 Change in Final Demand for Sector 7: Scenario Analysis

$$\text{ZIF07} = \text{ZIFD07} + \text{ZIFM07}$$

[322] ZIF08 Change in Final Demand for Sector 8: Scenario Analysis

$$\text{ZIF08} = \text{ZIFD08} + \text{ZIFM08}$$

[323] ZIF09 Change in Final Demand for Sector 9: Scenario Analysis

$$\text{ZIF09} = \text{ZIFD09} + \text{ZIFM09}$$

[324] ZIF10 Change in Final Demand for Sector 10: Scenario Analysis

$$\text{ZIF10} = \text{ZIFD10} + \text{ZIFM10}$$

[325] ZIF11 Change in Final Demand for Sector 11: Scenario Analysis

$$\text{ZIF11} = \text{ZIFD11} + \text{ZIFM11}$$

[326] ZIF12 Change in Final Demand for Sector 12: Scenario Analysis

$$\text{ZIF12} = \text{ZIFD12} + \text{ZIFM12}$$

[327] ZIF13 Change in Final Demand for Sector 13: Scenario Analysis

$$\text{ZIF13} = \text{ZIFD13} + \text{ZIFM13}$$

[328] ZIF14 Change in Final Demand for Sector 14: Scenario Analysis

$$\text{ZIF14} = \text{ZIFD14} + \text{ZIFM14}$$

[329] ZIF15 Change in Final Demand for Sector 15: Scenario Analysis

$$\text{ZIF15} = \text{ZIFD15} + \text{ZIFM15}$$

[330] ZIFD Change in Final Demand (Domestic Goods): Scenario Analysis

$$\text{ZIFD} = \text{ZIFD01} + \text{ZIFD02} + \text{ZIFD03} + \text{ZIFD04} + \text{ZIFD05} + \text{ZIFD06} + \text{ZIFD07} + \text{ZIFD08} + \text{ZIFD09} + \text{ZIFD10} + \text{ZIFD11} + \text{ZIFD12} + \text{ZIFD13} + \text{ZIFD14} + \text{ZIFD15}$$

[331] ZIFM Change in Final Demand (Imported Goods): Scenario Analysis

$$\text{ZIFM} = \text{ZIFM01} + \text{ZIFM02} + \text{ZIFM03} + \text{ZIFM04} + \text{ZIFM05} + \text{ZIFM06} + \text{ZIFM07} + \text{ZIFM08} + \text{ZIFM09} + \text{ZIFM10} + \text{ZIFM11} + \text{ZIFM12} + \text{ZIFM13} + \text{ZIFM14} + \text{ZIFM15}$$

[332] ZIF Change in Final Demand (Total): Scenario Analysis

$$\text{ZIF} = \text{ZIFD} + \text{ZIFM}$$

[333] X13 Real Output in Sector 13

$$\text{X13} = \text{RX13} * \text{ECLX} / 100$$

[334] X14 Real Output in Sector 14

$$\text{X14} = \text{RX14} * (0.7108 * \text{EPLX} + 0.4438 * \text{ENGX}) / 100$$

[335] X15 Real Output in Sector 15

$$\text{X15} = \text{RX15} * \text{EELX} / 100$$

[336] XT Output Total

$$\text{XT} = \text{X01} + \text{X02} + \text{X03} + \text{X04} + \text{X05} + \text{X06} + \text{X07} + \text{X08} + \text{X09} + \text{X10} + \text{X11} + \text{X12} + \text{X13} + \text{X14} + \text{X15}$$

Nominal Output by Sector

[337] XV01 Nominal Output for Sector 1
 $XV01 = X01 * PX01 / 100$

[338] XV02 Nominal Output for Sector 2
 $XV02 = X02 * PX02 / 100$

[339] XV03 Nominal Output for Sector 3
 $XV03 = X03 * PX03 / 100$

[340] XV04 Nominal Output for Sector 4
 $XV04 = X04 * PX04 / 100$

[341] XV05 Nominal Output for Sector 5
 $XV05 = X05 * PX05 / 100$

[342] XV06 Nominal Output for Sector 6
 $XV06 = X06 * PX06 / 100$

[343] XV07 Nominal Output for Sector 7
 $XV07 = X07 * PX07 / 100$

[344] XV08 Nominal Output for Sector 8
 $XV08 = X08 * PX08 / 100$

[345] XV09 Nominal Output for Sector 9
 $XV09 = X09 * PX09 / 100$

[346] XV10 Nominal Output for Sector 10
 $XV10 = X10 * PX10 / 100$

[347] XV11 Nominal Output for Sector 11
 $XV11 = X11 * PX11 / 100$

[348] XV12 Nominal Output for Sector 12
 $XV12 = X12 * PX12 / 100$

[349] XV13 Nominal Output for Sector 13
 $XV13 = X13 * PX13 / 100$

[350] XV14 Nominal Output for Sector 14
 $XV14 = X14 * PX14 / 100$

[351] XV15 Nominal Output for Sector 15
 $XV15 = X15 * PX15 / 100$

[352] XVT Nominal Output Total
 $XVT = XV01 + XV02 + XV03 + XV04 + XV05 + XV06 + XV07 + XV08 + XV09 + XV10 + XV11 + XV12 + XV13 + XV14 + XV15$

Nominal Imports by Sector

[353] MV01 Nominal Import for Sector 1
 $MV01 = M01 * PM01 / 100$

[354] MV02 Nominal Import for Sector 2
 $MV02 = M02 * PM02 / 100$

[355] MV03 Nominal Import for Sector 3
 $MV03 = M03 * PM03 / 100$

[356] MV04 Nominal Import for Sector 4
 $MV04 = M04 * PM04 / 100$

[357] MV05 Nominal Import for Sector 5
 $MV05 = M05 * PM05 / 100$

[358] MV06 Nominal Import for Sector 6
 $MV06 = M06 * PM06 / 100$

[359] MV07 Nominal Import for Sector 7
 $MV07 = M07 * PM07 / 100$

[360] MV08 Nominal Import for Sector 8
 $MV08 = M08 * PM08 / 100$

[361] MV09 Nominal Import for Sector 9
 MV09 = M09 * PM09 / 100

[362] MV10 Nominal Import for Sector 10
 MV10 = M10 * PM10 / 100

[363] MV11 Nominal Import for Sector 11
 MV11 = M11 * PM11 / 100

[364] MV12 Nominal Import for Sector 12
 MV12 = M12 * PM12 / 100

[365] MV13 Nominal Import for Sector 13
 MV13 = M13 * PM13 / 100

[366] MV14 Nominal Import for Sector 14
 MV14 = M14 * PM14 / 100

[367] MV15 Nominal Import for Sector 15
 MV15 = M15 * PM15 / 100

[368] MVT Nominal Import for Sector 1
 MVT = MV01 + MV02 + MV03 + MV04 + MV05 + MV06 + MV07 + MV08 + MV09 + MV10 + MV11 + MV12 + MV13 +
 MV14 + MV15

Nominal Exports by Sector

[369] EV01 Nominal Export for Sector 1
 EV01 = E01 * PE01 / 100

[370] EV02 Nominal Export for Sector 2
 EV02 = E02 * PE02 / 100

[371] EV03 Nominal Export for Sector 3
 EV03 = E03 * PE03 / 100

[372] EV04 Nominal Export for Sector 4
 EV04 = E04 * PE04 / 100

[373] EV05 Nominal Export for Sector 5
 EV05 = E05 * PE05 / 100

[374] EV06 Nominal Export for Sector 6
 EV06 = E06 * PE06 / 100

[375] EV07 Nominal Export for Sector 7
 EV07 = E07 * PE07 / 100

[376] EV08 Nominal Export for Sector 8
 EV08 = E08 * PE08 / 100

[377] EV09 Nominal Export for Sector 9
 EV09 = E09 * PE09 / 100

[378] EV10 Nominal Export for Sector 10
 EV10 = E10 * PE10 / 100

[379] EV11 Nominal Export for Sector 11
 EV11 = E11 * PE11 / 100

[380] EV12 Nominal Export for Sector 12
 EV12 = E12 * PE12 / 100

[381] EV13 Nominal Export for Sector 13
 EV13 = E13 * PE13 / 100

[382] EV14 Nominal Export for Sector 14
 EV14 = E14 * PE14 / 100

[383] EV15 Nominal Export for Sector 15
 EV15 = E15 * PE15 / 100

[384] EVT Nominal Export Total
 EVT = EV01 + EV02 + EV03 + EV04 + EV05 + EV06 + EV07 + EV08 + EV09 + EV10 + EV11 + EV12 + EV13 + EV14
 + EV15

Nominal Domestic Demand by Sector

[385] DDV01 Nominal Domestic Demand for Sector 1
 $DDV01 = XV01 + MV01 - EV01$

[386] DDV02 Nominal Domestic Demand for Sector 2
 $DDV02 = XV02 + MV02 - EV02$

[387] DDV03 Nominal Domestic Demand for Sector 3
 $DDV03 = XV03 + MV03 - EV03$

[388] DDV04 Nominal Domestic Demand for Sector 4
 $DDV04 = XV04 + MV04 - EV04$

[389] DDV05 Nominal Domestic Demand for Sector 5
 $DDV05 = XV05 + MV05 - EV05$

[390] DDV06 Nominal Domestic Demand for Sector 6
 $DDV06 = XV06 + MV06 - EV06$

[391] DDV07 Nominal Domestic Demand for Sector 7
 $DDV07 = XV07 + MV07 - EV07$

[392] DDV08 Nominal Domestic Demand for Sector 8
 $DDV08 = XV08 + MV08 - EV08$

[393] DDV09 Nominal Domestic Demand for Sector 9
 $DDV09 = XV09 + MV09 - EV09$

[394] DDV10 Nominal Domestic Demand for Sector 10
 $DDV10 = XV10 + MV10 - EV10$

[395] DDV11 Nominal Domestic Demand for Sector 11
 $DDV11 = XV11 + MV11 - EV11$

[396] DDV12 Nominal Domestic Demand for Sector 12
 $DDV12 = XV12 + MV12 - EV12$

[397] DDV13 Nominal Domestic Demand for Sector 13
 $DDV13 = XV13 + MV13 - EV13$

[398] DDV14 Nominal Domestic Demand for Sector 14
 $DDV14 = XV14 + MV14 - EV14$

[399] DDV15 Nominal Domestic Demand for Sector 15
 $DDV15 = XV15 + MV15 - EV15$

[400] DDVT Nominal Domestic Demand Total
 $DDVT = DDV01 + DDV02 + DDV03 + DDV04 + DDV05 + DDV06 + DDV07 + DDV08 + DDV09 + DDV10 + DDV11 + DDV12 + DDV13 + DDV14 + DDV15$

Domestic Demand Deflator by Sector

[401] PDD01 Deflator for Domestic Demand in Sector 1
 $PDD01 = DDV01 / DD01 * 100$

[402] PDD02 Deflator for Domestic Demand in Sector 2
 $PDD02 = DDV02 / DD02 * 100$

[403] PDD03 Deflator for Domestic Demand in Sector 3
 $PDD03 = DDV03 / DD03 * 100$

[404] PDD04 Deflator for Domestic Demand in Sector 4
 $PDD04 = DDV04 / DD04 * 100$

[405] PDD05 Deflator for Domestic Demand in Sector 5
 $PDD05 = DDV05 / DD05 * 100$

[406] PDD06 Deflator for Domestic Demand in Sector 6
 $PDD06 = DDV06 / DD06 * 100$

[407] PDD07 Deflator for Domestic Demand in Sector 7
 $PDD07 = DDV07 / DD07 * 100$

[408] PDD08 Deflator for Domestic Demand in Sector 8
 $PDD08 = DDV08 / DD08 * 100$

[409] PDD09 Deflator for Domestic Demand in Sector 9
 $PDD09 = DDV09 / DD09 * 100$

[410] PDD10 Deflator for Domestic Demand in Sector 10
 $PDD10 = DDV10 / DD10 * 100$

[411] PDD11 Deflator for Domestic Demand in Sector 11
 $PDD11 = DDV11 / DD11 * 100$

[412] PDD12 Deflator for Domestic Demand in Sector 12
 $PDD12 = DDV12 / DD12 * 100$

[413] PDD13 Deflator for Domestic Demand in Sector 13
 $PDD13 = DDV13 / DD13 * 100$

[414] PDD14 Deflator for Domestic Demand in Sector 14
 $PDD14 = DDV14 / DD14 * 100$

[415] PDD15 Deflator for Domestic Demand in Sector 15
 $PDD15 = DDV15 / DD15 * 100$

[416] PDDT Deflator for Domestic Demand Total
 $PDDT = DDVT / DDT * 100$

Compensation of Labor

[417] YWV01 Compensation of Labor in Sector 1
 $YWV01 = WV01 * LE01$

[418] YWV02 Compensation of Labor in Sector 2
 $YWV02 = WV02 * LE02$

[419] YWV03 Compensation of Labor in Sector 3
 $YWV03 = WV03 * LE03$

[420] YWV04 Compensation of Labor in Sector 4
 $YWV04 = WV04 * LE04$

[421] YWV05 Compensation of Labor in Sector 5
 $YWV05 = WV05 * LE05$

[422] YWV06 Compensation of Labor in Sector 6
 $YWV06 = WV06 * LE06$

[423] YWV07 Compensation of Labor in Sector 7
 $YWV07 = WV07 * LE07$

[424] YWV08 Compensation of Labor in Sector 8
 $YWV08 = WV08 * LE08$

[425] YWV09 Compensation of Labor in Sector 9
 $YWV09 = WV09 * LE09$

[426] YWV10 Compensation of Labor in Sector 10
 $YWV10 = WV10 * LE10$

[427] YWV11 Compensation of Labor in Sector 11
 $YWV11 = WV11 * LE11$

[428] YWV12 Compensation of Labor in Sector 12
 $YWV12 = WV12 * LE12$

[429] YWV13 Compensation of Labor in Sector 13
 $YWV13 = WV13 * LE13$

[430] YWV14 Compensation of Labor in Sector 14
 $YWV14 = WV14 * LE14$

[431] YWV15 Compensation of Labor in Sector 15
 $YWV15 = WV15 * LE15$

[432] YWVT Compensation of Labor Total
 $YWVT = YWV01 + YWV02 + YWV03 + YWV04 + YWV05 + YWV06 + YWV07 + YWV08 + YWV09 + YWV10 + YWV11 + YWV12 + YWV13 + YWV14 + YWV15$

Operating Surplus

[433] OTV01 Operating Surplus in Sector 1
 OTV01 = VV01 - YWV01 - DPV01

[434] OTV02 Operating Surplus in Sector 2
 OTV02 = VV02 - YWV02 - DPV02

[435] OTV03 Operating Surplus in Sector 3
 OTV03 = VV03 - YWV03 - DPV03

[436] OTV04 Operating Surplus in Sector 4
 OTV04 = VV04 - YWV04 - DPV04

[437] OTV05 Operating Surplus in Sector 5
 OTV05 = VV05 - YWV05 - DPV05

[438] OTV06 Operating Surplus in Sector 6
 OTV06 = VV06 - YWV06 - DPV06

[439] OTV07 Operating Surplus in Sector 7
 OTV07 = VV07 - YWV07 - DPV07

[440] OTV08 Operating Surplus in Sector 8
 OTV08 = VV08 - YWV08 - DPV08

[441] OTV09 Operating Surplus in Sector 9
 OTV09 = VV09 - YWV09 - DPV09

[442] OTV10 Operating Surplus in Sector 10
 OTV10 = VV10 - YWV10 - DPV10

[443] OTV11 Operating Surplus in Sector 11
 OTV11 = VV11 - YWV11 - DPV11

[444] OTV12 Operating Surplus in Sector 12
 OTV12 = VV12 - YWV12 - DPV12

[445] OTV13 Operating Surplus in Sector 13
 OTV13 = VV13 - YWV13 - DPV13

[446] OTV14 Operating Surplus in Sector 14
 OTV14 = VV14 - YWV14 - DPV14

[447] OTV15 Operating Surplus in Sector 15
 OTV15 = VV15 - YWV15 - DPV15

[448] OTVT Operating Surplus Total
 OTVT = OTV01 + OTV02 + OTV03 + OTV04 + OTV05 + OTV06 + OTV07 + OTV08 + OTV09 + OTV10 + OTV11 +
 OTV12 + OTV13 + OTV14 + OTV15

[--- Energy Block ---]**[Energy Balance (10 000 tons of SCE)]**

[449] EEOX : OLSQ, Sample < 1985-2002 > Energy Production Total
 EEOX = -3747.983 + 1.072947 * (EPLX + ECLX + ENGX + (EELXH + EELXN) / 0.814) + 1698.003 * (D98 + D99 + D00 +
 D01 + D0220)
 (-7.364018) (221.8592) (11.05321)
 << RR: 0.999732, RRADJ: 0.999697, STER: 278.1012, D-W: 2.458431 >>

[450] EEOM : OLSQ, Sample < 1985-2002 > Energy Imports Total
 EEOM = 218.1333 + 0.871586 * ((EEOE + EEOE - EEOJ + EEOB) - EEOX) - 1532.611 * D95 - 988.3331 * D96 + 728.8757 *
 (D97 - D98)
 (2.480166) (86.52598) (-6.175214) (-3.97046) (4.287933)
 << RR: 0.998276, RRADJ: 0.997745, STER: 240.3921, D-W: 1.13419 >>

[451] EEOE : OLSQ, Sample < 1985-2002 > Energy Exports Total
 EEOE = 555.598 + 1.072687 * (EPLX + ECLX + ENGX) - 819.4222 * (D85 + D86 + D87 + D88 + D89 + D90 + D91 + D92)
 (1.530271) (20.58618) (-5.506636)
 << RR: 0.977158, RRADJ: 0.974112, STER: 288.5863, D-W: 2.291499 >>

[452] EEOJ : OLSQ, Sample < 1985-2002 > Change in Energy Inventory
 EEOJ = -51.40979 + 1.015255 * (EPLJ + ECLJ)
 (-1.752067) (50.72975)
 << RR: 0.993821, RRADJ: 0.993435, STER: 123.8028, D-W: 2.49118 >>

[453] EEOD : OLSQ, Sample < 1985-2002 > Energy Demand Total
 EEOD = - 2017.872 + 1.058337 * (EPLD + ECLD + ENG D + (EELXH + EELXN) / 0.814) - 2293.289 * D00 + 1348.106 * D0220
 (-3.174945) (182.1004) (-4.756218) (2.661821)
 << RR: 0.999654, RRADJ: 0.999579, STER: 454.537, D-W: 1.389708 >>

[Petroleum (10 000 tons of SCE)]

[454] EPLX Petroleum Production
 EPLX = EPLD + EPLE - EPLJ - EPLM + EPLB

[455] EPLM : OLSQ, Sample < 1985-2002 > Petroleum Imports
 EPLM = - 63.69821 + 0.987257 * (EEOM - ECLM)
 (-3.587502) (413.3079)
 << RR: 0.999906, RRADJ: 0.9999, STER: 49.06158, D-W: 0.912423 >>

[456] EPLE Petroleum Exports
 EPLE = REPLE * E14 / 100

[457] EPLD Petroleum Demand Total
 EPLD = EPLDT + EPLDH

[458] EPLCT : OLSQ, Sample < 1985-2002 > Petroleum Energy Conversion
 EPLCT = 0.86617 * (EPLPG + EPLHT + EPLCK + EPLGP) + 425.7614 * D95 + 502.416 * (D97 + D98 + D99 + D00 + D01 + D0220)
 (61.13321) (2.934366) (6.885013)
 << RR: 0.916562, RRADJ: 0.905437, STER: 137.9053, D-W: 1.085497 >>

[459] EPLPG Oil Demand in Power Generation
 EPLPG = EELXTPA * (EELXT / 0.814) / EPLPGRA * EPLPGRB

[460] EPLHT : OLSQ, Sample < 1985-2002 > Oil Demand in Heat Supply
 EPLHT = exp(3.20437 + 0.246387 * log(DDB15) + 0.378131 * (D93 + D94) - 0.37641 * (D00 + D01 + D0220))
 (6.654638) (6.258221) (7.47346) (-6.824825)
 << RR: 0.905961, RRADJ: 0.88581, STER: 0.066023, D-W: 2.966394 >>

[461] EPLCK : OLSQ, Sample < 1985-2002 > Oil Demand in Coking
 EPLCK = exp(0.56121 + 0.392212 * log(ECLCK) + 0.12493 * (D91 + D92 + D93) 0.420912 * D94 - 0.326075 * (D98 + D99) - 0.586945 * D00)
 (1.279356) (8.116335) (3.237641) (6.786637) (-6.982791) (-9.392713)
 << RR: 0.953055, RRADJ: 0.933495, STER: 0.059043, D-W: 2.170001 >>

[462] EPLGP : OLSQ, Sample < 1985-2002 > Oil Demand in Gas Production
 EPLGP = exp(-10.13191 + 1.280154 * log(DDB14) + 0.470342 * D92 - 0.426396 * (D96 + D97 + D98))
 (-9.986138) (16.04149) (3.16374) (-4.491555)
 << RR: 0.950254, RRADJ: 0.939594, STER: 0.143625, D-W: 2.091919 >>

[463] EPLLS : OLSQ, Sample < 1985-2002 > Oil Energy Loss
 EPLLS = exp(51.80942 - 0.025134 * TREND - 0.543294 * (D94 + D95 + D96) - 0.265896 * D97 + 0.463207 * D00) * EPLCK
 (5.522018) (-5.337253) (-8.750161) (-2.633555) (4.414995)
 << RR: 0.921686, RRADJ: 0.89759, STER: 0.095011, D-W: 1.615428 >>

[464] EPLD01 : OLSQ, Sample < 1985-2002 > Oil Demand in Sector 1
 EPLD01 = exp(- 5.09069 + 0.859967 * log(X01) - 0.21901 * log(PX14 / PX01) + 0.17655 * D89 + 0.142127 * (D00 + D01 + D0220))
 (-5.500914) (13.55788) (-4.29466) (5.319477) (5.213798)
 << RR: 0.986253, RRADJ: 0.982023, STER: 0.029476, D-W: 1.822563 >>

[465] EPLD02 : OLSQ, Sample < 1985-2002 > Oil Demand in Sector 2
 EPLD02 = exp(1.600371 + 0.205914 * log(X02) - 0.117897 * log(PX14 / PX02) - 0.094109 * (D89 - D90) + 0.244799 * D93 + 0.203609 * D97)
 (2.840199) (4.508872) (-1.789418) (-2.502329) (4.757917) (3.988539)
 << RR: 0.864943, RRADJ: 0.808669, STER: 0.048281, D-W: 2.511799 >>

[466] EPLD03 : RLSQ, Sample < 1985-2002 > Oil Demand in Sector 3
 EPLD03 = exp(- 9.380478 + 1.000000 * log(X03) - 0.220698 * log(PX14 / PX03) + 0.200627 * D85 - 0.307386 * D91 - 0.271877 * D94 + 0.338806 * D96)
 (-704.675) (0.0000) (-9.136846) (4.047641) (-6.22269) (-5.618367) (7.006631)
 << RR: 0.951321, RRADJ: 0.931038, STER: 0.046477, D-W: 2.022822 >>

[467] EPLD04 : RLSQ, Sample < 1985-2002 > Oil Demand in Sector 4
 EPLD04 = exp(- 9.492134 + 1.000000 * log(X04) - 0.068121 * log(PX14 / PX04) + 0.219988 * D85 + 0.266123 * (D91 - D92) - 0.625579 * D94)
 (-360.9881) (0.00000) (-1.443163) (2.118563) (3.808576) (-6.130854)
 << RR: 0.83175, RRADJ: 0.77998, STER: 0.098715, D-W: 1.552441 >>

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[468] EPLD05 : OLSQ, Sample < 1985-2002 > Oil Demand in Sector 5
 $EPLD05 = \exp(1.057588 + 0.452424 * \log(X05) - 0.203659 * \log(PX14 / PX05) - 0.198578 * (D94 + D95) - 0.113339 * (D98 + D99))$
 (1.7198) (10.30959) (-3.859987) (-6.170533) (-3.310247)
 << RR: 0.96887, RRADJ: 0.959291, STER: 0.041663, D-W: 1.740427 >>

[469] EPLD06 : OLSQ, Sample < 1985-2002 > Oil Demand in Sector 6
 $EPLD06 = \exp(- 0.235329 + 0.456327 * \log(X06) + 0.113148 * (D86 + D87 + D88 + D89) - 0.126005 * D91 + 0.145337 * (D93 - D94))$
 (-1.001527) (25.8557) (4.588164) (-3.755527) (6.064669)
 << RR: 0.986738, RRADJ: 0.982657, STER: 0.032251, D-W: 2.512056 >>

[470] EPLD07 : OLSQ, Sample < 1985-2002 > Oil Demand in Sector 7
 $EPLD07 = \exp(- 0.906916 + 0.49917 * \log(X07) - 0.362272 * \log(PX14 / PX07) - 0.195623 * D88 + 0.147477 * (D94 + D95 + D96 + D97) - 0.184075 * D99)$
 (-1.141349) (8.471005) (-5.377364) (-3.362895) (4.464411) (-3.101228)
 << RR: 0.939363, RRADJ: 0.914097, STER: 0.054825, D-W: 2.352087 >>

[471] EPLD08 : OLSQ, Sample < 1985-2002 > Oil Demand in Sector 8
 $EPLD08 = \exp(0.840706 + 0.316446 * \log(X08) + 0.445522 * D91 - 0.129347 * (D98 + D99) + 0.119842 * D9220)$
 (3.708537) (19.88904) (7.93296) (-3.511335) (2.295308)
 << RR: 0.978238, RRADJ: 0.971542, STER: 0.045156, D-W: 1.891895 >>

[472] EPLD09 : OLSQ, Sample < 1985-2002 > Oil Demand in Sector 9
 $EPLD09 = \exp(- 7.598676 + 0.889697 * \log(X09) - 0.419387 * (D88 + D89 + D90) - 0.703944 * (D92 + D93))$
 (-11.31905) (17.54794) (-4.592586) (-6.961586)
 << RR: 0.973913, RRADJ: 0.968323, STER: 0.131532, D-W: 2.192771 >>

[473] EPLD10 : OLSQ, Sample < 1985-2002 > Oil Demand in Sector 10
 $EPLD10 = \exp(1.141096 + 0.347322 * \log(X10) - 0.501159 * \log(PX14 / PX10) + 0.205839 * D87 + 0.159016 * (D91 + D92 - D93 - D94 - D95 - D96 - D97 - D98) + 0.21453 * (D00 + D01 + D0220))$
 (1.325933) (5.778397) (-4.933279) (5.083367) (7.617408) (4.636087)
 << RR: 0.963448, RRADJ: 0.948218, STER: 0.03767, D-W: 1.277733 >>

[474] EPLD11 : OLSQ, Sample < 1986-2002 > Oil Demand in Sector 11
 $EPLD11 = \exp(- 0.739481 + 0.225256 * \log(X11) + 0.720856 * \log(EPLD11(- 1)) - 0.205265 * D94)$
 (-2.550635) (3.783096) (9.205781) (-4.082651)
 << RR: 0.992988, RRADJ: 0.991369, STER: 0.048017, D-W: 2.523187 >>

[475] EPLD12 : OLSQ, Sample < 1986-2002 > Oil Demand in Sector 12
 $EPLD12 = \exp(- 2.278009 + 0.348934 * \log(X12) + 0.643773 * \log(EPLD12(- 1)) + 0.148385 * (D91 + D92) + 0.366962 * D93 + 0.206877 * D96)$
 (-4.033821) (5.220076) (10.60319) (3.834103) (7.005479) (3.985541)
 << RR: 0.993829, RRADJ: 0.991024, STER: 0.049564, D-W: 2.563713 >>

[476] EPLD13 : OLSQ, Sample < 1986-2002 > Oil Demand in Sector 13
 $EPLD13 = 2.390088 + 0.016499 * (EPLCK + EPLLS) + 0.800691 * EPLD13(- 1) + 2.599111 * (D92 - D93) + 10.46832 * D96 + 3.047757 * D97 + 7.131659 * D99$
 (0.567918) (2.121603) (19.30508) (3.120647) (7.936044) (2.399621) (5.475316)
 << RR: 0.986631, RRADJ: 0.978609, STER: 1.171409, D-W: 2.653356 >>

[477] EPLD14 : OLSQ, Sample < 1986-2000 > Oil Demand in Sector 14
 $EPLD14 = \exp(0.6482 + 0.2001 * \log(DDB14) + 0.64063 * \log(EPLD14(- 1) - EPLGP(- 1)) - 0.06552 * D90 + 0.089315 * (D96 + D97)) + EPLGP$
 (3.203851) (3.185223) (6.677382) (-2.478179) (4.463038)
 << RR: 0.994025, RRADJ: 0.992034, STER: 0.024755, D-W: 1.888869 >>

[478] EPLD15 : OLSQ, Sample < 1985-2002 > Oil Demand in Sector 15
 $EPLD15 = -10.73343 + 1.005046 * (EPLPG + EPLHT) + 183.7109 * (D00 + D01 + D0220)$
 (-0.69985) (163.8589) (50.30689)
 << RR: 0.999478, RRADJ: 0.999409, STER: 4.892101, D-W: 1.452181 >>

[479] EPLDT Oil Demand Total
 $EPLDT = EPLD01 + EPLD02 + EPLD03 + EPLD04 + EPLD05 + EPLD06 + EPLD07 + EPLD08 + EPLD09 + EPLD10 + EPLD11 + EPLD12 + EPLD13 + EPLD14 + EPLD15$

[480] EPLDH : OLSQ, Sample < 1985-2002 > Oil Demand in Residential Sector
 $EPLDH = \exp(- 83.47632 + 0.039247 * TREND - 0.470267 * \log(EELDH / CP) + 0.000194 * (D95 + D96 + D97 + D98 + D99 + D00 + D01 + D02 + D0320) * TREND) * CP$
 (-3.167708) (3.036911) (-2.462031) (6.658795)
 << RR: 0.957727, RRADJ: 0.948669, STER: 0.061023, D-W: 2.479847 >>

[Coal (10 000 tons of SCE)]

[481] ECLX Coal Production
 ECLX = ECLD + ECLE - ECLJ - ECLM + ECLB

[482] ECLE Coal Exports
 ECLE = RECLE * E13 / 100

[483] ECLD Coal Final Demand
 ECLD = ECLDT + ECLDH

[484] ECLCT : OLSQ, Sample < 1985-2002 > Coal Energy Conversion
 ECLCT = -- 65.55103 + 1.002005 * (ECLPG + ECLHT + ECLCK + ECLGP) + 11527.924 * D97 + 912.3803 * (D98 + D99 + D00 + D01 + D02)
 (-0.907613) (480.6801) (15.78716) (13.73194)
 << RR: 0.999976, RRADJ: 0.999971, STER: 82.83732, D-W: 1.600459 >>

[485] ECLPG Coal Demand in Power Generation
 ECLPG = EELXTC * (EELXT / 0.814) / ECLPGRA * ECLPGRB - SW2 * SNGDPG / 0.075 * (ENGPGR / ECLPGRA) - SW4 * ZELXTNG / 0.814 / ECLPGRA * 100

[486] ECLHT : OLSQ, Sample < 1985-2002 > Coal Demand in Heat Supply
 ECLHT = exp(- 6.045875 + 1.126513 * log(DDB15) + 0.261194 * D93 + 0.187389 * (D90 + D91 + D92 + D93 + D94 + D95 + D96) - 0.213397 * (D00 + D01 + D0220))
 (-18.93261) (42.95091) (5.565464) (7.826377) (-5.53107)
 << RR: 0.995391, RRADJ: 0.993973, STER: 0.043192, D-W: 2.437894 >>

[487] ECLCK : OLSQ, Sample < 1985-2002 > Coal Demand in Coking
 ECLCK = exp(2.678055 + 0.541213 * log(DDB13) + 0.289468 * (D95 + D96 + D97) - 0.144691 * (D00 + D01))
 (8.789825) (20.7116) (9.290053) (-3.61) (-3.532483)
 << RR: 0.982437, RRADJ: 0.978673, STER: 0.045511, D-W: 2.025027 >>

[488] ECLGP : OLSQ, Sample < 1985-2002 > Coal Demand in Gas Production
 ECLGP = exp(- 5.57674 + 0.965217 * log(DDB13) + 0.195793 * D93 + 0.326412 * (D94 + D95))
 (-10.85378) (22.19277) (2.070529) (4.715742)
 << RR: 0.975004, RRADJ: 0.969648, STER: 0.091339, D-W: 2.372949 >>

[489] ECLLS : OLSQ, Sample < 1986-2002 > Coal Energy Loss
 ECLLS = exp(- 0.081061 + 0.96294 * log(ECLLS(-1) / ECLCK(-1)) - 0.990878 * D95 - 0.476634 * D98 + 0.281595 * D99) * ECLCK
 (-2.044328) (37.42279) (-14.75389) (-6.8521) (3.811934)
 << RR: 0.993907, RRADJ: 0.991876, STER: 0.064668, D-W: 1.998327 >>

[490] ECLD01 : OLSQ, Sample < 1986-2002 > Coal Demand in Sector 1
 ECLD01 = exp(81.59875 + 0.438168 * log(X01) - 0.406303 * log(PX13 / PX01) - 0.040481 * TREND - 0.105432 * (D92 + D93) + 0.100167 * (D97 + D98) + 0.087979 * D0220)
 (3.769311) (1.930782) (-3.916485) (-3.247406) (-4.122158) (4.148002) (2.256909)
 << RR: 0.96846, RRADJ: 0.951257, STER: 0.029367, D-W: 2.323614 >>

[491] ECLD02 : OLSQ, Sample < 1985-2002 > Coal Demand in Sector 2
 ECLD02 = exp(56.91894 + 0.38112 * log(X02) - 0.205558 * log(PX13 / PX02) - 0.02764 * TREND + 0.053259 * (D87 + D88 - D89 - D90 - D91) - 0.291777 * (D00 + D01) - 0.146352 * D0220)
 (8.760953) (10.93567) (-4.138042) (-8.01903) (4.373109) (-11.60377) (-4.520718)
 << RR: 0.978234, RRADJ: 0.966361, STER: 0.026076, D-W: 3.144071 >>

[492] ECLD03 : OLSQ, Sample < 1986-2002 > Coal Demand in Sector 3
 ECLD03 = exp(1.448217 - 0.130075 * log(EPLD03 + EELD03 / 0.814) + 0.913416 * log(ECLD03(-1)) + 0.125772 * D95 - 0.161928 * D00 + 0.124411 * D0220)
 (2.679972) (-3.189655) (11.03625) (2.983759) (-3.689703) (2.286472)
 << RR: 0.953249, RRADJ: 0.931999, STER: 0.03901, D-W: 2.031165 >>

[493] ECLD04 : OLSQ, Sample < 1986-2002 > Coal Demand in Sector 4
 ECLD04 = exp(4.294284 - 0.166324 * log(EPLD04 + EELD04 / 0.814) + 0.551523 * log(ECLD04(-1)) + 0.254843 * (D94 + D95) - 0.183905 * (D99 + D00 + D01))
 (5.719663) (-2.957596) (6.59141) (5.087905) (-3.67681)
 << RR: 0.952608, RRADJ: 0.936811, STER: 0.05998, D-W: 2.732529 >>

[494] ECLD05 : OLSQ, Sample < 1986-2002 > Coal Demand in Sector 5
 ECLD05 = exp(3.038036 + 0.066171 * log(X05) + 0.551679 * log(ECLD05(-1)) + 0.22537 * (D94 + D95) + 0.142201 * D96 - 0.129591 * (D99 + D00 + D01)) - SW2 * SNGD05 / 0.075
 (7.249299) (2.696993) (8.773725) (7.192667) (3.103482) (-3.838949)
 << RR: 0.976174, RRADJ: 0.965343, STER: 0.038372, D-W: 2.397573 >>

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[495] ECLD06 : OLSQ, Sample < 1985-2002 > Coal Demand in Sector 6
 $ECLD06 = \exp(7.029123 + 0.141194 * \log(X06) - 0.402607 * \log(PX13 / PX06) + 0.207255 * (D94 + D95 + D96 + D97 + D98) - 0.159579 * (D00 + D01))$
 (12.33231) (3.225245) (3.195175) (5.641988) (-3.037031)
 << RR: 0.88071, RRADJ: 0.844005, STER: 0.055045, D-W: 2.126666 >>

[496] ECLD07 : OLSQ, Sample < 1986-2002 > Coal Demand in Sector 7
 $ECLD07 = \exp(0.642331 + 0.139393 * \log(X07) - 0.361488 * \log(PX13 / PX07) + 0.728778 \log(ECLD07(-1)) - 0.098172 * (D89 + D90 + D91) - 0.19762 * D00)$
 (1.37502) (3.210012) (-4.36711) (9.931884) (-3.261508) (-4.376726)
 << RR: 0.975229, RRADJ: 0.96397, STER: 0.041001, D-W: 2.135619 >>

[497] ECLD08 : OLSQ, Sample < 1985-2002 > Coal Demand in Sector 8
 $ECLD08 = \exp(10.02139 - 0.364832 * \log(EPLD08 + EELD08 / 0.814) - 0.117215 * (D85 + D86) + 0.283396 * (D94 + D95 + D96 + D97) + 0.270534 * D0220)$
 (33.7366) (-8.27334) (-2.712188) (8.905259) (4.230565)
 << RR: 0.897564, RRADJ: 0.866045, STER: 0.051607, D-W: 2.883468 >>

[498] ECLD09 : OLSQ, Sample < 1985-2002 > Coal Demand in Sector 9
 $ECLD09 = \exp(5.091732 + 0.159271 * \log(X09) - 0.201858 * (D85 + D86) + 0.581564 * (D94 + D95 + D96) + 0.348879 * (D97 + D98))$
 (11.52687) (4.702026) (-3.054465) (11.03626) (5.524695)
 << RR: 0.957708, RRADJ: 0.944695, STER: 0.07755, D-W: 2.335433 >>

[499] ECLD10 : OLSQ, Sample < 1988-2002 > Coal Demand in Sector 10
 $ECLD10 = \exp(169.6642 - 0.089157 * TREND - 0.176777 * (D87 + D88) - 0.232047 * (D97 - D98)) * X10$
 (21.71248) (-22.75393) (-2.734268) (-4.169364)
 << RR: 0.976471, RRADJ: 0.971429, STER: 0.07866, D-W: 0.979713 >>

[500] ECLD11 : OLSQ, Sample < 1985-2002 > Coal Demand in Sector 11
 $ECLD11 = \exp(11.25232 - 0.499969 * \log(EPLD11 + EELD11 / 0.814) - 0.111476 * D85 - 0.270737 * (D95 + D96) - 0.085549 * (D01 + D0220))$
 (71.03764) (-25.89238) (-3.050082) (-10.80871) (-2.828953)
 << RR: 0.99077, RRADJ: 0.987929, STER: 0.032597, D-W: 1.732007 >>

[501] ECLD12 : OLSQ, Sample < 1986-2002 > Coal Demand in Sector 12
 $ECLD12 = \exp(2.111137 - 0.105468 * \log(EPLD12 + EELD12 / 0.814) + 0.826894 * \log(ECLD12(-1)) + 0.159415 * (D93 + D94) - 0.529222 * D97)$
 (3.552672) (-3.521479) (14.32524) (3.62263) (-9.188514)
 << RR: 0.979695, RRADJ: 0.972927, STER: 0.050725, D-W: 2.540872 >>

[502] ECLD13 : OLSQ, Sample < 1985-2002 > Coal Demand in Sector 13
 $ECLD13 = 1295.75 + 0.369492 * (ECLCK + ECLLS) + 718.5955 * (D94 - D95) - 1668.184 * D00 - 2554.08 * D01 - 4099.645 * D0220$
 (2.813859) (9.246105) (2.85909) (-4.573428) (-6.986085) (-10.71185)
 << RR: .913678, RRADJ: .8791492, STER: 304.1779, D-W: .7624745 >>

[503] ECLD14 : OLSQ, Sample < 1985-2002 > Coal Demand in Sector 14
 $ECLD14 = 1153.527 + 9.31335 * ECLGP + 1549.596 * (D93 - D94) + 11422.777 * (D96 + D97) - 2563.701 * (D01 + D0220)$
 (4.166731) (13.01413) (4.926413) (4.218864) (-6.462241)
 << RR: 0.947065, RRADJ: 0.930778, STER: 431.8847, D-W: 2.328709 >>

[504] ECLD15 : OLSQ, Sample < 1985-2002 > Coal Demand in Sector 15
 $ECLD15 = 56160.94 - 28.09913 * TREND + 942.4263 * (D91 - D92 - D93) - 4210.948 * (D94 + D95 + D96 + D97 + D98 + D99) + (ECLPG + ECLHT)$
 (1.393746) (-1.38906) (3.960929) (-18.82655)
 << RR: 0.970415, RRADJ: 0.964076, STER: 405.6527, D-W: 1.667276 >>

[505] ECLDT Coal Demand Total
 $ECLDT = ECLD01 + ECLD02 + ECLD03 + ECLD04 + ECLD05 + ECLD06 + ECLD07 + ECLD08 + ECLD09 + ECLD10 + ECLD11 + ECLD12 + ECLD13 + ECLD14 + ECLD15$

[506] ECLDH : OLSQ, Sample < 1986-2002 > Coal Demand in Residential Sector
 $ECLDH = \exp(-1.762385 + 0.249948 * \log(CP) - 0.228889 * \log(PX15 / PCP) + 0.900789 * \log(EELDH(-1)) + 0.042208 * (D93 + D94 + D95))$
 (-1.521146) (1.515232) (-3.077472) (10.93502) (2.65924)
 << RR: 0.999122, RRADJ: 0.998829, STER: 0.022941, D-W: 2.971228 >>

[Electricity (100 million Kwh)]

[507] EELX Power Generation Total
 $EELX = EELD + EELE - EELM$

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[508] EELXH : OLSQ, Sample < 1985-2002 > Power Generation (Hydro)
 $EELXH = 223.7659 + 0.158699 * EELX + 124.9782 * D94 - 151.7091 * (D99 + D00) + 215.0209 * D01$
 (6.139379) (38.420211) (2.298416) (-3.42441) (3.548867)
 << RR: 0.994138, RRADJ: 0.992335, STER: 52.3372, D-W: 1.657175 >>

[509] EELXT Power Generation (Thermal)
 $EELXT = EELX - (EELXH + EELXN)$

[510] EELD Electricity Demand Total
 $EELD = EELDT + EELDH$

[511] EELLS : OLSQ, Sample < 1985-2002 > Electricity (Energy Loss)
 $EELLS = 16.77317 + 0.069127 * EELX - 62.22321 * D94$
 (1.640565) (66.47444) (-3.794682)
 << RR: . 0.996624, RRADJ: 0.996174, STER: 15.93446, D-W: 1.276246 >>

[512] EELD01 : OLSQ, Sample < 1985-2002 > Electricity Demand in Sector 1
 $EELD01 = \exp(-9.674752 + 1.10441 * \log(X01) - 0.401176 * \log(PX15 / PX01) + 0.078334 * (D89 - D90))$
 (-13.25781) (21.76465) (-5.983472) (3.308313)
 << RR: 0.988664, RRADJ: 0.986235, STER: 0.033221, D-W: 2.421508 >>

[513] EELD02 : OLSQ, Sample < 1985-2002 > Electricity Demand in Sector 2
 $EELD02 = \exp(-2.07922 + 0.633856 * \log(X02) - 0.594069 * \log(PX15 / PX02) + 0.194053 * (D93 - D94) + 0.246635 * (D98 + D99 + D00 + D01 + D0220))$
 (-4.449454) (16.18972) (-6.642009) (4.150306) (6.715941)
 << RR: 0.973287, RRADJ: 0.965068, STER: 0.06162, D-W: 2.177846 >>

[514] EELD03 : OLSQ, Sample < 1985-2002 > Electricity Demand in Sector 3
 $EELD03 = \exp(-7.213242 + 0.931148 * \log(X03) - 0.469452 * \log(PX15 / PX03) - 0.296346 * D91 + 0.162901 * (D93 - D94) - 0.11592 * (D97 - D98))$
 (-9.207714) (16.17108) (-4.281456) (-4.874789) (4.192959) (-3.039306)
 << RR: 0.98515, RRADJ: 0.978963, STER: 0.053598, D-W: 1.795345 >>

[515] EELD04 : OLSQ, Sample < 1986-2002 > Electricity Demand in Sector 4
 $EELD04 = \exp(-3.597969 + 0.67432 * \log(X04) - 0.202342 * \log(PX15 / PX04) + 0.288769 * D91 + 0.353211 * D93 - 0.10035 * (D94 - D95) + 0.097866 * (D01 + D0220))$
 (-8.941904) (23.10871) (-3.789188) (7.765168) (9.614174) (-4.230513) (3.309609)
 << RR: 0.992781, RRADJ: . 0.988843, STER: 0.033462, D-W: 2.728452 >>

[516] EELD05 : OLSQ, Sample < 1985-2002 > Electricity Demand in Sector 5
 $EELD05 = \exp(-1.214879 + 0.593944 * \log(X05) - 0.190301 * \log(PX15 / PX05) + 0.095723 * (D93 + D95) + 0.163781 * (D96 + D97))$
 (-3.11046) (20.87911) (-3.378974) (3.408476) (5.68836)
 << RR: 0.992573, RRADJ: .0990288, STER: 0.037144, D-W: 2.018972 >>

[517] EELD06 : OLSQ, Sample < 1985-2002 > Electricity Demand in Sector 6
 $EELD06 = \exp(-3.4853 + 0.736762 * \log(X06) - 0.13094 * \log(PX15 / PX06) - 0.371968 * (D91 - D93) - 0.115883 * (D96 + D97))$
 (-7.143514) (19.69741) (-1.629871) (-9.566511) (-2.738491)
 << RR: 0.987084, RRADJ: 0.98311, STER: 0.053398, D-W: 1.856662 >>

[518] EELD07 : OLSQ, Sample < 1986-2002 > Electricity Demand in Sector 7
 $EELD07 = \exp(-5.052715 + 0.901604 * \log(X07) - 0.255836 * \log(PX15 / PX07) - 0.201641 * D94 + 0.133526 * D97)$
 (-14.35981) (33.80498) (-4.856707) (-4.264019) (3.010922)
 << RR: 0.992457, RRADJ: 0.990136, STER: 0.04259, D-W: 1.831367 >>

[519] EELD08 : OLSQ, Sample < 1985-2002 > Electricity Demand in Sector 8
 $EELD08 = \exp(-8.211959 - 0.831222 * \log(PX15 / PX08) + 0.529005 * (D85 + D86) + 1.52708 * D91) * X08$
 (-287.8333.) (-11.32921) (6.101031) (12.93961)
 << RR: 0.970835, RRADJ: 0.964585, STER: 0.110473, D-W: 2.186748 >>

[520] EELD09 : OLSQ, Sample < 1985-2002 > Electricity Demand in Sector 9
 $EELD09 = \exp(-8.712999 + 1.080126 * \log(X09) + 0.460234 * (D91 - D92))$
 (-21.811) (35.38564) (7.556113)
 << RR: 0.988166, RRADJ: 0.986588, STER: 0.083818, D-W: 2.289112 >>

[521] EELD10 : OLSQ, Sample < 1986-2002 > Electricity Demand in Sector 10
 $EELD10 = \exp(-5.970669 + 0.752862 * \log(X10) + 0.279481 * D85 + 0.43104 * (D93 + D94 + D95 + D96) + 0.412894 * D98)$
 (-10.34332) (18.16691) (3.260449) (9.554815) (4.995674)
 << RR: 0.976985, RRADJ: .95727, STER: .0946544, D-W: 1.926684 >>

[522] EELD11 : OLSQ, Sample < 1986-2002 > Electricity Demand in Sector 11
 $EELD11 = \exp(-6.768733 + 0.848098 * \log(X11) + 0.019368 * D88 + 0.346084 * (D89 + D90) + 0.166605 * D97)$
 (-19.72679) (34.59021) (3.006549) (6.948483) (2.738105)
 << RR: 0.976985, RRADJ: 0.969903, STER: 0.077586, D-W: 1.19938 >>

[523] EELD12 : OLSQ, Sample < 1985-2002 > Electricity Demand in Sector 12

EELD12 = exp(-10.46005 + 1.160398 * log(X12) - 0.434094 * (D88 + D89) + 0.187056 * (D93 + D94) - 0.323307 * (D01 + D0220))
 (-17.85505) (28.1453) (-7.392867) (3.191499) (-4.737422)
 << RR: 0.987825, RRADJ: 0.984079, STER: 0.076712, D-W: 1.864409 >>

[524] EELD13 : OLSQ, Sample < 1986-2002 > Electricity Demand in Sector 13

EELD13 = exp(0.81543 + 0.424774 * log(DDB13) - 0.417804 * log(PX15 / PX13) - 0.110195 * D85 - 0.05954 * (D94 - D95) + 0.109904 * D98)
 (3.894405) (23.8339) (-5.050551) (-3.458869) (-3.03323) (3.735452)
 << RR: 0.988466, RRADJ: 0.983661, STER: 0.027746, D-W: 1.7535 >>

[525] EELD14 : OLSQ, Sample < 1985-2002 > Electricity Demand in Sector 14

EELD14 = exp(-7.218745 + 1.028207 * log(DDB14) - 0.320633 * log(PX15 / PX14) + 0.146844 * (D93 + D94) - 0.178314 * D00)
 (-6.415152) (12.10305) (-1.934689) (2.886261) (-2.485757)
 << RR: 0.990131, RRADJ: 0.987094, STER: 0.060695, D-W: 1.980207 >>

[526] EELD15 : OLSQ, Sample < 1985-2002 > Electricity Demand in Sector 15

EELD15 = exp(-2.159408 + 0.726916 * log(DDB15) + 0.390921 * (D93 - D94) - 0.316756 * (D95 + D96 + D97 + D98 + D99 + D00)) + EELLS
 (-4.261647) (17.49914) (7.335774) (-7.044387)
 << RR: 0.960153, RRADJ: 0.951615, STER: 0.074248, D-W: 1.501463 >>

[527] EELDT Electricity Demand Total

EELDT = EELD01 + EELD02 + EELD03 + EELD04 + EELD05 + EELD06 + EELD07 + EELD08 + EELD09 + EELD10 + EELD11 + EELD12 + EELD13 + EELD14 + EELD15

[528] EELDH : OLSQ, Sample < 1986-2002 > Electricity Demand in Residential Sector

EELDH = exp(-1.762385 + 0.249948 * log(CP) - 0.228889 * log(PX15 / PCP) + 0.900789 * log(EELDH(-1)) + 0.042208 * (D93 + D94 + D95))
 (-1.521146) (1.515232) (-3.077472) (10.93502) (2.65924)
 << RR: 0.999122, RRADJ: 0.998829, STER: 0.022941, D-W: 2.971228 >>

[Natural Gas (100 Million Cubic Meters -> 10000 tons of SCE)]

[529] ENGX : OLSQ, Sample < 1986-2002 > Natural Gas Production

ENGX = -135.8714 + 1.091432 * (ENGE + ENGD)
 (-1.638977) (35.0807)
 << RR: 0.987166, RRADJ: 0.986364, STER: 105.1408, D-W: 1.807347 >>

[530] ENGD : OLSQ, Sample < 1986-2002 > Natural Gas Demand

ENGD = -231.5186 + 1.080015 * (ENGDT + ENGDH)
 (-2.215203) (25.96635)
 << RR: 0.97682, RRADJ: . 0.975371, STER: 102.6415, D-W: 0.66441 >>

[531] ENGD01 Natural Gas Demand in Sector 1

ENGD01 = ENGD01R * X01 / 10000

[532] ENGD02 Natural Gas Demand in Sector 2

ENGD02 = ENGD02R * X02 / 10000

[533] ENGD03 Natural Gas Demand in Sector 3

ENGD03 = ENGD03R * X03 / 10000

[534] ENGD04 Natural Gas Demand in Sector 4

ENGD04 = ENGD04R * X04 / 10000

[535] ENGD05 : OLSQ, Sample < 1985-2002 > Natural Gas Demand in Sector 5

ENGD05 = exp(2.703322 + 0.296848 * log(X05) + 0.143787 * D96 - 0.095911 * D97 + 0.10299 * (D01 + D0220))
 (12.69774) (18.93286) (3.68342) (-2.429001) (3.059659)
 << RR: 0.981337, RRADJ: 0.975595, STER: 0.036715, D-W: 2.335082>>

[536] ENGD06 Natural Gas Demand in Sector 6

ENGD06 = ENGD06R * X06 / 10000

[537] ENGD07 Natural Gas Demand in Sector 7

ENGD07 = ENGD07R * X07 / 10000

[538] ENGD08 Natural Gas Demand in Sector 8

ENGD08 = ENGD08R * X08 / 10000

[539] ENGD09 Natural Gas Demand in Sector 9

ENGD09 = ENGD09R * X09 / 10000

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[540] ENGD10 Natural Gas Demand in Sector 10
 $ENG D10 = ENGD10R * X10 / 10000$

[541] ENGD11 Natural Gas Demand in Sector 11
 $ENG D11 = ENGD11R * X11 / 10000 + SW2 * SNGD11 / 0.075$

[542] ENGD12 Natural Gas Demand in Sector 12
 $ENG D12 = ENGD12R * X12 / 10000$

[543] ENGD13 Natural Gas Demand in Sector 13
 $ENG D13 = ENGD13R * X13 / 10000$

[544] ENGD14 : OLSQ, Sample < 1985-2002 > Natural Gas Demand in Sector 14
 $ENG D14 = \exp(0.911626 + 0.450317 * \log(DDB14) + 0.134047 * (D86 + D87 + D88) - 0.310384 * D96 + 0.174785 * (D00 + D01 + D0220))$
 (1.563085) (9.819955) (3.268355) (-5.589112) (3.763518)
 << RR: 0.965329, RRADJ: 0.95466, STER: 0.052135, D-W: 12.158997 >>

[545] ENGD15 Natural Gas Demand in Sector 15
 $ENG D15 = EELXTNA * (EELXT / 0.814) / ENGPGRA * ENGPGRB + SW2 * SNGDPG / 0.075 + SW4 * ZELXTNG / 0.814 / 50.0 * 100$

[546] ENGDT Natural Gas Demand Total
 $ENG DT = ENGD01 + ENGD02 + ENGD03 + ENGD04 + ENGD05 + ENGD06 + ENGD07 + ENGD08 + ENGD09 + ENGD10 + ENGD11 + ENGD12 + ENGD13 + ENGD14 + ENGD15$

[547] ENGDH : OLSQ, Sample < 1986-2002 > Natural Gas Demand in Residential Sector
 $ENG DH = \exp(-30.57335 + 3.536655 * \log(CP) - 1.951318 * \log(PX14 / PCP) + 0.345829 * D94 - 0.527173 * (D96 + D97 + D98 + D99))$
 (-12.81133) (15.25322) (-9.8146) (2.87901) (-7.499774)
 << RR: 0.973754, RRADJ: 0.965678, STER: 0.108073, D-W: 1.792169 >>

[548] SNGD Change in Natural Gas Demand: Scenario Analysis
 $SNG D = SNGDPG + SNGD05 + SNGD11 + SNGDH$

[CO2 Emission (10000 t-c/oil)]

[549] CO2 CO2 Emission Total
 $CO2 = CO2CL + CO2PL + CO2NG$

[550] CO2CL CO2 Emission from Coal
 $CO2CL = 1.08 * ECLD * 0.7$

[551] CO2PL CO2 Emission from Petroleum
 $CO2PL = 0.837 * EPLD * 0.7$

[552] CO2NG CO2 Emission from Natural Gas
 $CO2NG = 0.641 * ENGD * 0.7$

[SO2 Emission (10000 t)]

[553] SO2 SO2 Emission Total
 $SO2 = SO2CL + SO2PL + SO2NG$

[554] SO2CL SO2 Emission from Coal
 $SO2CL = RSO2CL * RECLD * ECLD$

[555] SO2PL SO2 Emission from Petroleum
 $SO2PL = RSO2PL * REPLD * EPLD$

[556] SO2NG SO2 Emission from Natural Gas
 $SO2NG = RSO2NG * RENGD * ENGD$

Appendix 2 Endogenous Variables

Endogenous Variable	Code	Unit	Source
CG	Real Government Consumption	100 Million Yuan	SYC
CGV	Nominal Government Consumption	100 Million Yuan	SYC
CINRES	Balance of Payment: Balance on Others	100 Million Yuan	SYC
CINT	Balance of Payment: Balance on Capital Account	100 Million Yuan	SYC
CO2	CO2 Emission, Total	10000 Ton-C	computed
CO2CL	CO2 Emission, Coal	10000 Ton-C	computed
CO2NG	CO2 Emission, Natural Gas	10000 Ton-C	computed
CO2PL	CO2 Emission, Petroleum	10000 Ton-C	computed
CP	Real Private Consumption	100 Million Yuan	SYC
CPI	Consumer Price Index	1995=100	SYC
CPV	Nominal Private Consumption	100 Million Yuan	SYC
DD01	Real Domestic Demand for Agriculture	Million Yuan	computed
DD02	Real Domestic Demand for Other Mining	Million Yuan	computed
DD03	Real Domestic Demand for Food	Million Yuan	computed
DD04	Real Domestic Demand for Textile Product	Million Yuan	computed
DD05	Real Domestic Demand for Chemical Product	Million Yuan	computed
DD06	Real Domestic Demand for Non-Metallic Mineral Product	Million Yuan	computed
DD07	Real Domestic Demand for Iron, Steel, and Non-Ferrous Metal	Million Yuan	computed
DD08	Real Domestic Demand for Metal Product and Machinery	Million Yuan	computed
DD09	Real Domestic Demand for Other Manufacturing	Million Yuan	computed
DD10	Real Domestic Demand for Construction	Million Yuan	computed
DD11	Real Domestic Demand for Transportation and Communication	Million Yuan	computed
DD12	Real Domestic Demand for Service	Million Yuan	computed
DD13	Real Domestic Demand for Coal	Million Yuan	computed
DD14	Real Domestic Demand for Oil and Natural Gas	Million Yuan	computed
DD15	Real Domestic Demand for Electric Power and Heat Supply	Million Yuan	computed
DDA01	Real Domestic Intermediate Demand for Agriculture	Million Yuan	computed
DDA02	Real Domestic Intermediate Demand for Mining	Million Yuan	computed
DDA03	Real Domestic Intermediate Demand for Food	Million Yuan	computed
DDA04	Real Domestic Intermediate Demand for Textile Product	Million Yuan	computed
DDA05	Real Domestic Intermediate Demand for Chemical Product	Million Yuan	computed
DDA06	Real Domestic Intermediate Demand for Non-Metallic Mineral Product	Million Yuan	computed
DDA07	Real Domestic Intermediate Demand for Iron, Steel, and Non-Ferrous Metal	Million Yuan	computed
DDA08	Real Domestic Intermediate Demand for Metal Product and Machinery	Million Yuan	computed
DDA09	Real Domestic Intermediate Demand for Other Manufacturing	Million Yuan	computed
DDA10	Real Domestic Intermediate Demand for Construction	Million Yuan	computed
DDA11	Real Domestic Intermediate Demand for Transportation and Communication	Million Yuan	computed
DDA12	Real Domestic Intermediate Demand for Service	Million Yuan	computed
DDA13	Real Domestic Intermediate Demand for Coal	Million Yuan	computed
DDA14	Real Domestic Intermediate Demand for Oil and Natural Gas	Million Yuan	computed
DDA15	Real Domestic Intermediate Demand for Electric Power and Heat Supply	Million Yuan	computed
DDB01	Real Domestic Demand for Agriculture	Million Yuan	computed
DDB02	Real Domestic Demand for Mining	Million Yuan	computed
DDB03	Real Domestic Demand for Food	Million Yuan	computed
DDB04	Real Domestic Demand for Textile Product	Million Yuan	computed
DDB05	Real Domestic Demand for Chemical Product	Million Yuan	computed
DDB06	Real Domestic Demand for Non-Metallic Mineral Product	Million Yuan	computed
DDB07	Real Domestic Demand for Iron, Steel, and Non-Ferrous Metal	Million Yuan	computed
DDB08	Real Domestic Demand for Metal Product and Machinery	Million Yuan	computed
DDB09	Real Domestic Demand for Other Manufacturing	Million Yuan	computed
DDB10	Real Domestic Demand for Construction	Million Yuan	computed
DDB11	Real Domestic Demand for Transportation and Communication	Million Yuan	computed
DDB12	Real Domestic Demand for Service	Million Yuan	computed
DDB13	Real Domestic Demand for Coal	Million Yuan	computed
DDB14	Real Domestic Demand for Oil and Natural Gas	Million Yuan	computed
DDB15	Real Domestic Demand for Electric Power and Heat Supply	Million Yuan	computed
DDF01	Real Domestic Final Demand for Agriculture	Million Yuan	computed
DDF02	Real Domestic Final Demand for Mining	Million Yuan	computed
DDF03	Real Domestic Final Demand for Food	Million Yuan	computed

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Endogenous Variable	Code	Unit	Source
DDF04	Real Domestic Final Demand for Textile Product	Million Yuan	computed
DDF05	Real Domestic Final Demand for Chemical Product	Million Yuan	computed
DDF06	Real Domestic Final Demand for Non-Metallic Mineral Product	Million Yuan	computed
DDF07	Real Domestic Final Demand for Iron, Steel, and Non-Ferrous Metal	Million Yuan	computed
DDF08	Real Domestic Final Demand for Metal Product and Machinery	Million Yuan	computed
DDF09	Real Domestic Final Demand for Other Manufacturing	Million Yuan	computed
DDF10	Real Domestic Final Demand for Construction	Million Yuan	computed
DDF11	Real Domestic Final Demand for Transportation and Communication	Million Yuan	computed
DDF12	Real Domestic Final Demand for Service	Million Yuan	computed
DDF13	Real Domestic Final Demand for Coal	Million Yuan	computed
DDF14	Real Domestic Final Demand for Oil and Natural Gas	Million Yuan	computed
DDF15	Real Domestic Final Demand for Electric Power and Heat Supply	Million Yuan	computed
DDT	Real Domestic Demand, Total	Million Yuan	computed
DDV01	Nominal Domestic Demand for Agriculture	Million Yuan	computed
DDV02	Nominal Domestic Demand for Mining	Million Yuan	computed
DDV03	Nominal Domestic Demand for Food	Million Yuan	computed
DDV04	Nominal Domestic Demand for Textile Product	Million Yuan	computed
DDV05	Nominal Domestic Demand for Chemical Product	Million Yuan	computed
DDV06	Nominal Domestic Demand for Non-Metallic Mineral Product	Million Yuan	computed
DDV07	Nominal Domestic Demand for Iron and Steel, and Non-Ferrous Metal	Million Yuan	computed
DDV08	Nominal Domestic Demand for Metal Product and Machinery	Million Yuan	computed
DDV09	Nominal Domestic Demand for Other Manufacturing	Million Yuan	computed
DDV10	Nominal Domestic Demand for Construction	Million Yuan	computed
DDV11	Nominal Domestic Demand for Transportation and Communication	Million Yuan	computed
DDV12	Nominal Domestic Demand for Service	Million Yuan	computed
DDV13	Nominal Domestic Demand for Coal	Million Yuan	computed
DDV14	Nominal Domestic Demand for Oil and Natural Gas	Million Yuan	computed
DDV15	Nominal Domestic Demand for Electric Power and Heat Supply	Million Yuan	computed
DDVT	Nominal Domestic Demand, Total	Million Yuan	computed
DPV01	Depreciation of Fixed Assets in Agriculture	Million Yuan	computed
DPV02	Depreciation of Fixed Assets in Mining	Million Yuan	computed
DPV03	Depreciation of Fixed Assets in Food	Million Yuan	computed
DPV04	Depreciation of Fixed Assets in Textile Product	Million Yuan	computed
DPV05	Depreciation of Fixed Assets in Chemical Product	Million Yuan	computed
DPV06	Depreciation of Fixed Assets in Non-Metallic Mineral Product	Million Yuan	computed
DPV07	Depreciation of Fixed Assets in Iron, Steel, and Non-Ferrous Metal	Million Yuan	computed
DPV08	Depreciation of Fixed Assets in Metal Product and Machinery	Million Yuan	computed
DPV09	Depreciation of Fixed Assets in Other Manufacturing	Million Yuan	computed
DPV10	Depreciation of Fixed Assets in Construction	Million Yuan	computed
DPV11	Depreciation of Fixed Assets in Transportation and Communication	Million Yuan	computed
DPV12	Depreciation of Fixed Assets in Service	Million Yuan	computed
DPV13	Depreciation of Fixed Assets in Coal	Million Yuan	computed
DPV14	Depreciation of Fixed Assets in Oil and Natural Gas	Million Yuan	computed
DPV15	Depreciation of Fixed Assets in Electric Power and Heat Supply	Million Yuan	computed
DPVT	Depreciation of Fixed Assets in Total	Million Yuan	computed
E11	Real Export Demand for Transportation and Communication	Million Yuan	computed
E12	Real Export Demand for Service	Million Yuan	computed
ECLCK	Coal Demand in Coking	10000 Ton	SYC
ECLCT	Coal Energy Conversion	10000 Ton	SYC
ECLD	Coal Demand, Total	10000 Ton	SYC
ECLD01	Coal Demand in Agriculture	10000 Ton	SYC
ECLD02	Coal Demand in Mining	10000 Ton	SYC
ECLD03	Coal Demand in Food	10000 Ton	SYC
ECLD04	Coal Demand in Textile Product	10000 Ton	SYC
ECLD05	Coal Demand in Chemical Product	10000 Ton	SYC
ECLD06	Coal Demand in Non-Metallic Mineral Product	10000 Ton	SYC
ECLD07	Coal Demand in Iron and Steel in and Non-Ferrous Metal	10000 Ton	SYC
ECLD08	Coal Demand in Metal Product and Machinery	10000 Ton	SYC
ECLD09	Coal Demand in Other Manufacturing	10000 Ton	SYC
ECLD10	Coal Demand in Construction	10000 Ton	SYC
ECLD11	Coal Demand in Transportation and Communication	10000 Ton	SYC
ECLD12	Coal Demand in Service	10000 Ton	SYC

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Endogenous Variable	Code	Unit	Source
ECLD13	Coal Demand in Coal	10000 Ton	SYC
ECLD14	Coal Demand in Oil and Natural Gas	10000 Ton	SYC
ECLD15	Coal Demand in Electric Power and Heat Supply	10000 Ton	SYC
ECLDH	Coal Demand in Household	10000 Ton	SYC
ECLDT	Coal Demand in Industry Total	10000 Ton	SYC
ECLE	Coal Exports	10000 Ton	SYC
ECLGP	Coal Demand in Gas Production	10000 Ton	SYC
ECLHT	Coal Demand in Heat Supply	10000 Ton	SYC
ECLLS	Coal Energy Loss	10000 Ton	SYC
ECLPG	Coal Demand in Power Generation	10000 Ton	SYC
ECLX	Coal Production	10000 Ton	SYC
EELD	Electricity Demand, Total	100 Million Kwh	SYC
EELD01	Electricity Demand in Agriculture	100 Million Kwh	SYC
EELD02	Electricity Demand in Mining	100 Million Kwh	SYC
EELD03	Electricity Demand in Food	100 Million Kwh	SYC
EELD04	Electricity Demand in Textile Product	100 Million Kwh	SYC
EELD05	Electricity Demand in Chemical Product	100 Million Kwh	SYC
EELD06	Electricity Demand in Non-Metallic Mineral Product	100 Million Kwh	SYC
EELD07	Electricity Demand in Iron and Steel in and Non-Ferrous Metal	100 Million Kwh	SYC
EELD08	Electricity Demand in Metal Product and Machinery	100 Million Kwh	SYC
EELD09	Electricity Demand in Other Manufacturing	100 Million Kwh	SYC
EELD10	Electricity Demand in Construction	100 Million Kwh	SYC
EELD11	Electricity Demand in Transportation and Communication	100 Million Kwh	SYC
EELD12	Electricity Demand in Service	100 Million Kwh	SYC
EELD13	Electricity Demand in Coal	100 Million Kwh	SYC
EELD14	Electricity Demand in Oil and Natural Gas	100 Million Kwh	SYC
EELD15	Electricity Demand in Electric Power and Heat Supply	100 Million Kwh	SYC
EELDH	Electricity Demand in Household	100 Million Kwh	SYC
EELDT	Electricity Demand in Industry Total	100 Million Kwh	SYC
EELLS	Electricity Energy Loss	100 Million Kwh	SYC
EELX	Power Generation, Total	100 Million Kwh	SYC
EELXH	Power Generation, Hydraulic	100 Million Kwh	SYC
EELXT	Power Generation, Thermal	100 Million Kwh	SYC
EEOD	Energy Demand, Total	10000 Tons of SCE	SYC
EEOE	Energy Export, Total	10000 Tons of SCE	SYC
EEOJ	Change in Energy Inventory	10000 Tons of SCE	SYC
EEOM	Energy Imports, Total	10000 Tons of SCE	SYC
EEOR	Recovery of Energy	10000 Tons of SCE	SYC
EEOX	Energy Production, Total	10000 Tons of SCE	SYC
EG	Real Exports of goods and services	100 Million Yuan	SYC
EGD	Real Exports of goods and services in dollar	100 Million Dollar	SYC
EGDV	Nominal Exports of goods and services in dollar	100 Million Dollar	SYC
EGV	Nominal Exports of goods and services	100 Million Yuan	SYC
ENGD	Natural Gas Demand, Total	100 Million Cum	SYC
ENGD01	Natural Gas Demand in Agriculture	100 Million Cum	SYC
ENGD02	Natural Gas Demand in Mining	100 Million Cum	SYC
ENGD03	Natural Gas Demand in Food	100 Million Cum	SYC
ENGD04	Natural Gas Demand in Textile Product	100 Million Cum	SYC
ENGD05	Natural Gas Demand in Chemical Product	100 Million Cum	SYC
ENGD06	Natural Gas Demand in Non-Metallic Mineral Product	100 Million Cum	SYC
ENGD07	Natural Gas Demand in Iron and Steel in and Non-Ferrous Metal	100 Million Cum	SYC
ENGD08	Natural Gas Demand in Metal Product and Machinery	100 Million Cum	SYC
ENGD09	Natural Gas Demand in Other Manufacturing	100 Million Cum	SYC
ENGD10	Natural Gas Demand in Construction	100 Million Cum	SYC
ENGD11	Natural Gas Demand in Transportation and Communication	100 Million Cum	SYC
ENGD12	Natural Gas Demand in Service	100 Million Cum	SYC
ENGD13	Natural Gas Demand in Coal	100 Million Cum	SYC
ENGD14	Natural Gas Demand in Oil and Natural Gas	100 Million Cum	SYC
ENGD15	Natural Gas Demand in Electric Power and Heat Supply	100 Million Cum	SYC
ENGDH	Natural Gas Demand in Household	100 Million Cum	SYC
ENGDT	Natural Gas Demand in Industry Total	100 Million Cum	SYC
ENGX	Natural Gas Production	100 Million Cum	SYC
EPLB	Petroleum Energy Balance	10000 Tons	SYC
EPLCK	Petroleum Energy Conversion	10000 Tons	SYC
EPLCT	Petroleum Demand in Coking	10000 Tons	SYC

Endogenous Variable	Code	Unit	Source
EPLD	Petroleum Demand, Total	10000 Tons	SYC
EPLD01	Petroleum Demand in Agriculture	10000 Tons	SYC
EPLD02	Petroleum Demand in Mining	10000 Tons	SYC
EPLD03	Petroleum Demand in Food	10000 Tons	SYC
EPLD04	Petroleum Demand in Textile Product	10000 Tons	SYC
EPLD05	Petroleum Demand in Chemical Product	10000 Tons	SYC
EPLD06	Petroleum Demand in Non-Metallic Mineral Product	10000 Tons	SYC
EPLD07	Petroleum Demand in Iron and Steel in and Non-Ferrous Metal	10000 Tons	SYC
EPLD08	Petroleum Demand in Metal Product and Machinery	10000 Tons	SYC
EPLD09	Petroleum Demand in Other Manufacturing	10000 Tons	SYC
EPLD10	Petroleum Demand in Construction	10000 Tons	SYC
EPLD11	Petroleum Demand in Transportation and Communication	10000 Tons	SYC
EPLD12	Petroleum Demand in Service	10000 Tons	SYC
EPLD13	Petroleum Demand in Coal	10000 Tons	SYC
EPLD14	Petroleum Demand in Oil and Natural Gas	10000 Tons	SYC
EPLD15	Petroleum Demand in Electric Power and Heat Supply	10000 Tons	SYC
EPLDH	Petroleum Demand in Household	10000 Tons	SYC
EPLDT	Petroleum Demand in Industry Total	10000 Tons	SYC
EPLD	Petroleum Exports	10000 Tons	SYC
EPLGP	Petroleum Demand in Gas Production	10000 Tons	SYC
EPLHT	Petroleum Demand in Heat Supply	10000 Tons	SYC
EPLLS	Petroleum Energy Loss	10000 Tons	SYC
EPLM	Petroleum Imports	10000 Tons	SYC
EPLPG	Petroleum Demand in Power Generation	10000 Tons	SYC
EPLX	Petroleum Production	10000 Tons	SYC
ET	Real Export Demand, Total	Million Yuan	SYC
EV01	Nominal Export Demand for Agriculture	Million Yuan	computed
EV02	Nominal Export Demand for Mining	Million Yuan	computed
EV03	Nominal Export Demand for Food	Million Yuan	computed
EV04	Nominal Export Demand for Textile Product	Million Yuan	computed
EV05	Nominal Export Demand for Chemical Product	Million Yuan	computed
EV06	Nominal Export Demand for Non-Metallic Mineral Product	Million Yuan	computed
EV07	Nominal Export Demand for Iron and Steel, and Non-Ferrous Metal	Million Yuan	computed
EV08	Nominal Export Demand for Metal Product and Machinery	Million Yuan	computed
EV09	Nominal Export Demand for Other Manufacturing	Million Yuan	computed
EV10	Nominal Export Demand for Construction	Million Yuan	computed
EV11	Nominal Export Demand for Transportation and Communication	Million Yuan	computed
EV12	Nominal Export Demand for Service	Million Yuan	computed
EV13	Nominal Export Demand for Coal	Million Yuan	computed
EV14	Nominal Export Demand for Oil and Natural Gas	Million Yuan	computed
EV15	Nominal Export Demand for Electric Power and Heat Supply	Million Yuan	computed
EVT	Nominal Export Demand, Total	Million Yuan	computed
GBL	Government Finance: Balance	100 Million Yuan	SYC
GCC	Government Finance: Expenditures	100 Million Yuan	SYC
GDEB	Government Finance: Total Government Debts	100 Million Yuan	SYC
GDEBD	Government Finance: Domestic Debts	100 Million Yuan	SYC
GDP	Real Gross Domestic Product	100 Million Yuan	SYC
GDPV	Nominal Gross Domestic Product	100 Million Yuan	SYC
GEXP	Government Finance: Total Expenditures	100 Million Yuan	SYC
GNP	Real Gross National Product	100 Million Yuan	SYC
GNPV	Nominal Gross National Product	100 Million Yuan	SYC
GREV	Government Finance: Total Revenues	100 Million Yuan	SYC
GTAX	Government Finance: Taxes	100 Million Yuan	SYC
IF	Real Fixed Investment	100 Million Yuan	SYC
IFDFV	Nominal Foreign Investment	100 Million Yuan	SYC
IFV	Nominal Fixed Investment	100 Million Yuan	SYC
J	Change in Real Inventory	100 Million Yuan	SYC
JV	Change in Nominal Inventory	100 Million Yuan	SYC
KJ	Real Inventory	100 Million Yuan	SYC
LE01	Number of Labor Engaged in Agriculture	10 Thousand	SYC
LE02	Number of Labor Engaged in Mining	10 Thousand	SYC
LE03	Number of Labor Engaged in Food	10 Thousand	SYC
LE04	Number of Labor Engaged in Textile Product	10 Thousand	SYC
LE05	Number of Labor Engaged in Chemical Product	10 Thousand	SYC
LE06	Number of Labor Engaged in Non-Metallic Mineral Product	10 Thousand	SYC

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Endogenous Variable	Code	Unit	Source
LE07	Number of Labor Engaged in Iron and Steel, and Non-Ferrous Metal	10 Thousand	SYC
LE08	Number of Labor Engaged in Metal Product and Machinery	10 Thousand	SYC
LE09	Number of Labor Engaged in Other Manufacturing	10 Thousand	SYC
LE10	Number of Labor Engaged in Construction	10 Thousand	SYC
LE11	Number of Labor Engaged in Transportation and Communication	10 Thousand	SYC
LE12	Number of Labor Engaged in Service	10 Thousand	SYC
LE13	Number of Labor Engaged in Coal	10 Thousand	SYC
LE14	Number of Labor Engaged in Oil and Natural Gas	10 Thousand	SYC
LE15	Number of Labor Engaged in Electric Power and Heat Supply	10 Thousand	SYC
LET	Total Number of Labor Engaged	10 Thousand	SYC
LF	Labor Force	10 Thousand	SYC
M01	Real Import Demand for Agriculture	Million Yuan	computed
M02	Real Import Demand for Mining	Million Yuan	computed
M03	Real Import Demand for Food	Million Yuan	computed
M04	Real Import Demand for Textile Product	Million Yuan	computed
M05	Real Import Demand for Chemical Product	Million Yuan	computed
M06	Real Import Demand for Non-Metallic Mineral Product	Million Yuan	computed
M07	Real Import Demand for Iron and Steel, and Non-Ferrous Metal	Million Yuan	computed
M08	Real Import Demand for Metal Product and Machinery	Million Yuan	computed
M09	Real Import Demand for Other Manufacturing	Million Yuan	computed
M11	Real Import Demand for Transportation and Communication	Million Yuan	computed
M12	Real Import Demand for Service	Million Yuan	computed
M13	Real Import Demand for Coal	Million Yuan	computed
M14	Real Import Demand for Oil and Natural Gas	Million Yuan	computed
M15	Real Import Demand for Electric Power and Heat Supply	Million Yuan	computed
M2	Money Supply	100 Million Yuan	SYC
MG	Real Imports of Goods and Services	100 Million Yuan	SYC
MGD	Real Imports of Goods and Services in dollar	100 Million Dollar	SYC
MGDV	Nominal Imports of Goods and Services in dollar	100 Million Dollar	SYC
MGV	Nominal Imports of Goods and Services	100 Million Yuan	SYC
MT	Real Import Demand, Total	100 Million Yuan	SYC
MV01	Nominal Import Demand for Agriculture	Million Yuan	computed
MV02	Nominal Import Demand for Mining	Million Yuan	computed
MV03	Nominal Import Demand for Food	Million Yuan	computed
MV04	Nominal Import Demand for Textile Product	Million Yuan	computed
MV05	Nominal Import Demand for Chemical Product	Million Yuan	computed
MV06	Nominal Import Demand for Non-Metallic Mineral Product	Million Yuan	computed
MV07	Nominal Import Demand for Iron and Steel, and Non-Ferrous Metal	Million Yuan	computed
MV08	Nominal Import Demand for Metal Product and Machinery	Million Yuan	computed
MV09	Nominal Import Demand for Other Manufacturing	Million Yuan	computed
MV10	Nominal Import Demand for Construction	Million Yuan	computed
MV11	Nominal Import Demand for Transportation and Communication	Million Yuan	computed
MV12	Nominal Import Demand for Service	Million Yuan	computed
MV13	Nominal Import Demand for Coal	Million Yuan	computed
MV14	Nominal Import Demand for Oil and Natural Gas	Million Yuan	computed
MV15	Nominal Import Demand for Electric Power and Heat Supply	Million Yuan	computed
MVT	Nominal Import Demand, Total	Million Yuan	computed
OTV01	Operating Surplus for Agriculture	Million Yuan	computed
OTV02	Operating Surplus for Mining	Million Yuan	computed
OTV03	Operating Surplus for Food	Million Yuan	computed
OTV04	Operating Surplus for Textile Product	Million Yuan	computed
OTV05	Operating Surplus for Chemical Product	Million Yuan	computed
OTV06	Operating Surplus for Non-Metallic Mineral Product	Million Yuan	computed
OTV07	Operating Surplus for Iron and Steel, and Non-Ferrous Metal	Million Yuan	computed
OTV08	Operating Surplus for Metal Product and Machinery	Million Yuan	computed
OTV09	Operating Surplus for Other Manufacturing	Million Yuan	computed
OTV10	Operating Surplus for Construction	Million Yuan	computed
OTV11	Operating Surplus for Transportation and Communication	Million Yuan	computed
OTV12	Operating Surplus for Service	Million Yuan	computed
OTV13	Operating Surplus for Coal	Million Yuan	computed
OTV14	Operating Surplus for Oil and Natural Gas	Million Yuan	computed
OTV15	Operating Surplus for Electric Power and Heat Supply	Million Yuan	computed
OTVT	Operating Surplus, Total	Million Yuan	computed
PCCT	Consumer Goods Price	1995=100	computed

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Endogenous Variable	Code	Unit	Source
PCCTD	Domestic Consumer Goods Price	1995=100	computed
PCCTM	Imported Consumer Goods Price	1995=100	computed
PCG	Deflator for Government Consumption	1995=100	SYC
PCP	Deflator for Private Consumption	1995=100	SYC
PDD01	Deflator for Domestic Demand in Agriculture	1995=100	computed
PDD02	Deflator for Domestic Demand in Mining	1995=100	computed
PDD03	Deflator for Domestic Demand in Food	1995=100	computed
PDD04	Deflator for Domestic Demand in Textile Product	1995=100	computed
PDD05	Deflator for Domestic Demand in Chemical Product	1995=100	computed
PDD06	Deflator for Domestic Demand in Non-Metallic Mineral Product	1995=100	computed
PDD07	Deflator for Domestic Demand in Iron and Steel, and Non-Ferrous Metal	1995=100	computed
PDD08	Deflator for Domestic Demand in Metal Product and Machinery	1995=100	computed
PDD09	Deflator for Domestic Demand in Other Manufacturing	1995=100	computed
PDD10	Deflator for Domestic Demand in Construction	1995=100	computed
PDD11	Deflator for Domestic Demand in Transportation and Communication	1995=100	computed
PDD12	Deflator for Domestic Demand in Service	1995=100	computed
PDD13	Deflator for Domestic Demand in Coal	1995=100	computed
PDD14	Deflator for Domestic Demand in Oil and Natural Gas	1995=100	computed
PDD15	Deflator for Domestic Demand in Electric Power and Heat Supply	1995=100	computed
PDDT	Deflator for Domestic Demand, Total	1995=100	computed
PE01	Deflator for Export in Agriculture	1995=100	SYC
PE02	Deflator for Export in Mining	1995=100	SYC
PE03	Deflator for Export in Food	1995=100	SYC
PE04	Deflator for Export in Textile Product	1995=100	SYC
PE05	Deflator for Export in Chemical Product	1995=100	SYC
PE06	Deflator for Export in Non-Metallic Mineral Product	1995=100	SYC
PE07	Deflator for Export in Iron and Steel, and Non-Ferrous Metal	1995=100	SYC
PE08	Deflator for Export in Metal Product and Machinery	1995=100	SYC
PE09	Deflator for Export in Other Manufacturing	1995=100	SYC
PE11	Deflator for Export in Transportation and Communication	1995=100	SYC
PE12	Deflator for Export in Service	1995=100	SYC
PE13	Deflator for Export in Coal	1995=100	SYC
PE14	Deflator for Export in Oil and Natural Gas	1995=100	SYC
PE15	Deflator for Export in Electric Power and Heat Supply	1995=100	SYC
PEG	Deflator for Exports of Goods and Services	1995=100	SYC
PEGD	Deflator for Exports of Goods and Services in Dollar	1995=100	SYC
PET	Deflator for Export, Total	1995=100	SYC
PGDP	Deflator for GDP	1995=100	SYC
PICT	Investment Goods Price	1995=100	computed
PICTD	Domestic Investment Goods Price	1995=100	computed
PICTM	Imported Investment Goods Price	1995=100	computed
PIF	Deflator for Fixed Investment	1995=100	SYC
PJ	Deflator for Inventory Change	1995=100	SYC
PM01	Deflator for Import in Agriculture	1995=100	SYC
PM02	Deflator for Import in Mining	1995=100	SYC
PM03	Deflator for Import in Food	1995=100	SYC
PM04	Deflator for Import in Textile Product	1995=100	SYC
PM05	Deflator for Import in Chemical Product	1995=100	SYC
PM06	Deflator for Import in Non-Metallic Mineral Product	1995=100	SYC
PM07	Deflator for Import in Iron and Steel, and Non-Ferrous Metal	1995=100	SYC
PM08	Deflator for Import in Metal Product and Machinery	1995=100	SYC
PM09	Deflator for Import in Other Manufacturing	1995=100	SYC
PM11	Deflator for Import in Transportation and Communication	1995=100	SYC
PM12	Deflator for Import in Service	1995=100	SYC
PM13	Deflator for Import in Coal	1995=100	SYC
PM14	Deflator for Import in Oil and Natural Gas	1995=100	SYC
PM15	Deflator for Import in Electric Power and Heat Supply	1995=100	SYC
PMG	Deflator for Imports of Goods and Services	1995=100	SYC
PMT	Deflator for Import, Total	1995=100	SYC
PPI	Producer Price Index	1995=100	SYC
PR01	Input Price for Agriculture	1995=100	computed
PR02	Input Price for Mining	1995=100	computed
PR03	Input Price for Food	1995=100	computed

Endogenous Variable	Code	Unit	Source
PR04	Input Price for Textile Product	1995=100	computed
PR05	Input Price for Chemical Product	1995=100	computed
PR06	Input Price for Non-Metallic Mineral Product	1995=100	computed
PR07	Input Price for Iron and Steel, and Non-Ferrous Metal	1995=100	computed
PR08	Input Price for Metal Product and Machinery	1995=100	computed
PR09	Input Price for Other Manufacturing	1995=100	computed
PR10	Input Price for Construction	1995=100	computed
PR11	Input Price for Transportation and Communication	1995=100	computed
PR12	Input Price for Service	1995=100	computed
PR13	Input Price for Coal	1995=100	computed
PR14	Input Price for Oil and Natural Gas	1995=100	computed
PR15	Input Price for Electric Power and Heat Supply	1995=100	computed
PRD01	Domestic Input Price for Agriculture	1995=100	computed
PRD02	Domestic Input Price for Mining	1995=100	computed
PRD03	Domestic Input Price for Food	1995=100	computed
PRD04	Domestic Input Price for Textile Product	1995=100	computed
PRD05	Domestic Input Price for Chemical Product	1995=100	computed
PRD06	Domestic Input Price for Non-Metallic Mineral Product	1995=100	computed
PRD07	Domestic Input Price for Iron and Steel, and Non-Ferrous Metal	1995=100	computed
PRD08	Domestic Input Price for Metal Product and Machinery	1995=100	computed
PRD09	Domestic Input Price for Other Manufacturing	1995=100	computed
PRD10	Domestic Input Price for Construction	1995=100	computed
PRD11	Domestic Input Price for Transportation and Communication	1995=100	computed
PRD12	Domestic Input Price for Service	1995=100	computed
PRD13	Domestic Input Price for Coal	1995=100	computed
PRD14	Domestic Input Price for Oil and Natural Gas	1995=100	computed
PRD15	Domestic Input Price for Electric Power and Heat Supply	1995=100	computed
PRM01	Import Input Price for Agriculture	1995=100	computed
PRM02	Import Input Price for Mining	1995=100	computed
PRM03	Import Input Price for Food	1995=100	computed
PRM04	Import Input Price for Textile Product	1995=100	computed
PRM05	Import Input Price for Chemical Product	1995=100	computed
PRM06	Import Input Price for Non-Metallic Mineral Product	1995=100	computed
PRM07	Import Input Price for Iron and Steel, and Non-Ferrous Metal	1995=100	computed
PRM08	Import Input Price for Metal Product and Machinery	1995=100	computed
PRM09	Import Input Price for Other Manufacturing	1995=100	computed
PRM10	Import Input Price for Construction	1995=100	computed
PRM11	Import Input Price for Transportation and Communication	1995=100	computed
PRM12	Import Input Price for Service	1995=100	computed
PRM13	Import Input Price for Coal	1995=100	computed
PRM14	Import Input Price for Oil and Natural Gas	1995=100	computed
PRM15	Import Input Price for Electric Power and Heat Supply	1995=100	computed
PX01	Deflator for Output in Agriculture	1995=100	SYC
PX02	Deflator for Output in Mining	1995=100	SYC
PX03	Deflator for Output in Food	1995=100	SYC
PX04	Deflator for Output in Textile Product	1995=100	SYC
PX05	Deflator for Output in Chemical Product	1995=100	SYC
PX06	Deflator for Output in Non-Metallic Mineral Product	1995=100	SYC
PX07	Deflator for Output in Iron and Steel, and Non-Ferrous Metal	1995=100	SYC
PX08	Deflator for Output in Metal Product and Machinery	1995=100	SYC
PX09	Deflator for Output in Other Manufacturing	1995=100	SYC
PX10	Deflator for Output in Construction	1995=100	SYC
PX11	Deflator for Output in Transportation and Communication	1995=100	SYC
PX12	Deflator for Output in Service	1995=100	SYC
PX13	Deflator for Output in Coal	1995=100	SYC
PX14	Deflator for Output in Oil and Natural Gas	1995=100	SYC
PX15	Deflator for Output in Electric Power and Heat Supply	1995=100	SYC
PXT	Deflator for Output, Total	1995=100	SYC
SNGD	Change in Natural Gas Demand: Scenario Analysis	Million Yuan	SYC
SO2	SO2 Emission, Total	10000 Ton	computed
SO2CL	SO2 Emission from Coal	10000 Ton	computed
SO2NG	SO2 Emission from Natural Gas	10000 Ton	computed
SO2PL	SO2 Emission from Petroleum	10000 Ton	computed
TBL	Balance of Payment: Goods and Services Balance	100 Million Yuan	SYC
VV01	Value Added for Agriculture	Million Yuan	computed

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Endogenous Variable	Code	Unit	Source
VV02	Value Added for Mining	Million Yuan	computed
VV03	Value Added for Food	Million Yuan	computed
VV04	Value Added for Textile Product	Million Yuan	computed
VV05	Value Added for Chemical Product	Million Yuan	computed
VV06	Value Added for Non-Metallic Mineral Product	Million Yuan	computed
VV07	Value Added for Iron and Steel, and Non-Ferrous Metal	Million Yuan	computed
VV08	Value Added for Metal Product and Machinery	Million Yuan	computed
VV09	Value Added for Other Manufacturing	Million Yuan	computed
VV10	Value Added for Construction	Million Yuan	computed
VV11	Value Added for Transportation and Communication	Million Yuan	computed
VV12	Value Added for Service	Million Yuan	computed
VV13	Value Added for Coal	Million Yuan	computed
VV14	Value Added for Oil and Natural Gas	Million Yuan	computed
VV15	Value Added for Electric Power and Heat Supply	Million Yuan	computed
VVT	Value Added, Total	Million Yuan	computed
WV01	Wage Income per Worker for Agriculture	100 Yuan/Worker	
WV02	Wage Income per Worker for Mining	100 Yuan/Worker	
WV03	Wage Income per Worker for Food	100 Yuan/Worker	
WV04	Wage Income per Worker for Textile Product	100 Yuan/Worker	
WV05	Wage Income per Worker for Chemical Product	100 Yuan/Worker	
WV06	Wage Income per Worker for Non-Metallic Mineral Product	100 Yuan/Worker	
WV07	Wage Income per Worker for Iron and Steel, and Non-Ferrous Metal	100 Yuan/Worker	
WV08	Wage Income per Worker for Metal Product and Machinery	100 Yuan/Worker	
WV09	Wage Income per Worker for Other Manufacturing	100 Yuan/Worker	
WV10	Wage Income per Worker for Construction	100 Yuan/Worker	
WV11	Wage Income per Worker for Transportation and Communication	100 Yuan/Worker	
WV12	Wage Income per Worker for Service	100 Yuan/Worker	
WV13	Wage Income per Worker for Coal	100 Yuan/Worker	
WV14	Wage Income per Worker for Oil and Natural Gas	100 Yuan/Worker	
WV15	Wage Income per Worker for Electric Power and Heat Supply	100 Yuan/Worker	
WVT	Wage Income per Worker, Total	100 Yuan/Worker	
X01	Real Output in Agriculture	Million Yuan	computed
X02	Real Output in Mining	Million Yuan	computed
X03	Real Output in Food	Million Yuan	computed
X04	Real Output in Textile Product	Million Yuan	computed
X05	Real Output in Chemical Product	Million Yuan	computed
X06	Real Output in Non-Metallic Mineral Product	Million Yuan	computed
X07	Real Output in Iron and Steel, and Non-Ferrous Metal	Million Yuan	computed
X08	Real Output in Metal Product and Machinery	Million Yuan	computed
X09	Real Output in Other Manufacturing	Million Yuan	computed
X10	Real Output in Construction	Million Yuan	computed
X11	Real Output in Transportation and Communication	Million Yuan	computed
X12	Real Output in Service	Million Yuan	computed
X13	Real Output in Coal	Million Yuan	computed
X14	Real Output in Oil and Natural Gas	Million Yuan	computed
X15	Real Output in Electric Power and Heat Supply	Million Yuan	computed
XT	Real Output, Total	Million Yuan	computed
XV01	Nominal Output in Agriculture	Million Yuan	computed
XV02	Nominal Output in Mining	Million Yuan	computed
XV03	Nominal Output in Food	Million Yuan	computed
XV04	Nominal Output in Textile Product	Million Yuan	computed
XV05	Nominal Output in Chemical Product	Million Yuan	computed
XV06	Nominal Output in Non-Metallic Mineral Product	Million Yuan	computed
XV07	Nominal Output in Iron and Steel, and Non-Ferrous Metal	Million Yuan	computed
XV08	Nominal Output in Metal Product and Machinery	Million Yuan	computed
XV09	Nominal Output in Other Manufacturing	Million Yuan	computed
XV10	Nominal Output in Construction	Million Yuan	computed
XV11	Nominal Output in Transportation and Communication	Million Yuan	computed
XV12	Nominal Output in Service	Million Yuan	computed
XV13	Nominal Output in Coal	Million Yuan	computed
XV14	Nominal Output in Oil and Natural Gas	Million Yuan	computed
XV15	Nominal Output in Electric Power and Heat Supply	Million Yuan	computed
XVT	Nominal Output, Total	Million Yuan	computed
YVW01	Compensation of Labor in Agriculture	Million Yuan	computed

Endogenous Variable	Code	Unit	Source
YVV02	Compensation of Labor in Mining	Million Yuan	computed
YVV03	Compensation of Labor in Food	Million Yuan	computed
YVV04	Compensation of Labor in Textile Product	Million Yuan	computed
YVV05	Compensation of Labor in Chemical Product	Million Yuan	computed
YVV06	Compensation of Labor in Non-Metallic Mineral Product	Million Yuan	computed
YVV07	Compensation of Labor in Iron and Steel, and Non-Ferrous Metal	Million Yuan	computed
YVV08	Compensation of Labor in Metal Product and Machinery	Million Yuan	computed
YVV09	Compensation of Labor in Other Manufacturing	Million Yuan	computed
YVV10	Compensation of Labor in Construction	Million Yuan	computed
YVV11	Compensation of Labor in Transportation and Communication	Million Yuan	computed
YVV12	Compensation of Labor in Service	Million Yuan	computed
YVV13	Compensation of Labor in Coal	Million Yuan	computed
YVV14	Compensation of Labor in Oil and Natural Gas	Million Yuan	computed
YVV15	Compensation of Labor in Electric Power and Heat Supply	Million Yuan	computed
YVVT	Compensation of Labor, Total	Million Yuan	computed
ZIF	Change in Final Demand (Total): Scenario Analysis	Million Yuan	
ZIF01	Change in Final Demand for Agriculture	Million Yuan	
ZIF02	Change in Final Demand for Mining	Million Yuan	
ZIF03	Change in Final Demand for Food	Million Yuan	
ZIF04	Change in Final Demand for Textile Product	Million Yuan	
ZIF05	Change in Final Demand for Chemical Product	Million Yuan	
ZIF06	Change in Final Demand for Non-Metallic Mineral Product	Million Yuan	
ZIF07	Change in Final Demand for Iron and Steel, and Non-Ferrous Metal	Million Yuan	
ZIF08	Change in Final Demand for Metal Product and Machinery	Million Yuan	
ZIF09	Change in Final Demand for Other Manufacturing	Million Yuan	
ZIF10	Change in Final Demand for Construction	Million Yuan	
ZIF11	Change in Final Demand for Transportation and Communication	Million Yuan	
ZIF12	Change in Final Demand for Service	Million Yuan	
ZIF13	Change in Final Demand for Coal	Million Yuan	
ZIF14	Change in Final Demand for Oil and Natural Gas	Million Yuan	
ZIF15	Change in Final Demand for Electric Power and Heat Supply	Million Yuan	
ZIFD	Change in Final Demand (Domestic Goods): Scenario Analysis	Million Yuan	
ZIFM	Change in Final Demand (Imported Goods): Scenario Analysis	Million Yuan	

Note: SYC means Statistical Year Book of China. Computed denotes data computed from IO tables.

Appendix 3. Exogenous Variables

Exogenous Variable	Code	Unit	Source
CINFDI	Foreign Direct Investments	100 Million Dollar	SYC
CINL	Foreign Loans	100 Million Dollar	SYC
CINOF	Other Foreign Investments	100 Million Dollar	SYC
E01	Real Export Demand for Agriculture	Million Yuan	computed
E02	Real Export Demand for Mining	Million Yuan	computed
E03	Real Export Demand for Food	Million Yuan	computed
E04	Real Export Demand for Textile Product	Million Yuan	computed
E05	Real Export Demand for Chemical Product	Million Yuan	computed
E06	Real Export Demand for Non-Metallic Mineral Product	Million Yuan	computed
E07	Real Export Demand for Iron and Steel, and Non-Ferrous Metal	Million Yuan	computed
E08	Real Export Demand for Metal Product and Machinery	Million Yuan	computed
E09	Real Export Demand for Other Manufacturing	Million Yuan	computed
E10	Real Export Demand for Construction	Million Yuan	computed
E13	Real Export Demand for Coal	Million Yuan	computed
E14	Real Export Demand for Oil and Natural Gas	Million Yuan	computed
E15	Real Export Demand for Electric Power and Heat Supply	Million Yuan	computed
ECLB	Coal Balance	10000 Ton	SYC
ECLJ	Change in Coal Inventory	10000 Ton	SYC
ECLM	Coal Import	10000 Ton	SYC
ECLPGRA	Coal Thermal Power Plant Energy Efficiency	%	
ECLPGRB	Adjustment Factor: Coal Thermal Power Plant Energy Efficiency		
EELE	Electricity Export	100 Million Kwh	SYC
EELM	Electricity Import	100 Million Kwh	SYC
EELXN	Power Generation, Others	100 Million Kwh	SYC
EELXTCA	Power Generation, Coal Thermal, Ratio	%	
EELXTNA	Power Generation, Natural Gas Thermal, Ratio	%	
EELXTPA	Power Generation, Oil Thermal, Ratio	%	
EEOB	Energy Balance		SYC
ENGD01R	Natural Gas Demand-Output Ratio in Agriculture	cum/100Yuan	
ENGD02R	Natural Gas Demand-Output Ratio in Mining	cum/100Yuan	
ENGD03R	Natural Gas Demand-Output Ratio in Food	cum/100Yuan	
ENGD04R	Natural Gas Demand-Output Ratio in Textile Product	cum/100Yuan	
ENGD06R	Natural Gas Demand-Output Ratio in Non-Metallic Mineral Product	cum/100Yuan	
ENGD07R	Natural Gas Demand-Output Ratio in Iron and Steel, and Non-Ferrous Metal	cum/100Yuan	
ENGD08R	Natural Gas Demand-Output Ratio in Metal Product and Machinery	cum/100Yuan	
ENGD09R	Natural Gas Demand-Output Ratio in Other Manufacturing	cum/100Yuan	
ENGD10R	Natural Gas Demand-Output Ratio in Construction	cum/100Yuan	
ENGD11R	Natural Gas Demand-Output Ratio in Transportation and Communication	cum/100Yuan	
ENGD12R	Natural Gas Demand-Output Ratio in Service	cum/100Yuan	
ENGD13R	Natural Gas Demand-Output Ratio in Coal	cum/100Yuan	
ENGE	Natural Gas Export	100 Million Cum	
ENGPGRA	Natural Gas Thermal Power Plant Energy Efficiency	%	
ENGPGRB	Adjustment Factor: Natural Gas Thermal Power Plant Energy Efficiency		
EPLJ	Change in Petroleum Inventory	10000 Tons	SYC
EPLPGRA	Oil Thermal Power Plant Energy Efficiency	%	
EPLPGRB	Adjustment Factor: Oil Thermal Power Plant Energy Efficiency		
EPS	Statistical Discrepancy, Real	100 Million Yuan	SYC
EPSV	Statistical Discrepancy, Nominal	100 Million Yuan	SYC
EXR	Exchange Rate	Yuan/100US Doller	SYC
GDEBF	Government Finance: Foreign Debt	100 Million Yuan	SYC
GINV	Government Investment	100 Million Yuan	SYC

Exogenous Variable	Code	Unit	Source
GNTAX	Government Finance: Non Tax Revenue	100 Million Yuan	SYC
M10	Real Import Demand for Construction	Million Yuan	computed
PE10	Deflator for Export in Construction	1995=100	SYC
PM10	Deflator for Import in Construction	1995=100	SYC
PMGD	Deflator for Imports of Goods and Services in Dollar	1995=100	SYC
PMOILD	Imported Oil Price in dollar	1995=100	SYC
POP	Population	10 Thousand	SYC
RECLD	Bridge Factor for ECLD		
RECLE	Bridge Factor for ECLE		
RENGD	Bridge Factor for ECLD		
REPLD	Bridge Factor for EPLD		
REPLE	Bridge Factor for EPLE		
RGTAX	Average Tax Rate	%	
RM13	Bridge Factor for M13		
RM14	Bridge Factor for M14		
RM15	Bridge Factor for M15		
RSO2CL	SO2 Emission Factor for Coal		
RSO2NG	SO3 Emission Factor for Natural Gas		
RSO2PL	SO4 Emission Factor for Oil		
RX13	Bridge Factor for X14		
RX14	Bridge Factor for X15		
RX15	Bridge Factor for X16		
SIFD01	Change in Final Demand for Agriculture		
SIFD02	Change in Final Demand for Mining		
SIFD03	Change in Final Demand for Food		
SIFD04	Change in Final Demand for Textile Product		
SIFD05	Change in Final Demand for Chemical Product		
SIFD06	Change in Final Demand for Non-Metallic Mineral Product		
SIFD07	Change in Final Demand for Iron and Steel, and Non-Ferrous Metal		
SIFD08	Change in Final Demand for Metal Product and Machinery		
SIFD09	Change in Final Demand for Other Manufacturing		
SIFD10	Change in Final Demand for Construction		
SIFD11	Change in Final Demand for Transportation and Communication		
SIFD12	Change in Final Demand for Service		
SIFD13	Change in Final Demand for Coal		
SIFD14	Change in Final Demand for Oil and Natural Gas		
SIFD15	Change in Final Demand for Electric Power and Heat Supply		
SIFM01	Change in Import Demand for Agriculture		
SIFM02	Change in Import Demand for Mining		
SIFM03	Change in Import Demand for Food		
SIFM04	Change in Import Demand for Textile Product		
SIFM05	Change in Import Demand for Chemical Product		
SIFM06	Change in Import Demand for Non-Metallic Mineral Product		
SIFM07	Change in Import Demand for Iron and Steel, and Non-Ferrous Metal		
SIFM08	Change in Import Demand for Metal Product and Machinery		
SIFM09	Change in Import Demand for Other Manufacturing		
SIFM10	Change in Import Demand for Construction		
SIFM11	Change in Import Demand for Transportation and Communication		
SIFM12	Change in Import Demand for Service		
SIFM13	Change in Import Demand for Coal		
SIFM14	Change in Import Demand for Oil and Natural Gas		
SIFM15	Change in Import Demand for Electric Power and Heat Supply		
SNGD05	Natural Gas Demand Target Value for Chemical Product		
SNGD11	Natural Gas Demand Target Value for Transportation and Communication		

Exogenous Variable	Code	Unit	Source
SNGDH	Natural Gas Demand Target Value for Household		
SNGDPG	Natural Gas Demand Target Value for Natural Gas Thermal Power Generation		
SW1	Switch Variable		
SW2	Switch Variable		
SW3	Switch Variable		
SW4	Switch Variable		
TREND	Time trend		
ZELXTNG	Power Generation Target Value, Natural Gas		
ZIFD01	Change in Domestic Demand for Agriculture		
ZIFD02	Change in Domestic Demand for Mining		
ZIFD03	Change in Domestic Demand for Food		
ZIFD04	Change in Domestic Demand for Textile Product		
ZIFD05	Change in Domestic Demand for Chemical Product		
ZIFD06	Change in Domestic Demand for Non-Metallic Mineral Product		
ZIFD07	Change in Domestic Demand for Iron and Steel, and Non-Ferrous Metal		
ZIFD08	Change in Domestic Demand for Metal Product and Machinery		
ZIFD09	Change in Domestic Demand for Other Manufacturing		
ZIFD10	Change in Domestic Demand for Construction		
ZIFD11	Change in Domestic Demand for Transportation and Communication		
ZIFD12	Change in Domestic Demand for Service		
ZIFD13	Change in Domestic Demand for Coal		
ZIFD14	Change in Domestic Demand for Oil and Natural Gas		
ZIFD15	Change in Domestic Demand for Electric Power and Heat Supply		
ZIFM01	Change in Import Demand for Agriculture		
ZIFM02	Change in Import Demand for Mining		
ZIFM03	Change in Import Demand for Food		
ZIFM04	Change in Import Demand for Textile Product		
ZIFM05	Change in Import Demand for Chemical Product		
ZIFM06	Change in Import Demand for Non-Metallic Mineral Product		
ZIFM07	Change in Import Demand for Iron and Steel, and Non-Ferrous Metal		
ZIFM08	Change in Import Demand for Metal Product and Machinery		
ZIFM09	Change in Import Demand for Other Manufacturing		
ZIFM10	Change in Import Demand for Construction		
ZIFM11	Change in Import Demand for Transportation and Communication		
ZIFM12	Change in Import Demand for Service		
ZIFM13	Change in Import Demand for Coal		
ZIFM14	Change in Import Demand for Oil and Natural Gas		
ZIFM15	Change in Import Demand for Electric Power and Heat Supply		

Note: SYC means Statistical Year Book of China. Computed denotes data computed from IO tables.