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Interim Report for: Development and Applications of a Novel Global Economic Model

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新しいグローバル・モデルの開発とその応用

A Local-Currency-Based Multi-Sectoral Model for Global Economic Analysis

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Economic agents make their decisions by focusing on the economic performance of their economies in their currencies rather than in a foreign currency. This shows that a multi-country economic model in local currencies is suitable to analyze global economic issues. However, international input-output tables are denominated in a specific currency such as the US dollar. Employing the OECD Intercountry Input-Output Tables, this paper presents a method to convert the international input-output tables in US dollars and current prices to those in local currencies and constant prices. In addition, this paper illustrates the structure of a global model with economies of scale and imperfect competition.

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1. Introduction

This paper aims at developing a new approach for global economic modeling; specifically, a local currency-based multi-country multi-sectoral model.

The history of the world economy shows that economic interdependence of nations has been strengthened through trade and investment. Project LINK is a pioneering macroeconometric model which describes a global economy in the context of economic interdependence. Subsequently, many institutions and scholars construct multi-county macroeconometric models such as the International Monetary Fund's Global Economy Model (Pesenti, 2008), Fair's (1994) Multi-Country Model, Taylor's (1993) Multi-Country Model. However, recent economic deregulation enables firms to investment overseas. In fact, firm-level foreign direct investment is growing rapidly. Therefore, macroeconometric models are not necessarily adequate for global economic analysis. Instead, a global model at sector level is more appropriate for analyzing the current world economy. Regarding multi-country multi-sectoral models, the following four types of models have been developed: 1) computable general equilibrium (CGE) model such as the Michigan model (Deardorff and Stern, 1986), the GTAP model (Hertel, 1996) and the G-Cubed

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model (McKibbin and Wilcoxen, 1999) , 2) the INFORUM system which interlinks national input-output models with a trade linkage model (Almon, 1991; Uno, 2002), 3) single-period international input-output model (Torii et al. 1989; Kosaka, 1994; Yano and Kosaka, 2003), and 4) price-linked multi-country multi-sectoral model (Yano and Kosaka, 2015). However, the first three models have shortcomings: a typical CGE model lacks statistical foundations of parameters; the INFORUM system might have inconsistency between classifications in input-output tables and trade matrix; a single-period international input-output model has limitations in specifications and estimation of behavioral equations due to the use of only a single-period international input-output table. A price-linked multi-country multi-sectoral model improves the flaws of these three models, yet it has a drawback: that is, a currency problem. The model in Yano and Kosaka (2015) is denominated in international dollars. In reality, however, economic agents make their decisions by focusing on economic performance of their economies in their currencies rather than a foreign currency. In addition, it is quite difficult to include the economic effects of exchange rate fluctuation in a model denominated in a single currency. This shows that we must build a local currency-based model in order to analyze economic issues. To do this, this paper shows an approach to compile international input-output tables in constant prices and local currencies. The structure of a local currency-based multi-country multi-sectoral model with economies of scale and monopoly is also presented.

The rest of this paper consists of three sections. Section 2 illustrates the method to construct local-currency-based international input-output tables in constant prices. Section 3 shows the model structure. Finally, section 4 provides conclusions.

2. Local-Currency-Based International Input-Output Tables in Constant Prices

2.1. Currency Conversion

International input-output tables are typically denominated in a single currency: e.g., the OECD Intercountry Input-Output Tables are evaluated in U.S. dollars. In contrast, local currency-based international input-output tables consist of variables in currencies *h* (country which supplies goods) and *k* (country which demands goods). Following the double deflation technique, intermediate goods (Part A of Figure 1), final demand, exports to the third world, statistical discrepancies (Part B of Figure 1), and output (Part C of Figure 1) are denominated in currency *h*. On the contrary, value added (Part D of Figure 2) is converted into that in currency *k*. In order to hold the consistency between the summation of inputs and demands, intermediate goods (Part A of Figure 1) are evaluated by currency *k* as well: i.e., we have two sets of intermediates (one is evaluated by currency *h* and the other is by currency *k*). Consequently, the following five parts should be obtained: i) intermediates evaluated by currency *h*, ii) intermediates evaluated by currency *k*, iii) final demand, exports to the third world, and statistical discrepancies evaluated by currency *h*, iv) output evaluated by currency *h*, and v) value added evaluated by currency *k*.

2.2. Deflation

In order to deflate an input-output table, the double deflation technique is normally applied. By contrast, Dietzenbacher and Hoen (1998) and Hoen (2002) develop a different deflating procedure which uses the RAS method. As Dietzenbacher and Hoen (1998) and Hoen (2002) point out, his approach would be more proper than double deflation. However, the RAS approach requires various data in constant prices in advance of deflation. According to Hoen (2002, p.78), the following data in constant prices are required for deflating international input-output tables: sectoral output, sectoral exports to and imports from the third world, sectoral value added, and totals of final demand components of each economy which consists the corresponding tables. On many occasions, it is not easy to obtain the required data even for developed countries. Therefore, we employ Yano and Kosaka's (2015) simpler approach which uses the principles of double deflation. The double deflation method requires price data for each sector and economy prior to deflation: however, it is rare to find proper set of these data. Viewing sectoral GDP deflator as the corresponding sector's value added deflator in the international input-output framework, Yano and Kosaka (2015) obtain sectoral price equations of all economies by backtracking the double deflation method and compute the values by solving the system of the resultant price equations.

2.3. The Detailed Procedure

Consider a general case where international input-output tables have *n* sectors and *r* countries. The procedure of constructing local currency-based international input-output tables in constant prices is described as follows:

Step 1: Unification of sector classification

Sector classifications of international input-output tables and GDP deflators are not always identical. Therefore, we unify the sector classifications of these data, if necessary.

Step 2: *Construction of international input-output tables in current prices and local currencies*

Prior to deflating international input-output tables, we construct those in current prices and local currencies. It is worth noting that intermediate goods in currency *k* are computed by converting intermediate goods in currency *h* into those in currency *k* since international input-output tables are deflated by currency *h*.

Step 3: *Computation of sectoral prices by using the corresponding sector's GDP deflators*

Following double deflation, value added deflator is written as:

$$PVA_j^k = \frac{XXK_j^k - \sum_{h=1}^{r}\sum_{i=1}^{n} XH_{ij}^{hk}\frac{e^k}{e^h} - WM_j^k}{\frac{XXK_j^k}{P_j^k} - \sum_{h=1}^{r}\sum_{i=1}^{n}\frac{XH_{ij}^{hk}}{P_i^h}\frac{e^{k*}}{e^{h*}} - \frac{WM_j^k}{PIM^k}} \qquad j = 1,2,\ldots,n;\ k = 1,2,\ldots,r \qquad (1)$$

where PVA_j^k is value added deflator in sector *j* of country *k*, XXK_j^k is output in sector *j* of country *k* in current prices and currency *k*, WM_j^k is imports from the rest of the world in sector *j* of country

k in current prices and currency *k*, P_j^k is price in sector *j* of country *k*, XH_{ij}^{hk} is good *i* in sector *j* of country *k* delivered from country *h* in current prices and currency *h*, P_i^h is price in sector *i* of country *h*, e^k is the exchange rate of country *k*, e^h is the exchange rate of country *h*, e^{k*} is the base-year exchange rate of country *k*, e^{h*} is the base-year exchange rate of country *h*, and PIM^k is import deflator of country *k*. Rearranging equation (1) yields equation for P_j^k as:

$$P_j^k = \frac{XXK_j^k}{\omega_j^k} \qquad j = 1,2, \ldots, n;\ k = 1, 2, \ldots, r \tag{2}$$

where $\omega_j^k = \sum_{h=1}^{r}\sum_{i=1}^{n} \frac{XH_{ij}^{hk}}{P_i^h}\frac{e^{k*}}{e^{h*}} + \frac{WM_j^k}{PIM^k} + \frac{XXK_j^k - \sum_{h=1}^{r}\sum_{i=1}^{n} XH_{ij}^{hk}\frac{e^k}{e^h} - WM_j^k}{PVA_j^k}$. Collecting equation (2) of all sectors and countries and solving the resultant simultaneous system give sectoral prices of all countries in local currencies.

Step 4: *Deflation of international input-output tables in current prices and local currencies*

Applying the double deflation technique, we deflate intermediate goods, final demand components, exports to the rest of the world, statistical discrepancies, and output at the sector level by using the corresponding sector's price obtained in the previous step. Intermediate goods in currency *k* are deflated by using intermediate goods in constant prices and currency *h* as:

$$XKR_{ij}^{hk} = XHR_{ij}^{hk} \times \frac{e^{k*}}{e^{h*}} \qquad i, j = 1, 2, \ldots, n;\ h, k = 1,2, \ldots, r \tag{3}$$

where XKR_{ij}^{hk} is intermediate goods *i* in sector *j* of country *k* delivered from country *h* in constant prices and currency *k* and XHR_{ij}^{hk} is intermediate goods *i* in sector *j* of country *k* delivered from country *h* in constant prices and currency *h*.(See Figure 2, Figure 3, Figure 4, and Figure 5)

2.4. Computed Prices by Sector and Country

This paper employs OECD's Intercountry Input-Output Tables and United Nations' National Accounts in order to make international input-output tables in constant prices and local currencies. Since sector classifications differ between the two data sources, we reorganized sector classification as in Table 1. Regions are also aggregated as Table 2 shows. Following the steps described in the previous section, we computed price by sector and country. The computed prices for selected countries are presented in Table 4, Table 5 and Table 6.

3. Data

International Input-Output Tables and Sectoral Deflators

The multi-country and multi-sector model employs international input-output tables. International input-output table is useful dataset as the analytical tool which describes the sale and purchase relationships between producers and consumer among countries. Specifically, the diagonal blocks represent the domestic transaction among industries and non-diagonal parts denote internationally industrial transaction beyond borders. Each cell in column-wise of the table shows the input structure of industry in each country. They are composed of input of intermediate and valued added (Consumption of fixed capital, Compensation of employees and mixed income, Operating surplus, and Indirect taxes and subsidies etc.). On the other hand, each cell in the row-wise of tables represents the output structure of industry of each country. They consist of output distribution of the produced intermediate goods, final demand for domestic as well as foreign countries (Household final consumption expenditure, Government final consumption expenditure, Fixed capital formation, and Changes in inventories etc.). In this manner, their features of tables enable to provide us with comprehensive and coherent perspective about international trades.

At present, the representative international Input-Output tables are as follows. Asian International Input-Output Tables are compiled by the Institute of Developing Economies (IDE-JETRO) and Japan-U.S. International Input-Output Table by the Ministry of International Trade and Industry of Japan. Then, European Union (EU) Intercountry Input-Output Tables are published by Van der Linden and Oosterhaven (1995), and Los and Oosterhaven (2006). Besides, World Input-Output Tables (WIOT) are constructed by the World Input–Output Database (WIOD) project. And, Inter-Country Input-Output (ICIO) Tables are published by Organisation for Economic Co-operation and Development (OECD).

In this study, we utilize the 1995-2000-2005-2008-2009-2010-2011 OECD Inter-Country Input-Output Tables. OECD ICIO tables are the largest data which include sixty four countries and thirty four industries (industry by industry). Additionally, they have sufficient multiple time periods, which would realize to execute time series analysis. We compile national currencies based international input-output tables in constant prices by these tables and sectoral deflators.

Sectoral deflators of each country are applied by System Accounts (ISIC version4) of United Nations. However, since the data accessibilities of sectoral deflator are limited, original tables are required to be arranged. Firstly, we unify the sector classification from thirty four industries to 7seven industries (Table 1). Secondly, regional classification are modified from sixty three countries and rest of the world to twenty nine countries and rest of the world (Table 2).

Labor and Wage

The framework of multi-country and multi-sector model includes the determination of labor demand as well as wage rate. Therefore, we supply them. Due to limited accessibility of labor market data, we utilize some data source as International Labor Organization (ILO), OECD, WIOD and the United Nations (Table 3).

4. The Model Structure

Differed from a typical CGE model, this model is a demand-driven model. Total output is determined by the summation of intermediate demands and final demands. Price is explained by marginal cost multiplied by markup.

4.1. Total Output

Based on the demand structure of an international input-output table, total output is determined by the following equation:

$$XXR_i^h = \sum_{j=1}^{n}\sum_{k=1}^{r} XHR_{ij}^{hk} + \sum_{k=1}^{r} CPHR_i^{hk} + \sum_{k=1}^{r} CNHR_i^{hk} + \sum_{k=1}^{r} CGHR_i^{hk} + \sum_{k=1}^{r} IHR_i^{hk} + \sum_{k=1}^{r} IVHR_i^{hk} + \sum_{k=1}^{r} EXHR_i^{hk} + QHR_i^h \quad (4)$$

where XXR_i^h is total output in sector *i* of country *h* in constant prices and currency *h*, XHR_{ij}^{hk} is intermediate goods delivered from sector *i* of country *h* to sector *j* of country *k* in constant prices and currency *h*, $CPHR_i^{hk}$ is private consumption of country *k* delivered from sector *i* of country *h* denominated in constant prices and currency *h*, $CPNR_i^{hk}$ is nonprofit institution serving household of country *k* delivered from sector *i* of country *h* in constant prices and currency *h* (exogenous), $CGHR_i^{hk}$ is government consumption of country *k* delivered from sector *i* of country *h* in constant prices and currency *h* (exogenous), IHR_i^{hk} is fixed investment of country *k* delivered from sector *i* of country *h* in constant prices and currency *h*, $IVHR_i^{hk}$ is inventories of country *k* delivered from sector *i* of country *h* in constant prices and currency *h* (exogenous), $EXHR_i^{hk}$ is exports to the rest of the world in sector *i* of country *h* in constant prices and currency *h* (exogenous) and QHR_i^h is statistical discrepancies in sector *i* of country *h* in constant prices and currency *h* (exogenous).

4.2. Firm Behavior

In this paper, we consider a case of monopoly. The producer in sector *j* of country *k* is assumed to have the following modified version of a generalized Ozaki unit cost function:[1]

$$UC_j^k = \sum_{i=1}^{n} a_{ij}^k XXR_j^k PXK_{ij}^k + a_{Lj}^k \left(XXR_j^k\right)^{\beta_{Lj}^k} w_j^k \exp\left(b_{Lj}^k T\right) + a_{Kj}^k \left(XXR_j^k\right)^{\beta_{Kj}^k} PK_j^k \exp\left(b_{Kj}^k T\right) \quad (5)$$

where UC_j^k is unit cost in sector *j* of country *k* denominate in the currency *k*, XXR_j^k is total output in sector *j* of country *k* in constant prices and currency *k*, PXK_{ij}^k is price for intermediate goods in

[1] As for a generalized Ozaki cost function, see Nakamura (1990).

sector j of country k delivered from sector i in constant prices and currency k $\left(XKR_{ij}^{k} = \sum_{h=1}^{r} XKR_{ij}^{hk}\right)$, w_j^k is the wage rate in sector j of country k evaluated in current prices and denominated in currency k, PK_j^k is price of capital in sector j of country k denominated in currency k and T is time trend.

Applying the Shephard's lemma yields the following demand for input factors:

$$XKR_{ij}^{k} = a_{ij}^{k} XXR_{j}^{k} \tag{6}$$

$$L_j^k = a_{Lj}^k \left(XXR_j^k\right)^{\beta_{Lj}^k} \exp\left(b_{Lj}^k T\right) \tag{7}$$

$$KR_j^k = a_{Kj}^k \left(XXR_j^k\right)^{\beta_{Kj}^k} \exp\left(b_{Kj}^k T\right) \tag{8}$$

where L_j^k is employment in sector j of country k and KR_j^k is capital stock in sector j of country k denominated in currency k.

The allocation of intermediate input by sector into source countries is determined by the Armington's (1969) approach as:

$$XKR_{ij}^{hk} = \left(\frac{bx_{ij}^{hk} PXK_{ij}^{k}}{P_i^{hk}}\right)^{\gamma_j^k} XKR_{ij}^{k} \tag{9}$$

where $P_i^{hk} = P_i^h \left\{\left(\frac{e^k}{e^h}\right) \Big/ \left(\frac{e^{k^*}}{e^{h^*}}\right)\right\}$ and P_i^h is price in sector i of country h denominated in currency h. Price for the Armington aggregate, PXK_{ij}^{k}, is expressed as:

$$PXK_{ij}^{k} = \left[\sum_{h=1}^{r} \left(bx_{ij}^{hk}\right)^{\gamma_j^k} \left(P_i^{hk}\right)^{1-\gamma_j^k}\right]^{\frac{1}{1-\gamma_j^k}} \tag{10}$$

Intermediate goods delivered from sector i of country h to sector j of country k in constant prices and currency h, XHR_{ij}^{hk}, is written as:

$$XHR_{ij}^{hk} = XKR_{ij}^{hk} \left(\frac{e^{h^*}}{e^{k^*}}\right) \tag{11}$$

4.3. Sectoral Price

Taking partial derivative of the cost function gives the following marginal cost:

$$\begin{aligned} MC_j^k = &\sum_{i=1}^{n} a_{ij}^k PXK_{ij}^k + a_{Lj}^k \beta_{Lj}^k \left(XXR_j^k\right)^{\beta_{Lj}^k - 1} w_j^k \exp\left(b_{Lj}^k T\right) \\ &+ a_{Kj}^k \beta_{Kj}^k \left(XXR_j^k\right)^{\beta_{Kj}^k - 1} PK_j^k \exp\left(b_{Kj}^k T\right) \end{aligned} \tag{12}$$

where MC_j^k is marginal cost in sector *j* of country *k* denominate in the currency *k*. Thus, the expression for sectoral price is written as:

$$P_j^k = \frac{\epsilon_j^k}{\epsilon_j^k - 1} MC_j^k \tag{13}$$

4.4. The Wage Rate

Slightly modifying the Philipps curve, we explain the sectoral wage rate by price deflator for private consumption and labor productivity as:

$$w_j^k = w_j^k \left(PCP^k, \frac{XXR_j^k}{L_j^k} \right) \tag{14}$$

where PCP^k is price deflator for private consumption in country *k* denominated in currency *k*.

4.5. Household Behavior

4.5.1. Private Consumption by Sector

Household of country *k* solves the following utility maximization problem:

$$\max \prod_{i=1}^{n} \left(CPKR_i^k \right)^{d_i^k} \tag{15}$$

subject to

$$YK^k = \sum_{i}^{n} PCPK_i^k CPKR_i^k \tag{16}$$

where $CPKR_i^k$ is private consumption for goods *i* in country *k* in constant prices and currency *k*, YK^k is household income of country *k* in current prices and currency *k*, and $PCPK_i^k$ price for private consumption for goods *i* in country *k* denominated in currency *k*. As a result of this utility maximization problem, we obtain the following equation:

$$CPKR_i^k = \frac{d_i^k}{PCPK_i^k} YK^k \tag{17}$$

4.5.2. Private Consumption by Sector and Country

Similar to the allocation of intermediate goods into source countries, we apply the Armington's (1969) approach to allocation sectoral private consumption as:

$$CPKR_i^{hk} = CPKR_i^k \left[\frac{bc_i^{hk} PCPK_i^k}{P_i^{hk}} \right]^{v_i^k} \tag{18}$$

where bc_i^{hk} is distribution parameter, $CPKR_i^{hk}$ is private consumption of country *k* delivered from sector *i* of country *h* in constant prices and currency *k* and v_i^k is elasticity of substitution in sector *j* of country *k*. Price for the Armington aggregate for private consumption is written as:

$$PCPK_i^k = \left[\sum_{h=1}^{r} \left(bc_i^{hk} \right)^{v_i^k} \left(P_i^{hk} \right)^{1-v_i^k} \right]^{\frac{1}{1-v_i^k}} \tag{19}$$

4.5.3. Price for Private Consumption at the Macro Level

As one of the results of utility maximization, price for private consumption of country *k* denominated in currency *k* is formulated as:

$$PCPK^k = \prod_{i=1}^{n} \left(\frac{PCPK_i^k}{d_i^k} \right)^{d_i^k} \tag{20}$$

4.5.4. Household Income

Since the main source of household income is wages. Thus, household income is written as:

$$YK^k = YK^k \left(W_j^k L_j^k \right) \tag{21}$$

4.6. Fixed Investment

Given capital stock explained by firm behavior, fixed investment is determined from the following identity:

$$IKR^k = \sum_{j=1}^{n} KR_j^k - \sum_{j=1}^{n} KR_j^k \, (-1) + DKR^k \tag{22}$$

where IKR^k is fixed investment in country *k* in constant prices and currency *k* and DKR^k is depreciation in country *k* in constant prices and currency *k* (exogenous).

Fixed investment at the macro level is allocated into by using fixed coefficients as follows: based on Leontief. In detail, investment of sector *i* in country *k*, can be written as:

$$IKR_i^k = a_{IR_i^k} IKR^k \tag{23}$$

where IKR_i^k is fixed investment of sector *i* in country *k* in constant prices and currency *k* and $a_{IR_i^k}$ is the ratio of IKR_i^k to IKR^k.

Allocation to source countries is determined by the Armington approach as:

$$IKR_i^{hk} = IKR_i^k \left[\frac{bv_i^{hk} PIK_i^k}{P_i^{hk}} \right]^{\mu_i^k} \tag{24}$$

where IKR_i^{hk} is fixed investment of country k delivered from sector i of country h in constant prices and currency k and bv_i^{hk} is distribution parameter. Price for the Armington aggregate regarding fixed investment is expressed as:

$$PIK_i^k = \left[\sum_{h=1}^{r} \left(bv_i^{hk} \right)^{\mu_i^k} \left(P_i^{hk} \right)^{1-\mu_i^k} \right]^{\frac{1}{1-\mu_i^k}} \tag{25}$$

5. Conclusions

In this paper, we construct international input-output tables evaluated in constant prices and denominated in local currencies. We also develop the theoretical structure of a local-currency-based multi-country multi-sectoral model with economies of scale and monopoly. Similar to widely used CGE models, the model has micro foundations.

One of the objectives of developing the model is application to policy analysis on global economic issues. For this purpose, further work such as estimation and testing of the model is necessary. This is our future research topic.

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Figure 1: A Structure of International Input-Output Tables

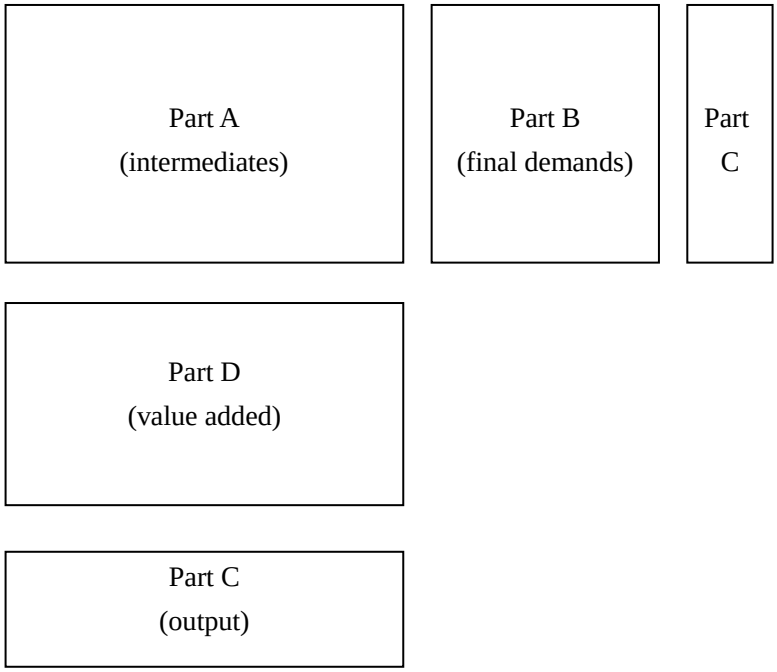

Table 1: Sector Classification

	New Sector Classification (7 sectors)	OECD ICIO Classification (34 sectors)
1	Agriculture, forestry and fishing	(01) Agriculture, forestry and fishing
2	Mining and utilities	(02) Mining and quarrying, (19) Electricity, gas and water supply
3	Manufacturing	(03) Food products, beverages and tobacco, (04) Textiles, textile products, leather and footwear, (05) Wood and products of wood and cork, (06) Pulp, paper, paper products, printing and publishing, (07) Coke, refined petroleum products and nuclear fuel, (08) Chemicals and chemical products, (09) Rubber and plastics products, (10) Other non-metallic mineral products, (11) Basic metals, (12) Fabricated metal products, (13) Machinery and equipment, nec , (14) Computer, Electronic and optical equipment, (15) Electrical machinery and apparatus, nec, (16) Motor vehicles, trailers and semi-trailers, (17) Other transport equipment, (18) Manufacturing nec; recycling
4	Construction	(20) Construction
5	Trade, accommodation and food service activities	(21) Wholesale and retail trade; repairs, (22) Hotels and restaurants
6	Transportation, storage and communication	(23) Transport and storage, (24) Post and telecommunications
7	Other activities	(25) Financial intermediation, (26) Real estate activities (27) Renting of machinery and equipment, (28) Computer and related activities, (29) R&D and other business activities, (30) Public admin. and defense; compulsory social security, (31) Education, (32) Health and social work, (33) Other community, social and personal services, (34) Private households with employed persons

Table 2: Regional Classification

No	Code	Country	No	Code	Country
1	AUS	Australia	16	NOR	Norway
2	AUT	Austria	17	PRT	Portugal
3	BEL	Belgium	18	ESP	Spain
4	CAN	Canada	19	SWE	Sweden
5	DNK	Denmark	20	TUR	Turkey
6	FIN	Finland	21	GBR	United Kingdom
7	FRA	France	22	USA	United States
8	DEU	Germany	23	BRA	Brazil
9	GRC	Greece	24	CHN	China
10	IRL	Ireland	25	IDN	Indonesia
11	ITA	Italy	26	IND	India
12	JPN	Japan	27	RUS	Russian Federation
13	KOR	Republic of Korea	28	THA	Thailand
14	MEX	Mexico	29	TWN	Chinese Taipei
15	NLD	Netherlands			
30	ROW	Estonia, Luxembourg, Slovakia, Slovenia, Cyprus, Lithuania, Latvia, Malta, Czech Republic, Hungary, Poland, Chile, Iceland, Israel, New Zealand, Brunei Darussalam, Cambodia, Bulgaria, Croatia, Colombia, Costa Rica, Hong Kong, Romania, Tunisia, Argentina, Malaysia, Philippines, Saudi Arabia, Singapore, Switzerland, Viet Nam, South Africa, Rest of the world			

Table 3: Data Source of Labor and Wage

No	Code		Compensation of Employees	Labor
1	AUS	Australia	UN	OECD
2	AUT	Austria	UN	ILO
3	BEL	Belgium	UN	ILO
4	CAN	Canada	WIOD	OECD
5	DNK	Denmark	UN	ILO
6	FIN	Finland	UN	ILO
7	FRA	France	UN	ILO
8	DEU	Germany	UN	ILO
9	GRC	Greece	UN	ILO
10	IRL	Ireland	UN	ILO
11	ITA	Italy	UN	ILO
12	JPN	Japan	UN	OECD
13	KOR	Republic of Korea	UN	OECD
14	MEX	Mexico	UN	OECD
15	NLD	Netherlands	UN	ILO
16	NOR	Norway	UN	ILO
17	PRT	Portugal	UN	ILO
18	ESP	Spain	UN	ILO
19	SWE	Sweden	UN	ILO
20	TUR	Turkey	WIOD	ILO
21	GBR	United Kingdom	UN	ILO
22	USA	United States	UN	WIOD
23	BRA	Brazil	WIOD	WIOD
24	CHN	China	WIOD	WIOD
25	IDN	Indonesia	WIOD	WIOD
26	IND	India	UN	WIOD
27	RUS	Russian Federation	WIOD	WIOD
28	THA	Thailand	UN	ILO
29	TWN	Chinese Taipei	WIOD	WIOD
30	ROW	Rest of the World	-	-

Figure 2: US Dollar Based International Input-Output Tables in Current Prices at Times *t*

			Intermediate Demand (XV)									**Final Demand (FD)**											**Discrepancies**	**Total Output**
			Country 1			Country *k*			Country *R*			Country 1					…			Country *R*				
			Sector 1	…	Sector n	Sector 1	…	Sector n	Sector 1	…	Sector n	Household Consumption	General Government Final Consumption	Gross Fixed Capital Formation	Changes in Inventories	Direct purchases abroad by residents	Household Consumption	…	Direct purchases abroad by residents	Household Consumption	…	Direct purchases abroad by residents		
	Country 1	Sector 1	$X\$_{11}^{11}$	⋯	$X\$_{1n}^{11}$	$X\$_{11}^{1k}$	⋯	$X\$_{1n}^{1k}$	$X\$_{11}^{1R}$	⋯	$X\$_{1n}^{1R}$	$CP\$_{1}^{11}$	$CG\$_{1}^{11}$	$I\$_{1}^{11}$	$IV\$_{1}^{11}$	$EX\$_{1}^{11}$	$CP\$_{1}^{1k}$	⋯	$EX\$_{1}^{1k}$	$CP\$_{1}^{1R}$	⋯	$EX\$_{1}^{1R}$	$SD\$_{1}^{1}$	$XX\$_{1}^{1}$
		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
		Sector n	$X\$_{n1}^{11}$	⋯	$X\$_{nn}^{11}$	$X\$_{n1}^{1k}$	⋯	$X\$_{nn}^{1k}$	$X\$_{n1}^{1R}$	⋯	$X\$_{nn}^{1R}$	$CP\$_{n}^{11}$	$CG\$_{n}^{11}$	$I\$_{n}^{11}$	$IV\$_{n}^{11}$	$EX\$_{n}^{11}$	$CP\$_{n}^{1k}$	⋯	$EX\$_{n}^{1k}$	$CP\$_{n}^{1R}$	⋯	$EX\$_{n}^{1R}$	$SD\$_{n}^{1}$	$XX\$_{n}^{1}$
	Country *h*	Sector 1	$X\$_{11}^{h1}$	⋯	$X\$_{1n}^{h1}$	$X\$_{11}^{hk}$	⋯	$X\$_{1n}^{hk}$	$X\$_{11}^{hR}$	⋯	$X\$_{1n}^{hR}$	$CP\$_{1}^{h1}$	$CG\$_{1}^{h1}$	$I\$_{1}^{h1}$	$IV\$_{1}^{h1}$	$EX\$_{1}^{h1}$	$CP\$_{1}^{hk}$	⋯	$EX\$_{1}^{hk}$	$CP\$_{1}^{hR}$	⋯	$EX\$_{1}^{hR}$	$SD\$_{1}^{h}$	$XX\$_{1}^{h}$
		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
		Sector n	$X\$_{n1}^{h1}$	⋯	$X\$_{nn}^{h1}$	$X\$_{n1}^{hk}$	⋯	$X\$_{nn}^{hk}$	$X\$_{n1}^{hR}$	⋯	$X\$_{nn}^{hR}$	$CP\$_{n}^{h1}$	$CG\$_{n}^{h1}$	$I\$_{n}^{h1}$	$IV\$_{n}^{h1}$	$EX\$_{n}^{h1}$	$CP\$_{n}^{hk}$		$EX\$_{n}^{hk}$	$CP\$_{n}^{hR}$		$EX\$_{n}^{hR}$	$SD\$_{n}^{h}$	$XX\$_{n}^{h}$
	Country *R*	Sector 1	$X\$_{11}^{R1}$	⋯	$X\$_{1n}^{R1}$	$X\$_{11}^{Rk}$	⋯	$X\$_{1n}^{Rk}$	$x\$_{11}^{RR}$	⋯	$X\$_{1n}^{RR}$	$CP\$_{1}^{R1}$	$CG\$_{1}^{R1}$	$I\$_{1}^{R1}$	$IV\$_{1}^{R1}$	$EX\$_{1}^{R1}$	$CP\$_{1}^{Rk}$	⋯	$EX\$_{1}^{Rk}$	$CP\$_{1}^{RR}$	⋯	$EX\$_{1}^{RR}$	$SD\$_{1}^{R}$	$XX\$_{1}^{R}$
		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
		Sector n	$X\$_{n1}^{R1}$	⋯	$X\$_{nn}^{R1}$	$X\$_{n1}^{Rk}$	⋯	$X\$_{nn}^{Rk}$	$X\$_{n1}^{RR}$	⋯	$X\$_{nn}^{RR}$	$CP\$_{n}^{R1}$	$CG\$_{n}^{R1}$	$I\$_{n}^{R1}$	$IV\$_{n}^{R1}$	$EX\$_{n}^{R1}$	$CP\$_{n}^{Rk}$	⋯	$EX\$_{n}^{Rk}$	$CP\$_{n}^{RR}$	⋯	$EX\$_{n}^{RR}$	$SD\$_{n}^{R}$	$XX\$_{n}^{R}$
Value Added	Capital Stock		$K\$_{1}^{1}$	⋯	$K\$_{n}^{1}$	$K\$_{1}^{k}$	⋯	$K\$_{n}^{k}$	$K\$_{1}^{R}$	⋯	$K\$_{n}^{R}$													
	Compensation Employee		$W\$_{1}^{1}$	⋯	$W\$_{n}^{1}$	$W\$_{1}^{k}$	⋯	$W\$_{n}^{k}$	$W\$_{1}^{R}$	⋯	$W\$_{n}^{R}$													
Total Input			$XX\$_{1}^{1}$	⋯	$XX\$_{n}^{1}$	$XX\$_{1}^{k}$	⋯	$XX\$_{n}^{k}$	$XX\$_{1}^{R}$	⋯	$XX\$_{n}^{R}$													

Figure 3: US Dollar Based International Input-Output Tables in Constant Prices at Times *t*

			Intermediate Demand (XV)									**Final Demand (FD)**												**Discrepancies**	**Total Output**
			Country 1			Country *k*			Country *R*			Country 1					…			Country *R*					
			Sector 1	…	Sector n	Sector 1	…	Sector n	Sector 1	…	Sector n	Household Consumption	General Government Final Consumption	Gross Fixed Capital Formation	Changes in Inventories	Direct purchases abroad by residents	Household Consumption	…	Direct purchases abroad by residents	Household Consumption	…	Direct purchases abroad by residents		
	Country 1	Sector 1	$XR\$_{11}^{11}$	⋯	$XR\$_{1n}^{11}$	$XR\$_{11}^{1k}$	⋯	$XR\$_{1n}^{1k}$	$XR\$_{11}^{1R}$	⋯	$XR\$_{1n}^{1R}$	$CP\$_{1}^{11}$	$CG\$_{1}^{11}$	$I\$_{1}^{11}$	$IV\$_{1}^{11}$	$EX\$_{1}^{11}$	$CP\$_{1}^{1k}$	⋯	$EX\$_{1}^{1k}$	$CP\$_{1}^{1R}$	⋯	$EX\$_{1}^{1R}$	$SD\$_{1}^{1}$	$XXR\$_{1}^{1}$
		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
		Sector n	$XR\$_{n1}^{11}$	⋯	$XR\$_{nn}^{11}$	$XR\$_{n1}^{1k}$	⋯	$XR\$_{nn}^{1k}$	$XR\$_{n1}^{1R}$	⋯	$XR\$_{nn}^{1R}$	$CP\$_{n}^{11}$	$CG\$_{n}^{11}$	$I\$_{n}^{11}$	$IV\$_{n}^{11}$	$EX\$_{n}^{11}$	$CP\$_{n}^{1k}$	⋯	$EX\$_{n}^{1k}$	$CP\$_{n}^{1R}$	⋯	$EX\$_{n}^{1R}$	$SD\$_{n}^{1}$	$XXR\$_{n}^{1}$
	Country *h*	Sector 1	$XR\$_{11}^{h1}$	⋯	$XR\$_{1n}^{h1}$	$XR\$_{11}^{hk}$	⋯	$XR\$_{1n}^{hk}$	$XR\$_{11}^{hR}$	⋯	$XR\$_{1n}^{hR}$	$CP\$_{1}^{h1}$	$CG\$_{1}^{h1}$	$I\$_{1}^{h1}$	$IV\$_{1}^{h1}$	$EX\$_{1}^{h1}$	$CP\$_{1}^{hk}$	⋯	$EX\$_{1}^{hk}$	$CP\$_{1}^{hR}$	⋯	$EX\$_{1}^{hR}$	$SD\$_{1}^{h}$	$XXR\$_{1}^{h}$
		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
		Sector n	$XR\$_{n1}^{h1}$	⋯	$XR\$_{nn}^{h1}$	$XR\$_{n1}^{hk}$	⋯	$XR\$_{nn}^{hk}$	$XR\$_{n1}^{hR}$	⋯	$XR\$_{nn}^{hR}$	$CP\$_{n}^{h1}$	$CG\$_{n}^{h1}$	$I\$_{n}^{h1}$	$IV\$_{n}^{h1}$	$EX\$_{n}^{h1}$	$CP\$_{n}^{hk}$		$EX\$_{n}^{hk}$	$CP\$_{n}^{hR}$		$EX\$_{n}^{hR}$	$SD\$_{n}^{h}$	$XXR\$_{n}^{h}$
	Country *R*	Sector 1	$XR\$_{11}^{R1}$	⋯	$XR\$_{1n}^{R1}$	$xr\$_{11}^{Rk}$	⋯	$XR\$_{1n}^{Rk}$	$XR\$_{11}^{RR}$	⋯	$XR\$_{1n}^{RR}$	$CP\$_{1}^{R1}$	$CG\$_{1}^{R1}$	$I\$_{1}^{R1}$	$IV\$_{1}^{R1}$	$EX\$_{1}^{R1}$	$CP\$_{1}^{Rk}$	⋯	$EX\$_{1}^{Rk}$	$CP\$_{1}^{RR}$	⋯	$EX\$_{1}^{RR}$	$SD\$_{1}^{R}$	$XXR\$_{1}^{R}$
		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
		Sector n	$XR\$_{n1}^{R1}$	⋯	$XR\$_{nn}^{R1}$	$XR\$_{n1}^{Rk}$	⋯	$XR\$_{nn}^{Rk}$	$XR\$_{n1}^{RR}$	⋯	$XR\$_{nn}^{RR}$	$CP\$_{n}^{R1}$	$CG\$_{n}^{R1}$	$I\$_{n}^{R1}$	$IV\$_{n}^{R1}$	$EX\$_{n}^{R1}$	$CP\$_{n}^{Rk}$	⋯	$EX\$_{n}^{Rk}$	$CP\$_{n}^{RR}$	⋯	$EX\$_{n}^{RR}$	$SD\$_{n}^{R}$	$XRX\$_{n}^{R}$
Value Added	Capital Stock		$KR\$_{1}^{1}$	⋯	$KR\$_{n}^{1}$	$KR\$_{1}^{k}$	⋯	$KR\$_{n}^{k}$	$KR\$_{1}^{R}$	⋯	$KR\$_{n}^{R}$													
	Compensation Employee		$WR\$_{1}^{1}$	⋯	$WR\$_{n}^{1}$	$WR\$_{1}^{k}$	⋯	$WR\$_{n}^{k}$	$WR\$_{1}^{R}$	⋯	$WR\$_{n}^{R}$													
Total Input			$XXR\$_{1}^{1}$	⋯	$XXR\$_{n}^{1}$	$XXR\$_{1}^{k}$	⋯	$XXR\$_{n}^{k}$	$XXR\$_{1}^{R}$	⋯	$XXR\$_{n}^{R}$													

Figure 4: Demand Structure of Local-Currency-Based International Input-Output Tables in Constant Prices at Times *t*

			Intermediate Demand (XHR)									**Final Demand (FDHR)**										**Discrepancies**	**Total Output**
			Country 1			Country *k*			Country *R*			Country 1					⋯	Country *R*					
			Sector 1	⋯	Sector n	Sector 1	⋯	Sector n	Sector 1	⋯	Sector n	Household Consumption	General Government Final Consumption	Gross Fixed Capital Formation	Changes in Inventories	Direct purchases abroad by residents	⋯	Household Consumption	⋮	Direct purchases abroad by residents		
	Country 1	Sector 1	XHR_{11}^{11}	⋯	XHR_{1n}^{11}	XHR_{11}^{1k}	⋯	XHR_{r1n}^{1k}	XHR_{11}^{1R}	⋯	XHR_{1n}^{1R}	$CPHR_1^{11}$	$CGHR_1^{11}$	IHR_1^{11}	$IVHR_1^{11}$	$EXHR_1^{11}$	⋯	$CPHR_1^{1R}$	⋯	$EXHR_1^{1R}$	$SDHR_1^1$	$XXHR_1^1$
		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋯	⋮	⋮	⋮	⋮	⋮
		Sector n	XHR_{n1}^{11}	⋯	XHR_{nn}^{11}	XHR_{n1}^{1k}	⋯	XHR_{nn}^{1k}	XHR_{n1}^{1R}	⋯	XHR_{nn}^{1R}	$CPHR_n^{11}$	$CGHR_n^{11}$	IHR_n^{11}	$IVHR_n^{11}$	$EXHR_n^{11}$	⋯	$CPHR_n^{1R}$	⋯	$EXHR_n^{1R}$	$SDHR_n^1$	$XXHR_n^1$
	Country *h*	Sector 1	XHR_{11}^{h1}	⋯	XHR_{1n}^{h1}	XHR_{11}^{hk}	⋯	XHR_{1n}^{hk}	XHR_{11}^{hR}	⋯	XHR_{1n}^{hR}	CPR_1^{h1}	$CGHR_1^{h1}$	IHR_1^{h1}	$IVHR_1^{h1}$	$EXHR_1^{h1}$	⋯	$CPHR_1^{hR}$	⋯	$EXHR_1^{hR}$	$SDHR_1^h$	$XXHR_1^h$
		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋯	⋮	⋮	⋮	⋮	⋮
		Sector n	XHR_{n1}^{h1}	⋯	XHR_{nn}^{h1}	XHR_{n1}^{hk}	⋯	XHR_{nn}^{hk}	XHR_{n1}^{hR}	⋯	XHR_{nn}^{hR}	$CPHR_n^{h1}$	$CGHR_n^{h1}$	IHR_n^{h1}	$IVHR_n^{h1}$	$EXHR_n^{h1}$	⋯	$CPHR_n^{hR}$	⋯	$EXHR_n^{hR}$	$SDHR_n^h$	$XXHR_n^h$
	Country *R*	Sector 1	XHR_{11}^{R1}	⋯	XHR_{1n}^{R1}	XHR_{11}^{Rk}	⋯	XHR_{1n}^{Rk}	XHR_{11}^{RR}	⋯	XHR_{1n}^{RR}	$CPHR_1^{R1}$	$CGHR_1^{R1}$	IHR_1^{R1}	$IVHR_1^{R1}$	$EXHR_1^{R1}$	⋯	$CPHR_1^{RR}$	⋯	$EXHR_1^{RR}$	$SDHR_1^R$	$XXHR_1^R$
		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋯	⋮	⋮	⋮	⋮	⋮
		Sector n	XHR_{n1}^{R1}	⋯	XHR_{nn}^{R1}	XHR_{n1}^{Rk}	⋯	XHR_{nn}^{Rk}	XHR_{n1}^{RR}	⋯	XHR_{nn}^{RR}	$CPHR_n^{R1}$	$CGHR_n^{R1}$	IHR_n^{R1}	$IRHV_n^{R1}$	$EXHR_n^{R1}$	⋯	$CPHR_n^{RR}$	⋯	$EXHR_n^{RR}$	$SDHR_n^R$	$XXHR_n^R$
Value Added	Capital Stock		$VAKR_1^1$	⋯	$VAKR_n^1$	$VAKR_1^k$	⋯	$VAKR_n^k$	$VAKR_1^R$	⋯	$VAKR_n^R$											
	Compensation Employee		WKR_1^1	⋯	WKR_n^1	WKR_1^k	⋯	WKR_n^k	WKR_1^R	⋯	WKR_n^R											
Total Input			$XXKR_1^1$	⋯	$XXKR_n^1$	$XXKR_1^k$	⋯	$XXKR_n^k$	$XXKR_1^R$	⋯	$XXKR_n^R$											

Figure 5: Input Structure of Local-Currency-Based International Input-Output Tables in Constant Prices at Times *t*

			Intermediate Demand (XHR)									**Final Demand (FDHR)**											**Discrepancies**	**Total Output**
			Country 1			Country *k*			Country *R*			Country 1					⋯	Country *R*						
			Sector 1	⋯	Sector n	Sector 1	⋯	Sector n	Sector 1	⋯	Sector n	Household Consumption	General Government Final Consumption	Gross Fixed Capital Formation	Changes in Inventories	Direct purchases abroad by residents	⋯	Household Consumption	⋮	Direct purchases abroad by residents				
	Country 1	Sector 1	XKR_{11}^{11}	⋯	XKR_{1n}^{11}	XKR_{11}^{1k}	⋯	XKR_{r1n}^{1k}	XKR_{11}^{1R}	⋯	XKR_{1n}^{1R}	$CPHR_1^{11}$	$CGHR_1^{11}$	IHR_1^{11}	$IVHR_1^{11}$	$EXHR_1^{11}$	⋯	$CPHR_1^{1R}$	⋯	$EXHR_1^{1R}$			$SDHR_1^1$	$XXHR_1^1$
		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋯	⋮	⋮	⋮			⋮	⋮
		Sector n	XKR_{n1}^{11}	⋯	XKR_{nn}^{11}	XKR_{n1}^{1k}	⋯	XKR_{nn}^{1k}	XKR_{n1}^{1R}	⋯	XKR_{nn}^{1R}	$CPHR_n^{11}$	$CGHR_n^{11}$	IHR_n^{11}	$IVHR_n^{11}$	$EXHR_n^{11}$	⋯	$CPHR_n^{1R}$	⋯	$EXHR_n^{1R}$			$SDHR_n^1$	$XXHR_n^1$
	Country *h*	Sector 1	XKR_{11}^{h1}	⋯	XKR_{1n}^{h1}	XKR_{11}^{hk}	⋯	XKR_{1n}^{hk}	XKR_{11}^{hR}	⋯	XKR_{1n}^{hR}	CPR_1^{h1}	$CGHR_1^{h1}$	IHR_1^{h1}	$IVHR_1^{h1}$	$EXHR_1^{h1}$	⋯	$CPHR_1^{hR}$	⋯	$EXHR_1^{hR}$			$SDHR_1^h$	$XXHR_1^h$
		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋯	⋮	⋮	⋮			⋮	⋮
		Sector n	XKR_{n1}^{h1}	⋯	XKR_{nn}^{h1}	XKR_{n1}^{hk}	⋯	XKR_{nn}^{hk}	XKR_{n1}^{hR}	⋯	XKR_{nn}^{hR}	$CPHR_n^{h1}$	$CGHR_n^{h1}$	IHR_n^{h1}	$IVHR_n^{h1}$	$EXHR_n^{h1}$	⋯	$CPHR_n^{hR}$	⋯	$EXHR_n^{hR}$			$SDHR_n^h$	$XXHR_n^h$
	Country *R*	Sector 1	XKR_{11}^{R1}	⋯	XKR_{1n}^{R1}	XKR_{11}^{Rk}	⋯	XKR_{1n}^{Rk}	XKR_{11}^{RR}	⋯	XKR_{1n}^{RR}	$CPHR_1^{R1}$	$CGHR_1^{R1}$	IHR_1^{R1}	$IVHR_1^{R1}$	$EXHR_1^{R1}$	⋯	$CPHR_1^{RR}$	⋯	$EXHR_1^{RR}$			$SDHR_1^R$	$XXHR_1^R$
		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋯	⋮	⋮	⋮			⋮	⋮
		Sector n	XKR_{n1}^{R1}	⋯	XKR_{nn}^{R1}	XKR_{n1}^{Rk}	⋯	XKR_{nn}^{Rk}	XKR_{n1}^{RR}	⋯	XKR_{nn}^{RR}	$CPHR_n^{R1}$	$CGHR_n^{R1}$	IHR_n^{R1}	$IRHV_n^{R1}$	$EXHR_n^{R1}$	⋯	$CPHR_n^{RR}$	⋯	$EXHR_n^{RR}$			$SDHR_n^R$	$XXHR_n^R$
Value Added	**Capital Stock**		KKR_1^1	⋯	KKR_n^1	KKR_1^k	⋯	KKR_n^k	$VAKR_1^R$	⋯	KKR_n^R													
	Compensation Employee		WKR_1^1	⋯	WKR_n^1	WKR_1^k	⋯	WKR_n^k	WKR_1^R	⋯	WKR_n^R													
Total Input			$XXKR_1^1$	⋯	$XXKR_n^1$	$XXKR_1^k$	⋯	$XXKR_n^k$	$XXKR_1^R$	⋯	$XXKR_n^R$													

Table 4: Selected Countries' Computed Sectoral Prices -European Countries-

France

	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7
1995	0.176	0.206	0.102	0.131	0.235	0.240	0.309
2000	0.873	0.842	0.814	0.787	0.844	0.865	0.849
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	1.015	1.049	1.049	1.149	1.054	1.028	1.087
2009	0.905	1.084	1.031	1.156	1.070	1.041	1.086
2010	1.041	1.130	1.054	1.183	1.076	1.034	1.106
2011	1.060	1.201	1.069	1.219	1.076	1.018	1.116

Germany

	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7
1995	0.070	0.110	0.046	0.060	0.126	0.095	0.195
2000	0.845	0.790	0.732	0.814	0.815	0.691	0.854
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	0.978	1.188	1.023	1.082	1.009	0.967	1.024
2009	0.894	1.103	1.037	1.100	1.042	0.968	1.042
2010	1.047	1.149	1.059	1.127	1.056	0.983	1.061
2011	1.189	1.213	1.074	1.151	1.067	0.984	1.075

Turkey

	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7
1995	0.003	0.003	0.002	0.001	0.004	0.002	0.003
2000	0.204	0.244	0.223	0.224	0.267	0.250	0.295
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	1.231	1.412	1.276	1.320	1.318	1.306	1.355
2009	1.294	1.556	1.324	1.340	1.354	1.345	1.446
2010	1.449	1.607	1.377	1.399	1.399	1.387	1.495
2011	1.557	1.754	1.563	1.591	1.576	1.529	1.566

Table 5: Selected Countries' Computed Sectoral Prices -Americas-

Mexico

	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7
1995	0.151	0.138	0.059	0.074	0.169	0.152	0.202
2000	0.773	0.612	0.703	0.689	0.730	0.794	0.693
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	1.211	1.339	1.218	1.197	1.175	1.137	1.150
2009	1.259	1.248	1.293	1.245	1.241	1.185	1.195
2010	1.320	1.360	1.336	1.289	1.271	1.239	1.223
2011	1.451	1.583	1.413	1.367	1.331	1.259	1.267

United States

	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7
1995	0.133	0.186	0.090	0.088	0.210	0.202	0.226
2000	0.761	0.622	0.785	0.705	0.824	0.770	0.797
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	1.177	1.236	1.091	1.138	1.093	1.051	1.094
2009	1.040	1.080	1.069	1.132	1.122	1.054	1.099
2010	1.129	1.164	1.104	1.145	1.140	1.065	1.120
2011	1.299	1.242	1.161	1.181	1.165	1.083	1.143

Brazil

	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7
1995	0.065	0.046	0.027	0.035	0.131	0.043	0.093
2000	0.633	0.559	0.584	0.612	0.600	0.619	0.659
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	1.193	1.205	1.168	1.170	1.296	1.236	1.213
2009	1.302	1.124	1.260	1.359	1.456	1.330	1.304
2010	1.312	1.328	1.300	1.496	1.531	1.407	1.399
2011	1.438	1.524	1.378	1.576	1.720	1.631	1.462

Table 6: Selected Countries' Computed Sectoral Prices -Asian Countries-

Australia

	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7
1995	0.137	0.114	0.073	0.062	0.092	0.097	0.154
2000	0.916	0.685	0.816	0.811	0.839	0.864	0.823
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	1.049	1.291	1.108	1.140	1.128	1.112	1.161
2009	1.047	1.141	1.090	1.171	1.145	1.134	1.199
2010	1.107	1.348	1.107	1.205	1.189	1.153	1.239
2011	1.131	1.329	1.107	1.208	1.202	1.177	1.275

Japan

	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7
1995	0.289	0.409	0.194	0.230	0.372	0.394	0.417
2000	1.023	1.130	1.057	1.020	1.027	1.048	1.017
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	0.908	0.924	0.967	1.020	1.026	0.971	0.982
2009	0.920	1.054	0.948	0.997	1.000	0.974	0.974
2010	0.937	0.996	0.923	0.985	0.989	0.957	0.963
2011	0.902	0.955	0.901	0.978	0.986	0.942	0.953

China

	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7
1995	0.262	0.153	0.100	0.140	0.231	0.227	0.234
2000	0.813	0.927	0.819	0.839	0.857	0.871	0.785
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	1.248	1.246	1.129	1.153	1.142	1.149	1.153
2009	1.237	1.185	1.094	1.132	1.127	1.119	1.164
2010	1.347	1.308	1.166	1.206	1.204	1.175	1.245
2011	1.483	1.417	1.235	1.292	1.294	1.249	1.343

India

	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7
1995	0.273	0.148	0.088	0.111	0.287	0.148	0.256
2000	0.799	0.733	0.774	0.732	0.774	0.864	0.781
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	1.319	1.207	1.211	1.247	1.221	1.132	1.218
2009	1.484	1.322	1.266	1.304	1.282	1.151	1.302
2010	1.651	1.454	1.356	1.399	1.408	1.183	1.424
2011	1.788	1.571	1.473	1.522	1.597	1.267	1.531

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