Services Trade and Income Redistribution

in the Trans-Pacific Partnership

Henry Thompson

Forthcoming chapter in
Mega Regionalism in the Asia Pacific:
The Trans-Pacific Partnership and the Path to FTAAP
Edited by Peter Chow
Edward Elgar Publishing

April 2015

This chapter presents simulations of specific factors models focused on income redistribution due to potential price changes across services industries for each of nine countries negotiating or interested in the Trans-Pacific Partnership. Communications and financial services are treated as traded with prices rising in exporting countries and falling in importers. Prices of non-traded services increase in every country as demands rise with incomes. These price changes affect capital returns and wages of high, medium, and low skilled labor. Outputs including manufacturing and resource industries adjust as well. Sensitivity to constant elasticity substitution is discussed.

Contact information: Economics Department, Auburn University, AL 36849, 334-844-2910, henry.thompson@auburn.edu
Services Trade and Income Redistribution
in the Trans-Pacific Partnership

This chapter gauges the potential income redistribution due to trade and changing prices in services industries across countries moving in the Trans-Pacific Partnership. Specific factors models simulate adjusting capital returns and wages of three labor skills due to changing prices in services. The models are based on production data for eighteen services industries, sixteen manufacturing industries, and two resource industries for each of nine countries. Prices in manufacturing and resource industries are held constant to focus on the potential effects of changing services prices.

While trade raises income, there is very different income redistribution across countries due to differences in factor intensities. Wages of medium skilled labor rise in every country. Unskilled wages fall, however, in the less developed countries as skilled wages rise in the developed ones. The changing services prices have large effects on capital returns and outputs in services industries with much smaller effects spread across manufacturing and resource industries.

The simulations assume communications and financial services are traded with prices rising in exporting countries but falling in the importers. Rising income will increase demands for non-traded services, increasing their prices in every country. Capital returns elastically respond to their own price. The directions of change in the three skilled wages depend only on factor intensities, while sizes of the wage and capital return effects depend on factor substitution as well. The long run effects of induced industrial investment are discussed.
The specific factors model of Samuelson (1971), Jones (1971), Mayer (1974), Mussa (1974), Neary (1978), and Thompson (1989) is characterized by industry specific capital and labor mobility across industries. The model assumes neoclassical production with full employment and competitive pricing, assumptions that can be relaxed without much effect on the comparative static properties. The present paper specifies constant elasticity substitution CES production and discusses sensitivity to the degree of substitution.


The present production data from the EU World Input-Output Database (2015) covers the five countries in the Tran-Pacific Partnership along with the four interested countries in Table 1. The Philippines is interested but not in the data set. High, medium, and low skilled labor are separated with industrial capital shares as value added minus the labor bill.

* Table 1 *

Table 2 lists the 34 industries. The present paper assumes communications CM and financial services FN are traded services. Ten industries are treated non-traded services with prices rising due to increases in incomes and demands. The other six services industries are treated as domestic with prices held constant. Prices of manufactures and resource industries are also held constant to focus solely on the effects of changing services prices due to TPP.
Canada, Australia, Japan, and the US are treated as potential exporters. Mexico, China, Indonesia, Korea, and Taiwan are assumed to be potential importers. Figure 1 presents some data from the World Economic Forum (2015) to motivate this distinction between exporters and importers. Per capita income $y$, the summary Global Competitiveness Index GCI, financial market development FIN, and the percentage INT of the population on the internet that might reflect the level of communications are included. There is separation between exporters and importers, especially in income per capita but across the indices as well. There is also separation in factor intensities in the production data.

The model simulations track the adjustments to exogenous changes in services prices for each of the nine countries. While it is a challenge to predict these services price changes in the region, sensitivity to a range of price changes is discussed. Thompson (2015) provides the model online to simulate any vector of price changes for each of the countries.

The Specific Factors Model with Three Labor Skills

The specific factors model assumes neoclassical constant returns production with competitive pricing and full employment. The exogenous endowments of labor and industry specific capital are held constant in the present simulations. Each industry has its own unique capital while the three labor skills are perfectly mobile across industries equalizing each of their wages in the entire economy.
Factor prices and outputs adjust to exogenous changes in services prices in the present simulations. Factor markets and outputs adjust to price changes but industrial capital inputs are held constant. The effects of induced industrial investment are discussed.

Each labor skill $S$ is fully employed in the condition

$$L_i = \sum_j a_{ij} x_j,$$

(1)

where $L_i$ is the endowment of labor skill $i$, $a_{ij}$ its cost minimizing unit input in the production of good $j$, and $x_j$ the output of industry $j$. The data separates labor by skill into $S$ = skilled, $M$ = medium, and $L$ = low. Each industry $j$ capital is fully utilized according to

$$K_j = a_{jj} x_j.$$

(2)

Assuming homothetic production functions, the cost minimizing unit inputs $a_{ij}$ are functions of factor prices only. These $a_{ij}$ are second order derivatives of the continuous cost functions.

Competitive pricing implies each industry price $p_j$ equals average cost,

$$p_j = \sum_i a_{ij} w_i + a_{jj} r_j,$$

(3)

where $p_j$ is the price of good $j$, $w_i$ is the wage of skill $i$, and $r_j$ is the return to industry $j$ capital.

Thompson (2004) shows the comparative static results in the model are robust to parametric relaxation of competitive pricing in (3) and employment conditions (1) and (2). Quantitative properties of the model are not overly sensitive to these behavioral assumptions.

Totally differentiate the employment condition (1) for each labor skill to find

$$\hat{L}_i = \sum_j \lambda_{ij} \hat{x}_j + \sum_k \sigma_{ik} \hat{w}_k + \sum_j \sigma_{ij} \hat{r}_j,$$

(4)

where hats represent percentage changes, $\lambda_{ij}$ the industry $j$ share of labor $i$ employment, $\sigma_{ik}$ the elasticity of labor $i$ input with respect to the price of labor $k$, and $\sigma_{ij}$ its elasticity with respect to the return to industry $j$ capital. Similarly differentiate (2) for each capital input to find
\[ \hat{R}_j = \bar{x}_j + \sum_k \sigma_{jk} \hat{w}_k + \sigma_{jj} \hat{r}_j . \] (5)

Cross price substitution is critical to the sizes of adjustments in outputs and factor prices. The cross price substitution elasticities \(\sigma\) developed by Jones (1965), Chang (1979), Takayama (1982), and Thompson (1994) indicate sensitivity of cost minimized inputs to factor price changes. The cross price elasticity between the input of factor \(i\) and the price of factor \(k\) in industry \(j\) is

\[ E_{ik} = \hat{a}_{ij} / \hat{r}_k = \theta_{kj} S_{ik} , \] (6)

where \(S_{ik}\) is the Allen (1938) partial elasticity of substitution and the factor price change \(\hat{r}_k\) includes the capital return and the three wages. Linear homogeneity implies \(\sum_j E_{ik} = 0\) allowing derivation of the own price elasticity \(E_{kk}\) as the negative of the sum of the four cross price elasticities. Cross price substitution elasticities in (4) and (5) are the industry weighted sum of the industry cross price elasticities,

\[ \sigma_{ik} = \sum_j \lambda_{ij} E_{ik} . \] (7)

Cobb-Douglas production implies Allen partial elasticities \(S_{ik} = 1\) allowing derivation of the elasticities \(\sigma_{ik}\) from the factor shares and industry shares. Constant elasticity of substitution CES generalizes Cobb-Douglas to any Allen partial elasticity.

Totally differentiate the competitive pricing condition (2) and introduce the cost minimizing envelope property to find

\[ \hat{p}_j = \sum_i \theta_{ij} \hat{w}_i + \theta_{kj} \hat{r}_j , \] (8)

where \(\theta_{ij}\) is the factor share of labor \(i\) in the revenue of good \(j\) and \(\theta_{kj}\) the capital share. Factor price changes are a weighted average of price changes in this Jones (1965) magnification effect.
One implication is that percentage changes in industrial capital returns will be larger than their price changes. Also some capital returns or wages must fall.

Combine (3) and (6) into the comparative static system

$$
\begin{pmatrix}
\sigma & \lambda \\
\theta^T & 0
\end{pmatrix}
\begin{pmatrix}
\hat{f} \\
\hat{x}
\end{pmatrix} =
\begin{pmatrix}
\hat{\nu} \\
\hat{\beta}
\end{pmatrix},
$$

(9)

with the 37x37 matrix $\sigma$ of cross and own substitution elasticities, the 37x34 industry share matrix $\lambda$, and the transposed 34x37 matrix $\theta^T$ of factor shares. The projected price changes in the $\hat{\beta}$ vector lead to endogenous adjustments in the vectors of factor prices $\hat{f}$ and outputs $\hat{x}$. The factor price vector $\hat{f}$ includes adjustments in returns to each of the industrial capitals and the three wages. Factor endowments are held constant in the present application, $\hat{\nu} = 0$.

The matrix of comparative static $\hat{f}/\hat{\beta}$ elasticities is derived from the inverted system (9),

$$
\begin{pmatrix}
A & B \\
C & D
\end{pmatrix}
\begin{pmatrix}
0 \\
\hat{\beta}
\end{pmatrix} =
\begin{pmatrix}
\hat{f} \\
\hat{x}
\end{pmatrix},
$$

(10)

where $B = \hat{f}/\hat{\beta}$ is the focus. The endogenous vector $\hat{f}$ of factor price adjustments is found multiplying the derived $B$ by a hypothetical vector $\hat{\beta}$ of price changes. The resulting factor price adjustments vary considerably across countries due to differences in factor intensities.

**Factor intensities and substitution**

The factor shares $\theta$ of income in communications CM indicate substantial differences across countries in Figure 2. Underlying differences in skill endowments and wages would explain the different factor shares. Aside from capital, medium skilled labor $M$ has the highest factor share in every country except the US. The simple average capital shares are 0.60 across
the exporters and 0.55 across importers. The high unskilled labor factor shares in Australia AU and the US are noteworthy.

* Figure 2 *

Figure 3 shows the factors shares in the much larger financial services industry FN. Capital again has the highest factor share typically followed by skilled labor S but by medium skilled labor M in Canada CN, Mexico MX, and China CH. As in communications, the high factor share of unskilled labor L in the US stands out.

* Figure 3*

Industry shares \( \lambda \) of labor employment also vary considerably across countries. Industry shares of capital equal one for own industry and zero for other industries. Figure 4 shows the industry shares in communications CM that employs almost 2% of skilled labor S in Canada CN and the US, and 4.6% in China CH. The industry shares of medium skilled labor M in Australia AU and China CH stand out, as do the industry shares of unskilled labor L in Australia and Indonesia ID.

* Figure 4 *

Industry shares in the larger financial services FN sector in Figure 5 are about twice the size of those in communications. The industry employs very small shares in Mexico MX and China CH but large shares of unskilled labor in Indonesia ID, Korea KO, and Taiwan TW. There is substantial variation in industry shares of unskilled labor L. Exporters employ an average of 4.9% of skilled labor while the 2.1% average for importers suggests skilled labor will gain in the exporters and perhaps not lose too much in the importers.

* Figure 5 *
Figure 6 shows representative Cobb-Douglas cross price substitution elasticities for Japan, the US, and Mexico. Cobb-Douglas is characterized by weak cross price substitution and inelastic own price substitution. Figure 6 reports representative cross price elasticities of the inputs of capital in communications CM and financial services FN and the three labor skills relative to the changes in the financial services capital return and the three wages. The full set of derived cross and own price substitution elasticities for all countries is available at Thompson (2015).

* Figure 6 *

There is substantial variation in substitution across countries with the strongest consistently for own labor. There is very weak substitution between labor skills, and for labor relative to capital returns. In contrast, there is stronger substitution of capital relative to the three wages. Own substitution is especially strong for unskilled labor, hardly good news for unskilled workers.

Different degrees of constant elasticity of substitution CES scale the elasticities in Figure 6. As examples, CES of 0.5 implies an own US skilled labor elasticity of -0.32 while CES of 1.5 implies an own unskilled labor elasticity in Mexico equal to -1.8. The applied production literature typically reports inelastic own substitution making Cobb-Douglas or perhaps CES = 0.5 reasonable starting places for simulations. As a caveat, estimates including energy input may result in technical complements and stronger cross price substitution as reviewed by Thompson (2006).

Table 3 reports system elasticities of the three wages with respect to the prices of communications CM and financial services FN in the \( B = \hat{\beta} / \hat{\beta} \) matrix (10). These comparative
static elasticities are derived by inverting the 71 x 71 system matrix (9). The \( \hat{\beta} \) elasticities vary considerably across countries. As an example, an increase of 20% in the price of communications CM in the US raises \( w_s \) by 0.32% and \( w_L \) by 0.16% but lowers \( w_M \) by -0.62%. Across the border in Canada CN, the same price increase raises \( w_s \) by the much larger 1.13% and \( w_L \) by the much larger 1.36% while lowering \( w_M \) by only -0.10%. While these wage effects for the single industry price change are small, changing prices across all services industries compound the effects and lead to substantial wage adjustments.

* Table 3 *

Figure 7 pictures the substantial variation in wage elasticities due to changing prices of financial services FN from Table 3. The largest positive effects for the skilled wage are in Canada, Japan, and Australia. There are small elasticities of the skilled wage in the importing countries, and a negative effect in Indonesia. Positive elasticities for the unskilled wage stand out in Taiwan, Indonesia, and Canada. These differences in wage elasticities suggest there will be very different adjustments across countries due to changing prices of services due to TPP.

* Figure 7 *

Simulation results

Prices of traded communications CM and financial services FN are assumed to rise 20% in the exporting countries along the top of Table 4 and fall 20% in the importing countries. Prices of non-traded services are assumed to rise 10% in every country due to rising incomes and demands. Prices of domestic services are held constant as are prices of the manufacturing and resource industries.

* Table 4 *
The effects of this vector of services price changes on the three skilled wages and capital returns in communications CM and financial services FN are reported in Table 4. The substantial differences across countries, even among exporters or importers, are pictured in Figures 8 and 9. The rising prices in the exporters typically favor skilled and medium skilled labor. The falling prices of CM and FN in the importers result in mixed results for skilled and low skilled wages but raise the medium skilled wage. Wages in Mexico MX and China CH are not much affected due to their resource based economies.

* Figure 8 * Figure 9 *

Among the exporters, the skilled wage typically rises except in Australia where it falls by just over -3%. The largest increase in the skilled wage occurs in the US at just over 6%. The medium skilled wage rises about 10% in the US and about 5% in the other exporters. The unskilled wage falls by a few percent in the US and Canada but rises almost 8% in Australia and Japan.

The medium skilled wage $w_M$ rises in every country with substantial increases in Indonesia ID, Korea KO, and Taiwan TW. The unskilled wage $w_L$ rises in Mexico MX and Korea KO but falls considerably in Indonesia ID and Taiwan TW. The skilled wage $w_S$ rises in Korea KO and Taiwan TW but is little affected in the other importers.

Returns to capital in CM and FN rise in the exporters and fall in the importers as shown in Figure 9. This magnified Jones (1965) effect is larger than the industrial price changes. Similarly, unreported returns to capital in non-traded services rise in every country by more than the 10% price increase. Small losses in capital returns are spread across industries in manufacturing, resources, and domestic services as the expanding industries in services bid
away labor. In the importing countries, returns to capital in CM and FN fall considerably with those prices.

* Figure 9 *

**Extending simulation results**

The substantial changes in capital returns in Figure 9 would lead to the long run changes in industrial capital and outputs described in Thompson (2005). A changing industrial capital endowment implies output adjustments of roughly the same magnitude due to constant returns production. These output changes would accentuate the income redistribution due to price changes. For instance, investment in communications and financial services in the exporting countries would amplify the wage changes in Figure 8. Skilled labor benefits except in Australia, and medium skilled labor in every exporting country. Declining investments in the importers magnify those substantial wage adjustments, especially in Indonesia and Taiwan.

Regarding sensitivity to the degree of substitution, factor price adjustments to changing prices are identical for any degree of CES substitution as shown by Thompson and Toledo (2007). Input adjustments offset factor price changes leaving factor shares unchanged. The adjustments in wages and capital returns in Table 4 and Figures 8 and 9 are identical for any degree of CES.

A proportional change in the vector of price changes scales the adjustments in wages and capital returns. If the price changes in services industries were half as large, for instance, adjustments in wages and capital returns would be half as large as well. Smaller increases in prices of non-traded services coupled with the same price changes in communications and
financial services lead to greatly dampened wage effects. The effects of any hypothetical vector of price changes can be examined online in Thompson (2015).

Output adjustments scale to the degree of CES substitution. Unreported output adjustments are typically about half as large as the percentage changes in capital returns. Weaker CES production would scale output adjustments accordingly. Output in communications in the US expands about 18% and FN output expands about 20% with Cobb-Douglas production in Table 4 but by only half that much with CES = 0.5. The applied substitution literature generally uncovers weak substitution consistent with this range of CES.

**Conclusion**

The present model predicts there will be substantial income redistribution due to changing prices of services industries with free trade in the Trans-Pacific Partnership. The potential income redistribution from changing prices in services alone is perhaps larger than may be appreciated. Anticipating the losers as well as the winners may facilitate policy to ease the transition to free trade that raises but redistributes income.

The present simulations project unskilled wages will fall in the US and Canada, and especially in Indonesia and Taiwan. Skilled wages will rise in the same four countries but fall in Australia. Medium skilled wages will rise across all countries and especially in Indonesia, Taiwan, and the US. Capital returns in communications and financial services will adjust substantially according to the export opportunities or import competition. Rising incomes will increase demands and prices of non-traded services, accounting for a good deal of this income redistribution.
As an example of the viability of the present simulations, the growing US wage gap between skilled and less skilled labor during recent decades was routinely predicted by factor proportions models. Domestic tax policy could have mitigated the increasing wage gap due to the increasing imports of labor intensive manufactures. While trade raises aggregate income, anticipating income redistribution will be critical to the political success of TPP.

The income redistribution among labor skills in the present simulations will be only the starting point as countries around the Pacific Rim integrate through regional trade and investment. Adjusting capital returns will affect investment and exacerbate the present income redistribution. The present models suggest services will play a critical role in trade and development around the Pacific Rim.

References


Thompson, Henry (2015) [www.auburn.edu/~thomph1/TPP.xlsx](http://www.auburn.edu/~thomph1/TPP.xlsx)


World Input-Output Database of the EU (2015) [www.wiod.org/new_site/data.htm](http://www.wiod.org/new_site/data.htm)

### Table 1. Countries

<table>
<thead>
<tr>
<th>TPP</th>
<th>Interested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austraila</td>
<td>AU&lt;sup&gt;x&lt;/sup&gt;</td>
</tr>
<tr>
<td>Canada</td>
<td>CN&lt;sup&gt;x&lt;/sup&gt;</td>
</tr>
<tr>
<td>Japan</td>
<td>JP&lt;sup&gt;x&lt;/sup&gt;</td>
</tr>
<tr>
<td>United States</td>
<td>US&lt;sup&gt;x&lt;/sup&gt;</td>
</tr>
<tr>
<td>Mexico</td>
<td>MX&lt;sup&gt;m&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

### Table 2. Industries

<table>
<thead>
<tr>
<th>Services</th>
<th>Manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities</td>
<td>Food</td>
</tr>
<tr>
<td>Construction</td>
<td>Textiles</td>
</tr>
<tr>
<td>Motor Vehicle</td>
<td>Leather</td>
</tr>
<tr>
<td>Wholesale</td>
<td>Wood</td>
</tr>
<tr>
<td>Retail</td>
<td>Paper</td>
</tr>
<tr>
<td>Hotels, Restaurants</td>
<td>Coke</td>
</tr>
<tr>
<td>Inland Transport</td>
<td>Chemicals</td>
</tr>
<tr>
<td>Water Transport</td>
<td>Plastics</td>
</tr>
<tr>
<td>Air Transport</td>
<td>Minerals</td>
</tr>
<tr>
<td>Transport Services</td>
<td>Metals</td>
</tr>
<tr>
<td>Communication</td>
<td>Machinery</td>
</tr>
<tr>
<td>Financial services</td>
<td>Electrical</td>
</tr>
<tr>
<td>Real Estate</td>
<td>Transport Equip</td>
</tr>
<tr>
<td>Rental</td>
<td>Other Mfg</td>
</tr>
</tbody>
</table>

16
<table>
<thead>
<tr>
<th>Public</th>
<th>PB^D</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>ED^D</td>
<td>Resource</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>HL^D</td>
<td>Agriculture</td>
<td>AG</td>
</tr>
<tr>
<td>Social</td>
<td>SC^D</td>
<td>Mining</td>
<td>MN</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TTraded</th>
<th>^NNon-traded</th>
<th>^DDomestic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17
Table 3. Comparative Static Price Elasticities of Wages

<table>
<thead>
<tr>
<th></th>
<th>CM</th>
<th>FN</th>
<th>CM</th>
<th>FN</th>
<th>CM</th>
<th>FN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AU*</td>
<td>CN*</td>
<td>JP*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$w_S$</td>
<td>-0.006</td>
<td>0.032</td>
<td>0.020</td>
<td>0.056</td>
<td>-0.006</td>
<td>0.032</td>
</tr>
<tr>
<td>$w_M$</td>
<td>0.006</td>
<td>-0.001</td>
<td>-0.0003</td>
<td>-0.005</td>
<td>0.006</td>
<td>-0.001</td>
</tr>
<tr>
<td>$w_L$</td>
<td>0.018</td>
<td>0.013</td>
<td>0.001</td>
<td>0.068</td>
<td>0.018</td>
<td>0.013</td>
</tr>
<tr>
<td></td>
<td>US*</td>
<td>MX*</td>
<td>CH*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$w_S$</td>
<td>0.015</td>
<td>0.016</td>
<td>0.003</td>
<td>0.010</td>
<td>0.036</td>
<td>0.015</td>
</tr>
<tr>
<td>$w_M$</td>
<td>-0.014</td>
<td>-0.031</td>
<td>0.002</td>
<td>0.004</td>
<td>0.009</td>
<td>0.011</td>
</tr>
<tr>
<td>$w_L$</td>
<td>-0.002</td>
<td>0.008</td>
<td>-0.002</td>
<td>-0.008</td>
<td>-0.001</td>
<td>-0.001</td>
</tr>
<tr>
<td></td>
<td>KO*</td>
<td>ID*</td>
<td>TW*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$w_S$</td>
<td>-0.001</td>
<td>0.001</td>
<td>0.018</td>
<td>-0.020</td>
<td>0.008</td>
<td>0.009</td>
</tr>
<tr>
<td>$w_M$</td>
<td>0.006</td>
<td>0.003</td>
<td>0.010</td>
<td>-0.061</td>
<td>0.010</td>
<td>-0.122</td>
</tr>
<tr>
<td>$w_L$</td>
<td>0.013</td>
<td>0.044</td>
<td>-0.026</td>
<td>0.144</td>
<td>-0.011</td>
<td>0.153</td>
</tr>
</tbody>
</table>

Table 4. Income Redistribution due to TPP Price Changes

<table>
<thead>
<tr>
<th></th>
<th>AU*</th>
<th>CN*</th>
<th>JP*</th>
<th>US*</th>
<th>MX*</th>
<th>CH*</th>
<th>KO*</th>
<th>ID*</th>
<th>TW*</th>
</tr>
</thead>
<tbody>
<tr>
<td>$w_S$</td>
<td>-3.07</td>
<td>4.73</td>
<td>1.97</td>
<td>6.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$w_M$</td>
<td>4.78</td>
<td>4.86</td>
<td>5.72</td>
<td>10.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$w_L$</td>
<td>7.60</td>
<td>-2.80</td>
<td>7.69</td>
<td>-1.21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$r_{CM}$</td>
<td>32.1</td>
<td>33.3</td>
<td>23.6</td>
<td>35.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$r_{FN}$</td>
<td>37.1</td>
<td>39.4</td>
<td>29.4</td>
<td>39.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MX*</td>
<td>CH*</td>
<td>KO*</td>
<td>ID*</td>
<td>TW*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$w_S$</td>
<td>-0.68</td>
<td>-0.38</td>
<td>0.29</td>
<td>10.1</td>
<td>7.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$w_M$</td>
<td>1.77</td>
<td>3.19</td>
<td>7.81</td>
<td>18.7</td>
<td>23.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$w_L$</td>
<td>2.87</td>
<td>0.04</td>
<td>9.81</td>
<td>-37.0</td>
<td>-23.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$r_{CM}$</td>
<td>-27.4</td>
<td>-26.1</td>
<td>-55.7</td>
<td>-46.4</td>
<td>-43.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$r_{FN}$</td>
<td>-26.6</td>
<td>-27.7</td>
<td>-42.4</td>
<td>-24.6</td>
<td>-44.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 1. Exporters versus Importers

Figure 2. Factor Shares $\theta$ in Communications CM
Figure 3. Factor Shares $\theta$ in Financial Services FN

Figure 4. Industry Shares $\lambda$ in Communications CM
Figure 5. Industry Shares $\lambda$ in Financial Services FN

Figure 6. Substitution Elasticities
Figure 7. Comparative Static Elasticities of Wages Relative to the Price of FN

Figure 8. Simulated Wage Adjustments
Figure 9. Simulated Capital Return Adjustments

![Bar chart showing simulated capital return adjustments for different countries (AU, CN, JP, US, MX, CH, KO, ID, TW). The chart compares return CM (dark bars) and return FN (light bars).]